

# 云数据库 GaussDB(for MySQL)

## API 参考

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# 目录

<b>1 使用前必读</b>	<b>1</b>
1.1 概述	1
1.2 调用说明	1
1.3 终端节点	1
1.4 约束与限制	1
1.5 基本概念	2
<b>2 API 概览</b>	<b>3</b>
<b>3 如何调用 API</b>	<b>4</b>
3.1 构造请求	4
3.2 认证鉴权	7
3.3 返回结果	9
<b>4 API (推荐)</b>	<b>11</b>
4.1 查询数据库引擎的版本	11
4.1.1 查询数据库引擎的版本	11
4.2 查询数据库规格	16
4.2.1 查询数据库规格	16
4.3 实例管理	21
4.3.1 创建数据库实例	21
4.3.2 重启数据库实例	49
4.3.3 删除/退订数据库实例	54
4.3.4 创建只读节点	58
4.3.5 删除/退订只读节点	64
4.3.6 包年/包月实例存储扩容	69
4.3.7 修改实例名称	74
4.3.8 重置数据库密码	78
4.3.9 变更实例规格	83
4.3.10 查询专属资源池列表	88
4.3.11 查询专属资源信息详情	94
4.3.12 设置实例秒级监控	99
4.3.13 查询实例秒级监控	106
4.3.14 节点重启	111
4.3.15 内核版本升级	115

4.3.16 开关 SSL.....	120
4.3.17 绑定弹性公网 IP 地址.....	127
4.3.18 解绑弹性公网 IP 地址.....	132
4.3.19 手动主备倒换.....	136
4.3.20 设置可维护时间段.....	138
4.3.21 修改安全组.....	143
4.3.22 修改内网地址.....	148
4.3.23 修改实例端口.....	152
4.3.24 修改实例备注.....	157
4.3.25 申请内网域名.....	162
4.3.26 修改内网域名.....	166
4.3.27 查询内核版本信息.....	171
4.3.28 设置自动变配.....	176
4.3.29 查询自动变配.....	183
4.3.30 资源预校验.....	189
4.3.31 查询实例列表.....	200
4.3.32 查询实例详情信息.....	210
4.3.33 批量查询实例详情.....	220
4.4 备份管理.....	231
4.4.1 设置同区域备份策略.....	231
4.4.2 创建手动备份.....	237
4.4.3 查询全量备份列表.....	243
4.4.4 查询自动备份策略.....	250
4.4.5 删除手动备份.....	255
4.4.6 备份恢复到当前实例或已有实例.....	259
4.4.7 查询可恢复时间段.....	271
4.4.8 打开或关闭备份加密.....	274
4.4.9 查询实例是否开启备份加密功能.....	281
4.4.10 查询增量备份列表.....	286
4.4.11 设置跨区域备份策略.....	291
4.4.12 表级时间点恢复.....	295
4.4.13 查询表级时间点恢复可选表.....	301
4.5 参数模板管理.....	306
4.5.1 查询参数模板.....	306
4.5.2 创建参数模板.....	312
4.5.3 删除参数模板.....	318
4.5.4 获取参数模板详情.....	321
4.5.5 修改参数模板.....	327
4.5.6 应用参数模板.....	333
4.5.7 复制参数组.....	338
4.5.8 对比参数模板.....	343
4.5.9 查询可应用的实例列表.....	348

4.5.10 查询参数修改历史.....	354
4.5.11 获取指定实例的参数信息.....	360
4.5.12 修改指定实例的参数.....	366
4.5.13 复制实例参数组.....	371
4.6 配额管理.....	376
4.6.1 查询租户的实例配额.....	376
4.6.2 查询租户基于企业项目的资源配额.....	381
4.6.3 设置租户基于企业项目的资源配额.....	387
4.6.4 修改租户基于企业项目的资源配额.....	393
4.6.5 查询企业项目.....	399
4.7 数据库代理.....	405
4.7.1 开启数据库代理.....	405
4.7.2 关闭数据库代理.....	412
4.7.3 查询数据库代理信息列表.....	414
4.7.4 查询数据库代理规格信息.....	424
4.7.5 扩容数据库代理节点的数量.....	428
4.7.6 减少数据库代理节点的数量.....	433
4.7.7 数据库代理规格变更.....	438
4.7.8 设置读写分离权重.....	443
4.7.9 设置读写分离路由模式.....	448
4.7.10 设置数据库代理事务拆分.....	459
4.7.11 开启或关闭新增节点自动加入该 Proxy.....	464
4.7.12 修改代理会话一致性.....	469
4.7.13 更改数据库代理连接池类型.....	474
4.7.14 修改读写分离端口号.....	481
4.7.15 修改代理实例参数.....	486
4.7.16 开启或关闭访问控制.....	491
4.7.17 设置访问控制规则.....	498
4.7.18 开关数据库代理 SSL.....	504
4.8 日志管理.....	509
4.8.1 开启或者关闭全量 SQL.....	509
4.8.2 查询全量 SQL 开关状态.....	516
4.8.3 获取慢日志详情列表.....	520
4.8.4 获取错误日志详情列表.....	527
4.8.5 获取全量 SQL 的临时下载链接.....	532
4.9 标签管理.....	538
4.9.1 查询资源标签.....	538
4.9.2 查询项目标签.....	543
4.9.3 批量添加或删除标签.....	548
4.10 数据库用户管理.....	557
4.10.1 创建数据库用户.....	557
4.10.2 查询数据库用户.....	564

4.10.3 删除数据库用户.....	569
4.10.4 修改数据库用户备注.....	572
4.10.5 修改数据库用户密码.....	577
4.10.6 授予数据库用户数据库权限.....	582
4.10.7 删除数据库用户的数据库权限.....	591
4.11 数据库管理.....	596
4.11.1 查询数据库可用字符集.....	596
4.11.2 创建数据库.....	601
4.11.3 查询数据库列表.....	607
4.11.4 删除数据库.....	613
4.11.5 修改数据库备注.....	617
4.12 SQL 限流.....	623
4.12.1 开启或者关闭 SQL 限流.....	623
4.12.2 查询 SQL 限流开关状态.....	629
4.12.3 设置 SQL 限流规则.....	634
4.12.4 查询 SQL 限流规则.....	642
4.12.5 删除 SQL 限流规则.....	648
4.13 任务中心.....	656
4.13.1 获取指定 ID 的任务信息.....	656
4.13.2 获取即时任务列表.....	662
4.13.3 获取定时任务列表.....	673
4.13.4 取消定时任务.....	681
4.13.5 删除指定任务记录.....	686
4.13.6 删除定时任务.....	690
4.14 智能诊断.....	695
4.14.1 获取各指标的异常实例数.....	695
4.14.2 获取某个指标的异常实例信息.....	699
<b>5 API (即将下线) .....</b>	<b>705</b>
5.1 查询数据库引擎的版本.....	705
5.1.1 查询数据库引擎的版本.....	705
5.2 查询数据库规格.....	707
5.2.1 查询数据库规格.....	707
5.3 实例管理.....	710
5.3.1 创建数据库实例.....	711
5.3.2 查询实例列表.....	720
5.3.3 查询实例列表.....	727
5.3.4 删除实例.....	734
5.3.5 查询实例详情信息.....	736
5.3.6 查询实例详情信息.....	743
5.3.7 批量查询实例详情.....	751
5.3.8 创建只读节点.....	760
5.3.9 删除只读节点.....	763

5.3.10 包周期存储扩容.....	765
5.3.11 修改实例名称.....	767
5.3.12 重置数据库密码.....	770
5.3.13 变更实例规格.....	772
5.4 备份管理.....	775
5.4.1 修改备份策略.....	775
5.4.2 创建手动备份.....	778
5.4.3 查询备份列表.....	781
5.4.4 查询自动备份策略.....	786
5.5 参数模板管理.....	788
5.5.1 查询参数模板.....	788
5.6 配额管理.....	791
5.6.1 查询租户的实例配额.....	791
5.6.2 查询租户基于企业项目的资源配额.....	794
5.6.3 设置租户基于企业项目的资源配额.....	797
5.6.4 修改租户基于企业项目的资源配额.....	800
5.7 数据库代理.....	803
5.7.1 开启数据库代理.....	803
5.7.2 关闭数据库代理.....	805
5.7.3 查询单个数据库代理信息.....	807
5.7.4 查询数据库代理信息.....	812
5.7.5 查询数据库代理规格信息.....	816
5.7.6 扩容数据库代理节点的数量.....	819
5.8 日志管理.....	822
5.8.1 查询数据库错误日志.....	822
5.8.2 查询数据库错误日志.....	825
5.8.3 查询数据库慢日志.....	828
5.8.4 查询数据库慢日志.....	832
5.9 获取任务信息.....	836
5.9.1 获取指定 ID 的任务信息.....	836
<b>6 权限策略和授权项.....</b>	<b>840</b>
6.1 策略及授权项说明.....	840
6.2 GaussDB(for MySQL)授权分类.....	841
<b>7 附录.....</b>	<b>845</b>
7.1 异常请求结果.....	845
7.2 状态码.....	845
7.3 错误码.....	848
7.4 获取项目 ID.....	862
7.5 云数据库 GaussDB(for MySQL)监控指标说明.....	863



# 1 使用前必读

## 1.1 概述

云数据库 GaussDB(for MySQL)是华为自研的新一代企业级高扩展海量存储云原生数据库，完全兼容MySQL。基于华为新一代DFV存储，采用计算存储分离架构，128TB的海量存储，数据0丢失，既拥有商业数据库的高可用和性能，又具备开源低成本效益。

### 说明

DFV (Data Function Virtualization) 是一个与数据库垂直整合的高性能，高可靠的分布式存储系统。存储集群采取池化部署，可以有效提升存储使用效率。

您可以使用本文档提供API对数据库实例进行相关操作。支持的全部操作请参见[API概览](#)。

## 1.2 调用说明

云数据库 GaussDB(for MySQL)提供了REST (Representational State Transfer) 风格API，支持您通过HTTPS请求调用，调用方法请参见[如何调用API](#)。

## 1.3 终端节点

终端节点 (Endpoint) 即调用API的**请求地址**，不同服务不同区域的终端节点不同，您可以从[地区和终端节点](#)中查询服务的终端节点。

## 1.4 约束与限制

- 暂不支持单机版实例调用API。
- 更详细的限制请参见具体API的说明。

## 1.5 基本概念

- 账号

用户注册时的账号，账号对其所拥有的资源及云服务具有完全的访问权限，可以重置用户密码、分配用户权限等。由于账号是付费主体，为了确保账号安全，建议您不要直接使用账号进行日常管理工作，而是创建用户并使用他们进行日常管理工作。

- 用户

由账号在IAM中创建的用户，是云服务的使用人员，具有身份凭证（密码和访问密钥）。

在[我的凭证](#)下，您可以查看账号ID和用户ID。通常在调用API的鉴权过程中，您需要用到账号、用户和密码等信息。

- 区域

指云资源所在的物理位置，同一区域内可用区间内网互通，不同区域间内网不互通。通过在不同地区创建云资源，可以将应用程序设计的更接近特定客户的要求，或满足不同地区的法律或其他要求。

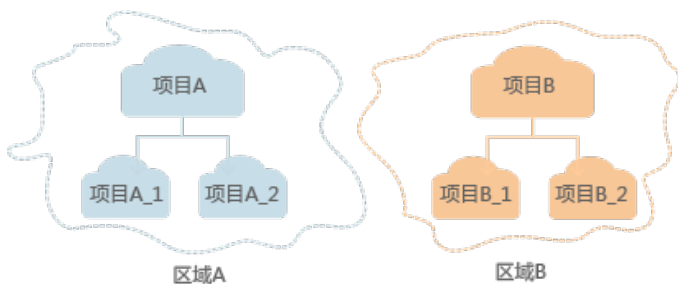
- 可用区

一个可用区是一个或多个物理数据中心的集合，有独立的风火水电，AZ内逻辑上再将计算、网络、存储等资源划分成多个集群。一个Region中的多个AZ间通过高速光纤相连，以满足用户跨AZ构建高可用性系统的需求。

- 项目

区域默认对应一个项目，这个项目由系统预置，用来隔离物理区域间的资源（计算资源、存储资源和网络资源），以默认项目为单位进行授权，用户可以访问您账号中该区域的所有资源。如果您希望进行更加精细的权限控制，可以在区域默认的项目中创建子项目，并在子项目中购买资源，然后以子项目为单位进行授权，使得用户仅能访问特定子项目中资源，使得资源的权限控制更加精确。

图 1-1 项目隔离模型



同样在[我的凭证](#)下，您可以查看项目ID。

- 企业项目

企业项目是项目的升级版，针对企业不同项目间资源的分组和管理，是逻辑隔离。企业项目中可以包含多个区域的资源，且项目中的资源可以迁入迁出。

关于企业项目ID的获取及企业项目特性的详细信息，请参见《[企业管理服务用户指南](#)》。

# 2 API 概览

通过使用GaussDB(for MySQL)接口，您可以使用GaussDB(for MySQL)查询资源配额、设置资源配额、修改资源配额的功能。

类型	说明
查询数据库引擎的版本	获取指定数据库引擎对应的数据库版本信息。
查询数据库规格	获取指定数据库引擎版本对应的规格信息。
实例管理	包含创建实例、查询实例列表、查询实例详细信息、删除实例、新增只读节点、删除只读节点、扩容包周期实例磁盘容量、修改实例名称、重置数据库密码、变更数据库实例的规格接口。
备份管理	包含创建手动备份、查询备份列表、查询自动备份策略、修改自动备份策略接口。
参数模板管理	包含查询参数模板接口。
配额管理	包含查询资源配额、设置资源配额、修改资源配额接口。
数据库代理	包含查询数据库代理信息、查询数据库代理规格信息、开启数据库代理和关闭数据库代理接口。
日志管理	包含查询数据库错误日志和查询数据库慢日志接口。
标签管理	包含批量添加标签、批量删除标签、查询项目标签等接口。
数据库用户管理	包括创建数据库用户、查询数据库用户、删除数据库用户、授权数据库用户和删除数据库权限等接口。
数据库管理	包括创建数据库、查询数据库列表、删除数据库、修改数据库备注等接口。
SQL限流	包含查询SQL限流规则、设置SQL限流规则、删除SQL限流规则等接口。
获取任务信息	获取任务中心的任务信息。

# 3 如何调用 API

## 3.1 构造请求

本节介绍REST API请求的组成，并以调用IAM服务的[获取用户Token](#)说明如何调用API，该API获取用户的Token，Token可以用于调用其他API时鉴权。您还可以通过这个视频教程了解如何构造请求调用API：<https://bbs.huaweicloud.com/videos/102987>。

### 请求 URI

请求URI由如下部分组成：

**{URI-scheme}://{Endpoint}/{resource-path}?{query-string}**

尽管请求URI包含在请求消息头中，但大多数语言或框架都要求您从请求消息中单独传递它，所以在此单独强调。

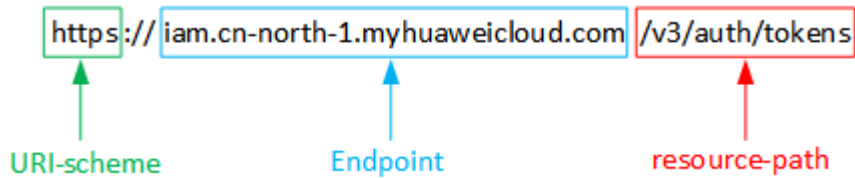
表 3-1 URI 中的参数说明

参数	描述
URI-scheme	表示用于传输请求的协议，当前所有API均采用HTTPS协议。
Endpoint	指定承载REST服务端点的服务器域名或IP，不同服务不同区域的Endpoint不同，您可以从 <a href="#">地区和终端节点</a> 获取。 例如IAM服务在“华北-北京一”区域的Endpoint为“iam.cn-north-1.myhuaweicloud.com”。
resource-path	资源路径，即API访问路径。从具体API的URI模块获取，例如“获取用户Token”API的resource-path为“/v3/auth/tokens”。
query-string	查询参数，是可选部分，并不是每个API都有查询参数。查询参数前面需要带一个“？”，形式为“参数名=参数取值”，例如“limit=10”，表示查询不超过10条数据。

例如您需要获取IAM在“华北-北京一”区域的Token，则需使用“华北-北京一”区域的Endpoint（iam.cn-north-1.myhuaweicloud.com），并在[获取用户Token](#)的URI部分找到resource-path（/v3/auth/tokens），拼接起来如下所示。

```
https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

图 3-1 URI 示意图



### 说明

为查看方便，在每个具体API的URI部分，只给出resource-path部分，并将请求方法写在一起。这是因为URI-scheme都是HTTPS，而Endpoint在同一个区域也相同，所以简洁起见将这两部分省略。

## 请求方法

HTTP请求方法（也称为操作或动词），它告诉服务你正在请求什么类型的操作。

表 3-2 HTTP 方法

方法	说明
GET	请求服务器返回指定资源。
PUT	请求服务器更新指定资源。
POST	请求服务器新增资源或执行特殊操作。

在[获取用户Token](#)的URI部分，您可以看到其请求方法为“POST”，则其请求为：

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

## 请求消息头

附加请求头字段，如指定的URI和HTTP方法所要求的字段。例如定义消息体类型的请求头“Content-Type”，请求鉴权信息等。

详细的公共请求消息头字段请参见[表3-3](#)。

表 3-3 公共请求消息头

名称	描述	是否必选	示例
Content-Type	发送的实体的MIME类型。推荐用户默认使用application/json，如果API是对象、镜像上传等接口，媒体类型可按照流类型的不同进行确定。	是	application/json
Host	请求的服务器信息，从服务API的URL中获取。值为hostname[:port]。端口缺省时使用默认的端口，https的默认端口为443。	否 使用AK/SK认证时该字段必选。	code.test.com or code.test.com:443
Content-Length	请求body长度，单位为Byte。	否	3495
X-Project-Id	project id，项目编号。请参考 <a href="#">获取项目ID</a> 章节获取项目编号。	否	e9993fc787d94b6c886cb aa340f9c0f4
X-Auth-Token	用户Token。 用户Token也就是调用 <a href="#">获取用户Token</a> 接口的响应值，该接口是唯一不需要认证的接口。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。	否 使用Token认证时该字段必选。	注：以下仅为Token示例片段 MIIPAgYJKoZlhvcNAQcCo ...ggg1BBIIlNPXsidG9rZ
X-Language	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>	否	en-us

对于[获取用户Token](#)接口，由于不需要认证，所以只添加“Content-Type”即可，添加消息头后的请求如下所示。

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

## 请求消息体（可选）

该部分可选。请求消息体通常以结构化格式（如JSON或XML）发出，与请求消息头中Content-Type对应，传递除请求消息头之外的内容。若请求消息体中的参数支持中文，则中文字符必须为UTF-8编码。

每个接口的请求消息体内容不同，也并不是每个接口都需要有请求消息体（或者说消息体为空），GET、DELETE操作类型的接口就不需要消息体，消息体具体内容需要根据具体接口而定。

对于[获取用户Token](#)接口，您可以从接口的请求部分看到所需的请求参数及参数说明。将消息体加入后的请求如下所示，加粗的斜体字段需要根据实际值填写，其中***username***为用户名，***domainname***为用户所属的账号名称，***\*\*\*\*\****为用户登录密码，***xxxxxxxxxxxxxxxxxxxx***为project的名称，如“cn-north-1”，您可以从[地区和终端节点](#)获取。

### 📖 说明

scope参数定义了Token的作用域，上面示例中获取的Token仅能访问project下的资源。您还可以设置Token的作用域为某个账号下所有资源或账号的某个project下的资源，详细定义请参见[获取用户Token](#)。

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

到这里为止这个请求需要的内容就具备齐全了，您可以使用[curl](#)、[Postman](#)或直接编写代码等方式发送请求调用API。对于获取用户Token接口，返回的响应消息头中“x-subject-token”就是需要获取的用户Token。有了Token之后，您就可以使用Token认证调用其他API。

## 3.2 认证鉴权

调用接口有如下两种认证方式，您可以选择其中一种进行认证鉴权。

- Token认证：通过Token认证通用请求。
- AK/SK认证：通过AK（Access Key ID）/SK（Secret Access Key）加密调用请求。推荐使用AK/SK认证，其安全性比Token认证要高。

## Token 认证

### 📖 说明

Token的有效期为24小时，需要使用一个Token鉴权时，可以先缓存起来，避免频繁调用。

Token在计算机系统中代表令牌（临时）的意思，拥有Token就代表拥有某种权限。Token认证就是在调用API的时候将Token加到请求消息头，从而通过身份认证，获得操作API的权限。

Token可通过调用**获取用户Token**接口获取，调用本服务API需要project级别的Token，即调用**获取用户Token**接口时，请求body中auth.scope的取值需要选择project，如下所示。

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxx"
      }
    }
  }
}
```

在**构造请求**中以调用**获取用户Token**接口为例说明了如何调用API。

获取Token后，再调用其他接口时，您需要在请求消息头中添加“X-Auth-Token”，其值即为Token。例如Token值为“ABCDEFJ...”，则调用接口时将“X-Auth-Token: ABCDEFJ...”加到请求消息头即可，如下所示。

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

您还可以通过这个视频教程了解如何使用Token认证：<https://bbs.huaweicloud.com/videos/101333>。

## AK/SK 认证

### 📖 说明

AK/SK签名认证方式仅支持消息体大小12MB以内，12MB以上的请求请使用Token认证。

AK/SK认证就是使用AK/SK对请求进行签名，在请求时将签名信息添加到消息头，从而通过身份认证。

- AK(Access Key ID)：访问密钥ID。与私有访问密钥关联的唯一标识符；访问密钥ID和私有访问密钥一起使用，对请求进行加密签名。
- SK(Secret Access Key)：与访问密钥ID结合使用的密钥，对请求进行加密签名，可标识发送方，并防止请求被修改。



使用AK/SK认证时，您可以基于签名算法使用AK/SK对请求进行签名，也可以使用专门的签名SDK对请求进行签名。详细的签名方法和SDK使用方法请参见[API签名指南](#)。

### 须知

签名SDK只提供签名功能，与服务提供的SDK不同，使用时请注意。

## 3.3 返回结果

### 状态码

请求发送以后，您会收到响应，包含状态码、响应消息头和消息体。

状态码是一组从1xx到5xx的数字代码，状态码表示了请求响应的状态，完整的状态码列表请参见[状态码](#)。

对于[获取用户Token](#)接口，如果调用后返回状态码为“201”，则表示请求成功。

### 响应消息头

对应请求消息头，响应同样也有消息头，如“Content-type”。

对于[获取用户Token](#)接口，返回如[图3-2](#)所示的消息头，其中“x-subject-token”就是需要获取的用户Token。有了Token之后，您就可以使用Token认证调用其他API。

图 3-2 获取用户 Token 响应消息头

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → MIIVXQVJKoZIhvcNAQcCoIIYJCCEGoCAQExDQALBgIghkgB8QMEAgEwgharBgkqhkiG9w0BBwGgghacBIIIWmHsidG9rZW4iOnsiZmVhbnVlc19hdCI6IjIwMTk0MUMCfj3Kjs6YgKnpVNRbW2eZ5eb785Z0kqjACgkqO1wi4JlGzrpd18LGXK5tdfdq4lqHCYb8P4NaY0NYejcAgz/VeFYtLWT1GSO0zxKZmlQHqJ82HBqHdgIZO9fuEbL5dMhdavj+33wElxHRC9I87o+k9-j+CMZSEB7bUGd5Uj6eRASXI1jipPEGA270g1FruooL6jagjFkNPQuFSOU8+uSsttVwRtNfsC+qTp22Rkd5MCqFGQLcuUxC3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-RzT6MUbvpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==
x-xss-protection → 1; mode=block;
```

### 响应消息体（可选）

该部分可选。响应消息体通常以结构化格式（如JSON或XML）返回，与响应消息头中Content-Type对应，传递除响应消息头之外的内容。

对于[获取用户Token](#)接口，返回如下消息体。为篇幅起见，这里只展示部分内容。

```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "az-01",
            .....

```

当接口调用出错时，会返回错误码及错误信息说明，错误响应的Body体格式如下所示。

```
{
  "error_code": "AS.0001",
  "error_msg": "The format of message is error"
}
```

其中，“error\_code”表示错误码，“error\_msg”表示错误描述信息。

# 4 API (推荐)

## 4.1 查询数据库引擎的版本

### 4.1.1 查询数据库引擎的版本

#### 功能介绍

获取指定数据库引擎对应的数据库版本信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/datastores/{database\_name}

表 4-1 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
database_name	是	String	数据库引擎。支持的引擎如下，不区分大小写：gaussdb-mysql。

## 请求参数

表 4-2 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-3 响应 Body 参数

参数	参数类型	描述
datastores	Array of <a href="#">MysqlEngineVersionInfo</a> objects	数据库版本信息列表。

表 4-4 MysqlEngineVersionInfo

参数	参数类型	描述
id	String	数据库版本ID，该字段不会有重复。
name	String	数据库版本号，只返回两位数的大版本号。
version	String	兼容的开源数据库版本号，返回三位开源版本号。
kernel_version	String	数据库内核版本号，返回完整的四位版本号。

状态码： 400

表 4-5 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-6 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询GaussDB(for MySQL)数据库的版本信息。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
```

## 响应示例

状态码： 200

Success.

```
{  
  "datastores": [ {  
    "id": "87620726-6802-46c0-9028-a8785e1f1921",  
    "name": "8.0",  
    "version": "8.0.22",  
    "kernel_version": "2.0.28.18"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ShowGaussMySqlEngineVersionSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowGaussMySqlEngineVersionRequest request = new ShowGaussMySqlEngineVersionRequest();  
        try {  
            ShowGaussMySqlEngineVersionResponse response = client.showGaussMySqlEngineVersion(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

## Python

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ShowGaussMySqlEngineVersionRequest()  
        response = client.show_gauss_my_sql_engine_version(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySqlEngineVersionRequest{}
    response, err := client.ShowGaussMySqlEngineVersion(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.2 查询数据库规格

### 4.2.1 查询数据库规格

#### 功能介绍

获取指定数据库引擎版本对应的规格信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/flavors/{database\_name}

表 4-7 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
database_name	是	String	数据库引擎名称。

表 4-8 Query 参数

参数	是否必选	参数类型	描述
availability_zone_mode	是	String	规格的可用区模式。 取值范围： <ul style="list-style-type: none"><li>• single: 单可用区。</li><li>• multi: 多可用区。</li></ul>
version_name	否	String	数据库版本号，目前仅支持兼容MySQL 8.0。
spec_code	否	String	规格编码。



## 请求参数

表 4-9 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。 取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-10 响应 Body 参数

参数	参数类型	描述
flavors	Array of <a href="#">MysqlFlavorsInfo</a> objects	实例规格信息列表。

表 4-11 MysqlFlavorsInfo

参数	参数类型	描述
vcpus	String	CPU大小。例如：1表示1U。
ram	String	内存大小，单位为GB。
type	String	规格类型，取值为arm、x86和generalX86。 <ul style="list-style-type: none"><li>arm：独享型arm规格。</li><li>x86：独享型x86规格。</li><li>generalX86：通用型X86规格。</li></ul>
id	String	规格ID，该字段唯一。

参数	参数类型	描述
spec_code	String	资源规格编码，同创建指定的flavor_ref。例如：gaussdb.mysql.xlarge.x86.4。 <ul style="list-style-type: none"><li>“gaussdb.mysql”代表产品。</li><li>“xlarge”代表计算规格为4U。</li><li>“x86”代表CPU架构为x86。</li><li>“4”表示vCPU和内存为1:4。</li></ul> 更多规格说明请参考 <a href="#">数据库实例规格</a> 。
version_name	String	数据库版本号。
instance_mode	String	实例类型。目前仅支持Cluster。
az_status	Map<String,String>	规格所在AZ的状态，包含以下状态： <ul style="list-style-type: none"><li>normal：在售。</li><li>unsupported：暂不支持该规格。</li><li>sellout：售罄。</li></ul>

状态码： 400

表 4-12 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-13 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询GaussDB(for MySQL)数据库实例指定规格的详细信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

## 响应示例

状态码： 200

Success.

```
{
  "flavors": [ {
    "vcpus": "4",
    "ram": "16",
    "type": "x86",
    "id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code": "gaussdb.mysql.xlarge.x86.4",
    "instance_mode": "Cluster",
    "version_name": "8.0",
    "az_status": {
      "az1": "normal",
      "az2": "normal"
    }
  }
]
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySqlFlavorsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySqlFlavorsRequest request = new ShowGaussMySqlFlavorsRequest();
        request.withVersionName("<version_name>");
        request.withAvailabilityZoneMode("<availability_zone_mode>");
        request.withSpecCode("<spec_code>");
        try {
            ShowGaussMySqlFlavorsResponse response = client.showGaussMySqlFlavors(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlFlavorsRequest()
        request.version_name = "<version_name>"
        request.availability_zone_mode = "<availability_zone_mode>"
        request.spec_code = "<spec_code>"
        response = client.show_gauss_my_sql_flavors(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowGaussMySqlFlavorsRequest{
    versionNameRequest:= "<version_name>"
    request.VersionName = &versionNameRequest
    request.AvailabilityZoneMode = "<availability_zone_mode>"
    specCodeRequest:= "<spec_code>"
    request.SpecCode = &specCodeRequest
    response, err := client.ShowGaussMySqlFlavors(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.3 实例管理

### 4.3.1 创建数据库实例

#### 功能介绍

创建云数据库GaussDB(for MySQL)实例。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances

表 4-14 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-15 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-16 请求 Body 参数

参数	是否必选	参数类型	描述
region	是	String	区域ID。

参数	是否必选	参数类型	描述
name	是	String	实例名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。 取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
datastore	是	<a href="#">MysqlDatastoreInReq</a> object	数据库信息。
mode	是	String	实例类型，目前仅支持 Cluster。
flavor_ref	是	String	规格码。使用可参考 <a href="#">查询数据库规格</a> 响应消息表5中的“spec_code”。
vpc_id	是	String	虚拟私有云ID，获取方法如下： <ul style="list-style-type: none"><li>方法1：登录虚拟私有云服务的控制台界面，在虚拟私有云的详情页面查找VPC ID。</li><li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询VPC列表</a>。</li></ul>
subnet_id	是	String	子网的网络ID，获取方法如下： <ul style="list-style-type: none"><li>方法1：登录虚拟私有云服务的控制台界面，单击VPC下的子网，进入子网详情页面，查找网络ID。</li><li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询子网列表</a>。</li></ul>
password	是	String	数据库密码。 取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号~!@#\$%^*_+=?(),&，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。

参数	是否必选	参数类型	描述
availability_zone_mode	是	String	可用区类型。 取值范围： <ul style="list-style-type: none"> <li>single: 单可用区。</li> <li>multi: 多可用区。</li> </ul>
slave_count	是	Integer	只读节点个数。单次接口调用最多支持创建9个只读节点。
charge_info	否	<b>MysqlChargeInfo</b> object	计费类型信息，支持包年包月和按需，默认为按需。 说明：DeC专属云账号不支持创建包年/包月实例。
security_group_id	否	String	安全组ID。如果实例所选用的子网开启网络ACL进行访问控制，则该参数非必选。如果未开启ACL进行访问控制，则该参数必选。获取方法如下： <ul style="list-style-type: none"> <li>方法1：登录虚拟私有云服务的控制台界面，在安全组的详情页面查找安全组ID。</li> <li>方法2：通过虚拟私有云服务的API接口查询，具体操作可参考<a href="#">查询安全组列表</a>。</li> </ul>
configuration_id	否	String	参数模板ID。使用可参考 <a href="#">查询参数模板</a> 中响应消息表5的“id”。
backup_strategy	否	<b>MysqlBackupStrategy</b> object	自动备份策略。
time_zone	否	String	时区。默认时区为UTC。
master_availability_zone	否	String	主可用区ID，请参考 <a href="#">地区和终端节点</a> 。
volume	否	<b>MysqlVolume</b> object	volume信息。创建包年/包月实例可选。创建按需实例时不可选。



参数	是否必选	参数类型	描述
tags	否	Array of <a href="#">MysqlTags</a> objects	标签列表，根据标签键值对创建实例。 <ul style="list-style-type: none"><li>• {key}表示标签键，不可以为空或重复。</li><li>• {value}表示标签值，可以为空。</li></ul> 如果创建实例时同时使用多个标签键值对，中间使用逗号分隔开，最多包含10组。
lower_case_table_names	否	Integer	表名大小写是否敏感，默认值是1。 取值范围： <ul style="list-style-type: none"><li>• 0: 表名被存储成固定且表名称大小写敏感。</li><li>• 1: 表名将被存储成小写且表名称大小写不敏感。</li></ul>
enterprise_project_id	否	String	企业项目ID。如果帐户开通企业项目服务则该参数必选，未开启该参数不可选。
dedicated_resource_id	否	String	专属资源池ID，只有开通专属资源池后才支持此参数。
restore_point	否	<a href="#">MysqlRestore Point</a> object	备份恢复信息。
tde_info	否	<a href="#">MysqlTdeInfo</a> object	透明数据加密配置信息，支持AES256、SM4加密算法。 透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。

表 4-17 MysqlDatastoreInReq

参数	是否必选	参数类型	描述
type	是	String	数据库引擎，现在只支持gaussdb-mysql。
version	是	String	数据库版本。 两位数的大版本号，获取方法请参见 <a href="#">查询数据库引擎的版本</a> 返回的name字段。

参数	是否必选	参数类型	描述
kernel_version	否	String	内核数据库版本。如果需要指定具体的内核版本，请联系客服人员添加白名单。 完整的四位内核数据库版本，获取方法请参见 <a href="#">查询数据库引擎的版本</a> 返回的kernel_version字段。

表 4-18 MysqlChargeInfo

参数	是否必选	参数类型	描述
charge_mode	是	String	计费模式。 取值范围： <ul style="list-style-type: none"> <li>prePaid: 预付费，即包年/包月。</li> <li>postPaid: 后付费，即按需付费。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li>prePaid</li> <li>postPaid</li> </ul>
period_type	否	String	订购周期类型。 取值范围： <ul style="list-style-type: none"> <li>month: 包月。</li> <li>year: 包年。</li> </ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。 枚举值： <ul style="list-style-type: none"> <li>month</li> <li>year</li> </ul>
period_num	否	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"> <li>“period_type”为“month”时，取值为1~9。</li> <li>“period_type”为“year”时，取值为1~3。</li> </ul>

参数	是否必选	参数类型	描述
is_auto_renew	否	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"> <li>• true: 为自动续订。</li> <li>• false: 为不自动续订，默认该方式。</li> </ul>
is_auto_pay	否	String	创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>• true: 为自动支付，默认该方式。</li> <li>• false: 为手动支付。</li> </ul>

表 4-19 MysqlBackupStrategy

参数	是否必选	参数类型	描述
start_time	是	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为 hh:mm-HH:MM且有效，当前时间指UTC时间。 <ol style="list-style-type: none"> <li>1. HH取值必须比hh大1。</li> <li>2. mm和MM取值必须相同，且取值必须为00。</li> </ol>
keep_days	否	String	自动备份保留天数，取值范围：1-732。

表 4-20 MysqlVolume

参数	是否必选	参数类型	描述
size	是	String	磁盘大小。默认值为10，单位GB。 取值范围：10~128000，必须为10的整数倍。

表 4-21 MysqlTags

参数	是否必选	参数类型	描述
key	是	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。 字符集：A-Z, a-z, 0-9, ‘_’, ‘-’, UNICOD字符 ( \u4E00-\u9FFF )。
value	是	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集：A-Z, a-z, 0-9, ‘_’, ‘-’, ‘.’, ‘-’, UNICOD字符 ( \u4E00-\u9FFF )。

表 4-22 MysqlRestorePoint

参数	是否必选	参数类型	描述
source_instance_id	是	String	源实例ID。
restore_time	否	Long	需要恢复的时间点。( Point-In-Time Recovery, PITR )。
backup_id	否	String	备份文件ID。
type	否	String	备份类型。当参数为空时，backup_id不能为空，即默认按备份文件恢复。当参数不为空时，取值范围： <ul style="list-style-type: none"> <li>• backup：表示按备份文件恢复。</li> <li>• timestamp：表示按时间点恢复。</li> </ul>

表 4-23 MysqlTdeInfo

参数	是否必选	参数类型	描述
enable_tde	是	Boolean	是否打开透明加密功能。
encryption_type	是	String	透明加密算法，支持AES256、SM4加密算法。

## 响应参数

状态码： 201

表 4-24 响应 Body 参数

参数	参数类型	描述
instance	<b>MysqlInstanceResponse</b> object	实例信息
job_id	String	实例创建的任务ID。 仅创建按需实例时会返回该参数。
order_id	String	订单号，创建包年包月时返回该参数。

表 4-25 MysqlInstanceResponse

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	实例名称。用于表示实例的名称。
status	String	实例状态。
datastore	<b>MysqlDatastoreInResponse</b> object	数据库信息。
mode	String	实例类型，仅支持Cluster。
configuration_id	String	参数组ID。
port	String	数据库端口信息。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略。
enterprise_project_id	String	企业项目ID。
region	String	区域ID，与请求参数相同。
availability_zone_mode	String	可用区模式，与请求参数相同。
master_availability_zone	String	主可用区ID。
vpc_id	String	虚拟私有云ID，与请求参数相同。

参数	参数类型	描述
security_group_id	String	安全组ID, 与请求参数相同。
subnet_id	String	子网ID, 与请求参数相同。
flavor_ref	String	规格码, 与请求参数相同。
charge_info	<b>MysqlChargeInfo</b> object	计费类型信息, 支持包年包月和按需, 默认为按需。
volume	<b>MysqlVolumeResp</b> object	volume信息。创建包年/包月实例有返回。

表 4-26 MysqlDatastoreInRes

参数	参数类型	描述
type	String	数据库引擎, 现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	内核数据库版本。

表 4-27 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围: 非空, 格式必须为hh:mm-HH:MM且有效, 当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同, 且取值必须为00。
keep_days	String	自动备份保留天数, 取值范围: 1-732。

表 4-28 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围： <ul style="list-style-type: none"> <li>prePaid: 预付费，即包年/包月。</li> <li>postPaid: 后付费，即按需付费。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li><b>prePaid</b></li> <li><b>postPaid</b></li> </ul>
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"> <li>month: 包月。</li> <li>year: 包年。</li> </ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。 枚举值： <ul style="list-style-type: none"> <li><b>month</b></li> <li><b>year</b></li> </ul>
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"> <li>“period_type”为“month”时，取值为1~9。</li> <li>“period_type”为“year”时，取值为1~3。</li> </ul>
is_auto_renew	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"> <li>true: 为自动续订。</li> <li>false: 为不自动续订，默认该方式。</li> </ul>
is_auto_pay	String	创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>true: 为自动支付，默认该方式。</li> <li>false: 为手动支付。</li> </ul>

表 4-29 MysqlVolumeResp

参数	参数类型	描述
size	Integer	磁盘大小。单位GB。 取值范围：10~128000，为10的整数倍。

状态码： 400

表 4-30 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-31 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance1",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "****",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
}
```



- ```
"enterprise_project_id" : 0
}
```
- 将备份文件恢复到按需计费的新实例。  
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances  

```
{
  "name": "gaussdb-mysql-instance2",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "****",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
  "enterprise_project_id": 0,
  "restore_point": {
    "source_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "backup_id": "7ffbf305376b4cbea0ae491257b6aaf9br07",
    "type": "backup"
  }
}
```

- 按时间点恢复到按需计费的新实例。  
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances  

```
{
  "name": "gaussdb-mysql-instance3",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "****",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
  "enterprise_project_id": 0,
  "restore_point": {
    "source_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "restore_time": 1673852043000,
    "type": "timestamp"
  }
}
```

- 创建周期为一个月的包年/包月实例。

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance4",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "prePaid",
    "period_type": "month",
    "period_num": 1,
    "is_auto_renew": false,
    "is_auto_pay": true
  },
  "volume": {
    "size": 10
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "****",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
  "enterprise_project_id": 0,
  "restore_point": {
    "source_instance_id": "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "restore_time": 1673852043000,
    "type": "timestamp"
  }
}
```

## 响应示例

**状态码： 201**

Success.

- 创建按需实例。

```
{
  "instance": {
    "id": "5eebbb4c0f9f4a99b42ed1b6334569aain07",
    "name": "gaussdb-mysql-instance1",
    "status": "BUILD",
    "region": "br-iaas-odin1",
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.28.18"
    },
    "mode": "Cluster",
    "port": 3306,
    "enterprise_project_id": 0,
    "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  }
}
```

```
"security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
"configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
"backup_strategy": {
  "start_time": "08:00-09:00",
  "keep_days": 7
},
"availability_zone_mode": "single"
},
"job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

- 创建周期为一个月的包年/包月实例。

```
{
  "instance": {
    "id": "945419c2208e4a5d828b8dddc00223e1in07",
    "name": "gaussdb-mysql-instance4",
    "status": "BUILD",
    "region": "br-iaas-odin1",
    "charge_info": {
      "charge_mode": "prePaid",
      "period_type": "month",
      "period_num": 1,
      "is_auto_renew": false,
      "is_auto_pay": true
    },
    "volume": {
      "size": 10
    },
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.28.18"
    },
    "mode": "Cluster",
    "port": 3306,
    "enterprise_project_id": 0,
    "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
    "backup_strategy": {
      "start_time": "08:00-09:00",
      "keep_days": 7
    },
    "availability_zone_mode": "single"
  },
  "order_id": "CS2308241236EEXVF"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class CreateGaussMySqlInstanceSolution {
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySqlInstanceRequest request = new CreateGaussMySqlInstanceRequest();
        MysqlInstanceRequest body = new MysqlInstanceRequest();
        MysqlBackupStrategy backupStrategybody = new MysqlBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MysqlDatastoreInReq datastorebody = new MysqlDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MysqlChargeInfo chargeInfobody = new MysqlChargeInfo();
        chargeInfobody.withChargeMode(MysqlChargeInfo.ChargeModeEnum.fromValue("postPaid"));
        body.withEnterpriseProjectId("0");
        body.withSlaveCount(1);
        body.withAvailabilityZoneMode("single");
        body.withBackupStrategy(backupStrategybody);
        body.withPassword("****");
        body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
        body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
        body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
        body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
        body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
        body.withMode("Cluster");
        body.withDatastore(datastorebody);
        body.withName("gaussdb-mysql-instance1");
        body.withRegion("br-iaas-odin1");
        body.withChargeInfo(chargeInfobody);
        request.withBody(body);
        try {
            CreateGaussMySqlInstanceResponse response = client.createGaussMySqlInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 将备份文件恢复到按需计费的新实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySqlInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySqlInstanceRequest request = new CreateGaussMySqlInstanceRequest();
        MySqlInstanceRequest body = new MySqlInstanceRequest();
        MySqlRestorePoint restorePointbody = new MySqlRestorePoint();
        restorePointbody.withSourceInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07")
            .withBackupId("7ffb305376b4cbea0ae491257b6aaf9br07")
            .withType("backup");
        MySqlBackupStrategy backupStrategybody = new MySqlBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySqlDatastoreInReq datastorebody = new MySqlDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySqlChargeInfo chargeInfobody = new MySqlChargeInfo();
        chargeInfobody.withChargeMode(MySqlChargeInfo.ChargeModeEnum.fromValue("postPaid"));
        body.withRestorePoint(restorePointbody);
        body.withEnterpriseProjectId("0");
        body.withSlaveCount(1);
        body.withAvailabilityZoneMode("single");
        body.withBackupStrategy(backupStrategybody);
        body.withPassword("****");
        body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
        body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
        body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
        body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
        body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
        body.withMode("Cluster");
        body.withDatastore(datastorebody);
        body.withName("gaussdb-mysql-instance2");
        body.withRegion("br-iaas-odin1");
        body.withChargeInfo(chargeInfobody);
        request.withBody(body);
        try {
            CreateGaussMySqlInstanceResponse response = client.createGaussMySqlInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 按时间点恢复到按需计费的新实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
        MySQLInstanceRequest body = new MySQLInstanceRequest();
        MySQLRestorePoint restorePointbody = new MySQLRestorePoint();
        restorePointbody.withRestoreTime(1673852043000L)
            .withSourceInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07")
            .withType("timestamp");
        MySQLBackupStrategy backupStrategybody = new MySQLBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySQLDatastoreInReq datastorebody = new MySQLDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySQLChargeInfo chargeInfobody = new MySQLChargeInfo();
        chargeInfobody.withChargeMode(MySQLChargeInfo.ChargeModeEnum.fromValue("postPaid"));
        body.withRestorePoint(restorePointbody);
        body.withEnterpriseProjectId("0");
        body.withSlaveCount(1);
        body.withAvailabilityZoneMode("single");
        body.withBackupStrategy(backupStrategybody);
        body.withPassword("****");
        body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176p07");
        body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
        body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
        body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
        body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
        body.withMode("Cluster");
        body.withDatastore(datastorebody);
        body.withName("gaussdb-mysql-instance3");
        body.withRegion("br-iaas-odin1");
        body.withChargeInfo(chargeInfobody);
        request.withBody(body);
        try {
            CreateGaussMySQLInstanceResponse response = client.createGaussMySQLInstance(request);
```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 创建周期为一个月的包年/包月实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMySQLInstanceRequest request = new CreateGaussMySQLInstanceRequest();
        MySQLInstanceRequest body = new MySQLInstanceRequest();
        MySQLRestorePoint restorePointbody = new MySQLRestorePoint();
        restorePointbody.withRestoreTime(1673852043000L)
            .withSourceInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07")
            .withType("timestamp");
        MySQLVolume volumebody = new MySQLVolume();
        volumebody.withSize("10");
        MySQLBackupStrategy backupStrategybody = new MySQLBackupStrategy();
        backupStrategybody.withStartTime("08:00-09:00");
        MySQLDatastoreInReq datastorebody = new MySQLDatastoreInReq();
        datastorebody.withType("gaussdb-mysql")
            .withVersion("8.0");
        MySQLChargeInfo chargeInfobody = new MySQLChargeInfo();
        chargeInfobody.withChargeMode(MySQLChargeInfo.ChargeModeEnum.fromValue("prePaid"))
            .withPeriodType(MySQLChargeInfo.PeriodTypeEnum.fromValue("month"))
            .withPeriodNum(1)
            .withIsAutoRenew("false")
            .withIsAutoPay("true");
        body.withRestorePoint(restorePointbody);
        body.withEnterpriseProjectId("0");
        body.withVolume(volumebody);
    }
}
```

```
body.withSlaveCount(1);
body.withAvailabilityZoneMode("single");
body.withBackupStrategy(backupStrategybody);
body.withPassword("****");
body.withConfigurationId("43570e0de32e40c5a15f831aa5ce4176pr07");
body.withSecurityGroupId("fc577a1a-f202-424a-977f-24faec3fdd55");
body.withSubnetId("c1cfa53c-65d3-431e-8552-326bf310c7ad");
body.withVpcId("3cedfc54-b105-4652-a4e0-847b11576b58");
body.withFlavorRef("gaussdb.mysql.xlarge.arm.4");
body.withMode("Cluster");
body.withDatastore(datastorebody);
body.withName("gaussdb-mysql-instance4");
body.withRegion("br-iaas-odin1");
body.withChargeInfo(chargeInfobody);
request.withBody(body);
try {
    CreateGaussMySqlInstanceResponse response = client.createGaussMySqlInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlInstanceRequest()
        backupStrategybody = MysqlBackupStrategy(
            start_time="08:00-09:00"
        )
        datastorebody = MysqlDatastoreInReq(
            type="gaussdb-mysql",
            version="8.0"
        )
        chargeInfobody = MysqlChargeInfo(
```



```
        charge_mode="postPaid"
    )
    request.body = MysqlInstanceRequest(
        enterprise_project_id="0",
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        datastore=datastorebody,
        name="gaussdb-mysql-instance1",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 将备份文件恢复到按需计费的新实例。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlInstanceRequest()
        restorePointbody = MysqlRestorePoint(
            source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
            backup_id="7ffb305376b4cbea0ae491257b6aaf9br07",
            type="backup"
        )
        backupStrategybody = MysqlBackupStrategy(
            start_time="08:00-09:00"
        )
        datastorebody = MysqlDatastoreInReq(
            type="gaussdb-mysql",
            version="8.0"
        )
        chargeInfobody = MysqlChargeInfo(
            charge_mode="postPaid"
        )
        request.body = MysqlInstanceRequest(
```

```
        restore_point=restorePointbody,
        enterprise_project_id="0",
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        datastore=datastorebody,
        name="gaussdb-mysql-instance2",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 按时间点恢复到按需计费的新实例。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlInstanceRequest()
        restorePointbody = MysqlRestorePoint(
            restore_time=1673852043000,
            source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
            type="timestamp"
        )
        backupStrategybody = MysqlBackupStrategy(
            start_time="08:00-09:00"
        )
        datastorebody = MysqlDatastoreInReq(
            type="gaussdb-mysql",
            version="8.0"
        )
        chargeInfobody = MysqlChargeInfo(
            charge_mode="postPaid"
        )
        request.body = MysqlInstanceRequest(
            restore_point=restorePointbody,
            enterprise_project_id="0",
```

```
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        datastore=datastorebody,
        name="gaussdb-mysql-instance3",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 创建周期为一个月的包年/包月实例。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
```

```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
```

```
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
```

```
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
    credentials = BasicCredentials(ak, sk) \
```

```
        client = GaussDBClient.new_builder() \
            .with_credentials(credentials) \
            .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
            .build()
```

```
try:
```

```
    request = CreateGaussMySqlInstanceRequest()
    restorePointbody = MysqlRestorePoint(
        restore_time=1673852043000,
        source_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07",
        type="timestamp"
    )
```

```
    volumebody = MysqlVolume(
        size="10"
    )
```

```
    backupStrategybody = MysqlBackupStrategy(
        start_time="08:00-09:00"
    )
```

```
    datastorebody = MysqlDatastoreInReq(
        type="gaussdb-mysql",
        version="8.0"
    )
```

```
    chargeInfobody = MysqlChargeInfo(
        charge_mode="prePaid",
        period_type="month",
        period_num=1,
        is_auto_renew="false",
```

```
        is_auto_pay="true"
    )
    request.body = MysqlInstanceRequest(
        restore_point=restorePointbody,
        enterprise_project_id="0",
        volume=volumebody,
        slave_count=1,
        availability_zone_mode="single",
        backup_strategy=backupStrategybody,
        password="****",
        configuration_id="43570e0de32e40c5a15f831aa5ce4176pr07",
        security_group_id="fc577a1a-f202-424a-977f-24faec3fdd55",
        subnet_id="c1cfa53c-65d3-431e-8552-326bf310c7ad",
        vpc_id="3cedfc54-b105-4652-a4e0-847b11576b58",
        flavor_ref="gaussdb.mysql.xlarge.arm.4",
        mode="Cluster",
        datastore=datastorebody,
        name="gaussdb-mysql-instance4",
        region="br-iaas-odin1",
        charge_info=chargeInfobody
    )
    response = client.create_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 创建计费模式为按需计费，自动备份开始时间是08:00-09:00的实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySqlInstanceRequest{}
    backupStrategybody := &model.MysqlBackupStrategy{
        StartTime: "08:00-09:00",
    }
    datastorebody := &model.MysqlDatastoreInReq{
        Type: "gaussdb-mysql",
    }
```

```
Version: "8.0",
}
chargeInfobody := &model.MysqlChargeInfo{
    ChargeMode: model.GetMysqlChargeInfoChargeModeEnum().POST_PAID,
}
enterpriseProjectIdMysqlInstanceRequest:= "0"
configurationIdMysqlInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
securityGroupIdMysqlInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
request.Body = &model.MysqlInstanceRequest{
    EnterpriseProjectId: &enterpriseProjectIdMysqlInstanceRequest,
    SlaveCount: int32(1),
    AvailabilityZoneMode: "single",
    BackupStrategy: backupStrategybody,
    Password: "****",
    ConfigurationId: &configurationIdMysqlInstanceRequest,
    SecurityGroupId: &securityGroupIdMysqlInstanceRequest,
    SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    VpcId: "3cedfc54-b105-4652-a4e0-847b11576b58",
    FlavorRef: "gaussdb.mysql.xlarge.arm.4",
    Mode: "Cluster",
    Datastore: datastorebody,
    Name: "gaussdb-mysql-instance1",
    Region: "br-iaas-odin1",
    ChargeInfo: chargeInfobody,
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 将备份文件恢复到按需计费的新实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySqlInstanceRequest{
        backupIdRestorePoint:= "7ffb305376b4cbea0ae491257b6aaf9br07"
        typeRestorePoint:= "backup"
        restorePointbody := &model.MysqlRestorePoint{
            SourceInstanceid: "7033e7c3cf93438797d44ad7ae0a7d95in07",
```

```
BackupId: &backupIdRestorePoint,
Type: &typeRestorePoint,
}
backupStrategybody := &model.MysqlBackupStrategy{
StartTime: "08:00-09:00",
}
datastorebody := &model.MysqlDatastoreInReq{
Type: "gaussdb-mysql",
Version: "8.0",
}
chargeInfobody := &model.MysqlChargeInfo{
ChargeMode: model.GetMysqlChargeInfoChargeModeEnum().POST_PAID,
}
enterpriseProjectIdMysqlInstanceRequest:= "0"
configurationIdMysqlInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
securityGroupIdMysqlInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
request.Body = &model.MysqlInstanceRequest{
RestorePoint: restorePointbody,
EnterpriseProjectId: &enterpriseProjectIdMysqlInstanceRequest,
SlaveCount: int32(1),
AvailabilityZoneMode: "single",
BackupStrategy: backupStrategybody,
Password: "****",
ConfigurationId: &configurationIdMysqlInstanceRequest,
SecurityGroupId: &securityGroupIdMysqlInstanceRequest,
SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
VpcId: "3cedfc54-b105-4652-a4e0-847b11576b58",
FlavorRef: "gaussdb.mysql.xlarge.arm.4",
Mode: "Cluster",
Datastore: datastorebody,
Name: "gaussdb-mysql-instance2",
Region: "br-iaas-odin1",
ChargeInfo: chargeInfobody,
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
fmt.Printf("%+v\n", response)
} else {
fmt.Println(err)
}
}
```

- 按时间点恢复到按需计费的新实例。

```
package main

import (
"fmt"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
WithAk(ak).
WithSk(sk).
Build()

client := gaussdb.NewGaussDBClient(
gaussdb.GaussDBClientBuilder().
```

```
WithRegion(region.ValueOf("<YOUR REGION>")).
WithCredential(auth).
Build()

request := &model.CreateGaussMySqlInstanceRequest{}
restoreTimeRestorePoint:= int64(1673852043000)
typeRestorePoint:= "timestamp"
restorePointbody := &model.MysqlRestorePoint{
    RestoreTime: &restoreTimeRestorePoint,
    SourceInstanceId: "7033e7c3cf93438797d44ad7ae0a7d95in07",
    Type: &typeRestorePoint,
}
backupStrategybody := &model.MysqlBackupStrategy{
    StartTime: "08:00-09:00",
}
datastorebody := &model.MysqlDatastoreInReq{
    Type: "gaussdb-mysql",
    Version: "8.0",
}
chargeInfobody := &model.MysqlChargeInfo{
    ChargeMode: model.GetMysqlChargeInfoChargeModeEnum().POST_PAID,
}
enterpriseProjectIdMysqlInstanceRequest:= "0"
configurationIdMysqlInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
securityGroupIdMysqlInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
request.Body = &model.MysqlInstanceRequest{
    RestorePoint: restorePointbody,
    EnterpriseProjectId: &enterpriseProjectIdMysqlInstanceRequest,
    SlaveCount: int32(1),
    AvailabilityZoneMode: "single",
    BackupStrategy: backupStrategybody,
    Password: "****",
    ConfigurationId: &configurationIdMysqlInstanceRequest,
    SecurityGroupId: &securityGroupIdMysqlInstanceRequest,
    SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    VpcId: "3cedfc54-b105-4652-a4e0-847b11576b58",
    FlavorRef: "gaussdb.mysql.xlarge.arm.4",
    Mode: "Cluster",
    Datastore: datastorebody,
    Name: "gaussdb-mysql-instance3",
    Region: "br-iaas-odin1",
    ChargeInfo: chargeInfobody,
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 创建周期为一个月的包年/包月实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMySqlInstanceRequest{
    restoreTimeRestorePoint:= int64(1673852043000)
    typeRestorePoint:= "timestamp"
    restorePointbody := &model.MysqlRestorePoint{
        RestoreTime: &restoreTimeRestorePoint,
        SourceInstanceld: "7033e7c3cf93438797d44ad7ae0a7d95in07",
        Type: &typeRestorePoint,
    }
    volumebody := &model.MysqlVolume{
        Size: "10",
    }
    backupStrategybody := &model.MysqlBackupStrategy{
        StartTime: "08:00-09:00",
    }
    datastorebody := &model.MysqlDatastoreInReq{
        Type: "gaussdb-mysql",
        Version: "8.0",
    }
    periodTypeChargeInfo:= model.GetMysqlChargeInfoPeriodTypeEnum().MONTH
    periodNumChargeInfo:= int32(1)
    isAutoRenewChargeInfo:= "false"
    isAutoPayChargeInfo:= "true"
    chargeInfobody := &model.MysqlChargeInfo{
        ChargeMode: model.GetMysqlChargeInfoChargeModeEnum().PRE_PAID,
        PeriodType: &periodTypeChargeInfo,
        PeriodNum: &periodNumChargeInfo,
        IsAutoRenew: &isAutoRenewChargeInfo,
        IsAutoPay: &isAutoPayChargeInfo,
    }
    enterpriseProjectIdMysqlInstanceRequest:= "0"
    configurationIdMysqlInstanceRequest:= "43570e0de32e40c5a15f831aa5ce4176pr07"
    securityGroupIdMysqlInstanceRequest:= "fc577a1a-f202-424a-977f-24faec3fdd55"
    request.Body = &model.MysqlInstanceRequest{
        RestorePoint: restorePointbody,
        EnterpriseProjectId: &enterpriseProjectIdMysqlInstanceRequest,
        Volume: volumebody,
        SlaveCount: int32(1),
        AvailabilityZoneMode: "single",
        BackupStrategy: backupStrategybody,
        Password: "****",
        ConfigurationId: &configurationIdMysqlInstanceRequest,
        SecurityGroupId: &securityGroupIdMysqlInstanceRequest,
        SubnetId: "c1cfa53c-65d3-431e-8552-326bf310c7ad",
        VpId: "3cedfc54-b105-4652-a4e0-847b11576b58",
        FlavorRef: "gaussdb.mysql.xlarge.arm.4",
        Mode: "Cluster",
        Datastore: datastorebody,
        Name: "gaussdb-mysql-instance4",
        Region: "br-iaas-odin1",
        ChargeInfo: chargeInfobody,
    }
}
response, err := client.CreateGaussMySqlInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
```



```
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.2 重启数据库实例

### 功能介绍

重启数据库实例。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/restart

表 4-32 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-33 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-34 请求 Body 参数

| 参数    | 是否必选 | 参数类型    | 描述                                                                                                                              |
|-------|------|---------|---------------------------------------------------------------------------------------------------------------------------------|
| delay | 否    | Boolean | 实例是否延迟重启，默认false，立即重启。<br>取值范围： <ul style="list-style-type: none"><li>true: 延迟重启，实例将在运维时间窗内自动重启。</li><li>false: 立即重启。</li></ul> |

## 响应参数

状态码： 200

表 4-35 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-36 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-37 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

设置GaussDB(for MySQL)实例在运维时间窗内重启。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/restart  
  
{  
  "delay": true  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置GaussDB(for MySQL)实例在运维时间窗内重启。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;
```

```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestartGaussMySQLInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestartGaussMySQLInstanceRequest request = new RestartGaussMySQLInstanceRequest();
        TaurusRestartInstanceRequest body = new TaurusRestartInstanceRequest();
        body.withDelay(true);
        request.withBody(body);
        try {
            RestartGaussMySQLInstanceResponse response = client.restartGaussMySQLInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

设置GaussDB(for MySQL)实例在运维时间窗内重启。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = RestartGaussMySQLInstanceRequest()
    request.body = TaurusRestartInstanceRequest(
        delay=True
    )
    response = client.restart_gauss_my_sql_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置GaussDB(for MySQL)实例在运维时间窗内重启。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestartGaussMySQLInstanceRequest{
        delayTaurusRestartInstanceRequest:= true
    }
    request.Body = &model.TaurusRestartInstanceRequest{
        Delay: &delayTaurusRestartInstanceRequest,
    }
    response, err := client.RestartGaussMySQLInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.3 删除/退订数据库实例

#### 功能介绍

删除/退订数据库实例。

#### 调用方法

请参见[如何调用API](#)。

#### URI

DELETE /v3/{project\_id}/instances/{instance\_id}

表 4-38 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-39 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-40 响应 Body 参数

| 参数       | 参数类型   | 描述               |
|----------|--------|------------------|
| job_id   | String | 任务ID。            |
| order_id | String | 订单号，仅包年/包月返回该参数。 |

状态码： 400

表 4-41 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-42 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

- 退订指定的包年/包月实例。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07
```

- 删除指定按需实例。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
7f5bed98332e493a8a2d213c233ff556in07
```

## 响应示例

状态码： 200

Success.

- 退订包周期实例。

```
{  
  "job_id" : null,  
  "order_id" : "CS2305230939BMXV8"  
}
```

- 删除按需实例。

```
{  
  "job_id" : "e82673f9-a8cc-45cf-973b-c201b7cda610",  
  "order_id" : null  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteGaussMySQLInstanceSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
    }  
}
```



```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteGaussMySqlInstanceRequest request = new DeleteGaussMySqlInstanceRequest();
try {
    DeleteGaussMySqlInstanceResponse response = client.deleteGaussMySqlInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySqlInstanceRequest()
        response = client.delete_gauss_my_sql_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySqlInstanceRequest{}
    response, err := client.DeleteGaussMySqlInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.4 创建只读节点

## 功能介绍

创建只读节点。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/nodes/enlarge

表 4-43 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-44 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-45 请求 Body 参数

| 参数                 | 是否必选 | 参数类型              | 描述                                                                                                                                                                               |
|--------------------|------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| priorities         | 是    | Array of integers | 指定创建的只读节点故障倒换优先级。<br>故障倒换优先级的取值范围为 1~16，数字越小，优先级越大，即故障倒换时，主节点会优先倒换到优先级高的只读节点上，优先级相同的只读节点选为主节点的概率相同。最多支持9个只读节点设置故障倒换优先级，超过9个的只读节点优先级默认为-1，表示不会参与倒换。可通过修改节点的故障倒换优先级来进行调整。          |
| is_auto_pay        | 否    | String            | 创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>• true: 为自动支付，默认该方式。</li><li>• false: 为手动支付。</li></ul>                                      |
| availability_zones | 否    | Array of strings  | 可用区。可指定可用区创建只读节点，不传该参数时默认为自动选择可用区。<br>该参数目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。<br>调用 <a href="#">查询数据库规格</a> 获取，其中 az_status 中的 key 为 availability_zone。<br>注：指定可用区创建只读节点，可能由于资源不足创建失败。 |

## 响应参数

状态码： 201

表 4-46 响应 Body 参数

| 参数          | 参数类型             | 描述               |
|-------------|------------------|------------------|
| instance_id | String           | 实例ID，严格匹配UUID规则。 |
| node_names  | Array of strings | 节点名称列表。          |

| 参数       | 参数类型   | 描述                                |
|----------|--------|-----------------------------------|
| job_id   | String | 创建只读节点的任务ID。<br>仅创建按需只读节点时会返回该参数。 |
| order_id | String | 订单号，创建包年包月只读节点时返回该参数。             |

状态码： 400

表 4-47 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-48 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

为实例创建只读节点。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
8cb89e25e0444f1fa9b2145dff29cabdin07/nodes/enlarge  
  
{  
  "priorities": [ 1, 2 ]  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "instance_id": "8cb89e25e0444f1fa9b2145dff29cabdin07",  
  "node_names": [ "gauss-ccf5_node03", "gauss-ccf5_node04" ],  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

为实例创建只读节点。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateGaussMySqlReadOnlyNodeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateGaussMySqlReadOnlyNodeRequest request = new CreateGaussMySqlReadOnlyNodeRequest();
        MySqlCreateReadOnlyNodeRequest body = new MySqlCreateReadOnlyNodeRequest();
        List<Integer> listbodyPriorities = new ArrayList<>();
        listbodyPriorities.add(1);
        listbodyPriorities.add(2);
        body.withPriorities(listbodyPriorities);
        request.withBody(body);
        try {
            CreateGaussMySqlReadOnlyNodeResponse response =
            client.createGaussMySqlReadOnlyNode(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

为实例创建只读节点。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlReadOnlyNodeRequest()
        listPrioritiesbody = [
            1,
            2
        ]
        request.body = MysqlCreateReadOnlyNodeRequest(
            priorities=listPrioritiesbody
        )
        response = client.create_gauss_my_sql_readonly_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

为实例创建只读节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
```

```
WithAk(ak).
WithSk(sk).
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMySqlReadOnlyNodeRequest{
var listPrioritiesbody = []int32{
    int32(1),
    int32(2),
}
request.Body = &model.MysqlCreateReadOnlyNodeRequest{
    Priorities: listPrioritiesbody,
}
response, err := client.CreateGaussMySqlReadOnlyNode(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.5 删除/退订只读节点

### 功能介绍

删除/退订实例的只读节点。多可用区模式删除/退订只读节点时，要保证删除/退订后，剩余的只读节点和主节点在不同的可用区中，否则无法删除/退订该只读节点。

### 调用方法

请参见[如何调用API](#)。



## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}

表 4-49 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |
| node_id     | 是    | String | 节点ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-50 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-51 响应 Body 参数

| 参数       | 参数类型   | 描述               |
|----------|--------|------------------|
| job_id   | String | 任务ID。            |
| order_id | String | 订单号，仅包年/包月返回该参数。 |

状态码： 400

表 4-52 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-53 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除指定包年/包月实例的只读节点。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/nodes/ss62c18799854a919bab633874c159dfno01
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890",  
  "order_id" : "CS2305230939BMXV8"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteGaussMySQLReadOnlyNodeSolution {  
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteGaussMySqlReadOnlyNodeRequest request = new DeleteGaussMySqlReadOnlyNodeRequest();
try {
    DeleteGaussMySqlReadOnlyNodeResponse response =
client.deleteGaussMySqlReadOnlyNode(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySqlReadOnlyNodeRequest()
        response = client.delete_gauss_my_sql_readonly_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySqlReadOnlyNodeRequest{}
    response, err := client.DeleteGaussMySqlReadOnlyNode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.6 包年/包月实例存储扩容

### 功能介绍

包年/包月实例存储扩容。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/volume/extend

表 4-54 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-55 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-56 请求 Body 参数

| 参数          | 是否必选 | 参数类型    | 描述                                                                                                          |
|-------------|------|---------|-------------------------------------------------------------------------------------------------------------|
| size        | 是    | Integer | 扩容后的容量。包年/包月实例初始最小磁盘规格为10G，实例所选容量大小必须为10的整数倍，且大于实际使用容量，最大为128000GB。<br>取值范围：扩容时必须大于等于20G。缩容时必须大于等于10G。      |
| is_auto_pay | 否    | String  | 表示是否自动从客户的帐户中支付。 <ul style="list-style-type: none"><li>• true：为自动支付，默认该方式。</li><li>• false：为手动支付。</li></ul> |

## 响应参数

状态码： 201

表 4-57 响应 Body 参数

| 参数       | 参数类型    | 描述     |
|----------|---------|--------|
| size     | Integer | 扩容后容量。 |
| order_id | String  | 订单号。   |

状态码： 400

表 4-58 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-59 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

扩容包年/包月实例的磁盘容量至50GB。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend
```

```
{  
  "size" : 50  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "size" : 50,  
  "order_id" : "CS2001221129LVGUU"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

扩容包年/包月实例的磁盘容量至50GB。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ExpandGaussMySQLInstanceVolumeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
    }  
}
```

```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ExpandGaussMySQLInstanceVolumeRequest request = new
ExpandGaussMySQLInstanceVolumeRequest();
MysqlExtendInstanceVolumeRequest body = new MysqlExtendInstanceVolumeRequest();
body.withSize(50);
request.withBody(body);
try {
    ExpandGaussMySQLInstanceVolumeResponse response =
client.expandGaussMySQLInstanceVolume(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

扩容包年/包月实例的磁盘容量至50GB。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ExpandGaussMySQLInstanceVolumeRequest()
        request.body = MysqlExtendInstanceVolumeRequest(
            size=50
        )
        response = client.expand_gauss_my_sql_instance_volume(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```



```
print(e.error_code)
print(e.error_msg)
```

## Go

扩容包年/包月实例的磁盘容量至50GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ExpandGaussMySQLInstanceVolumeRequest{}
    request.Body = &model.MySQLExtendInstanceVolumeRequest{
        Size: int32(50),
    }
    response, err := client.ExpandGaussMySQLInstanceVolume(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.7 修改实例名称

### 功能介绍

修改实例名称。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/name

表 4-60 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-61 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-62 请求 Body 参数

| 参数   | 是否必选 | 参数类型   | 描述                                                                                                                                    |
|------|------|--------|---------------------------------------------------------------------------------------------------------------------------------------|
| name | 是    | String | 实例名称。<br>用于表示实例的名称，同一租户下，同类型的实例名可重名。取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。 |

## 响应参数

状态码： 200

表 4-63 响应 Body 参数

| 参数     | 参数类型   | 描述           |
|--------|--------|--------------|
| job_id | String | 修改实例名称的任务ID。 |

状态码： 400

表 4-64 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-65 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改实例的名称为 “gaussdb-name”。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/name
{
  "name" : "gaussdb-name"
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "job_id" : "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的名称为 “gaussdb-name”。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceNameSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLInstanceNameRequest request = new UpdateGaussMySQLInstanceNameRequest();
        MysqlUpdateInstanceNameRequest body = new MysqlUpdateInstanceNameRequest();
        body.withName("gaussdb-name");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceNameResponse response =
```

```
client.updateGaussMySqlInstanceName(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的名称为 “gaussdb-name”。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlInstanceNameRequest()
        request.body = MysqlUpdateInstanceNameRequest(
            name="gaussdb-name"
        )
        response = client.update_gauss_my_sql_instance_name(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改实例的名称为 “gaussdb-name”。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.UpdateGaussMySQLInstanceNameRequest{  
        request.Body = &model.MysqlUpdateInstanceNameRequest{  
            Name: "gaussdb-name",  
        }  
    }  
    response, err := client.UpdateGaussMySQLInstanceName(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.8 重置数据库密码

### 功能介绍

重置数据库密码。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/password

表 4-66 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-67 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-68 请求 Body 参数

| 参数       | 是否必选 | 参数类型   | 描述                                                                                                                             |
|----------|------|--------|--------------------------------------------------------------------------------------------------------------------------------|
| password | 是    | String | 数据库密码。<br>取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号~!@#\$%^*_-=+?,()&, 长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。 |

## 响应参数

状态码： 400

表 4-69 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-70 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

重置数据库密码。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/password  
  
{  
  "password" : "****"  
}
```

## 响应示例

无



## SDK 代码示例

SDK代码示例如下。

### Java

重置数据库密码。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ResetGaussMySQLPasswordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ResetGaussMySQLPasswordRequest request = new ResetGaussMySQLPasswordRequest();
        MysqlResetPasswordRequest body = new MysqlResetPasswordRequest();
        body.withPassword("****");
        request.withBody(body);
        try {
            ResetGaussMySQLPasswordResponse response = client.resetGaussMySQLPassword(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

重置数据库密码。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ResetGaussMySqlPasswordRequest()
        request.body = MysqlResetPasswordRequest(
            password="****"
        )
        response = client.reset_gauss_my_sql_password(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

重置数据库密码。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ResetGaussMySqlPasswordRequest{}
    request.Body = &model.MysqlResetPasswordRequest{
```

```
    Password: "****",
  }
  response, err := client.ResetGaussMySqlPassword(request)
  if err == nil {
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.9 变更实例规格

### 功能介绍

变更数据库实例的规格。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/action

表 4-71 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-72 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>            |

表 4-73 请求 Body 参数

| 参数            | 是否必选 | 参数类型                                     | 描述                                                                                                                           |
|---------------|------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| resize_flavor | 是    | <a href="#">MysqlResizeFlavor</a> object | 规格变更信息。                                                                                                                      |
| is_auto_pay   | 否    | String                                   | 变更包年/包月实例规格时可指定，表示是否自动从客户的帐户中支付。 <ul style="list-style-type: none"> <li>true: 为自动支付，默认该方式。</li> <li>false: 为手动支付。</li> </ul> |

表 4-74 MysqlResizeFlavor

| 参数        | 是否必选 | 参数类型   | 描述   |
|-----------|------|--------|------|
| spec_code | 是    | String | 规格码。 |

## 响应参数

状态码： 200

表 4-75 响应 Body 参数

| 参数       | 参数类型   | 描述                        |
|----------|--------|---------------------------|
| job_id   | String | 规格变更的任务ID，仅变更按需实例时会返回该参数。 |
| order_id | String | 订单ID，仅变更包年/包月实例时会返回该参数。   |

状态码： 400

表 4-76 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-77 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

变更实例的内存规格为4U32GB。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/action
```

```
{  
  "resize_flavor" : {  
    "spec_code" : "gaussdb.mysql.xlarge.arm.4"  
  }  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

变更实例的内存规格为4U32GB。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ChangeGaussMySQLInstanceSpecificationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ChangeGaussMySQLInstanceSpecificationRequest request = new
        ChangeGaussMySQLInstanceSpecificationRequest();
        MySQLChangeSpecificationRequest body = new MySQLChangeSpecificationRequest();
        MySQLResizeFlavor resizeFlavorbody = new MySQLResizeFlavor();
        resizeFlavorbody.withSpecCode("gaussdb.mysql.xlarge.arm.4");
        body.withResizeFlavor(resizeFlavorbody);
        request.withBody(body);
        try {
            ChangeGaussMySQLInstanceSpecificationResponse response =
            client.changeGaussMySQLInstanceSpecification(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

变更实例的内存规格为4U32GB。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeGaussMySQLInstanceSpecificationRequest()
        resizeFlavorbody = MysqlResizeFlavor(
            spec_code="gaussdb.mysql.xlarge.arm.4"
        )
        request.body = MysqlChangeSpecificationRequest(
            resize_flavor=resizeFlavorbody
        )
        response = client.change_gauss_my_sql_instance_specification(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

变更实例的内存规格为4U32GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
```

```
WithRegion(region.ValueOf("<YOUR REGION>")).
WithCredential(auth).
Build()

request := &model.ChangeGaussMySqlInstanceSpecificationRequest{}
resizeFlavorbody := &model.MysqlResizeFlavor{
    SpecCode: "gaussdb.mysql.xlarge.arm.4",
}
request.Body = &model.MysqlChangeSpecificationRequest{
    ResizeFlavor: resizeFlavorbody,
}
response, err := client.ChangeGaussMySqlInstanceSpecification(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.10 查询专属资源池列表

#### 功能介绍

获取专属资源池列表，包括用户开通的所有专属资源池信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/dedicated-resources



表 4-78 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-79 Query 参数

| 参数     | 是否必选 | 参数类型    | 描述                                                                     |
|--------|------|---------|------------------------------------------------------------------------|
| offset | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 |
| limit  | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                      |

## 请求参数

表 4-80 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-81 响应 Body 参数

| 参数          | 参数类型                                      | 描述       |
|-------------|-------------------------------------------|----------|
| resources   | Array of <b>DedicatedResource</b> objects | 专属资源池信息。 |
| total_count | Integer                                   | 专属资源池数量。 |

表 4-82 DedicatedResource

| 参数                | 参数类型                                    | 描述                                                                                                                                                                                                                                                                                                                        |
|-------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                | String                                  | 专属资源池ID。                                                                                                                                                                                                                                                                                                                  |
| resource_name     | String                                  | 专属资源池名称。                                                                                                                                                                                                                                                                                                                  |
| engine_name       | String                                  | 数据库引擎名称。                                                                                                                                                                                                                                                                                                                  |
| architecture      | String                                  | CPU架构                                                                                                                                                                                                                                                                                                                     |
| status            | String                                  | 专属资源池状态。<br>取值范围：<br><ul style="list-style-type: none"> <li>• NORMAL：正常。</li> <li>• BUILDING：构建中。</li> <li>• EXTENDING：扩容中。</li> <li>• DELETED：已删除。</li> </ul> 枚举值：<br><ul style="list-style-type: none"> <li>• <b>NORMAL</b></li> <li>• <b>BUILDING</b></li> <li>• <b>EXTENDING</b></li> <li>• <b>DELETED</b></li> </ul> |
| capacity          | <b>DedicatedResourceCapacity</b> object | 专属资源池容量信息。                                                                                                                                                                                                                                                                                                                |
| availability_zone | Array of strings                        | 专属资源池可用区信息。                                                                                                                                                                                                                                                                                                               |

表 4-83 DedicatedResourceCapacity

| 参数     | 参数类型    | 描述         |
|--------|---------|------------|
| ram    | Integer | 内存大小，单位GB。 |
| volume | Long    | 磁盘容量，单位GB。 |

| 参数    | 参数类型    | 描述     |
|-------|---------|--------|
| vcpus | Integer | CPU核数。 |

状态码： 400

表 4-84 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-85 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询专属资源池列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/dedicated-resources
```

## 响应示例

状态码： 200

Success.

```
{
  "resources": [ {
    "id": "1d07f7ba-f140-46a7-b002-58ba22ee6ff3",
    "resource_name": "testdcc",
    "engine_name": "gaussdb-mysql",
    "architecture": "ARM",
    "status": "NORMAL",
    "capacity": {
      "ram": 256,
      "volume": 10000000,
      "vcpus": 64
    },
    "availability_zone": [ "az1xahz" ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySQLDedicatedResourcesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySQLDedicatedResourcesRequest request = new
        ListGaussMySQLDedicatedResourcesRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListGaussMySQLDedicatedResourcesResponse response =
            client.listGaussMySQLDedicatedResources(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlDedicatedResourcesRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_gauss_my_sql_dedicated_resources(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySqlDedicatedResourcesRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ListGaussMySqlDedicatedResources(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
```

```
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.11 查询专属资源信息详情

### 功能介绍

查询专属资源信息详情。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/dedicated-resource/{dedicated\_resource\_id}

表 4-86 路径参数

| 参数                    | 是否必选 | 参数类型   | 描述                                                           |
|-----------------------|------|--------|--------------------------------------------------------------|
| project_id            | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| dedicated_resource_id | 是    | String | 专属资源池ID。<br>获取方法参见 <a href="#">查询专属资源信息详情</a> 。              |

## 请求参数

表 4-87 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-88 响应 Body 参数

| 参数                     | 参数类型                                        | 描述       |
|------------------------|---------------------------------------------|----------|
| id                     | String                                      | 专属资源池ID。 |
| name                   | String                                      | 专属资源池名称。 |
| engine_name            | String                                      | 数据库引擎名称。 |
| availability_zone_ids  | Array of strings                            | 可用区。     |
| architecture           | String                                      | 资源规格类型。  |
| status                 | String                                      | 专属资源池状态。 |
| dedicated_compute_info | <a href="#">DedicatedComputeInfo</a> object | 计算资源信息。  |
| dedicated_storage_info | <a href="#">DedicatedStorageInfo</a> object | 存储资源信息。  |

表 4-89 DedicatedComputeInfo

| 参数          | 参数类型    | 描述                     |
|-------------|---------|------------------------|
| vcpus_total | Integer | 专属资源池中CPU总数。           |
| vcpus_used  | Integer | 专属资源池已使用的CPU数。         |
| ram_total   | Integer | 专属资源池计算内存大小, 单位GB。     |
| ram_used    | Integer | 专属资源池已使用的计算内存大小, 单位GB。 |
| spec_code   | String  | 专属资源池计算资源规格码。          |
| host_num    | Integer | 专属资源池计算主机数量。           |

表 4-90 DedicatedStorageInfo

| 参数        | 参数类型    | 描述            |
|-----------|---------|---------------|
| spec_code | String  | 专属资源池存储资源规格码。 |
| host_num  | Integer | 专属资源池存储主机数量。  |

状态码: 400

表 4-91 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-92 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询专属资源信息详情。

```
GET https://{endpoint}/v3/058497e1c100d3eb2f3cc01160616934/dedicated-resource/e289fda5-a065-4324-8751-cff68be6f48e
```



## 响应示例

**状态码： 200**

Success.

```
{
  "id": "e289fda5-a065-4324-8751-cff68be6f48e",
  "name": "test_dcc",
  "engine_name": "gaussdb-mysql",
  "availability_zone_ids": [ "az1xahz", "az2xahz" ],
  "architecture": "ARM",
  "status": "normal",
  "dedicated_compute_info": {
    "vcpus_total": 128,
    "vcpus_used": 64,
    "ram_total": 512,
    "ram_used": 256,
    "spec_code": "gaussdb.mysql.c6.host",
    "host_num": 1
  },
  "dedicated_storage_info": {
    "spec_code": "gaussdb.mysql.dfvpool.30tb.host",
    "host_num": 1
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowDedicatedResourceInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowDedicatedResourceInfoRequest request = new ShowDedicatedResourceInfoRequest();
        try {
            ShowDedicatedResourceInfoResponse response = client.showDedicatedResourceInfo(request);
        }
    }
}
```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowDedicatedResourceInfoRequest()
        response = client.show_dedicated_resource_info(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowDedicatedResourceInfoRequest{}
response, err := client.ShowDedicatedResourceInfo(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.12 设置实例秒级监控

#### 功能介绍

设置实例秒级监控，包括1秒监控和5秒监控。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/monitor-policy

表 4-93 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-94 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>            |

表 4-95 请求 Body 参数

| 参数             | 是否必选 | 参数类型    | 描述                                                                                                                                                                                                                         |
|----------------|------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| monitor_switch | 是    | Boolean | 实例秒级监控开关。 <ul style="list-style-type: none"> <li>true: 开启。</li> <li>false: 关闭。</li> </ul>                                                                                                                                  |
| period         | 否    | Integer | 采集周期，仅在monitor_switch为true时生效。默认为5s。monitor_switch为false时，不传该参数。取值： <ul style="list-style-type: none"> <li>1: 采集周期为1s。</li> <li>5: 采集周期为5s。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li>1</li> <li>5</li> </ul> |

## 响应参数

状态码： 200

表 4-96 响应 Body 参数

| 参数     | 参数类型   | 描述            |
|--------|--------|---------------|
| job_id | String | 修改秒级监控的任务流ID。 |

状态码： 400

表 4-97 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-98 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

```
{  
  "monitor_switch": true,  
  "period": 1  
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

```
{  
  "monitor_switch": false  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "6b7dd5d4-4590-4f14-b164-a8737ce071d5"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateInstanceMonitorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateInstanceMonitorRequest request = new UpdateInstanceMonitorRequest();
        TaurusModifyInstanceMonitorRequestBody body = new
TaurusModifyInstanceMonitorRequestBody();
        body.withPeriod(TaurusModifyInstanceMonitorRequestBody.PeriodEnum.NUMBER_1);
        body.withMonitorSwitch(true);
        request.withBody(body);
        try {
            UpdateInstanceMonitorResponse response = client.updateInstanceMonitor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateInstanceMonitorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateInstanceMonitorRequest request = new UpdateInstanceMonitorRequest();
        TaurusModifyInstanceMonitorRequestBody body = new
        TaurusModifyInstanceMonitorRequestBody();
        body.withMonitorSwitch(false);
        request.withBody(body);
        try {
            UpdateInstanceMonitorResponse response = client.updateInstanceMonitor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateInstanceMonitorRequest()
    request.body = TaurusModifyInstanceMonitorRequestBody(
        period=1,
        monitor_switch=True
    )
    response = client.update_instance_monitor(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 修改实例秒级监控开关，关闭秒级监控。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateInstanceMonitorRequest()
        request.body = TaurusModifyInstanceMonitorRequestBody(
            monitor_switch=False
        )
        response = client.update_instance_monitor(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```



## Go

- 修改实例秒级监控开关及频率，开启秒级监控，采集周期为1s。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateInstanceMonitorRequest{
        periodTaurusModifyInstanceMonitorRequestBody:=
        model.GetTaurusModifyInstanceMonitorRequestBodyPeriodEnum().E_1
        request.Body = &model.TaurusModifyInstanceMonitorRequestBody{
            Period: &periodTaurusModifyInstanceMonitorRequestBody,
            MonitorSwitch: true,
        }
        response, err := client.UpdateInstanceMonitor(request)
        if err == nil {
            fmt.Printf("%+v\n", response)
        } else {
            fmt.Println(err)
        }
    }
}
```

- 修改实例秒级监控开关，关闭秒级监控。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
}
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateInstanceMonitorRequest{
    request.Body = &model.TaurusModifyInstanceMonitorRequestBody{
        MonitorSwitch: false,
    }
}
response, err := client.UpdateInstanceMonitor(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.13 查询实例秒级监控

#### 功能介绍

查询实例秒级监控信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/monitor-policy

表 4-99 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-100 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-101 响应 Body 参数

| 参数             | 参数类型    | 描述                                                                                                             |
|----------------|---------|----------------------------------------------------------------------------------------------------------------|
| monitor_switch | Boolean | 实例秒级监控开关。 <ul style="list-style-type: none"><li>true: 表示开启。</li><li>false: 表示关闭。</li></ul>                     |
| period         | Integer | 采集周期，仅在monitor_switch为true时返回。 <ul style="list-style-type: none"><li>1: 采集周期为1s。</li><li>5: 采集周期为5s。</li></ul> |

状态码： 400

表 4-102 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-103 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询实例秒级监控状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

## 响应示例

状态码： 200

Success.

```
{  
  "monitor_switch" : true,  
  "period" : "1"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowInstanceMonitorExtendSolution {  
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowInstanceMonitorExtendRequest request = new ShowInstanceMonitorExtendRequest();
try {
    ShowInstanceMonitorExtendResponse response = client.showInstanceMonitorExtend(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowInstanceMonitorExtendRequest()
        response = client.show_instance_monitor_extend(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowInstanceMonitorExtendRequest{}
    response, err := client.ShowInstanceMonitorExtend(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.14 节点重启

### 功能介绍

节点重启。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}/restart

表 4-104 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |
| node_id     | 是    | String | 节点ID。                                                        |

### 请求参数

表 4-105 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-106 请求 Body 参数

| 参数    | 是否必选 | 参数类型    | 描述                                                                                                                              |
|-------|------|---------|---------------------------------------------------------------------------------------------------------------------------------|
| delay | 否    | Boolean | 实例节点是否延迟重启。默认 false，立即重启。 <ul style="list-style-type: none"><li>• true: 延迟重启，实例节点将在运维时间窗内自动重启。</li><li>• false: 立即重启。</li></ul> |

## 响应参数

状态码： 200

表 4-107 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-108 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-109 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

重启实例节点。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/af315b8e6aaa41799bd9a31f2de15abcin07/nodes/f0d5f01f04964f36a545ad85e4e9cfe9no07/restart
{
```



```
"delay" : false  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

重启实例节点。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class RestartGaussMySQLNodeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        RestartGaussMySQLNodeRequest request = new RestartGaussMySQLNodeRequest();  
        RestartNodeRequest body = new RestartNodeRequest();  
        body.withDelay(false);  
        request.withBody(body);  
        try {  
            RestartGaussMySQLNodeResponse response = client.restartGaussMySQLNode(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
        }  
    }  
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

重启实例节点。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestartGaussMySQLNodeRequest()
        request.body = RestartNodeRequest(
            delay=False
        )
        response = client.restart_gauss_my_sql_node(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

重启实例节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.RestartGaussMySQLNodeRequest{}
delayRestartNodeRequest:= false
request.Body = &model.RestartNodeRequest{
    Delay: &delayRestartNodeRequest,
}
response, err := client.RestartGaussMySQLNode(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.15 内核版本升级

### 功能介绍

内核版本升级。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/db-upgrade

表 4-110 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-111 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-112 请求 Body 参数

| 参数    | 是否必选 | 参数类型    | 描述                                                                                                                                                |
|-------|------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| delay | 否    | Boolean | 实例是否延迟升级，默认false，立即升级。<br>取值范围： <ul style="list-style-type: none"><li>true: 延迟升级，实例将在运维时间窗内自动升级。</li><li>false: 立即升级。</li></ul> 缺省值： <b>false</b> |

## 响应参数

状态码：200

表 4-113 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-114 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-115 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

升级内核小版本，升级方式为立即升级。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/db-upgrade  
  
{  
  "delay" : false  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

升级内核小版本，升级方式为立即升级。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpgradeGaussMySQLInstanceDatabaseSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpgradeGaussMySQLInstanceDatabaseRequest request = new
        UpgradeGaussMySQLInstanceDatabaseRequest();
        UpgradeDatabaseRequest body = new UpgradeDatabaseRequest();
        body.withDelay(false);
        request.withBody(body);
        try {
            UpgradeGaussMySQLInstanceDatabaseResponse response =
            client.upgradeGaussMySQLInstanceDatabase(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

升级内核小版本，升级方式为立即升级。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpgradeGaussMySQLInstanceDatabaseRequest()
        request.body = UpgradeDatabaseRequest(
            delay=False
        )
        response = client.upgrade_gauss_my_sql_instance_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

升级内核小版本，升级方式为立即升级。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpgradeGaussMySQLInstanceDatabaseRequest{}
    delayUpgradeDatabaseRequest:= false
    request.Body = &model.UpgradeDatabaseRequest{
        Delay: &delayUpgradeDatabaseRequest,
    }
}
```

```
response, err := client.UpgradeGaussMySQLInstanceDatabase(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.16 开关 SSL

### 功能介绍

为实例设置SSL数据加密。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/ssl-option

表 4-116 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |



## 请求参数

表 4-117 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-118 请求 Body 参数

| 参数         | 是否必选 | 参数类型    | 描述                                                                                                               |
|------------|------|---------|------------------------------------------------------------------------------------------------------------------|
| ssl_option | 是    | Boolean | SSL数据加密开关设置。<br>取值范围： <ul style="list-style-type: none"><li>true: 开启SSL数据加密。</li><li>false: 关闭SSL数据加密。</li></ul> |

## 响应参数

状态码： 200

表 4-119 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-120 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-121 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 开启实例SSL数据加密。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ssl-option
```

```
{  
  "ssl_option" : true  
}
```

- 关闭实例SSL数据加密。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ssl-option
```

```
{  
  "ssl_option" : false  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启实例SSL数据加密。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class SwitchGaussMySqlInstanceSslSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        SwitchGaussMySqlInstanceSslRequest request = new SwitchGaussMySqlInstanceSslRequest();  
        SwitchSSLRequest body = new SwitchSSLRequest();  
        body.withSslOption(true);  
        request.withBody(body);  
        try {  
            SwitchGaussMySqlInstanceSslResponse response =  
client.switchGaussMySqlInstanceSsl(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

- 关闭实例SSL数据加密。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class SwitchGaussMySqlInstanceSslSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SwitchGaussMySQLInstanceSslRequest request = new SwitchGaussMySQLInstanceSslRequest();
SwitchSSLRequest body = new SwitchSSLRequest();
body.withSslOption(false);
request.withBody(body);
try {
    SwitchGaussMySQLInstanceSslResponse response =
client.switchGaussMySQLInstanceSsl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 开启实例SSL数据加密。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySQLInstanceSslRequest()
        request.body = SwitchSSLRequest(
            ssl_option=True
        )
        response = client.switch_gauss_my_sql_instance_ssl(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭实例SSL数据加密。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySqlInstanceSslRequest()
        request.body = SwitchSSLRequest(
            ssl_option=False
        )
        response = client.switch_gauss_my_sql_instance_ssl(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启实例SSL数据加密。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

```
Build()

request := &model.SwitchGaussMySQLInstanceSslRequest{}
request.Body = &model.SwitchSslRequest{
    SslOption: true,
}
response, err := client.SwitchGaussMySQLInstanceSsl(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 关闭实例SSL数据加密。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLInstanceSslRequest{}
    request.Body = &model.SwitchSslRequest{
        SslOption: false,
    }
    response, err := client.SwitchGaussMySQLInstanceSsl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.17 绑定弹性公网 IP 地址

#### 功能介绍

实例绑定弹性公网IP地址，供外网连接使用。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/public-ips/bind

表 4-122 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-123 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-124 请求 Body 参数

| 参数           | 是否必选 | 参数类型   | 描述             |
|--------------|------|--------|----------------|
| public_ip    | 是    | String | 待绑定的弹性公网IP地址。  |
| public_ip_id | 是    | String | 弹性公网IP地址对应的ID。 |

## 响应参数

状态码： 200

表 4-125 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-126 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |



状态码： 500

表 4-127 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

为实例绑定弹性公网IP地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/public-ips/bind
{
  "public_ip" : "10.145.51.214",
  "public_ip_id" : "8403e9cd-a7fa-4288-8b15-c7ceac1etest"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

为实例绑定弹性公网IP地址。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceEipSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateGaussMySQLInstanceEipRequest request = new UpdateGaussMySQLInstanceEipRequest();
ModifyBindEipRequest body = new ModifyBindEipRequest();
body.withPublicIpId("8403e9cd-a7fa-4288-8b15-c7ceac1etest");
body.withPublicIp("10.145.51.214");
request.withBody(body);
try {
    UpdateGaussMySQLInstanceEipResponse response = client.updateGaussMySQLInstanceEip(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

为实例绑定弹性公网IP地址。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLInstanceEipRequest()
        request.body = ModifyBindEipRequest(
            public_ip_id="8403e9cd-a7fa-4288-8b15-c7ceac1etest",
            public_ip="10.145.51.214"
        )
        response = client.update_gauss_my_sql_instance_eip(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

为实例绑定弹性公网IP地址。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlInstanceEipRequest{}
    request.Body = &model.ModifyBindEipRequest{
        PublicIpId: "8403e9cd-a7fa-4288-8b15-c7ceac1etest",
        PublicIp: "10.145.51.214",
    }
    response, err := client.UpdateGaussMySqlInstanceEip(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |

| 状态码 | 描述            |
|-----|---------------|
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.18 解绑弹性公网 IP 地址

### 功能介绍

实例解绑弹性公网IP地址。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/public-ips/unbind

表 4-128 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-129 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |

| 参数         | 是否必选 | 参数类型   | 描述                                                                                       |
|------------|------|--------|------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> |

## 响应参数

状态码： 200

表 4-130 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-131 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-132 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

解绑实例已绑定的弹性公网IP地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/public-ips/unbind
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CancelGaussMySQLInstanceEipSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CancelGaussMySQLInstanceEipRequest request = new CancelGaussMySQLInstanceEipRequest();
        try {
            CancelGaussMySQLInstanceEipResponse response = client.cancelGaussMySQLInstanceEip(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CancelGaussMySQLInstanceEipRequest()
        response = client.cancel_gauss_my_sql_instance_eip(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CancelGaussMySQLInstanceEipRequest{}
    response, err := client.CancelGaussMySQLInstanceEip(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.19 手动主备倒换

### 功能介绍

用户手动进行主备倒换。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/switchover

表 4-133 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |



## 请求参数

表 4-134 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-135 请求 Body 参数

| 参数      | 是否必选 | 参数类型   | 描述              |
|---------|------|--------|-----------------|
| node_id | 是    | String | 只读节点ID，倒换后为主节点。 |

## 响应参数

状态码： 200

表 4-136 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-137 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-138 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

手动进行主备倒换。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/switchover
{
  "node_id": "1801a615b52b4a5697cfe385f6affbf4no07"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.20 设置可维护时间段

### 功能介绍

设置可维护时间段。建议将可维护时间段设置在业务低峰期，避免业务在维护过程中异常中断。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/ops-window

表 4-139 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-140 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-141 请求 Body 参数

| 参数         | 是否必选 | 参数类型   | 描述                                                                  |
|------------|------|--------|---------------------------------------------------------------------|
| start_time | 是    | String | 维护起始时间，UTC时间。                                                       |
| end_time   | 是    | String | 维护结束时间，UTC时间。<br>说明：GaussDB(for MySQL)数据库的结束时间和开始时间必须为整点时间，且相隔四个小时。 |

## 响应参数

状态码： 400

表 4-142 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-143 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

设置可维护时间段的起止时间是22:00~02:00。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ops-window  
{  
  "start_time": "22:00",  
  "end_time": "02:00"  
}
```

## 响应示例

状态码： 200

Success.

```
{}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置可维护时间段的起止时间是22:00~02:00。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class UpdateGaussMySQLInstanceOpsWindowSolution {
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLInstanceOpsWindowRequest request = new
        UpdateGaussMySQLInstanceOpsWindowRequest();
        ModifyOpsWindow body = new ModifyOpsWindow();
        body.withEndTime("02:00");
        body.withStartTime("22:00");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceOpsWindowResponse response =
            client.updateGaussMySQLInstanceOpsWindow(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

设置可维护时间段的起止时间是22:00~02:00。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
```

```
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
    request = UpdateGaussMySqlInstanceOpsWindowRequest()
    request.body = ModifyOpsWindow(
        end_time="02:00",
        start_time="22:00"
    )
    response = client.update_gauss_my_sql_instance_ops_window(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置可维护时间段的起止时间是22:00~02:00。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlInstanceOpsWindowRequest{}
    request.Body = &model.ModifyOpsWindow{
        EndTime: "02:00",
        StartTime: "22:00",
    }
    response, err := client.UpdateGaussMySqlInstanceOpsWindow(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.21 修改安全组

#### 功能介绍

修改指定实例安全组。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/security-group

表 4-144 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-145 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-146 请求 Body 参数

| 参数                | 是否必选 | 参数类型   | 描述     |
|-------------------|------|--------|--------|
| security_group_id | 是    | String | 安全组ID。 |

## 响应参数

状态码： 200

表 4-147 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-148 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500



表 4-149 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改实例的安全组。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/security-group
```

```
{  
  "security_group_id" : "054f55b5-946e-4761-a1e3-3be6892827c1"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的安全组。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateGaussMySQLInstanceSecurityGroupSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()
```

```
        .withAk(ak)
        .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySqlInstanceSecurityGroupRequest request = new
UpdateGaussMySqlInstanceSecurityGroupRequest();
ModifySecurityGroupRequest body = new ModifySecurityGroupRequest();
body.withSecurityGroupId("054f55b5-946e-4761-a1e3-3be6892827c1");
request.withBody(body);
try {
    UpdateGaussMySqlInstanceSecurityGroupResponse response =
client.updateGaussMySqlInstanceSecurityGroup(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的安全组。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlInstanceSecurityGroupRequest()
        request.body = ModifySecurityGroupRequest(
            security_group_id="054f55b5-946e-4761-a1e3-3be6892827c1"
        )
        response = client.update_gauss_my_sql_instance_security_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改实例的安全组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySQLInstanceSecurityGroupRequest{}
    request.Body = &model.ModifySecurityGroupRequest{
        SecurityGroupId: "054f55b5-946e-4761-a1e3-3be6892827c1",
    }
    response, err := client.UpdateGaussMySQLInstanceSecurityGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.22 修改内网地址

### 功能介绍

修改实例内网地址。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/internal-ip

表 4-150 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-151 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-152 请求 Body 参数

| 参数          | 是否必选 | 参数类型   | 描述      |
|-------------|------|--------|---------|
| internal_ip | 是    | String | 内网IP地址。 |

## 响应参数

状态码： 200

表 4-153 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-154 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-155 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改实例的内网地址。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/internal-ip  
{  
  "internal_ip" : "192.168.0.213"  
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的内网地址。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstanceInternalIpSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLInstanceInternalIpRequest request = new
        UpdateGaussMySQLInstanceInternalIpRequest();
        ModifyInternalIpRequest body = new ModifyInternalIpRequest();
        body.withInternalIp("192.168.0.213");
        request.withBody(body);
        try {
            UpdateGaussMySQLInstanceInternalIpResponse response =
            client.updateGaussMySQLInstanceInternalIp(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

修改实例的内网地址。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlInstanceInternalIpRequest()
        request.body = ModifyInternalIpRequest(
            internal_ip="192.168.0.213"
        )
        response = client.update_gauss_my_sql_instance_internal_ip(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改实例的内网地址。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateGaussMySQLInstanceInternalIpRequest{}
request.Body = &model.ModifyInternalIpRequest{
    InternalIp: "192.168.0.213",
}
response, err := client.UpdateGaussMySQLInstanceInternalIp(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.23 修改实例端口

#### 功能介绍

修改实例数据库端口。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/port



表 4-156 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-157 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-158 请求 Body 参数

| 参数   | 是否必选 | 参数类型    | 描述                                                                                                     |
|------|------|---------|--------------------------------------------------------------------------------------------------------|
| port | 是    | Integer | 端口号。<br>GaussDB(for MySQL)端口号范围：大于等于1024，小于等于65535，不包含端口5342-5345、12017、20000、20201、20202、33062、33071。 |

## 响应参数

状态码： 200

表 4-159 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-160 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-161 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改实例端口为8836。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/port  
  
{  
  "port" : 8836  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

修改实例端口为8836。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySQLInstancePortSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLInstancePortRequest request = new UpdateGaussMySQLInstancePortRequest();
        ModifyPortRequest body = new ModifyPortRequest();
        body.withPort(8836);
        request.withBody(body);
        try {
            UpdateGaussMySQLInstancePortResponse response = client.updateGaussMySQLInstancePort(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改实例端口为8836。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
```

```
# The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateGaussMySqlInstancePortRequest()
    request.body = ModifyPortRequest(
        port=8836
    )
    response = client.update_gauss_my_sql_instance_port(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例端口为8836。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlInstancePortRequest{}
    request.Body = &model.ModifyPortRequest{
        Port: int32(8836),
    }
    response, err := client.UpdateGaussMySqlInstancePort(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    }
}
```

```
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.24 修改实例备注

### 功能介绍

修改实例备注。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/alias

表 4-162 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-163 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-164 请求 Body 参数

| 参数    | 是否必选 | 参数类型   | 描述                                               |
|-------|------|--------|--------------------------------------------------|
| alias | 是    | String | 实例备注。<br>长度可在0~64个字符之间，由字母、数字、汉字、英文句号、下划线、中划线组成。 |

## 响应参数

状态码： 400

表 4-165 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-166 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

将实例备注修改为“Test\_alias”。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/alias
```

```
{  
  "alias": "Test_alias"  
}
```

## 响应示例

**状态码： 200**

Success.

```
{ }
```

## SDK 代码示例

SDK代码示例如下。

### Java

将实例备注修改为“Test\_alias”。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateGaussMySQLInstanceAliasSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
```

```
        .build();
        UpdateGaussMySqlInstanceAliasRequest request = new UpdateGaussMySqlInstanceAliasRequest();
        ModifyAliasRequest body = new ModifyAliasRequest();
        body.withAlias("Test_alias");
        request.withBody(body);
        try {
            UpdateGaussMySqlInstanceAliasResponse response =
client.updateGaussMySqlInstanceAlias(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

将实例备注修改为 “Test\_alias” 。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
```

```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
```

```
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
    credentials = BasicCredentials(ak, sk) \
```

```
    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
    try:
```

```
        request = UpdateGaussMySqlInstanceAliasRequest()
        request.body = ModifyAliasRequest(
            alias="Test_alias"
        )
```

```
        response = client.update_gauss_my_sql_instance_alias(request)
        print(response)
```

```
    except exceptions.ClientRequestException as e:
```

```
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

将实例备注修改为 “Test\_alias” 。

```
package main
```



```
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.UpdateGaussMySQLInstanceAliasRequest{}  
    request.Body = &model.ModifyAliasRequest{  
        Alias: "Test_alias",  
    }  
    response, err := client.UpdateGaussMySQLInstanceAlias(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.25 申请内网域名

### 功能介绍

申请内网域名。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/dns

表 4-167 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

### 请求参数

表 4-168 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-169 请求 Body 参数

| 参数       | 是否必选 | 参数类型   | 描述                   |
|----------|------|--------|----------------------|
| dns_type | 是    | String | 域名类型, 当前只支持 private。 |

## 响应参数

状态码: 200

表 4-170 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码: 400

表 4-171 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码: 500

表 4-172 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

申请内网域名。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/dns
```

```
{  
  "dns_type": "private"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "d5169969-e391-482a-9755-042b2d83ed17"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

申请内网域名。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMysqlDnsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateGaussMysqlDnsRequest request = new CreateGaussMysqlDnsRequest();
        CreateDnsNameReq body = new CreateDnsNameReq();
        body.withDnsType("private");
        request.withBody(body);
        try {
            CreateGaussMysqlDnsResponse response = client.createGaussMysqlDns(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

申请内网域名。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = CreateGaussMysqlDnsRequest()  
        request.body = CreateDnsNameReq(  
            dns_type="private"  
        )  
        response = client.create_gauss_mysql_dns(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

申请内网域名。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).
```

```
WithSk(sk).
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMysqlDnsRequest{}
request.Body = &model.CreateDnsNameReq{
    DnsType: "private",
}
response, err := client.CreateGaussMysqlDns(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.26 修改内网域名

### 功能介绍

修改内网域名。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/dns

表 4-173 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-174 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-175 请求 Body 参数

| 参数       | 是否必选 | 参数类型   | 描述                                              |
|----------|------|--------|-------------------------------------------------|
| dns_name | 是    | String | 新域名的前缀，取值范围如下：8~63个字符之间，可以包含小写字母、数字，不能包含其他特殊字符。 |

## 响应参数

状态码： 200

表 4-176 响应 Body 参数

| 参数     | 参数类型   | 描述    |
|--------|--------|-------|
| job_id | String | 任务ID。 |

状态码： 400

表 4-177 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-178 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

修改内网域名

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/dns
```

```
{  
  "dns_name": "testmodifydnsname"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改内网域名

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
```



```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ModifyGaussMysqlDnsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyGaussMysqlDnsRequest request = new ModifyGaussMysqlDnsRequest();
        ModifyDnsNameReq body = new ModifyDnsNameReq();
        body.withDnsName("testmodifydnsname");
        request.withBody(body);
        try {
            ModifyGaussMysqlDnsResponse response = client.modifyGaussMysqlDns(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

### 修改内网域名

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \
    client = GaussDBClient.new_builder() \
```

```
.with_credentials(credentials) \  
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
.build()  
  
try:  
    request = ModifyGaussMysqlDnsRequest()  
    request.body = ModifyDnsNameReq(  
        dns_name="testmodifydnsname"  
    )  
    response = client.modify_gauss_mysql_dns(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

### 修改内网域名

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ModifyGaussMysqlDnsRequest{  
        request.Body = &model.ModifyDnsNameReq{  
            DnsName: "testmodifydnsname",  
        }  
    }  
    response, err := client.ModifyGaussMysqlDns(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.27 查询内核版本信息

#### 功能介绍

查询内核版本信息。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/database-version

表 4-179 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-180 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>            |

## 响应参数

状态码： 200

表 4-181 响应 Body 参数

| 参数           | 参数类型                                               | 描述                                                                                   |
|--------------|----------------------------------------------------|--------------------------------------------------------------------------------------|
| datastore    | <a href="#">InstanceDatabaseVersionInfo</a> object | 数据库版本信息。                                                                             |
| upgrade_flag | Boolean                                            | 是否可升级。 <ul style="list-style-type: none"> <li>true: 是。</li> <li>false: 否。</li> </ul> |

表 4-182 InstanceDatabaseVersionInfo

| 参数                     | 参数类型   | 描述         |
|------------------------|--------|------------|
| current_version        | String | 当前数据库版本。   |
| current_kernel_version | String | 当前数据库内核版本。 |
| latest_version         | String | 最新数据库版本。   |
| latest_kernel_version  | String | 最新数据库内核版本。 |

**状态码： 400**

**表 4-183** 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

**状态码： 500**

**表 4-184** 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询内核版本信息。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/database-version
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "datastore" : {  
    "current_version" : "8.0.22",  
    "current_kernel_version" : "2.0.28.15",  
    "latest_version" : "8.0.22",  
    "latest_kernel_version" : "2.0.42.230600"  
  },  
  "upgrade_flag" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```

```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowInstanceDatabaseVersionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowInstanceDatabaseVersionRequest request = new ShowInstanceDatabaseVersionRequest();
        try {
            ShowInstanceDatabaseVersionResponse response = client.showInstanceDatabaseVersion(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowInstanceDatabaseVersionRequest()
```

```
response = client.show_instance_database_version(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowInstanceDatabaseVersionRequest{}
    response, err := client.ShowInstanceDatabaseVersion(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.28 设置自动变配

### 功能介绍

设置自动变配。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/auto-scaling/policy

表 4-185 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-186 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。<br>取值：application/json。                                                                          |



| 参数         | 是否必选 | 参数类型   | 描述                                                                                          |
|------------|------|--------|---------------------------------------------------------------------------------------------|
| X-Language | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul> |

表 4-187 请求 Body 参数

| 参数                | 是否必选 | 参数类型                          | 描述                                                                                                 |
|-------------------|------|-------------------------------|----------------------------------------------------------------------------------------------------|
| status            | 是    | String                        | 自动变配开关状态。<br>取值： <ul style="list-style-type: none"> <li>ON：开启。</li> <li>OFF：关闭。</li> </ul>         |
| scaling_strategy  | 是    | ScalingStrategyReqInfo object | 自动变配策略。                                                                                            |
| monitor_cycle     | 否    | Integer                       | 监测周期（单位：秒）。在整个观测窗口期内，若CPU平均使用率大于等于设定值，则在观测窗口结束后，进行扩容。<br>取值范围：300、600、900、1800。<br>status为ON时必填。   |
| silence_cycle     | 否    | Integer                       | 静默周期（单位：秒）。两次自动扩容或自动回缩的最小间隔时间。<br>取值范围：300、600、1800、3600、7200、10800、86400、604800。<br>status为ON时必填。 |
| enlarge_threshold | 否    | Integer                       | CPU平均使用率（百分比数值）。<br>取值范围：50-100。<br>status为ON时必填。                                                  |
| max_flavor        | 否    | String                        | 扩容规格上限。开启扩缩规格时必填。                                                                                  |
| reduce_enabled    | 否    | Boolean                       | 是否开启自动回缩。开启自动变配时必填。<br><ul style="list-style-type: none"> <li>true：是。</li> <li>false：否。</li> </ul> |

| 参数                  | 是否必选 | 参数类型    | 描述                      |
|---------------------|------|---------|-------------------------|
| max_read_only_count | 否    | Integer | 只读节点数量上限。开启增删只读节点时必填。   |
| read_only_weight    | 否    | Integer | 只读节点读写分离权重。开启增删只读节点时必填。 |

表 4-188 ScalingStrategyReqInfo

| 参数               | 是否必选 | 参数类型   | 描述                                                                                                                                     |
|------------------|------|--------|----------------------------------------------------------------------------------------------------------------------------------------|
| flavor_switch    | 是    | String | 扩缩规格开关。 <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>                                                   |
| read_only_switch | 是    | String | 增删只读节点开关。自动增删只读节点功能需要先 <a href="#">开启数据库代理</a> ，且只能有一个代理。 <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul> |

## 响应参数

状态码： 200

表 4-189 响应 Body 参数

| 参数            | 参数类型                                           | 描述    |
|---------------|------------------------------------------------|-------|
| instance_id   | String                                         | 实例ID。 |
| instance_name | String                                         | 实例名称。 |
| switch_status | <a href="#">AutoScalingSwitchStatus</a> object | 开关状态。 |

表 4-190 AutoScalingSwitchStatus

| 参数               | 参数类型   | 描述                                                                                              |
|------------------|--------|-------------------------------------------------------------------------------------------------|
| scaling_switch   | String | 自动变配开关状态。<br>取值： <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>   |
| flavor_switch    | String | 扩缩规格开关状态。<br>取值： <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul>   |
| read_only_switch | String | 增删只读节点开关状态。<br>取值： <ul style="list-style-type: none"><li>• ON: 开启。</li><li>• OFF: 关闭。</li></ul> |

状态码：400

表 4-191 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码：500

表 4-192 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

设置自动变配。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy  
{  
  "enlarge_threshold": 50,
```

```
"max_flavor" : "gaussdb.mysql.large.x86.4",
"max_read_only_count" : 2,
"monitor_cycle" : 300,
"read_only_weight" : 10,
"reduce_enabled" : false,
"scaling_strategy" : {
  "flavor_switch" : "ON",
  "read_only_switch" : "ON"
},
"silence_cycle" : 300,
"status" : "ON"
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "instance_id" : "61a4ea66210545909d74a05c27a7179ein07",
  "instance_name" : "gauss-test-1",
  "switch_status" : {
    "scaling_switch" : "ON",
    "flavor_switch" : "ON",
    "read_only_switch" : "ON"
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置自动变配。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateAutoScalingPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
UpdateAutoScalingPolicyRequest request = new UpdateAutoScalingPolicyRequest();
UpdateAutoScalingPolicyRequestBody body = new UpdateAutoScalingPolicyRequestBody();
ScalingStrategyReqInfo scalingStrategybody = new ScalingStrategyReqInfo();
scalingStrategybody.withFlavorSwitch("ON")
    .withReadOnlySwitch("ON");
body.withScalingStrategy(scalingStrategybody);
body.withReadOnlyWeight(10);
body.withMaxReadOnlyCount(2);
body.withReduceEnabled(false);
body.withMaxFlavor("gaussdb.mysql.large.x86.4");
body.withEnlargeThreshold(50);
body.withSilenceCycle(300);
body.withMonitorCycle(300);
body.withStatus("ON");
request.withBody(body);
try {
    UpdateAutoScalingPolicyResponse response = client.updateAutoScalingPolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置自动变配。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAutoScalingPolicyRequest()
        scalingStrategybody = ScalingStrategyReqInfo(
            flavor_switch="ON",
            read_only_switch="ON"
        )
        request.body = UpdateAutoScalingPolicyRequestBody(
            scaling_strategy=scalingStrategybody,
```

```
        read_only_weight=10,
        max_read_only_count=2,
        reduce_enabled=False,
        max_flavor="gaussdb.mysql.large.x86.4",
        enlarge_threshold=50,
        silence_cycle=300,
        monitor_cycle=300,
        status="ON"
    )
    response = client.update_auto_scaling_policy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 设置自动变配。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAutoScalingPolicyRequest{
        scalingStrategybody := &model.ScalingStrategyReqInfo{
            FlavorSwitch: "ON",
            ReadOnlySwitch: "ON",
        }
    }
    readOnlyWeightUpdateAutoScalingPolicyRequestBody := int32(10)
    maxReadOnlyCountUpdateAutoScalingPolicyRequestBody := int32(2)
    reduceEnabledUpdateAutoScalingPolicyRequestBody := false
    maxFlavorUpdateAutoScalingPolicyRequestBody := "gaussdb.mysql.large.x86.4"
    enlargeThresholdUpdateAutoScalingPolicyRequestBody := int32(50)
    silenceCycleUpdateAutoScalingPolicyRequestBody := int32(300)
    monitorCycleUpdateAutoScalingPolicyRequestBody := int32(300)
    request.Body = &model.UpdateAutoScalingPolicyRequestBody{
        ScalingStrategy: scalingStrategybody,
        ReadOnlyWeight: &readOnlyWeightUpdateAutoScalingPolicyRequestBody,
        MaxReadOnlyCount: &maxReadOnlyCountUpdateAutoScalingPolicyRequestBody,
        ReduceEnabled: &reduceEnabledUpdateAutoScalingPolicyRequestBody,
        MaxFlavor: &maxFlavorUpdateAutoScalingPolicyRequestBody,
```

```
EnlargeThreshold: &enlargeThresholdUpdateAutoScalingPolicyRequestBody,
SilenceCycle: &silenceCycleUpdateAutoScalingPolicyRequestBody,
MonitorCycle: &monitorCycleUpdateAutoScalingPolicyRequestBody,
Status: "ON",
}
response, err := client.UpdateAutoScalingPolicy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.29 查询自动变配

### 功能介绍

查询自动变配。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/auto-scaling/policy

表 4-193 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

| 参数          | 是否必选 | 参数类型   | 描述                |
|-------------|------|--------|-------------------|
| instance_id | 是    | String | 实例ID, 严格匹配UUID规则。 |

## 请求参数

表 4-194 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。<br>取值: application/json。                                                                         |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码: 200

表 4-195 响应 Body 参数

| 参数            | 参数类型    | 描述                                                                                        |
|---------------|---------|-------------------------------------------------------------------------------------------|
| id            | String  | 自动变配策略ID。                                                                                 |
| instance_id   | String  | 实例ID。                                                                                     |
| instance_name | String  | 实例名称。                                                                                     |
| status        | String  | 自动变配开关状态。<br>取值: <ul style="list-style-type: none"><li>ON: 已开启</li><li>OFF: 已关闭</li></ul> |
| monitor_cycle | Integer | 监测周期(单位: 秒)。在整个观测窗口期内, 若CPU平均使用率大于等于设定值, 则在观测窗口结束后, 进行扩容。                                 |



| 参数                      | 参数类型                                            | 描述                                                                                                      |
|-------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| silence_cycle           | Integer                                         | 静默周期（单位：秒）。两次自动扩容或自动回缩的最小间隔时间。                                                                          |
| enlarge_thres<br>hold   | Integer                                         | 扩容阈值（百分比数值），指CPU平均使用率。                                                                                  |
| max_flavor              | String                                          | 扩容规格上限。                                                                                                 |
| reduce_enable<br>d      | Boolean                                         | 自动回缩开关状态。<br>取值：<br><ul style="list-style-type: none"> <li>• true: 已开启</li> <li>• false: 已关闭</li> </ul> |
| min_flavor              | String                                          | 缩容规格下限。                                                                                                 |
| silence_start_<br>at    | String                                          | 静默期开始时间（上一次变更结束时间）。<br>格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。                 |
| scaling_strate<br>gy    | <a href="#">ScalingStrate<br/>gyInfo</a> object | 自动变配策略。                                                                                                 |
| max_read_onl<br>y_count | Integer                                         | 只读节点数量上限。                                                                                               |
| min_read_onl<br>y_count | Integer                                         | 只读节点数量下限。                                                                                               |
| read_only_wei<br>ght    | Integer                                         | 只读节点读写分离权重。                                                                                             |

表 4-196 ScalingStrategyInfo

| 参数                   | 参数类型   | 描述                                                                                           |
|----------------------|--------|----------------------------------------------------------------------------------------------|
| flavor_switch        | String | 扩缩规格开关。<br><ul style="list-style-type: none"> <li>• ON: 开启。</li> <li>• OFF: 关闭。</li> </ul>   |
| read_only_swi<br>tch | String | 增删只读节点开关。<br><ul style="list-style-type: none"> <li>• ON: 开启。</li> <li>• OFF: 关闭。</li> </ul> |

状态码： 400

表 4-197 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-198 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询自动变配。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy
```

## 响应示例

状态码： 200

Success.

- 自动变配开启时查询自动变配。

```
{  
  "id": "26d8e193-1ea0-4adb-89d0-d1343399d0e7",  
  "instance_id": "41ff7519e22d44eea6066615fa5b17c7in07",  
  "instance_name": "gauss-test-1",  
  "status": "ON",  
  "monitor_cycle": 300,  
  "silence_cycle": 300,  
  "enlarge_threshold": 50,  
  "max_flavor": "gaussdb.mysql.large.x86.4",  
  "reduce_enabled": false,  
  "min_flavor": "gaussdb.mysql.medium.x86.4",  
  "silence_start_at": "2023-08-31T08:59:09+0000",  
  "scaling_strategy": {  
    "flavor_switch": "ON",  
    "read_only_switch": "ON"  
  },  
  "max_read_only_count": 2,  
  "min_read_only_count": 1,  
  "read_only_weight": 10  
}
```

- 自动变配关闭时查询自动变配。

```
{  
  "id": null,  
  "instance_id": "41ff7519e22d44eea6066615fa5b17c7in07",  
  "instance_name": "gauss-test-1",  
}
```

```
"status": "OFF",
"monitor_cycle": null,
"silence_cycle": null,
"enlarge_threshold": null,
"max_flavor": null,
"reduce_enabled": null,
"min_flavor": null,
"silence_start_at": "",
"scaling_strategy": {
  "flavor_switch": "",
  "read_only_switch": ""
},
"max_read_only_count": null,
"min_read_only_count": null,
"read_only_weight": null
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowAutoScalingPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowAutoScalingPolicyRequest request = new ShowAutoScalingPolicyRequest();
        try {
            ShowAutoScalingPolicyResponse response = client.showAutoScalingPolicy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}  
}
```

## Python

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ShowAutoScalingPolicyRequest()  
        response = client.show_auto_scaling_policy(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).
```

```
Build()  
  
request := &model.ShowAutoScalingPolicyRequest{  
response, err := client.ShowAutoScalingPolicy(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.30 资源预校验

#### 功能介绍

资源预校验。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/resource-check

表 4-199 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 4-200 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| Content-Type | 是    | String | 内容类型。<br>取值：application/json。                                                                          |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-201 请求 Body 参数

| 参数       | 是否必选 | 参数类型                                     | 描述                                                                                                                                             |
|----------|------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| action   | 是    | String                                   | 校验类型。 <ul style="list-style-type: none"><li>createInstance：校验创建实例。</li><li>createReadOnlyNode：校验创建只读节点。</li><li>resizeFlavor：校验规格变更。</li></ul> |
| resource | 是    | <a href="#">CheckResourceInfo</a> object | 资源信息。                                                                                                                                          |

表 4-202 CheckResourceInfo

| 参数                    | 是否必选 | 参数类型    | 描述                               |
|-----------------------|------|---------|----------------------------------|
| enterprise_project_id | 否    | String  | 企业项目ID。action为createInstance时必填。 |
| instance_num          | 否    | Integer | 实例数量。action为createInstance时必填。   |

| 参数                     | 是否必选 | 参数类型    | 描述                                                    |
|------------------------|------|---------|-------------------------------------------------------|
| mode                   | 否    | String  | 实例类型，目前仅支持 Cluster。action为 createInstance时必填。         |
| availability_zone_mode | 否    | String  | 可用区类型，单可用区single或多可用区multi。action为 createInstance时必填。 |
| node_num               | 否    | Integer | 节点数量。action为 createInstance、createReadOnlyNode时必填。    |
| flavor_ref             | 否    | String  | 规格码。action为 createInstance、resizeFlavor时必填。           |
| availability_zone      | 否    | String  | 可用区码。                                                 |
| subnet_id              | 否    | String  | 子网ID。action为 createInstance时必填。                       |
| instance_id            | 否    | String  | 实例ID。action为 createReadOnlyNode、resizeFlavor时必填。      |

## 响应参数

状态码： 200

表 4-203 响应 Body 参数

| 参数     | 参数类型    | 描述                                                                                        |
|--------|---------|-------------------------------------------------------------------------------------------|
| result | Boolean | 结果。 <ul style="list-style-type: none"><li>• true: 表示通过。</li><li>• false: 表示不通过。</li></ul> |

状态码： 400

表 4-204 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-205 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 创建实例资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

{
  "action": "createInstance",
  "resource": {
    "enterprise_project_id": 0,
    "instance_num": 1,
    "mode": "Cluster",
    "availability_zone_mode": "single",
    "node_num": 2,
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4",
    "availability_zone": "cn-southwest-244b",
    "subnet_id": "1e9f71dd-9192-4c0d-9739-161d8dcca68c"
  }
}
```

- 添加只读资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

{
  "action": "createReadOnlyNode",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "node_num": 1
  }
}
```

- 规格变更资源预校验。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

{
  "action": "resizeFlavor",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4"
  }
}
```

## 响应示例

状态码： 200

Success.

```
{
  "result": true
}
```



## SDK 代码示例

SDK代码示例如下。

### Java

- 创建实例资源预校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckResourceRequest request = new CheckResourceRequest();
        CheckResourceRequestBody body = new CheckResourceRequestBody();
        CheckResourceInfo resourcebody = new CheckResourceInfo();
        resourcebody.withEnterpriseProjectId("0")
            .withInstanceNum(1)
            .withMode("Cluster")
            .withAvailabilityZoneMode("single")
            .withNodeNum(2)
            .withFlavorRef("gaussdb.mysql.xlarge.x86.4")
            .withAvailabilityZone("cn-southwest-244b")
            .withSubnetId("1e9f71dd-9192-4c0d-9739-161d8dcca68c");
        body.withResource(resourcebody);
        body.withAction("createInstance");
        request.withBody(body);
        try {
            CheckResourceResponse response = client.checkResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 添加只读资源预校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CheckResourceRequest request = new CheckResourceRequest();
        CheckResourceRequestBody body = new CheckResourceRequestBody();
        CheckResourceInfo resourcebody = new CheckResourceInfo();
        resourcebody.withNodeNum(1)
            .withInstanceId("376e0847a2224e95afcd3e607eccd544in07");
        body.withResource(resourcebody);
        body.withAction("createReadOnlyNode");
        request.withBody(body);
        try {
            CheckResourceResponse response = client.checkResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 规格变更资源预校验。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
```

```
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CheckResourceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CheckResourceRequest request = new CheckResourceRequest();
        CheckResourceRequestBody body = new CheckResourceRequestBody();
        CheckResourceInfo resourcebody = new CheckResourceInfo();
        resourcebody.withFlavorRef("gaussdb.mysql.xlarge.x86.4")
            .withInstanceId("376e0847a2224e95afcd3e607eccd544in07");
        body.withResource(resourcebody);
        body.withAction("resizeFlavor");
        request.withBody(body);
        try {
            CheckResourceResponse response = client.checkResource(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 创建实例资源预校验。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CheckResourceRequest()
    resourcebody = CheckResourceInfo(
        enterprise_project_id="0",
        instance_num=1,
        mode="Cluster",
        availability_zone_mode="single",
        node_num=2,
        flavor_ref="gaussdb.mysql.xlarge.x86.4",
        availability_zone="cn-southwest-244b",
        subnet_id="1e9f71dd-9192-4c0d-9739-161d8dcca68c"
    )
    request.body = CheckResourceRequestBody(
        resource=resourcebody,
        action="createInstance"
    )
    response = client.check_resource(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 添加只读资源预校验。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckResourceRequest()
        resourcebody = CheckResourceInfo(
            node_num=1,
            instance_id="376e0847a2224e95afcd3e607eccd544in07"
        )
        request.body = CheckResourceRequestBody(
            resource=resourcebody,
            action="createReadOnlyNode"
        )
        response = client.check_resource(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
```

```
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

- 规格变更资源预校验。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CheckResourceRequest()
        resourcebody = CheckResourceInfo(
            flavor_ref="gaussdb.mysql.xlarge.x86.4",
            instance_id="376e0847a2224e95afcd3e607eccd544in07"
        )
        request.body = CheckResourceRequestBody(
            resource=resourcebody,
            action="resizeFlavor"
        )
        response = client.check_resource(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 创建实例资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckResourceRequest{
    enterpriseProjectIdResource:= "0"
    instanceNumResource:= int32(1)
    modeResource:= "Cluster"
    availabilityZoneModeResource:= "single"
    nodeNumResource:= int32(2)
    flavorRefResource:= "gaussdb.mysql.xlarge.x86.4"
    availabilityZoneResource:= "cn-southwest-244b"
    subnetIdResource:= "1e9f71dd-9192-4c0d-9739-161d8dcca68c"
    resourcebody := &model.CheckResourceInfo{
        EnterpriseProjectId: &enterpriseProjectIdResource,
        InstanceNum: &instanceNumResource,
        Mode: &modeResource,
        AvailabilityZoneMode: &availabilityZoneModeResource,
        NodeNum: &nodeNumResource,
        FlavorRef: &flavorRefResource,
        AvailabilityZone: &availabilityZoneResource,
        SubnetId: &subnetIdResource,
    }
}
request.Body = &model.CheckResourceRequestBody{
    Resource: resourcebody,
    Action: "createInstance",
}
response, err := client.CheckResource(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 添加只读资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()
}
```

```
client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CheckResourceRequest{}
nodeNumResource := int32(1)
instanceIdResource := "376e0847a2224e95afcd3e607eccd544in07"
resourcebody := &model.CheckResourceInfo{
    NodeNum: &nodeNumResource,
    InstanceId: &instanceIdResource,
}
request.Body = &model.CheckResourceRequestBody{
    Resource: resourcebody,
    Action: "createReadOnlyNode",
}
response, err := client.CheckResource(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 规格变更资源预校验。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckResourceRequest{}
    flavorRefResource := "gaussdb.mysql.xlarge.x86.4"
    instanceIdResource := "376e0847a2224e95afcd3e607eccd544in07"
    resourcebody := &model.CheckResourceInfo{
        FlavorRef: &flavorRefResource,
        InstanceId: &instanceIdResource,
    }
    request.Body = &model.CheckResourceRequestBody{
        Resource: resourcebody,
        Action: "resizeFlavor",
    }
    response, err := client.CheckResource(request)
    if err == nil {
```

```
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.31 查询实例列表

### 功能介绍

根据指定条件查询实例列表。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3.1/{project\_id}/instances

表 4-206 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |



表 4-207 Query 参数

| 参数                  | 是否必选 | 参数类型    | 描述                                                                                                                                                                      |
|---------------------|------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                  | 否    | String  | 实例ID。“*”为系统保留字符，如果id是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照id精确匹配查询。不能只传入“*”。                                                                                                     |
| name                | 否    | String  | 实例名称。<br>“*”为系统保留字符，如果name是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照name精确匹配查询。不能只传入“*”。                                                                                             |
| type                | 否    | String  | 按照实例类型查询。目前仅支持Cluster。                                                                                                                                                  |
| datastore_type      | 否    | String  | 数据库类型，现在只支持gaussdb-mysql。                                                                                                                                               |
| vpc_id              | 否    | String  | 虚拟私有云ID。                                                                                                                                                                |
| subnet_id           | 否    | String  | 子网的网络ID信息。                                                                                                                                                              |
| private_ip          | 否    | String  | 读写内网IP地址。                                                                                                                                                               |
| readonly_private_ip | 否    | String  | 读内网IP地址。                                                                                                                                                                |
| proxy_ip            | 否    | String  | 读写分离IP地址。                                                                                                                                                               |
| offset              | 否    | Integer | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。                                                                                                  |
| limit               | 否    | Integer | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                                                                                                                       |
| tags                | 否    | String  | 根据实例标签键值对进行查询。 <ul style="list-style-type: none"><li>• {key}表示标签键。</li><li>• {value}表示标签值。</li></ul> 如果同时使用多个标签键值对进行查询，中间使用逗号分隔开，表示查询同时包含指定标签键值对的实例。key不能重复，key之间是与的关系。 |

## 请求参数

表 4-208 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>            |

## 响应参数

状态码： 200

表 4-209 响应 Body 参数

| 参数          | 参数类型                                                              | 描述      |
|-------------|-------------------------------------------------------------------|---------|
| instances   | Array of <a href="#">MysqlInstanceListInfoUnifyStatus</a> objects | 实例列表信息。 |
| total_count | Integer                                                           | 总记录数。   |

表 4-210 MysqlInstanceListInfoUnifyStatus

| 参数   | 参数类型   | 描述               |
|------|--------|------------------|
| id   | String | 实例ID，严格匹配UUID规则。 |
| name | String | 创建的实例名称。         |

| 参数                   | 参数类型                                          | 描述                                                                                                                                                                                           |
|----------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status               | String                                        | 实例状态。<br>取值：<br><ul style="list-style-type: none"> <li>• 值为“creating”，表示实例正在创建。</li> <li>• 值为“normal”，表示实例正常。</li> <li>• 值为“abnormal”，表示实例异常。</li> <li>• 值为“createfail”，表示实例创建失败。</li> </ul> |
| private_ips          | Array of strings                              | 实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。                                                                                                                                                       |
| proxy_ips            | Array of strings                              | 实例读写分离IP地址列表。GaussDB(for MySQL)实例开启代理成功后该值存在，其他情况下为空列表。                                                                                                                                      |
| readonly_private_ips | Array of strings                              | 实例读内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。                                                                                                                                                       |
| public_ips           | Array of strings                              | 实例外网IP地址列表。                                                                                                                                                                                  |
| port                 | String                                        | 数据库端口号。                                                                                                                                                                                      |
| type                 | String                                        | 实例类型，取值为“Cluster”。                                                                                                                                                                           |
| region               | String                                        | 实例所在区域。                                                                                                                                                                                      |
| datastore            | <b>MysqlDatastoreWithKernelVersion</b> object | 数据库信息。                                                                                                                                                                                       |
| created              | String                                        | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                        |
| updated              | String                                        | 更新时间，格式与"created"字段对应格式完全相同。                                                                                                                                                                 |
| db_username          | String                                        | 默认用户名。                                                                                                                                                                                       |
| vpc_id               | String                                        | 虚拟私有云ID。                                                                                                                                                                                     |
| subnet_id            | String                                        | 子网的网络ID信息。                                                                                                                                                                                   |
| security_group_id    | String                                        | 安全组ID。                                                                                                                                                                                       |
| flavor_ref           | String                                        | 规格码。                                                                                                                                                                                         |
| flavor_info          | <b>MysqlFlavorInfo</b> object                 | flavor规格信息。                                                                                                                                                                                  |

| 参数                    | 参数类型                                             | 描述                             |
|-----------------------|--------------------------------------------------|--------------------------------|
| volume                | <a href="#">MysqlVolumeInfo</a> object           | 存储盘信息。                         |
| backup_strategy       | <a href="#">MysqlBackupStrategy</a> object       | 自动备份策略。                        |
| enterprise_project_id | String                                           | 企业项目ID。                        |
| time_zone             | String                                           | 时区。                            |
| charge_info           | <a href="#">MysqlChargeInfo</a> object           | 计费类型信息，支持包年包月和按需，默认为按需。        |
| dedicated_resource_id | String                                           | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。 |
| tags                  | Array of <a href="#">InstanceTagItem</a> objects | 标签列表。                          |

表 4-211 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 4-212 MysqlFlavorInfo

| 参数    | 参数类型   | 描述         |
|-------|--------|------------|
| vcpus | String | CPU核数。     |
| ram   | String | 内存大小，单位GB。 |

表 4-213 MysqlVolumeInfo

| 参数   | 参数类型   | 描述            |
|------|--------|---------------|
| type | String | 磁盘类型。         |
| size | String | 已使用磁盘大小，单位GB。 |

表 4-214 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |

表 4-215 MysqlChargeInfo

| 参数          | 参数类型    | 描述                                                                                                                                                                                                                        |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| charge_mode | String  | 计费模式。<br>取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>prePaid</b></li><li><b>postPaid</b></li></ul>                |
| period_type | String  | 订购周期类型。<br>取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。<br>枚举值： <ul style="list-style-type: none"><li><b>month</b></li><li><b>year</b></li></ul> |
| period_num  | Integer | “charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。<br>取值范围： <ul style="list-style-type: none"><li>“period_type”为“month”时，取值为1~9。</li><li>“period_type”为“year”时，取值为1~3。</li></ul>                                                   |

| 参数            | 参数类型   | 描述                                                                                                                                          |
|---------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| is_auto_renew | String | 创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>• true: 为自动续订。</li><li>• false: 为不自动续订，默认该方式。</li></ul> |
| is_auto_pay   | String | 创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>• true: 为自动支付，默认该方式。</li><li>• false: 为手动支付。</li></ul> |

表 4-216 InstanceTagItem

| 参数    | 参数类型   | 描述   |
|-------|--------|------|
| key   | String | 标签键。 |
| value | String | 标签值。 |

状态码：400

表 4-217 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码：500

表 4-218 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询GaussDB(for MySQL)实例列表，读写内网IP地址是192.168.0.142。

```
GET https://{endpoint}/v3.1/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.168.0.142&offset=
0&limit=10&tags=taurusKey1=value1
```

## 响应示例

**状态码: 200**

Success.

```
{
  "total_count": 1,
  "instances": [ {
    "id": "61a4ea66210545909d74a05c27a7179ein07",
    "name": "gaussdb-mysql-instance01",
    "status": "normal",
    "port": 3306,
    "type": "Cluster",
    "private_ips": [ "192.168.0.142" ],
    "readonly_private_ips": [ "192.168.0.228", "192.168.0.165" ],
    "proxy_ips": [ "192.168.0.15" ],
    "db_user_name": "root",
    "region": "cn-north-4",
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.29.1"
    },
    "created": "2018-08-20T02:33:49_0800",
    "updated": "2018-08-20T02:33:49_0800",
    "volume": {
      "type": "POOL",
      "size": 100
    },
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "flavor_ref": "gaussdb.mysql.c3.small.4",
    "flavor_info": {
      "vcpus": 8,
      "ram": 16
    },
    "backup_strategy": {
      "start_time": "19:00-20:00",
      "keep_days": 7
    },
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "enterprise_project_id": 0,
    "time_zone": "UTC",
    "tags": [ {
      "key": "taurusKey1",
      "value": "value1"
    } ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySqlInstancesUnifyStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySqlInstancesUnifyStatusRequest request = new
        ListGaussMySqlInstancesUnifyStatusRequest();
        request.withId("<id>");
        request.withName("<name>");
        request.withType("<type>");
        request.withDatastoreType("<datastore_type>");
        request.withVpcId("<vpc_id>");
        request.withSubnetId("<subnet_id>");
        request.withPrivateIp("<private_ip>");
        request.withReadOnlyPrivateIp("<readonly_private_ip>");
        request.withProxyIp("<proxy_ip>");
        request.withOffset("<offset>");
        request.withLimit("<limit>");
        request.withTags("<tags>");
        try {
            ListGaussMySqlInstancesUnifyStatusResponse response =
            client.listGaussMySqlInstancesUnifyStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```



```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlInstancesUnifyStatusRequest()
        request.id = "<id>"
        request.name = "<name>"
        request.type = "<type>"
        request.datastore_type = "<datastore_type>"
        request.vpc_id = "<vpc_id>"
        request.subnet_id = "<subnet_id>"
        request.private_ip = "<private_ip>"
        request.readonly_private_ip = "<readonly_private_ip>"
        request.proxy_ip = "<proxy_ip>"
        request.offset = <offset>
        request.limit = <limit>
        request.tags = "<tags>"
        response = client.list_gauss_my_sql_instances_unify_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

```
Build()  
  
request := &model.ListGaussMySQLInstancesUnifyStatusRequest{  
    idRequest:= "<id>"  
    request.Id = &idRequest  
    nameRequest:= "<name>"  
    request.Name = &nameRequest  
    typeRequest:= "<type>"  
    request.Type = &typeRequest  
    datastoreTypeRequest:= "<datastore_type>"  
    request.DatastoreType = &datastoreTypeRequest  
    vpcIdRequest:= "<vpc_id>"  
    request.VpcId = &vpcIdRequest  
    subnetIdRequest:= "<subnet_id>"  
    request.SubnetId = &subnetIdRequest  
    privateIpRequest:= "<private_ip>"  
    request.PrivateIp = &privateIpRequest  
    readonlyPrivateIpRequest:= "<readonly_private_ip>"  
    request.ReadOnlyPrivateIp = &readonlyPrivateIpRequest  
    proxyIpRequest:= "<proxy_ip>"  
    request.ProxyIp = &proxyIpRequest  
    offsetRequest:= int32(<offset>)  
    request.Offset = &offsetRequest  
    limitRequest:= int32(<limit>)  
    request.Limit = &limitRequest  
    tagsRequest:= "<tags>"  
    request.Tags = &tagsRequest  
    response, err := client.ListGaussMySQLInstancesUnifyStatus(request)  
    if err == nil {  
        fmt.Printf("%v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.3.32 查询实例详情信息

### 功能介绍

查询实例详情信息。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3.1/{project\_id}/instances/{instance\_id}

表 4-219 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-220 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-221 响应 Body 参数

| 参数       | 参数类型                                                      | 描述    |
|----------|-----------------------------------------------------------|-------|
| instance | <a href="#">MysqlInstanceInfoDetailUnifyStatus</a> object | 实例信息。 |

表 4-222 MysqlInstanceInfoDetailUnifyStatus

| 参数                | 参数类型                                                   | 描述                                                                                                                                                                                       |
|-------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                | String                                                 | 实例ID, 严格匹配UUID规则。                                                                                                                                                                        |
| name              | String                                                 | 创建的实例名称。                                                                                                                                                                                 |
| project_id        | String                                                 | 租户在某一Region下的project ID。                                                                                                                                                                 |
| status            | String                                                 | 实例状态。<br>取值: <ul style="list-style-type: none"><li>• 值为“creating”, 表示实例正在创建。</li><li>• 值为“normal”, 表示实例正常。</li><li>• 值为“abnormal”, 表示实例异常。</li><li>• 值为“createfail”, 表示实例创建失败。</li></ul> |
| port              | String                                                 | 数据库端口号。                                                                                                                                                                                  |
| alias             | String                                                 | 实例备注                                                                                                                                                                                     |
| type              | String                                                 | 实例类型, 取Cluster”。                                                                                                                                                                         |
| charge_info       | <a href="#">MysqlInstanceChargeInfo</a> object         | 计费类型信息, 支持包年包月和按需, 默认为按需。                                                                                                                                                                |
| node_count        | Integer                                                | 节点个数。                                                                                                                                                                                    |
| datastore         | <a href="#">MysqlDatastoreWithKernelVersion</a> object | 数据库信息。                                                                                                                                                                                   |
| backup_used_space | Double                                                 | 备份空间使用大小, 单位为GB。                                                                                                                                                                         |
| created           | String                                                 | 创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                            |
| updated           | String                                                 | 更新时间, 格式与"created"字段对应格式完全相同。                                                                                                                                                            |
| private_write_ips | Array of strings                                       | 实例的写内网IP地址。                                                                                                                                                                              |
| private_dns_names | Array of strings                                       | 实例内网域名列表。实例创建成功后, 需要手动申请内网域名, 否则查询内网域名为空。                                                                                                                                                |
| public_ips        | String                                                 | 实例的公网IP地址。                                                                                                                                                                               |
| db_username       | String                                                 | 默认用户名。                                                                                                                                                                                   |
| vpc_id            | String                                                 | 虚拟私有云ID。                                                                                                                                                                                 |

| 参数                    | 参数类型                                          | 描述                                                                                                           |
|-----------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| subnet_id             | String                                        | 子网的网络ID信息。                                                                                                   |
| security_group_id     | String                                        | 安全组ID。                                                                                                       |
| configuration_id      | String                                        | 实例创建的模板ID，或者应用到实例的最新参数组模板ID。                                                                                 |
| backup_strategy       | <b>MysqlBackupStrategy</b> object             | 自动备份策略。                                                                                                      |
| nodes                 | Array of <b>MysqlInstanceNodeInfo</b> objects | 节点信息。                                                                                                        |
| enterprise_project_id | String                                        | 企业项目ID。                                                                                                      |
| time_zone             | String                                        | 时区。                                                                                                          |
| az_mode               | String                                        | 可用区模式。<br>取值范围：<br><ul style="list-style-type: none"> <li>• single: 单可用区。</li> <li>• multi: 多可用区。</li> </ul> |
| master_az_code        | String                                        | 主可用区。                                                                                                        |
| maintenance_window    | String                                        | 可维护时间窗，为UTC时间。                                                                                               |
| tags                  | Array of <b>MysqlTags</b> objects             | 实例标签。                                                                                                        |
| dedicated_resource_id | String                                        | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。                                                                               |
| proxies               | Array of <b>MysqlProxyInfo</b> objects        | 代理信息。                                                                                                        |
| tde_info              | <b>MysqlTdeInfo</b> object                    | 透明数据加密配置信息，支持AES256、SM4加密算法。<br>透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。                                         |

表 4-223 MysqlInstanceChargeInfo

| 参数          | 参数类型   | 描述           |
|-------------|--------|--------------|
| charge_mode | String | 计费模式。        |
| order_id    | String | 订单号。仅包年包月返回。 |

表 4-224 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 4-225 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |

表 4-226 MysqlInstanceNodeInfo

| 参数     | 参数类型    | 描述                                                                                                       |
|--------|---------|----------------------------------------------------------------------------------------------------------|
| id     | String  | 实例ID，严格匹配UUID规则。                                                                                         |
| name   | String  | 节点名称。                                                                                                    |
| type   | String  | 节点类型。<br>取值范围：<br><ul style="list-style-type: none"> <li>• master：主节点。</li> <li>• slave：只读节点。</li> </ul> |
| status | String  | 节点状态。                                                                                                    |
| port   | Integer | 数据库端口号。                                                                                                  |

| 参数               | 参数类型                                               | 描述                                                                    |
|------------------|----------------------------------------------------|-----------------------------------------------------------------------|
| private_read_ips | Array of strings                                   | 节点的读内网地址。                                                             |
| volume           | <a href="#">MysqlInstanceNodeVolumeInfo</a> object | 存储盘信息。                                                                |
| az_code          | String                                             | 可用区。                                                                  |
| region_code      | String                                             | 实例所在的区域。                                                              |
| created          | String                                             | 创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| updated          | String                                             | 更新时间，格式与"created"字段对应格式完全相同。                                          |
| flavor_id        | String                                             | 规格ID。                                                                 |
| flavor_ref       | String                                             | 规格码。                                                                  |
| max_connections  | String                                             | 允许的最大连接数。                                                             |
| vcpus            | String                                             | CPU核数。                                                                |
| ram              | String                                             | 内存大小，单位为GB。                                                           |
| need_restart     | Boolean                                            | 是否需要重启使修改的参数生效。                                                       |
| priority         | Integer                                            | 主备倒换优先级。                                                              |

表 4-227 MysqlInstanceNodeVolumeInfo

| 参数   | 参数类型   | 描述                     |
|------|--------|------------------------|
| type | String | 磁盘类型。                  |
| used | String | 已使用磁盘大小，单位GB。          |
| size | Long   | 包年/包月实例购买的存储空间大小，单位GB。 |

表 4-228 MysqlTags

| 参数  | 参数类型   | 描述                                                                                                 |
|-----|--------|----------------------------------------------------------------------------------------------------|
| key | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。<br>字符集：A-Z，a-z，0-9，'-'，'_'，<br>UNICODE字符（\u4E00-\u9FFF）。 |

| 参数    | 参数类型   | 描述                                                                                            |
|-------|--------|-----------------------------------------------------------------------------------------------|
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符 (\u4E00-\u9FFF)。 |

表 4-229 MysqlProxyInfo

| 参数      | 参数类型   | 描述           |
|---------|--------|--------------|
| pool_id | String | 数据库代理ID。     |
| name    | String | 数据库代理名称。     |
| address | String | Proxy读写分离地址。 |

表 4-230 MysqlTdeInfo

| 参数              | 参数类型    | 描述                       |
|-----------------|---------|--------------------------|
| enable_tde      | Boolean | 是否打开透明加密功能。              |
| encryption_type | String  | 透明加密算法，支持AES256、SM4加密算法。 |

状态码： 400

表 4-231 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-232 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |



## 请求示例

查询指定实例的详细信息。

```
GET https://{endpoint}/v3.1/3cedfc54-b105-4652-a4e0-847b11576628/instances/  
d738399de028480fabb2b8120d4e01a4in07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instance": {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "name": "gaussdb-mysql-instance01",  
    "alias": "",  
    "status": "normal",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "enterprise_project_id": 0,  
    "type": "Cluster",  
    "charge_info": {  
      "charge_mode": "postPaid",  
      "order_id": ""  
    },  
    "node_count": 2,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.29.1"  
    },  
    "created": "2022-07-14T16:26:58+0800",  
    "updated": "2022-07-18T14:20:33+0800",  
    "public_ips": "10.154.219.187",  
    "private_write_ips": [ "192.168.0.142" ],  
    "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-  
xianhz-1.gaussdbformysql.myhuaweicloud.com" ],  
    "db_user_name": "root",  
    "port": 3306,  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576658",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
      "type": "master",  
      "status": "normal",  
      "port": 3306,  
      "private_read_ips": [ "192.168.0.163" ],  
      "volume": {  
        "type": "POOL",  
        "used": 0.07  
      },  
      "az_code": "az1xahz",  
      "region_code": "cn-xianhz-1",  
      "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",  
      "flavor_ref": "gaussdb.mysql.xlarge.arm.4",  
      "max_connections": 1500,  
      "vcpus": 1,  
      "ram": 4,  
      "need_restart": false,  
      "priority": 1,  
      "created": "2022-07-14T16:26:58+0800",
```

```
"updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
}
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLInstanceInfoUnifyStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowGaussMySQLInstanceInfoUnifyStatusRequest request = new
ShowGaussMySQLInstanceInfoUnifyStatusRequest();
try {
    ShowGaussMySQLInstanceInfoUnifyStatusResponse response =
client.showGaussMySQLInstanceInfoUnifyStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLInstanceInfoUnifyStatusRequest()
        response = client.show_gauss_my_sql_instance_info_unify_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
```

```
"fmt"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLInstanceInfoUnifyStatusRequest{}
    response, err := client.ShowGaussMySQLInstanceInfoUnifyStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.3.33 批量查询实例详情

#### 功能介绍

批量查询实例详情。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3.1/{project\_id}/instances/details

表 4-233 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-234 Query 参数

| 参数           | 是否必选 | 参数类型   | 描述                                         |
|--------------|------|--------|--------------------------------------------|
| instance_ids | 是    | String | 实例ID，严格匹配UUID规则。<br>最多同时输入20个实例ID，用英文逗号分隔。 |

## 请求参数

表 4-235 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-236 响应 Body 参数

| 参数        | 参数类型                                                                | 描述    |
|-----------|---------------------------------------------------------------------|-------|
| instances | Array of <a href="#">MysqlInstanceInfoDetailUnifyStatus</a> objects | 实例详情。 |

表 4-237 MysqlInstanceInfoDetailUnifyStatus

| 参数                | 参数类型                                                   | 描述                                                                                                                                                                                       |
|-------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                | String                                                 | 实例ID, 严格匹配UUID规则。                                                                                                                                                                        |
| name              | String                                                 | 创建的实例名称。                                                                                                                                                                                 |
| project_id        | String                                                 | 租户在某一Region下的project ID。                                                                                                                                                                 |
| status            | String                                                 | 实例状态。<br>取值: <ul style="list-style-type: none"><li>• 值为“creating”, 表示实例正在创建。</li><li>• 值为“normal”, 表示实例正常。</li><li>• 值为“abnormal”, 表示实例异常。</li><li>• 值为“createfail”, 表示实例创建失败。</li></ul> |
| port              | String                                                 | 数据库端口号。                                                                                                                                                                                  |
| alias             | String                                                 | 实例备注                                                                                                                                                                                     |
| type              | String                                                 | 实例类型, 取Cluster”。                                                                                                                                                                         |
| charge_info       | <a href="#">MysqlInstanceChargeInfo</a> object         | 计费类型信息, 支持包年包月和按需, 默认为按需。                                                                                                                                                                |
| node_count        | Integer                                                | 节点个数。                                                                                                                                                                                    |
| datastore         | <a href="#">MysqlDatastoreWithKernelVersion</a> object | 数据库信息。                                                                                                                                                                                   |
| backup_used_space | Double                                                 | 备份空间使用大小, 单位为GB。                                                                                                                                                                         |
| created           | String                                                 | 创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                                                                                                            |
| updated           | String                                                 | 更新时间, 格式与"created"字段对应格式完全相同。                                                                                                                                                            |

| 参数                    | 参数类型                                          | 描述                                                                                                           |
|-----------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| private_write_ips     | Array of strings                              | 实例的写内网IP地址。                                                                                                  |
| private_dns_names     | Array of strings                              | 实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。                                                                      |
| public_ips            | String                                        | 实例的公网IP地址。                                                                                                   |
| db_user_name          | String                                        | 默认用户名。                                                                                                       |
| vpc_id                | String                                        | 虚拟私有云ID。                                                                                                     |
| subnet_id             | String                                        | 子网的网络ID信息。                                                                                                   |
| security_group_id     | String                                        | 安全组ID。                                                                                                       |
| configuration_id      | String                                        | 实例创建的模板ID，或者应用到实例的最新参数组模板ID。                                                                                 |
| backup_strategy       | <b>MysqlBackupStrategy</b> object             | 自动备份策略。                                                                                                      |
| nodes                 | Array of <b>MysqlInstanceNodeInfo</b> objects | 节点信息。                                                                                                        |
| enterprise_project_id | String                                        | 企业项目ID。                                                                                                      |
| time_zone             | String                                        | 时区。                                                                                                          |
| az_mode               | String                                        | 可用区模式。<br>取值范围：<br><ul style="list-style-type: none"> <li>• single: 单可用区。</li> <li>• multi: 多可用区。</li> </ul> |
| master_az_code        | String                                        | 主可用区。                                                                                                        |
| maintenance_window    | String                                        | 可维护时间窗，为UTC时间。                                                                                               |
| tags                  | Array of <b>MysqlTags</b> objects             | 实例标签。                                                                                                        |
| dedicated_resource_id | String                                        | 专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。                                                                               |

| 参数       | 参数类型                                            | 描述                                                                   |
|----------|-------------------------------------------------|----------------------------------------------------------------------|
| proxies  | Array of <a href="#">MysqlProxyInfo</a> objects | 代理信息。                                                                |
| tde_info | <a href="#">MysqlTdeInfo</a> object             | 透明数据加密配置信息，支持AES256、SM4加密算法。<br>透明加密功能目前处于公测阶段，如需使用，请提交工单联系客服人员申请权限。 |

表 4-238 MysqlInstanceChargeInfo

| 参数          | 参数类型   | 描述           |
|-------------|--------|--------------|
| charge_mode | String | 计费模式。        |
| order_id    | String | 订单号。仅包年包月返回。 |

表 4-239 MysqlDatastoreWithKernelVersion

| 参数             | 参数类型   | 描述                        |
|----------------|--------|---------------------------|
| type           | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version        | String | 数据库版本。                    |
| kernel_version | String | 数据库内核版本。                  |

表 4-240 MysqlBackupStrategy

| 参数         | 参数类型   | 描述                                                                                                                    |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------|
| start_time | String | 自动备份开始时间段。自动备份将在该时间一个小时内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。<br>1. HH取值必须比hh大1。<br>2. mm和MM取值必须相同，且取值必须为00。 |
| keep_days  | String | 自动备份保留天数，取值范围：1-732。                                                                                                  |



表 4-241 MysqlInstanceNodeInfo

| 参数               | 参数类型                                               | 描述                                                                                                   |
|------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------|
| id               | String                                             | 实例ID, 严格匹配UUID规则。                                                                                    |
| name             | String                                             | 节点名称。                                                                                                |
| type             | String                                             | 节点类型。<br>取值范围: <ul style="list-style-type: none"><li>• master: 主节点。</li><li>• slave: 只读节点。</li></ul> |
| status           | String                                             | 节点状态。                                                                                                |
| port             | Integer                                            | 数据库端口号。                                                                                              |
| private_read_ips | Array of strings                                   | 节点的读内网地址。                                                                                            |
| volume           | <a href="#">MysqlInstanceNodeVolumeInfo</a> object | 存储盘信息。                                                                                               |
| az_code          | String                                             | 可用区。                                                                                                 |
| region_code      | String                                             | 实例所在的区域。                                                                                             |
| created          | String                                             | 创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。<br>其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。                        |
| updated          | String                                             | 更新时间, 格式与"created"字段对应格式完全相同。                                                                        |
| flavor_id        | String                                             | 规格ID。                                                                                                |
| flavor_ref       | String                                             | 规格码。                                                                                                 |
| max_connections  | String                                             | 允许的最大连接数。                                                                                            |
| vcpus            | String                                             | CPU核数。                                                                                               |
| ram              | String                                             | 内存大小, 单位为GB。                                                                                         |
| need_restart     | Boolean                                            | 是否需要重启使修改的参数生效。                                                                                      |
| priority         | Integer                                            | 主备倒换优先级。                                                                                             |

表 4-242 MysqlInstanceNodeVolumeInfo

| 参数   | 参数类型   | 描述    |
|------|--------|-------|
| type | String | 磁盘类型。 |

| 参数   | 参数类型   | 描述                      |
|------|--------|-------------------------|
| used | String | 已使用磁盘大小, 单位GB。          |
| size | Long   | 包年/包月实例购买的存储空间大小, 单位GB。 |

表 4-243 MysqlTags

| 参数    | 参数类型   | 描述                                                                                                       |
|-------|--------|----------------------------------------------------------------------------------------------------------|
| key   | String | 标签键。最大长度36个unicode字符。key不能为空或者空字符串, 不能为空格。<br>字符集: A-Z, a-z, 0-9, '-', '_',<br>UNICODE字符(\u4E00-\u9FFF)。 |
| value | String | 标签值。最大长度43个unicode字符。可以为空字符串。<br>字符集: A-Z, a-z, 0-9, '.', '-',<br>'_', UNICODE字符(\u4E00-\u9FFF)。         |

表 4-244 MysqlProxyInfo

| 参数      | 参数类型   | 描述           |
|---------|--------|--------------|
| pool_id | String | 数据库代理ID。     |
| name    | String | 数据库代理名称。     |
| address | String | Proxy读写分离地址。 |

表 4-245 MysqlTdeInfo

| 参数              | 参数类型    | 描述                        |
|-----------------|---------|---------------------------|
| enable_tde      | Boolean | 是否打开透明加密功能。               |
| encryption_type | String  | 透明加密算法, 支持AES256、SM4加密算法。 |

**状态码: 400**

表 4-246 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

状态码： 500

表 4-247 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

批量查询实例信息。

```
GET https://{endpoint}/v3.1/97b026aa9cc4417888c14c84a1ad9860/instances/details?instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

## 响应示例

状态码： 200

Success.

```
{
  "instances": [ {
    "id": "11684a0e59e94bceba7880d58cfb07b5in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "normal",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
    },
    "node_count": 2,
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.29.1"
    },
    "created": "2022-07-14T16:26:58+0800",
    "updated": "2022-07-18T14:20:33+0800",
    "public_ips": "10.154.219.187",
    "private_write_ips": [ "192.168.0.142" ],
    "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
    "db_user_name": "root",
    "port": 3306,
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "backup_strategy": {
      "start_time": "19:00-20:00",
```

```
"keep_days" : 7
},
"nodes" : [ {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
  "name" : "gauss-d616-lb07_node01",
  "type" : "master",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.163" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
} ],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [ ],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
} ]
} ]
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySQLInstanceDetailInfoUnifyStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListGaussMySQLInstanceDetailInfoUnifyStatusRequest request = new
        ListGaussMySQLInstanceDetailInfoUnifyStatusRequest();
        request.withInstanceIds("<instance_ids>");
        try {
            ListGaussMySQLInstanceDetailInfoUnifyStatusResponse response =
            client.listGaussMySQLInstanceDetailInfoUnifyStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ListGaussMySQLInstanceDetailInfoUnifyStatusRequest()
    request.instance_ids = "<instance_ids>"
    response = client.list_gauss_my_sql_instance_detail_info_unify_status(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLInstanceDetailInfoUnifyStatusRequest{}
    request.InstanceIds = "<instance_ids>"
    response, err := client.ListGaussMySQLInstanceDetailInfoUnifyStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.4 备份管理

### 4.4.1 设置同区域备份策略

#### 功能介绍

设置同区域备份策略。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/backups/policy/update

表 4-248 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-249 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-250 请求 Body 参数

| 参数            | 是否必选 | 参数类型                                      | 描述         |
|---------------|------|-------------------------------------------|------------|
| backup_policy | 是    | <a href="#">MysqlBackup Policy</a> object | 数据库备份策略信息。 |

表 4-251 MysqlBackupPolicy

| 参数         | 是否必选 | 参数类型    | 描述                                                                                                                   |
|------------|------|---------|----------------------------------------------------------------------------------------------------------------------|
| start_time | 是    | String  | 备份时间段。自动备份将在该时间段内触发。<br>取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。HH取值必须比hh大1。mm和MM取值必须相同，且取值必须为00。<br>取值示例：21:00-22:00 |
| keep_days  | 是    | Integer | 备份文件的保留天数。                                                                                                           |



| 参数                          | 是否必选 | 参数类型    | 描述                                                                                                                    |
|-----------------------------|------|---------|-----------------------------------------------------------------------------------------------------------------------|
| period                      | 是    | String  | 备份周期配置。自动备份将在每星期指定的天进行。<br>取值范围：格式为逗号隔开的数字，数字加1表示自动备份的星期。<br>取值示例：1,2,3,4,5,6,7则表示备份周期配置为星期二、星期三、星期四、星期五、星期六、星期日、星期一。 |
| retention_num_backup_level1 | 否    | Integer | 一级备份保留数量，默认值为0。当一级备份开关开启时，该参数值有效。取值：0或1。                                                                              |

## 响应参数

状态码： 200

表 4-252 响应 Body 参数

| 参数            | 参数类型   | 描述               |
|---------------|--------|------------------|
| status        | String | 状态信息。            |
| instance_id   | String | 实例ID，严格匹配UUID规则。 |
| instance_name | String | 实例名称。            |

状态码： 400

表 4-253 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-254 响应 Body 参数

| 参数         | 参数类型   | 描述   |
|------------|--------|------|
| error_code | String | 错误码。 |

| 参数        | 参数类型   | 描述    |
|-----------|--------|-------|
| error_msg | String | 错误消息。 |

## 请求示例

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/21b6ea5a78244de98c1c2622e1dc593ain07/backups/policy/update
```

```
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2,3,4,5"
  }
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "status": "COMPLETED",
  "instance_id": "21b6ea5a78244de98c1c2622e1dc593ain07",
  "instance_name": "gauss-mysql"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateGaussMySqlBackupPolicySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateGaussMySqlBackupPolicyRequest request = new UpdateGaussMySqlBackupPolicyRequest();
MysqlUpdateBackupPolicyRequest body = new MysqlUpdateBackupPolicyRequest();
MysqlBackupPolicy backupPolicybody = new MysqlBackupPolicy();
backupPolicybody.withStartTime("19:00-20:00")
    .withKeepDays(7)
    .withPeriod("1,2,3,4,5");
body.withBackupPolicy(backupPolicybody);
request.withBody(body);
try {
    UpdateGaussMySqlBackupPolicyResponse response =
client.updateGaussMySqlBackupPolicy(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlBackupPolicyRequest()
        backupPolicybody = MysqlBackupPolicy(
            start_time="19:00-20:00",
```

```
        keep_days=7,
        period="1,2,3,4,5"
    )
    request.body = MysqlUpdateBackupPolicyRequest(
        backup_policy=backupPolicybody
    )
    response = client.update_gauss_my_sql_backup_policy(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改实例的自动备份策略，每周的周二至周六的19:00-20:00进行备份，备份文件保留7天。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlBackupPolicyRequest{}
    backupPolicybody := &model.MysqlBackupPolicy{
        StartTime: "19:00-20:00",
        KeepDays: int32(7),
        Period: "1,2,3,4,5",
    }
    request.Body = &model.MysqlUpdateBackupPolicyRequest{
        BackupPolicy: backupPolicybody,
    }
    response, err := client.UpdateGaussMySqlBackupPolicy(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.4.2 创建手动备份

### 功能介绍

创建手动备份。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/backups/create

表 4-255 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 4-256 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-257 请求 Body 参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                         |
|-------------|------|--------|------------------------------------------------------------------------------------------------------------|
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                                                                           |
| name        | 是    | String | 备份名称。<br>取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。 |
| description | 否    | String | 备份描述，不能包含>!<'&'=特殊字符，不大于256个字符。                                                                            |

## 响应参数

状态码： 201

表 4-258 响应 Body 参数

| 参数     | 参数类型                          | 描述    |
|--------|-------------------------------|-------|
| backup | <a href="#">backup object</a> | 备份信息。 |
| job_id | String                        | 任务ID。 |

表 4-259 backup

| 参数          | 参数类型   | 描述                                                                                                                                                                                                                                                                                                       |
|-------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id          | String | 备份ID                                                                                                                                                                                                                                                                                                     |
| name        | String | 备份名称。                                                                                                                                                                                                                                                                                                    |
| description | String | 备份描述。                                                                                                                                                                                                                                                                                                    |
| begin_time  | String | 备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”，其中T指时间字段的开始；Z指时区偏移量。                                                                                                                                                                                                                                                    |
| status      | String | 备份状态，取值： <ul style="list-style-type: none"><li>• BUILDING：备份中。</li><li>• COMPLETED：备份完成。</li><li>• FAILED：备份失败。</li><li>• AVAILABLE：备份可用。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• <b>BUILDING</b></li><li>• <b>COMPLETED</b></li><li>• <b>FAILED</b></li><li>• <b>AVAILABLE</b></li></ul> |
| type        | String | 备份类型，手动全量备份，取值为manual。<br>枚举值： <ul style="list-style-type: none"><li>• <b>manual</b></li></ul>                                                                                                                                                                                                           |
| instance_id | String | 实例ID，严格匹配UUID规则。                                                                                                                                                                                                                                                                                         |

状态码： 400

表 4-260 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-261 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

创建手动备份。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create
{
  "instance_id": "e761be53970c48aeb2073b179dccfab9in07",
  "name": "backup-1",
  "description": "手动备份"
}
```

## 响应示例

状态码: 201

Success.

```
{
  "backup": {
    "id": "e761be53970c48aeb2073b179dccfab9in07",
    "name": "backup-1",
    "description": "手动备份",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "ef25188419f941309882d2986b2210b9in07"
  },
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建手动备份。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CreateGaussMySQLBackupSolution {
```



```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");

    ICredential auth = new BasicCredentials()
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();

    CreateGaussMySqlBackupRequest request = new CreateGaussMySqlBackupRequest();
    MysqlCreateBackupRequest body = new MysqlCreateBackupRequest();
    body.withDescription("手动备份");
    body.withName("backup-1");
    body.withInstanceId("e761be53970c48aeb2073b179dccfab9in07");
    request.withBody(body);
    try {
        CreateGaussMySqlBackupResponse response = client.createGaussMySqlBackup(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

创建手动备份。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlBackupRequest()
```

```
request.body = MysqlCreateBackupRequest(  
    description="手动备份",  
    name="backup-1",  
    instance_id="e761be53970c48aeb2073b179dccfab9in07"  
)  
response = client.create_gauss_my_sql_backup(request)  
print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

创建手动备份。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.CreateGaussMySqlBackupRequest{  
        descriptionMysqlCreateBackupRequest:= "手动备份"  
    }  
    request.Body = &model.MysqlCreateBackupRequest{  
        Description: &descriptionMysqlCreateBackupRequest,  
        Name: "backup-1",  
        InstanceId: "e761be53970c48aeb2073b179dccfab9in07",  
    }  
    response, err := client.CreateGaussMySqlBackup(request)  
    if err == nil {  
        fmt.Printf("%v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 201 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.4.3 查询全量备份列表

#### 功能介绍

查询全量备份列表。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/backups

表 4-262 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

表 4-263 Query 参数

| 参数          | 是否必选 | 参数类型   | 描述                                                                                                     |
|-------------|------|--------|--------------------------------------------------------------------------------------------------------|
| instance_id | 否    | String | 实例ID，严格匹配UUID规则。                                                                                       |
| backup_id   | 否    | String | 备份ID。                                                                                                  |
| backup_type | 否    | String | 备份类型。<br>取值范围： <ul style="list-style-type: none"><li>• auto：自动全量备份。</li><li>• manual：手动全量备份。</li></ul> |

| 参数            | 是否必选 | 参数类型   | 描述                                                                                    |
|---------------|------|--------|---------------------------------------------------------------------------------------|
| offset        | 否    | String | 索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。                |
| limit         | 否    | String | 查询记录数。默认为100，不能为负数，最小值为1，最大值为100。                                                     |
| begin_time    | 否    | String | 查询开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。           |
| end_time      | 否    | String | 查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”，且大于查询开始时间。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 |
| name          | 否    | String | 备份名称。                                                                                 |
| instance_name | 否    | String | 实例名称。                                                                                 |

## 请求参数

表 4-264 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-265 响应 Body 参数

| 参数          | 参数类型                            | 描述       |
|-------------|---------------------------------|----------|
| backups     | Array of <b>backups</b> objects | 备份信息。    |
| total_count | Long                            | 备份文件的总数。 |

表 4-266 backups

| 参数           | 参数类型    | 描述                                                                                                                                                                                                                                                                                                       |
|--------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id           | String  | 备份ID。                                                                                                                                                                                                                                                                                                    |
| name         | String  | 备份名称。                                                                                                                                                                                                                                                                                                    |
| begin_time   | String  | 备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                              |
| end_time     | String  | 备份结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。<br>其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。                                                                                                                                                                                                                              |
| status       | String  | 备份状态，取值： <ul style="list-style-type: none"><li>● BUILDING：备份中。</li><li>● COMPLETED：备份完成。</li><li>● FAILED：备份失败。</li><li>● AVAILABLE：备份可用。</li></ul> 枚举值： <ul style="list-style-type: none"><li>● <b>BUILDING</b></li><li>● <b>COMPLETED</b></li><li>● <b>FAILED</b></li><li>● <b>AVAILABLE</b></li></ul> |
| take_up_time | Integer | 备份花费时间（单位：minutes）。                                                                                                                                                                                                                                                                                      |

| 参数            | 参数类型                                          | 描述                                                                                                                                                                                                                                         |
|---------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type          | String                                        | 备份类型，取值： <ul style="list-style-type: none"><li>• auto：自动全量备份。</li><li>• manual：手动全量备份。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• <b>auto</b></li><li>• <b>manual</b></li></ul>                                                |
| size          | Long                                          | 备份大小（单位：MB）。                                                                                                                                                                                                                               |
| datastore     | <a href="#">MysqlDatastoreInBackup</a> object | 数据库信息。                                                                                                                                                                                                                                     |
| instance_id   | String                                        | 实例ID，严格匹配UUID规则。                                                                                                                                                                                                                           |
| instance_name | String                                        | 实例名称。                                                                                                                                                                                                                                      |
| backup_level  | String                                        | 备份级别。当开启一级备份开关时，返回该参数。<br>取值： <ul style="list-style-type: none"><li>• 0：备份正在创建中或者备份失败。</li><li>• 1：一级备份。</li><li>• 2：二级备份。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• <b>0</b></li><li>• <b>1</b></li><li>• <b>2</b></li></ul> |
| description   | String                                        | 备份文件描述信息。                                                                                                                                                                                                                                  |

表 4-267 MysqlDatastoreInBackup

| 参数      | 参数类型   | 描述                        |
|---------|--------|---------------------------|
| type    | String | 数据库引擎，现在只支持gaussdb-mysql。 |
| version | String | 数据库版本。                    |

状态码： 400

表 4-268 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-269 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询时间段内（2020-07-06~2020-07-16）的自动备份列表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=3ef58db3986540d19f95151309368d34in07&backup_id=7420f28010084e838113e78f77093093br07&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800
```

## 响应示例

状态码： 200

Success.

```
{
  "backups": [ {
    "id": "7420f28010084e838113e78f77093093br07",
    "name": "GaussDBforMySQL-gauss-e747-20200708185048266",
    "begin_time": "2020-07-08T18:41:14+0800",
    "end_time": "2020-07-08T20:45:14+0800",
    "take_up_time": 2,
    "status": "COMPLETED",
    "type": "auto",
    "size": 2803,
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0"
    },
    "instance_id": "3ef58db3986540d19f95151309368d34in07",
    "instance_name": "GaussDBforMySQL-gauss-e747",
    "backup_level": "2"
  } ],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLBackupListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLBackupListRequest request = new ShowGaussMySQLBackupListRequest();
        request.withInstanceId("<instance_id>");
        request.withBackupId("<backup_id>");
        request.withBackupType("<backup_type>");
        request.withOffset("<offset>");
        request.withLimit("<limit>");
        request.withBeginTime("<begin_time>");
        request.withEndTime("<end_time>");
        request.withName("<name>");
        request.withInstanceName("<instance_name>");
        try {
            ShowGaussMySQLBackupListResponse response = client.showGaussMySQLBackupList(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```



```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlBackupListRequest()
        request.instance_id = "<instance_id>"
        request.backup_id = "<backup_id>"
        request.backup_type = "<backup_type>"
        request.offset = "<offset>"
        request.limit = "<limit>"
        request.begin_time = "<begin_time>"
        request.end_time = "<end_time>"
        request.name = "<name>"
        request.instance_name = "<instance_name>"
        response = client.show_gauss_my_sql_backup_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySqlBackupListRequest{
        instanceIdRequest: "<instance_id>"
    }
```

```
request.InstanceId = &instanceIdRequest
backupIdRequest:= "<backup_id>"
request.BackupId = &backupIdRequest
backupTypeRequest:= "<backup_type>"
request.BackupType = &backupTypeRequest
offsetRequest:= "<offset>"
request.Offset = &offsetRequest
limitRequest:= "<limit>"
request.Limit = &limitRequest
beginTimeRequest:= "<begin_time>"
request.BeginTime = &beginTimeRequest
endTimeRequest:= "<end_time>"
request.EndTime = &endTimeRequest
nameRequest:= "<name>"
request.Name = &nameRequest
instanceNameRequest:= "<instance_name>"
request.InstanceName = &instanceNameRequest
response, err := client.ShowGaussMySqlBackupList(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

### 4.4.4 查询自动备份策略

#### 功能介绍

查询自动备份策略。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/policy

表 4-270 路径参数

| 参数          | 是否必选 | 参数类型   | 描述                                                           |
|-------------|------|--------|--------------------------------------------------------------|
| project_id  | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |
| instance_id | 是    | String | 实例ID，严格匹配UUID规则。                                             |

## 请求参数

表 4-271 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-272 响应 Body 参数

| 参数            | 参数类型                                | 描述      |
|---------------|-------------------------------------|---------|
| backup_policy | <a href="#">BackupPolicy</a> object | 备份策略信息。 |

表 4-273 BackupPolicy

| 参数                          | 参数类型    | 描述                                                                                                                    |
|-----------------------------|---------|-----------------------------------------------------------------------------------------------------------------------|
| keep_days                   | Integer | 指定已生成的备份文件可以保存的天数。取值范围：1~732。<br>最小值：1<br>最大值：732                                                                     |
| start_time                  | String  | 备份时间段。自动备份将在该时间段内触发。取值范围：格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。                                                              |
| period                      | String  | 备份周期配置。自动备份将在每星期指定的天进行。<br>取值范围：格式为逗号隔开的数字，数字加1表示自动备份的星期。<br>取值示例：1,2,3,4,5,6,7则表示备份周期配置为星期二、星期三、星期四、星期五、星期六、星期日、星期一。 |
| retention_num_backup_level1 | Integer | 一级备份保留数量。当一级备份开关开启时，返回此参数。                                                                                            |

状态码：400

表 4-274 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码：500

表 4-275 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

查询实例的自动备份策略。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/policy
```

## 响应示例

状态码: 200

Success.

```
{  
  "backup_policy": {  
    "keep_days": "7",  
    "start_time": "19:00-20:00",  
    "period": "1,2",  
    "retention_num_backup_level1": 1  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowGaussMySQLBackupPolicySolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowGaussMySQLBackupPolicyRequest request = new ShowGaussMySQLBackupPolicyRequest();  
        try {  
            ShowGaussMySQLBackupPolicyResponse response = client.showGaussMySQLBackupPolicy(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
        }  
    }  
}
```

```
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLBackupPolicyRequest()
        response = client.show_gauss_my_sql_backup_policy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
```

```
WithRegion(region.ValueOf("<YOUR REGION>")).  
WithCredential(auth).  
Build()  
  
request := &model.ShowGaussMySqlBackupPolicyRequest{}  
response, err := client.ShowGaussMySqlBackupPolicy(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.4.5 删除手动备份

### 功能介绍

删除手动备份。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/backups/{backup\_id}

表 4-276 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

| 参数        | 是否必选 | 参数类型   | 描述                                         |
|-----------|------|--------|--------------------------------------------|
| backup_id | 是    | String | 备份文件ID。<br>获取方法参见 <a href="#">查询备份列表</a> 。 |

## 请求参数

表 4-277 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

## 响应参数

状态码： 200

表 4-278 响应 Body 参数

| 参数          | 参数类型   | 描述    |
|-------------|--------|-------|
| backup_id   | String | 备份ID。 |
| backup_name | String | 备份名称。 |

状态码： 400

表 4-279 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |



状态码： 500

表 4-280 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

删除手动备份。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/backups/  
b1182ccdda034f2b9535f3dca5c47e71br07
```

## 响应示例

状态码： 200

Success.

```
{  
  "backup_id" : "b1182ccdda034f2b9535f3dca5c47e71br07",  
  "backup_name" : "backup-f3c1"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteGaussMySQLBackupSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteGaussMySQLBackupRequest request = new DeleteGaussMySQLBackupRequest();
try {
    DeleteGaussMySQLBackupResponse response = client.deleteGaussMySQLBackup(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLBackupRequest()
        response = client.delete_gauss_my_sql_backup(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteGaussMySQLBackupRequest{}
    response, err := client.DeleteGaussMySQLBackup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

| 状态码 | 描述            |
|-----|---------------|
| 200 | Success.      |
| 400 | Client error. |
| 500 | Server error. |

## 错误码

请参见[错误码](#)。

## 4.4.6 备份恢复到当前实例或已有实例

### 功能介绍

备份恢复到当前实例或已有实例。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/restore

表 4-281 路径参数

| 参数         | 是否必选 | 参数类型   | 描述                                                           |
|------------|------|--------|--------------------------------------------------------------|
| project_id | 是    | String | 租户在某一Region下的project ID。<br>获取方法请参见 <a href="#">获取项目ID</a> 。 |

## 请求参数

表 4-282 请求 Header 参数

| 参数           | 是否必选 | 参数类型   | 描述                                                                                                     |
|--------------|------|--------|--------------------------------------------------------------------------------------------------------|
| X-Auth-Token | 是    | String | 用户Token。<br>通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。<br>请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。 |
| X-Language   | 否    | String | 请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>               |

表 4-283 请求 Body 参数

| 参数                 | 是否必选 | 参数类型   | 描述                                                                                                                                                            |
|--------------------|------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| target_instance_id | 是    | String | 目标实例ID。                                                                                                                                                       |
| source_instance_id | 是    | String | 源实例ID。                                                                                                                                                        |
| type               | 是    | String | 表示恢复方式。枚举值： <ul style="list-style-type: none"><li>backup: 表示使用备份文件恢复，按照此方式恢复时，“backup_id”必选。</li><li>timestamp: 表示按时间点恢复，按照此方式恢复时，“restore_time”必选。</li></ul> |

| 参数           | 是否必选 | 参数类型   | 描述                                |
|--------------|------|--------|-----------------------------------|
| backup_id    | 否    | String | 用于恢复的备份ID。当使用备份文件恢复时需要指定该参数。      |
| restore_time | 否    | Long   | 恢复数据的时间点，格式为UNIX时间戳，单位是毫秒，时区为UTC。 |

## 响应参数

状态码： 200

表 4-284 响应 Body 参数

| 参数     | 参数类型   | 描述     |
|--------|--------|--------|
| job_id | String | 工作流ID。 |

状态码： 400

表 4-285 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

状态码： 500

表 4-286 响应 Body 参数

| 参数         | 参数类型   | 描述    |
|------------|--------|-------|
| error_code | String | 错误码。  |
| error_msg  | String | 错误消息。 |

## 请求示例

- 按备份文件恢复到当前实例。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
  "target_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "source_instance_id": "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id": "7ffbf305376b4cbea0ae491257b6aaf9br07",
```

- ```
"type" : "backup"
}
```
- 按时间点恢复到当前实例。  
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore  

```
{
  "target_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time" : 1673852043000,
  "type" : "timestamp"
}
```
  - 按备份文件恢复到已有实例。  
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore  

```
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "backup_id" : "be4ddfd7e2b94640b5e2cb44efb30b22br07",
  "type" : "backup"
}
```
  - 按时间点恢复到已有实例。  
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore  

```
{
  "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
  "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
  "restore_time" : 1673852043000,
  "type" : "timestamp"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 按备份文件恢复到当前实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
RestoreRequest body = new RestoreRequest();
body.withType("backup");
body.withBackupId("7ffbf305376b4cbea0ae491257b6aaf9br07");
body.withSourceInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
body.withTargetInstanceld("690e08a7c3854c218df0e59de3b0c6cein07");
request.withBody(body);
try {
    RestoreOldInstanceResponse response = client.restoreOldInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 按时间点恢复到当前实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
RestoreRequest body = new RestoreRequest();
body.withType("timestamp");
body.withRestoreTime(1673852043000L);
body.withSourceInstanceId("690e08a7c3854c218df0e59de3b0c6cein07");
body.withTargetInstanceId("690e08a7c3854c218df0e59de3b0c6cein07");
request.withBody(body);
try {
    RestoreOldInstanceResponse response = client.restoreOldInstance(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 按备份文件恢复到已有实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
        RestoreRequest body = new RestoreRequest();
        body.withType("backup");
        body.withBackupId("be4ddfd7e2b94640b5e2cb44efb30b22br07");
        body.withSourceInstanceId("690e08a7c3854c218df0e59de3b0c6cein07");
        body.withTargetInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07");
        request.withBody(body);
        try {
            RestoreOldInstanceResponse response = client.restoreOldInstance(request);
```



```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 按时间点恢复到已有实例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class RestoreOldInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        RestoreOldInstanceRequest request = new RestoreOldInstanceRequest();
        RestoreRequest body = new RestoreRequest();
        body.withType("timestamp");
        body.withRestoreTime(1673852043000L);
        body.withSourceInstanceId("690e08a7c3854c218df0e59de3b0c6cein07");
        body.withTargetInstanceId("7033e7c3cf93438797d44ad7ae0a7d95in07");
        request.withBody(body);
        try {
            RestoreOldInstanceResponse response = client.restoreOldInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

- 按备份文件恢复到当前实例。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    environment variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before  
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = RestoreOldInstanceRequest()  
        request.body = RestoreRequest(  
            type="backup",  
            backup_id="7ffbf305376b4cbea0ae491257b6aaf9br07",  
            source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",  
            target_instance_id="690e08a7c3854c218df0e59de3b0c6cein07"  
        )  
        response = client.restore_old_instance(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

- 按时间点恢复到当前实例。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    environment variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before  
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  

```

```
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
    request = RestoreOldInstanceRequest()
    request.body = RestoreRequest(
        type="timestamp",
        restore_time=1673852043000,
        source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
        target_instance_id="690e08a7c3854c218df0e59de3b0c6cein07"
    )
    response = client.restore_old_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 按备份文件恢复到已有实例。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RestoreOldInstanceRequest()
        request.body = RestoreRequest(
            type="backup",
            backup_id="be4ddfd7e2b94640b5e2cb44efb30b22br07",
            source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
            target_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07"
        )
        response = client.restore_old_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 按时间点恢复到已有实例。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = RestoreOldInstanceRequest()
    request.body = RestoreRequest(
        type="timestamp",
        restore_time=1673852043000,
        source_instance_id="690e08a7c3854c218df0e59de3b0c6cein07",
        target_instance_id="7033e7c3cf93438797d44ad7ae0a7d95in07"
    )
    response = client.restore_old_instance(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 按备份文件恢复到当前实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestoreOldInstanceRequest{
        backupIdRestoreRequest:= "7ffbf305376b4cbea0ae491257b6aaf9br07"
        request.Body = &model.RestoreRequest{
            Type: "backup",
```

```
BackupId: &backupIdRestoreRequest,
SourceInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
TargetInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
}
response, err := client.RestoreOldInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 按时间点恢复到当前实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestoreOldInstanceRequest{}
    restoreTimeRestoreRequest := int64(1673852043000)
    request.Body = &model.RestoreRequest{
        Type: "timestamp",
        RestoreTime: &restoreTimeRestoreRequest,
        SourceInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
        TargetInstanceld: "690e08a7c3854c218df0e59de3b0c6cein07",
    }
    response, err := client.RestoreOldInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 按备份文件恢复到已有实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)
```

```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RestoreOldInstanceRequest{}
    backupIdRestoreRequest := "be4ddfd7e2b94640b5e2cb44efb30b22br07"
    request.Body = &model.RestoreRequest{
        Type: "backup",
        BackupId: &backupIdRestoreRequest,
        SourceInstancedId: "690e08a7c3854c218df0e59de3b0c6cein07",
        TargetInstancedId: "7033e7c3cf93438797d44ad7ae0a7d95in07",
    }
    response, err := client.RestoreOldInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 按时间点恢复到已有实例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

```
request := &model.RestoreOldInstanceRequest{}
restoreTimeRestoreRequest:= int64(1673852043000)
request.Body = &model.RestoreRequest{
    Type: "timestamp",
    RestoreTime: &restoreTimeRestoreRequest,
    SourceInstanceid: "690e08a7c3854c218df0e59de3b0c6cein07",
    TargetInstanceid: "7033e7c3cf93438797d44ad7ae0a7d95in07",
}
response, err := client.RestoreOldInstance(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.7 查询可恢复时间段

### 功能介绍

查询实例的可恢复时间段。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/restore-time

表 4-287 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-288 Query 参数

参数	是否必选	参数类型	描述
date	否	String	所需查询的日志，为yyyy-mm-dd字符串格式，时区为UTC。

## 请求参数

表 4-289 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码：200

表 4-290 响应 Body 参数

参数	参数类型	描述
restore_times	Array of <a href="#">RestoreTimeInfo</a> objects	可恢复时间段列表。



表 4-291 RestoreTimeInfo

参数	参数类型	描述
start_time	Long	可恢复时间段的起始时间点，UNIX时间戳格式，单位是毫秒，时区是UTC。
end_time	Long	可恢复时间段的结束时间点，UNIX时间戳格式，单位是毫秒，时区是UTC。

状态码： 400

表 4-292 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-293 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例在2023-01-31的可恢复时间段。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/restore-time?date=2023-01-31
```

## 响应示例

状态码： 200

Success.

```
{  
  "restore_times": [{  
    "start_time": 1675095500000,  
    "end_time": 1675149246000  
  }]  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.8 打开或关闭备份加密

### 功能介绍

打开或关闭备份加密。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/backups/encryption

表 4-294 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-295 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-296 请求 Body 参数

参数	是否必选	参数类型	描述
encryption_status	是	String	开启或关闭加密。不区分大小写。 取值范围： <ul style="list-style-type: none"><li>on: 开启。</li><li>off: 关闭。</li></ul>
type	否	String	加密类型。当前只支持kms。 开启加密时必传，关闭加密时不传。不区分大小写。 枚举值： <ul style="list-style-type: none"><li>kms</li></ul>
kms_key_id	否	String	kms加密ID。加密时必传，关闭加密时候不传。 通过调用数据加密服务的 <a href="#">创建密钥接口</a> 获取（响应参数的key_id即为加密ID）。

## 响应参数

状态码： 200

表 4-297 响应 Body 参数

参数	参数类型	描述
encryption_status	String	备份加密状态。 取值范围： <ul style="list-style-type: none"><li>on: 开启状态。</li><li>off: 关闭状态。</li></ul>

状态码： 400

表 4-298 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-299 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启备份加密

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

```
{  
  "type": "kms",  
  "kms_key_id": "b82fa43f-f6e8-4ec4-9c31-231bc547c526",  
  "encryption_status": "on"  
}
```

- 关闭备份加密

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

```
{  
  "encryption_status": "off"  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "encryption_status" : "on"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启备份加密

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ModifyBackupEncryptStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyBackupEncryptStatusRequest request = new ModifyBackupEncryptStatusRequest();
        BackupEncryptRequest body = new BackupEncryptRequest();
        body.withEncryptionStatus(BackupEncryptRequest.EncryptionStatusEnum.fromValue("on"));
        body.withKmsKeyId("b82fa43f-f6e8-4ec4-9c31-231bc547c526");
        body.withType(BackupEncryptRequest.TypeEnum.fromValue("kms"));
        request.withBody(body);
        try {
            ModifyBackupEncryptStatusResponse response = client.modifyBackupEncryptStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 关闭备份加密

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ModifyBackupEncryptStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyBackupEncryptStatusRequest request = new ModifyBackupEncryptStatusRequest();
        BackupEncryptRequest body = new BackupEncryptRequest();
        body.withEncryptionStatus(BackupEncryptRequest.EncryptionStatusEnum.fromValue("off"));
        request.withBody(body);
        try {
            ModifyBackupEncryptStatusResponse response = client.modifyBackupEncryptStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启备份加密

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
```

```
# In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak = __import__ ('os').getenv("CLOUD_SDK_AK")
sk = __import__ ('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
.with_credentials(credentials) \
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
request = ModifyBackupEncryptStatusRequest()
request.body = BackupEncryptRequest(
    encryption_status="on",
    kms_key_id="b82fa43f-f6e8-4ec4-9c31-231bc547c526",
    type="kms"
)
response = client.modify_backup_encrypt_status(request)
print(response)
except exceptions.ClientRequestException as e:
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

- 关闭备份加密

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__ ('os').getenv("CLOUD_SDK_AK")
    sk = __import__ ('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyBackupEncryptStatusRequest()
        request.body = BackupEncryptRequest(
            encryption_status="off"
        )
        response = client.modify_backup_encrypt_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启备份加密

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyBackupEncryptStatusRequest{}
    kmsKeyIdBackupEncryptRequest := "b82fa43f-f6e8-4ec4-9c31-231bc547c526"
    typeBackupEncryptRequest := model.GetBackupEncryptRequestTypeEnum().KMS
    request.Body = &model.BackupEncryptRequest{
        EncryptionStatus: model.GetBackupEncryptRequestEncryptionStatusEnum().ON,
        KmsKeyId: &kmsKeyIdBackupEncryptRequest,
        Type: &typeBackupEncryptRequest,
    }
    response, err := client.ModifyBackupEncryptStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 关闭备份加密

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
```



```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ModifyBackupEncryptStatusRequest{}
request.Body = &model.BackupEncryptRequest{
    EncryptionStatus: model.GetBackupEncryptRequestEncryptionStatusEnum().OFF,
}
response, err := client.ModifyBackupEncryptStatus(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.9 查询实例是否开启备份加密功能

### 功能介绍

查询实例是否开启备份加密功能。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/encryption

表 4-300 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-301 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-302 响应 Body 参数

参数	参数类型	描述
encryption_status	String	备份加密状态。 取值范围： <ul style="list-style-type: none"><li>on: 开启状态。</li><li>off: 关闭状态。</li></ul>

状态码： 400

表 4-303 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-304 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例是否开启备份加密

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

## 响应示例

状态码： 200

Success.

```
{  
  "encryption_status" : "on"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DescribeBackupEncryptStatusSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DescribeBackupEncryptStatusRequest request = new DescribeBackupEncryptStatusRequest();
try {
    DescribeBackupEncryptStatusResponse response = client.describeBackupEncryptStatus(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DescribeBackupEncryptStatusRequest()
        response = client.describe_backup_encrypt_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DescribeBackupEncryptStatusRequest{}
    response, err := client.DescribeBackupEncryptStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.10 查询增量备份列表

### 功能介绍

查询增量备份列表。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/incremental-backups

表 4-305 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-306 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	String	查询记录数。默认为10，可取范围：10、20、50。
begin_time	否	String	查询开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 “begin_time” 有值时，“end_time” 必选。

参数	是否必选	参数类型	描述
end_time	否	String	查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”，且大于查询开始时间。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。 “end_time”有值时，“begin_time”必选。

## 请求参数

表 4-307 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-308 响应 Body 参数

参数	参数类型	描述
backups	Array of <a href="#">IncrementalBackups</a> objects	备份信息。
total_count	Long	备份文件的总数。

表 4-309 IncrementalBackups

参数	参数类型	描述
id	String	备份ID。
name	String	备份名称。
begin_time	String	备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	String	备份结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
size	Number	备份大小，(单位：KB)。
instance_id	String	实例ID。

状态码： 400

表 4-310 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-311 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询时间段内（2022-07-06~2022-07-16）的增量备份列表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/incremental-backups?  
offset=0&limit=10&begin_time=2022-07-06T10:41:14+0800&end_time=2022-07-16T10:41:14+0800
```



## 响应示例

**状态码： 200**

Success.

```
{
  "backups": [ {
    "id": "f0d2aea28d26t4848b8c84ed3fea1822fbr07",
    "name": "GaussDBforMySQL--20230728181555006",
    "begin_time": "2022-07-07T12:41:14+0800",
    "end_time": "2022-07-08T12:45:14+0800",
    "size": 0.109375,
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07"
  } ],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySqlIncrementalBackupListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySqlIncrementalBackupListRequest request = new
        ShowGaussMySqlIncrementalBackupListRequest();
        request.withOffset("<offset>");
        request.withLimit("<limit>");
        request.withBeginTime("<begin_time>");
        request.withEndTime("<end_time>");
        try {
            ShowGaussMySqlIncrementalBackupListResponse response =
            client.showGaussMySqlIncrementalBackupList(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        }
    }
}
```

```
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlIncrementalBackupListRequest()
        request.offset = "<offset>"
        request.limit = "<limit>"
        request.begin_time = "<begin_time>"
        request.end_time = "<end_time>"
        response = client.show_gauss_my_sql_incremental_backup_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowGaussMySqlIncrementalBackupListRequest{}
offsetRequest:= "<offset>"
request.Offset = &offsetRequest
limitRequest:= "<limit>"
request.Limit = &limitRequest
beginTimeRequest:= "<begin_time>"
request.BeginTime = &beginTimeRequest
endTimeRequest:= "<end_time>"
request.EndTime = &endTimeRequest
response, err := client.ShowGaussMySqlIncrementalBackupList(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.4.11 设置跨区域备份策略

#### 功能介绍

设置跨区域备份策略。

#### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/backups/offsite-policy

表 4-312 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-313 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-314 请求 Body 参数

参数	是否必选	参数类型	描述
backup_policy	是	<a href="#">UpdateBackupOffsitePolicyInfo</a> object	备份策略信息。

表 4-315 UpdateBackupOffsitePolicyInfo

参数	是否必选	参数类型	描述
open_auto_backup	是	Boolean	是否开启跨区域全量备份。 <ul style="list-style-type: none"><li>• true: 开启跨区域全量备份。</li><li>• false: 关闭跨区域全量备份。</li></ul>
open_incremental_backup	是	Boolean	是否开启跨区域增量备份。 <ul style="list-style-type: none"><li>• true: 开启跨区域增量备份, 当open_auto_backup开启时才可以开启。</li><li>• false: 关闭跨区域增量备份。</li></ul>
destination_project_id	是	String	设置跨区域备份策略的目标 project ID。 租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
destination_region	是	String	设置跨区域备份策略的目标区域。
keep_days	是	Integer	指定已生成的备份文件可以保存的天数。 取值范围: 1 ~ 1825。

## 响应参数

状态码: 200

表 4-316 响应 Body 参数

参数	参数类型	描述
result	String	结果。

状态码: 400

表 4-317 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-318 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置跨区域备份策略。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/offsite-policy  
  
{  
  "backup_policy": {  
    "open_auto_backup": true,  
    "open_incremental_backup": false,  
    "destination_project_id": "fd710c89089a448aa2e666ab15817090",  
    "destination_region": "cn-north-7",  
    "keep_days": 1  
  }  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result": "success"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.12 表级时间点恢复

### 功能介绍

表级时间点恢复。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/backups/restore/tables

表 4-319 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-320 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-321 请求 Body 参数

参数	是否必选	参数类型	描述
restore_time	是	String	备份时间点，时间戳格式。

参数	是否必选	参数类型	描述
restore_tables	是	Array of <a href="#">CreateRestoreDatabaseTableInfo</a> objects	数据库信息。
last_table_info	否	String	是否是最新库表。默认为 false。 <ul style="list-style-type: none"><li>• true: 是最新库表。</li><li>• false: 是恢复时间点库表。</li></ul>

表 4-322 CreateRestoreDatabaseTableInfo

参数	是否必选	参数类型	描述
database	是	String	数据库名称。
tables	是	Array of <a href="#">CreateRestoreTableInfo</a> objects	表信息。

表 4-323 CreateRestoreTableInfo

参数	是否必选	参数类型	描述
old_name	是	String	恢复前表名。
new_name	是	String	恢复后表名。

## 响应参数

状态码： 200

表 4-324 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400



表 4-325 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-326 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

表级时间点恢复。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables  
  
{  
  "restore_time": 1690890940000,  
  "last_table_info": true,  
  "restore_tables": [{  
    "database": "test_db_1",  
    "tables": [{  
      "new_name": "t3_1690899914000",  
      "old_name": "t3"  
    }]  
  }]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "9c77973c-9332-4fbc-bb4d-b76760dbc9b2"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

表级时间点恢复。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateRestoreTablesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateRestoreTablesRequest request = new CreateRestoreTablesRequest();
        CreateRestoreTablesRequestBody body = new CreateRestoreTablesRequestBody();
        List<CreateRestoreTableInfo> listRestoreTablesTables = new ArrayList<>();
        listRestoreTablesTables.add(
            new CreateRestoreTableInfo()
                .withOldName("t3")
                .withNewName("t3_1690899914000")
        );
        List<CreateRestoreDatabaseTableInfo> listbodyRestoreTables = new ArrayList<>();
        listbodyRestoreTables.add(
            new CreateRestoreDatabaseTableInfo()
                .withDatabase("test_db_1")
                .withTables(listRestoreTablesTables)
        );
        body.withRestoreTables(listbodyRestoreTables);
        body.withLastTableInfo("true");
        body.withRestoreTime("1690890940000");
        request.withBody(body);
        try {
            CreateRestoreTablesResponse response = client.createRestoreTables(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

表级时间点恢复。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateRestoreTablesRequest()
        listTablesRestoreTables = [
            CreateRestoreTableInfo(
                old_name="t3",
                new_name="t3_1690899914000"
            )
        ]
        listRestoreTablesbody = [
            CreateRestoreDatabaseTableInfo(
                database="test_db_1",
                tables=listTablesRestoreTables
            )
        ]
        request.body = CreateRestoreTablesRequestBody(
            restore_tables=listRestoreTablesbody,
            last_table_info="true",
            restore_time="1690890940000"
        )
        response = client.create_restore_tables(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

表级时间点恢复。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateRestoreTablesRequest{}
var listTablesRestoreTables = []model.CreateRestoreTableInfo{
    {
        OldName: "t3",
        NewName: "t3_1690899914000",
    },
}
var listRestoreTablesbody = []model.CreateRestoreDatabaseTableInfo{
    {
        Database: "test_db_1",
        Tables: listTablesRestoreTables,
    },
}
lastTableInfoCreateRestoreTablesRequestBody := "true"
request.Body = &model.CreateRestoreTablesRequestBody{
    RestoreTables: listRestoreTablesbody,
    LastTableInfo: &lastTableInfoCreateRestoreTablesRequestBody,
    RestoreTime: "1690890940000",
}
response, err := client.CreateRestoreTables(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.4.13 查询表级时间点恢复可选表

### 功能介绍

查询表级时间点恢复可选表。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/backups/restore/tables

表 4-327 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-328 Query 参数

参数	是否必选	参数类型	描述
restore_time	是	String	备份时间点，时间戳格式。 通过 <a href="#">查询可恢复时间段</a> 获取。
last_table_info	是	String	是否是最新库表。 <ul style="list-style-type: none"><li>• true: 是最新库表。</li><li>• false: 是恢复时间点库表。</li></ul>
database_name	否	String	数据库名称，模糊匹配。
table_name	否	String	表名称，模糊匹配。

## 请求参数

表 4-329 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-330 响应 Body 参数

参数	参数类型	描述
total_databases	Integer	数据库总数。
databases	Array of <a href="#">RestoreDatabaseInfos</a> objects	数据库信息。

表 4-331 RestoreDatabaseInfos

参数	参数类型	描述
name	String	数据库名称。
total_tables	Integer	总表数。
tables	Array of <a href="#">RestoreDatabaseTableInfo</a> objects	表信息。

表 4-332 RestoreDatabaseTableInfo

参数	参数类型	描述
name	String	表名。

状态码： 400

表 4-333 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-334 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询表级时间点恢复可选表。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables?  
database_name=test&last_table_info=true&restore_time=1690890940000&table_name=t
```

## 响应示例

状态码： 200

Success.

```
{  
  "total_databases": 1,  
  "databases": [{  
    "name": "test_db_1",  
    "total_tables": 1,  
    "tables": [{  
      "name": "t3"  
    }]  
  }]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowRestoreTablesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowRestoreTablesRequest request = new ShowRestoreTablesRequest();
        request.withRestoreTime("<restore_time>");
        request.withLastTableInfo("<last_table_info>");
        request.withDatabaseName("<database_name>");
        request.withTableName("<table_name>");
        try {
            ShowRestoreTablesResponse response = client.showRestoreTables(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```



```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowRestoreTablesRequest()
        request.restore_time = "<restore_time>"
        request.last_table_info = "<last_table_info>"
        request.database_name = "<database_name>"
        request.table_name = "<table_name>"
        response = client.show_restore_tables(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowRestoreTablesRequest{}
    request.RestoreTime = "<restore_time>"
    request.LastTableInfo = "<last_table_info>"
    databaseNameRequest := "<database_name>"
    request.DatabaseName = &databaseNameRequest
    tableNameRequest := "<table_name>"
    request.TableName = &tableNameRequest
```

```
response, err := client.ShowRestoreTables(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

# 4.5 参数模板管理

## 4.5.1 查询参数模板

### 功能介绍

获取参数模板列表，包括所有数据库的默认参数模板和用户创建的参数模板。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations

表 4-335 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-336 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-337 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-338 响应 Body 参数

参数	参数类型	描述
configurations	Array of <a href="#">ConfigurationSummary</a> objects	参数模板信息。
total_count	Integer	参数模板的总数。

表 4-339 ConfigurationSummary

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
datastore_version_name	String	数据库引擎版本。
datastore_name	String	数据库引擎名。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
user_defined	Boolean	是否是用户自定义参数模板： <ul style="list-style-type: none"> <li>• false，表示为系统默认参数模板。</li> <li>• true，表示为用户自定义参数模板。</li> </ul>
description	String	参数组描述。

状态码： 400

表 4-340 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-341 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询参数模板。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/configurations?offset=0&limit=2
```

## 响应示例

状态码: 200

Success.

```
{
  "total_count": 101,
  "configurations": [ {
    "id": "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name": "configuration_test",
    "description": "configuration_test",
    "datastore_version_name": "8.0",
    "datastore_name": "GaussDB(for MySQL)",
    "created": "2019-05-15T11:53:34+0000",
    "updated": "2019-05-15T11:53:34+0000",
    "user_defined": true
  }, {
    "id": "3bc1e9cc0d34404b9225ed7a58fb284epr07",
    "name": "Default-GaussDBforMySQL",
    "description": "Default parameter template for GaussDBforMySQL",
    "datastore_version_name": "8.0",
    "datastore_name": "GaussDB(for MySQL)",
    "created": "2019-05-27T03:38:51+0000",
    "updated": "2019-05-27T03:38:51+0000",
    "user_defined": false
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListGaussMySqlConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
```

```
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListGaussMySQLConfigurationsRequest request = new ListGaussMySQLConfigurationsRequest();
    request.withOffset(<offset>);
    request.withLimit(<limit>);
    try {
        ListGaussMySQLConfigurationsResponse response = client.listGaussMySQLConfigurations(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySQLConfigurationsRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_gauss_my_sql_configurations(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
```

```
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLConfigurationsRequest{}
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest:= int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ListGaussMySQLConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.2 创建参数模板

### 功能介绍

创建参数模板信息，包含参数模板名称、描述、数据库版本信息、参数值。

### 接口约束

- 该接口支持GaussDB(for MySQL)主备-独享版。
- 创建参数模板的名称“name”不能与默认参数模板或已有参数模板的名称重复，并且区分大小写。
- 创建参数模板的“parameter\_values”参数必须在指定数据库版本的默认参数范围内。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/configurations

表 4-342 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

### 请求参数

表 4-343 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul>



表 4-344 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	参数模板描述。默认为空。 取值范围：长度不超过256个字符，且不能包含回车和特殊字符！<"='>&。
parameter_values	否	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。
datastore	否	<b>DatastoreResult</b> object	数据库对象。

表 4-345 DatastoreResult

参数	是否必选	参数类型	描述
type	是	String	数据库引擎，现在只支持 gaussdb-mysql。
version	是	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

## 响应参数

状态码： 200

表 4-346 响应 Body 参数

参数	参数类型	描述
configurations	<b>ConfigurationSummary2</b> object	参数模板信息。

表 4-347 ConfigurationSummary2

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
description	String	参数组描述。
datastore	<b>DatastoreResult</b> object	数据库对象。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量。

表 4-348 DatastoreResult

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

状态码： 400

表 4-349 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-350 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建参数模板，帐户允许最大同时连接数为10。

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations
```

```
{
  "name" : "myparameter",
  "description" : "parameter1",
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "parameter_values" : {
    "max_user_connections" : "10"
  }
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "configurations" : {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建参数模板，帐户允许最大同时连接数为10。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.Map;
import java.util.HashMap;

public class CreateGaussMySQLConfigurationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
    }
}
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
CreateGaussMySQLConfigurationRequest request = new CreateGaussMySQLConfigurationRequest();
CreateConfigurationRequestBody body = new CreateConfigurationRequestBody();
DatastoreResult datastorebody = new DatastoreResult();
datastorebody.withType("gaussdb-mysql")
    .withVersion("8.0");
Map<String, String> listbodyParameterValues = new HashMap<>();
listbodyParameterValues.put("max_user_connections", "10");
body.withDatastore(datastorebody);
body.withParameterValues(listbodyParameterValues);
body.withDescription("parameter1");
body.withName("myparameter");
request.withBody(body);
try {
    CreateGaussMySQLConfigurationResponse response =
client.createGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建参数模板，帐户允许最大同时连接数为10。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = CreateGaussMySqlConfigurationRequest(
        datastorebody = DatastoreResult(
            type="gaussdb-mysql",
            version="8.0"
        )
        listParameterValuesbody = {
            "max_user_connections": "10"
        }
    request.body = CreateConfigurationRequestBody(
        datastore=datastorebody,
        parameter_values=listParameterValuesbody,
        description="parameter1",
        name="myparameter"
    )
    response = client.create_gauss_my_sql_configuration(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建参数模板，帐户允许最大同时连接数为10。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySqlConfigurationRequest{
        datastorebody := &model.DatastoreResult{
            Type: "gaussdb-mysql",
            Version: "8.0",
        }
    }
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "10",
    }
    descriptionCreateConfigurationRequestBody:= "parameter1"
    request.Body = &model.CreateConfigurationRequestBody{
        Datastore: datastorebody,
```

```
ParameterValues: listParameterValuesbody,  
Description: &descriptionCreateConfigurationRequestBody,  
Name: "myparameter",  
}  
response, err := client.CreateGaussMySqlConfiguration(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.3 删除参数模板

### 功能介绍

删除指定参数模板。

### 接口约束

- 该接口仅支持GaussDB(for MySQL)。
- 默认参数模板不允许删除。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/configurations/{configuration\_id}

表 4-351 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-352 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-353 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。
configuration_name	String	参数模板名称。

状态码： 400

表 4-354 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-355 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除参数模板。

```
DELETE https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations/  
7a03529134944a8498512a356ece8451pr07
```

## 响应示例

状态码： 200

Success.

```
{  
  "configuration_id" : "7a03529134944a8498512a356ece8451pr07",  
  "configuration_name" : "myparameter"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。



## 4.5.4 获取参数模板详情

### 功能介绍

获取指定参数模板的参数信息。

### 接口约束

该接口支持GaussDB(for MySQL)主备-独享版。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations/{configuration\_id}

表 4-356 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

### 请求参数

表 4-357 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-358 响应 Body 参数

参数	参数类型	描述
configurations	<b>ConfigurationSummary2</b> object	参数模板信息。
parameter_values	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。

表 4-359 ConfigurationSummary2

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
description	String	参数组描述。
datastore	<b>DatastoreResult</b> object	数据库对象。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量。

表 4-360 DatastoreResult

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

状态码： 400

表 4-361 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-362 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取参数模板详情。

```
GET https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/  
43570e0de32e40c5a15f831aa5ce4176pr07
```

## 响应示例

状态码： 200

Success.

```
{  
  "configurations" : {  
    "id" : "43570e0de32e40c5a15f831aa5ce4176pr07",  
    "name" : "myparameter",  
    "description" : "parameter1",  
    "datastore" : {  
      "type" : "gaussdb-mysql",  
      "version" : "8.0"  
    },  
    "created" : "2022-05-15T11:53:34+0000",  
    "updated" : "2022-05-15T11:53:34+0000"  
  },  
  "parameter_values" : {  
    "auto_increment_increment" : "1",  
    "auto_increment_offset" : 1,  
    "binlog_checksum" : "CRC32",  
    "character_set_server" : "utf8",  
    "connect_timeout" : 10,  
    "default_authentication_plugin" : "mysql_native_password",  
    "default_week_format" : 0,  
    "div_precision_increment" : 4,  
    "end_markers_in_json" : false,  
    "innodb_autoextend_increment" : 64,  
    "innodb_autoinc_lock_mode" : 2,  
    "innodb_concurrency_tickets" : 5000,  
    "innodb_default_row_format" : "DYNAMIC",  
    "innodb_flush_log_at_timeout" : 1,  
    "innodb_flush_log_at_trx_commit" : 1,  
  }  
}
```

```
"innodb_flush_neighbors" : 0,
"innodb_max_undo_log_size" : 1073741824,
"innodb_optimize_fulltext_only" : false,
"innodb_purge_batch_size" : 300,
"innodb_purge_threads" : 4,
"innodb_sort_buffer_size" : 1048576,
"innodb_spin_wait_delay" : 6,
"innodb_status_output" : false,
"innodb_status_output_locks" : false,
"innodb_strict_mode" : false,
"innodb_sync_array_size" : 1,
"innodb_sync_spin_loops" : 30,
"innodb_thread_concurrency" : 0,
"innodb_thread_sleep_delay" : 10000,
"interactive_timeout" : 28800,
"local_infile" : false,
"lock_wait_timeout" : 31536000,
"log_queries_not_using_indexes" : false,
"log_throttle_queries_not_using_indexes" : 0,
"long_query_time" : 10,
"low_priority_updates" : false,
"max_connect_errors" : 100,
"max_error_count" : 1024,
"max_prepared_stmt_count" : 16382,
"max_sp_recursion_depth" : 0,
"max_user_connections" : 0,
"max_write_lock_count" : 102400,
"net_buffer_length" : 16384,
"net_read_timeout" : 30,
"net_retry_count" : 10,
"net_write_timeout" : 60,
"password_history" : 0,
"password_require_current" : false,
"password_reuse_interval" : 0,
"performance_schema" : false,
"profiling_history_size" : 15,
"query_prealloc_size" : 8192,
"read_buffer_size" : 131072,
"read_rnd_buffer_size" : 262144,
"show_old_temporals" : false,
"skip_name_resolve" : true,
"slow_launch_time" : 2,
"sql_mode" : null,
"table_open_cache" : 8192,
"table_open_cache_instances" : 16,
"thread_cache_size" : 1024,
"thread_stack" : 286720,
"transaction_isolation" : "REPEATABLE-READ",
"updatable_views_with_limit" : true,
"wait_timeout" : 28800,
"temptable_max_mmap" : 1073741824,
"default_password_lifetime" : 0,
"max_allowed_packet" : 1073741824,
"binlog_expire_logs_seconds" : 3600,
"max_binlog_cache_size" : 18446744073709547520,
"binlog_cache_size" : 32768,
"group_concat_max_len" : 1024,
"max_binlog_size" : 67108864,
"log_bin_trust_function_creators" : true,
"explicit_defaults_for_timestamp" : true,
"threadpool_stall_limit" : 50,
"time_zone" : "SYSTEM",
"rds_warn_max_binlog_cache_size" : 18446744073709547520,
"default_collation_for_utf8mb4" : "utf8mb4_0900_ai_ci",
"idle_transaction_timeout" : 0,
"idle_readonly_transaction_timeout" : 0,
"idle_write_transaction_timeout" : 0,
"block_encryption_mode" : "aes-256-cbc",
"innodb_lock_wait_timeout" : 50,
```

```
"collation_server" : "utf8_general_ci",
"innodb_read_ahead_threshold" : 56,
"innodb_random_read_ahead" : false,
"eq_range_index_dive_limit" : 10,
"sort_buffer_size" : 1048576,
"join_buffer_size" : 524288,
"range_optimizer_max_mem_size" : 16777216,
"strict_status_check_RTO_time" : 30,
"long_trx_decision_time" : 300,
"mount_vip_when_failover" : true,
"force_parallel_execute" : false,
"parallel_cost_threshold" : 1000,
"parallel_default_dop" : 4,
"parallel_max_threads" : 64,
"parallel_memory_limit" : 104857600,
"parallel_queue_timeout" : 0,
"threadpool_oversubscribe" : 3,
"binlog_gtid_simple_recovery" : true,
"log_slave_updates" : true,
"binlog_rows_query_log_events" : false,
"log-bin" : true,
"gtid_mode" : true,
"enforce_gtid_consistency" : true,
"innodb_online_alter_log_max_size" : 134217728,
"rds_sql_tracer_max_record_size" : 4096,
"innodb_parallel_select_count" : true,
"max_execution_time" : 0,
"rds_sqlfilter_case_sensitive" : false,
"strict_status_check" : true,
"rds_ddl_lock_wait_timeout" : 31536000
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLConfigurationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
```

```
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
ShowGaussMySQLConfigurationRequest request = new ShowGaussMySQLConfigurationRequest();
try {
    ShowGaussMySQLConfigurationResponse response = client.showGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLConfigurationRequest()
        response = client.show_gauss_my_sql_configuration(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowGaussMySQLConfigurationRequest{}
response, err := client.ShowGaussMySQLConfiguration(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.5 修改参数模板

### 功能介绍

修改指定参数模板的参数信息，包括名称、描述、指定参数的值。

### 接口约束

- 该接口仅支持GaussDB(for MySQL)主备-独享版。
- 默认参数模板不允许修改。
- 修改参数模板名称“name”不能与默认参数模板名称重复。

- 修改的参数必须在指定数据库版本的默认参数范围内。

## 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/configurations/{configuration\_id}

表 4-363 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-364 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>• en-us</li><li>• zh-cn</li></ul>



表 4-365 请求 Body 参数

参数	是否必选	参数类型	描述
name	否	String	参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。参数模板描述，参数名和参数值映射关系三项不能同时为空。
description	否	String	参数模板描述。默认为空。取值范围：长度不超过256个字符，且不能包含回车和特殊字符！<" = ' > &。
parameter_values	否	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数，自定义的参数值。不传入该参数，则保持原参数信息。

## 响应参数

状态码： 200

表 4-366 响应 Body 参数

参数	参数类型	描述
job_id	String	修改参数模板的任务ID。

状态码： 400

表 4-367 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-368 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改参数模板。

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/7a8d539ba30f43adaf1b16d08b1df4bdpr07
{
  "parameter_values": {
    "max_user_connections": "4"
  }
}
```

## 响应示例

状态码: 200

Success.

```
{
  "job_id": "f6cb21fe-186a-4931-b20d-764ced1f1f6b"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改参数模板。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.Map;
import java.util.HashMap;

public class UpdateGaussMySqlConfigurationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySQLConfigurationRequest request = new UpdateGaussMySQLConfigurationRequest();
UpdateConfigurationParameterRequestBody body = new
UpdateConfigurationParameterRequestBody();
Map<String, String> listbodyParameterValues = new HashMap<>();
listbodyParameterValues.put("max_user_connections", "4");
body.withParameterValues(listbodyParameterValues);
request.withBody(body);
try {
    UpdateGaussMySQLConfigurationResponse response =
client.updateGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改参数模板。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLConfigurationRequest()
        listParameterValuesbody = {
            "max_user_connections": "4"
        }
        request.body = UpdateConfigurationParameterRequestBody(
```

```
        parameter_values=listParameterValuesbody
    )
    response = client.update_gauss_my_sql_configuration(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改参数模板。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlConfigurationRequest{}
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "4",
    }
    request.Body = &model.UpdateConfigurationParameterRequestBody{
        ParameterValues: listParameterValuesbody,
    }
    response, err := client.UpdateGaussMySqlConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.6 应用参数模板

### 功能介绍

指定实例变更参数模板。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/configurations/{configuration\_id}/apply

表 4-369 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 获取方法参见 <a href="#">查询参数模板</a> 。

## 请求参数

表 4-370 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-371 请求 Body 参数

参数	是否必选	参数类型	描述
instance_ids	是	Array of strings	实例ID列表。列表长度限制在10以内。

## 响应参数

状态码： 200

表 4-372 响应 Body 参数

参数	参数类型	描述
job_id	String	应用参数模板的任务ID。

状态码： 400

表 4-373 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-374 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

应用参数模板。

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/  
7a8d539ba30f43adaf1b16d08b1df4bdpr07/apply  
  
{  
  "instance_ids" : [ "1c3f12d626824d4ca357104def25a455in07" ]  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "bf26cf3c-d046-4080-bb45-f114be7afa5f"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

应用参数模板。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class SwitchGaussMySQLConfigurationSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
    }  
}
```

```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SwitchGaussMySQLConfigurationRequest request = new SwitchGaussMySQLConfigurationRequest();
ApplyConfigurationRequestBody body = new ApplyConfigurationRequestBody();
List<String> listbodyInstanceIds = new ArrayList<>();
listbodyInstanceIds.add("1c3f12d626824d4ca357104def25a455in07");
body.withInstanceIds(listbodyInstanceIds);
request.withBody(body);
try {
    SwitchGaussMySQLConfigurationResponse response =
client.switchGaussMySQLConfiguration(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

应用参数模板。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySQLConfigurationRequest()
        listInstanceIdsbody = [
            "1c3f12d626824d4ca357104def25a455in07"
        ]
        request.body = ApplyConfigurationRequestBody(
            instance_ids=listInstanceIdsbody
        )
        response = client.switch_gauss_my_sql_configuration(request)
```



```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 应用参数模板。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLConfigurationRequest{}
    var listInstanceIdsbody = []string{
        "1c3f12d626824d4ca357104def25a455in07",
    }
    request.Body = &model.ApplyConfigurationRequestBody{
        InstanceIds: listInstanceIdsbody,
    }
    response, err := client.SwitchGaussMySQLConfiguration(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.7 复制参数组

### 功能介绍

复制参数组。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/configurations/{configuration\_id}/copy

表 4-375 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数组ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为configuration_id值。

## 请求参数

表 4-376 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-377 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	复制后的参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	复制后的参数模板描述。默认为空。 取值范围：长度不超过256位，且不能包含回车和>!"&'=特殊字符。

## 响应参数

状态码： 200

表 4-378 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。

状态码： 400

表 4-379 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-380 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

复制参数组。

```
post https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/  
a2069d40256f40078c52d90d6a91ee63pr07/copy  
  
{  
  "name" : "paramTemplate-new",  
  "description" : "new-parameter-group"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "configuration_id" : "7b4e07852bd54016906e89461b3182cdpr02"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

复制参数组。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
```

```
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CopyConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CopyConfigurationsRequest request = new CopyConfigurationsRequest();
        CopyConfigurationsRequestBody body = new CopyConfigurationsRequestBody();
        body.withDescription("new-parameter-group");
        body.withName("paramTemplate-new");
        request.withBody(body);
        try {
            CopyConfigurationsResponse response = client.copyConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

复制参数组。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
```

```
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
    request = CopyConfigurationsRequest()
    request.body = CopyConfigurationsRequestBody(
        description="new-parameter-group",
        name="paramTemplate-new"
    )
    response = client.copy_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

### 复制参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CopyConfigurationsRequest{}
    descriptionCopyConfigurationsRequestBody := "new-parameter-group"
    request.Body = &model.CopyConfigurationsRequestBody{
        Description: &descriptionCopyConfigurationsRequestBody,
        Name: "paramTemplate-new",
    }
    response, err := client.CopyConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.8 对比参数模板

### 功能介绍

比较两个参数模板之间的差异。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/configurations/comparison

表 4-381 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-382 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-383 请求 Body 参数

参数	是否必选	参数类型	描述
source_configuration_id	是	String	需要进行比较的源参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为source_configuration_id值。
target_configuration_id	是	String	需要进行比较的目标参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为target_configuration_id值。

## 响应参数

状态码： 200



表 4-384 响应 Body 参数

参数	参数类型	描述
differences	Array of <a href="#">ParamGroupParameterDifferences</a> objects	参数之间的区别集合。

表 4-385 ParamGroupParameterDifferences

参数	参数类型	描述
parameter_name	String	参数名称。
source_value	String	源参数模板中的参数值。
target_value	String	目标参数模板中的参数值。

状态码： 400

表 4-386 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-387 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

对比参数组。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/comparison
{
  "source_configuration_id": "a2069d40256f40078c52d90d6a91ee63pr07",
```

```
"target_configuration_id" : "0cd8ef851dc4422f98e7717205ed13e6pr07"  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "differences" : [ {  
    "parameter_name" : "innodb_purge_threads",  
    "source_value" : 1,  
    "target_value" : 4  
  }, {  
    "parameter_name" : "connect_timeout",  
    "source_value" : 10,  
    "target_value" : 20  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

对比参数组。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListConfigurationsDifferencesSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
  
        ListConfigurationsDifferencesRequest request = new ListConfigurationsDifferencesRequest();  
        ListConfigurationsDifferencesRequestBody body = new ListConfigurationsDifferencesRequestBody();  
        body.withTargetConfigurationId("0cd8ef851dc4422f98e7717205ed13e6pr07");  
        body.withSourceConfigurationId("a2069d40256f40078c52d90d6a91ee63pr07");  
        request.withBody(body);  
        try {
```

```
ListConfigurationsDifferencesResponse response = client.listConfigurationsDifferences(request);
System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

对比参数组。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListConfigurationsDifferencesRequest()
        request.body = ListConfigurationsDifferencesRequestBody(
            target_configuration_id="0cd8ef851dc4422f98e7717205ed13e6pr07",
            source_configuration_id="a2069d40256f40078c52d90d6a91ee63pr07"
        )
        response = client.list_configurations_differences(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

对比参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListConfigurationsDifferencesRequest{}
    request.Body = &model.ListConfigurationsDifferencesRequestBody{
        TargetConfigurationId: "0cd8ef851dc4422f98e7717205ed13e6pr07",
        SourceConfigurationId: "a2069d40256f40078c52d90d6a91ee63pr07",
    }
    response, err := client.ListConfigurationsDifferences(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.9 查询可应用的实例列表

### 功能介绍

查询指定参数模板可被应用的实例。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/configurations/{configuration\_id}/applicable-instances

表 4-388 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
configuration_id	是	String	参数模板ID。 通过调用 <a href="#">查询参数模板</a> 接口获取。 请求响应成功后在响应消息体中包含的“id”的值即为configuration_id值。

表 4-389 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-390 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-391 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">ApplicableInstances</a> objects	可以应用的实例列表。
total_count	Integer	可应用的实例列表数量。

表 4-392 ApplicableInstances

参数	参数类型	描述
instance_id	String	实例ID。
instance_name	String	实例名称。

状态码： 400

表 4-393 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-394 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询可应用该模板参数组的实例列表。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/0c82974e2354466098d7b4b72e55129dpr07/applicable-instances
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 10,
  "instances": [ {
    "instance_id": "75e1935142974ca685357dc784626f22in07",
    "instance_name": "gauss-ff14-hll"
  }, {
    "instance_id": "cf72c31a689c40b7883c355a0bb5cc1din07",
    "instance_name": "tst-bbbnew"
  }, {
    "instance_id": "4a99fbae95df43648281cdd9e269c1c7in07",
    "instance_name": "gauss-62d8"
  }, {
    "instance_id": "fb6244dc9b1443b7ad0aae81283d5d28in07",
    "instance_name": "gauss-test-1"
  }, {
    "instance_id": "2260da7e105e485ebc9c060c1663d89ain07",
    "instance_name": "gauss-f4c6-cx"
  }, {
    "instance_id": "1cf7357f931448f89229de664c114d05in07",
    "instance_name": "gauss-wry-0710-3"
  }, {
    "instance_id": "5280b1a667d142378fe28816afb2e4b8in07",
    "instance_name": "taurus_WAKJSzVy"
  }, {
    "instance_id": "56c6924923804259a1b15b846c6b4bf1in07",
    "instance_name": "tck-update3"
  }, {
    "instance_id": "72a8f4287e04427985087795825fcddain07",
```

```
"instance_name" : "critBack"
}, {
  "instance_id" : "c5df1dec75ed48ab85fe52c72ba784bbin07",
  "instance_name" : "gauss-f873-cx"
}]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListConfigurationsInstancesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListConfigurationsInstancesRequest request = new ListConfigurationsInstancesRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListConfigurationsInstancesResponse response = client.listConfigurationsInstances(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8
```



```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListConfigurationsInstancesRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_configurations_instances(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListConfigurationsInstancesRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
```

```
request.Limit = &limitRequest
response, err := client.ListConfigurationsInstances(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.10 查询参数修改历史

### 功能介绍

查询参数修改历史。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/configurations/{configuration\_id}/modify-history

表 4-395 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

参数	是否必选	参数类型	描述
configuration_id	是	String	参数组ID。 通过调用 <a href="#">查询实例详情信息</a> 接口获取。 请求响应成功后在响应消息体中包含的“configuration_id”的值即为configuration_id值。

表 4-396 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-397 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-398 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总数。
histories	Array of ParamGroupHistoryResponse objects	参数模板的修改历史列表。

表 4-399 ParamGroupHistoryResponse

参数	参数类型	描述
parameter_name	String	参数名称。
old_value	String	修改前参数值。
new_value	String	修改后参数值。
update_result	String	更新结果。
is_applied	Boolean	是否应用。 <ul style="list-style-type: none"><li>• true: 是。</li><li>• false: 否。</li></ul>
updated	String	修改时间。格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
applied	String	应用时间。格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

状态码：400

表 4-400 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-401 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询参数组的修改历史。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/7625c6a12d884be1891c61d921e0e114pr07/modify-history
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 2,
  "histories": [ {
    "parameter_name": "binlog_rows_query_log_events",
    "old_value": false,
    "new_value": true,
    "update_result": "SUCCESS",
    "is_applied": true,
    "updated": "2023-07-10T02:14:28+0000",
    "applied": "2023-07-10T02:14:28+0000"
  }, {
    "parameter_name": "block_encryption_mode",
    "old_value": "aes-256-cbc",
    "new_value": "aes-128-cfb1",
    "update_result": "SUCCESS",
    "is_applied": true,
    "updated": "2023-07-10T02:14:28+0000",
    "applied": "2023-07-10T02:14:28+0000"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListModifyHistorySolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");

    ICredential auth = new BasicCredentials()
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListModifyHistoryRequest request = new ListModifyHistoryRequest();
    request.withOffset(<offset>);
    request.withLimit(<limit>);
    try {
        ListModifyHistoryResponse response = client.listModifyHistory(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListModifyHistoryRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_modify_history(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListModifyHistoryRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ListModifyHistory(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.11 获取指定实例的参数信息

### 功能介绍

获取指定实例的参数信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/configurations

表 4-402 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-403 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。



## 请求参数

表 4-404 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-405 响应 Body 参数

参数	参数类型	描述
configurations	<a href="#">ParameterConfigurationInfo</a> object	配置信息。
total_count	Long	参数信息的总数。
parameter_values	Array of <a href="#">ParameterValuesInfo</a> objects	参数对象。

表 4-406 ParameterConfigurationInfo

参数	参数类型	描述
datastore_version_name	String	数据库版本名称。
datastore_name	String	数据库名称。

参数	参数类型	描述
created	String	创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。

表 4-407 ParameterValuesInfo

参数	参数类型	描述
name	String	参数名称。
value	String	参数值。
restart_required	Boolean	是否需要重启。 <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>
readonly	Boolean	是否只读。 <ul style="list-style-type: none"><li>• false: 否。</li><li>• true: 是。</li></ul>
value_range	String	参数值范围, 如Integer取值0-1、Boolean取值true/false等。
type	String	参数类型,可取值如下: <ul style="list-style-type: none"><li>• string</li><li>• integer</li><li>• boolean</li><li>• list</li><li>• float</li></ul>
description	String	参数描述。

状态码: 400

表 4-408 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码： 500**

**表 4-409 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取指定实例的参数信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/configurations
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "configurations" : {  
    "datastore_version_name" : 2.0,  
    "datastore_name" : "taurus",  
    "created" : "2022-10-29T09:38:36+0000",  
    "updated" : "2022-10-29T09:38:36+0000"  
  },  
  "total_count" : 125,  
  "parameter_values" : [ {  
    "name" : "auto_increment_increment",  
    "value" : 1,  
    "restart_required" : false,  
    "readonly" : false,  
    "value_range" : "1-65535",  
    "type" : "integer",  
    "description" : "auto_increment_increment和auto_increment_offset 用于master-to-master的复制，并可以用  
    来控制AUTO_INCREMENT列的操作。"  
  }, {  
    "name" : "auto_increment_offset",  
    "value" : 1,  
    "restart_required" : false,  
    "readonly" : false,  
    "value_range" : "1-65535",  
    "type" : "integer",  
    "description" : "auto_increment_increment和auto_increment_offset用于master-to-master的复制，并可以用  
    来控制AUTO_INCREMENT列的操作。"  
  } ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;
```

```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListInstanceConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListInstanceConfigurationsRequest request = new ListInstanceConfigurationsRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListInstanceConfigurationsResponse response = client.listInstanceConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \
    client = GaussDBClient.new_builder() \
```

```
.with_credentials(credentials) \  
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
.build()  
  
try:  
    request = ListInstanceConfigurationsRequest()  
    request.offset = <offset>  
    request.limit = <limit>  
    response = client.list_instance_configurations(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ListInstanceConfigurationsRequest{}  
    offsetRequest := int32(<offset>)  
    request.Offset = &offsetRequest  
    limitRequest := int32(<limit>)  
    request.Limit = &limitRequest  
    response, err := client.ListInstanceConfigurations(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.12 修改指定实例的参数

### 功能介绍

修改指定实例的参数。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/configurations

表 4-410 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-411 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值: application/json。
X-Language	否	String	请求语言类型。默认en-us。取值范围: <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-412 请求 Body 参数

参数	是否必选	参数类型	描述
parameter_values	是	Map<String,String>	参数名和参数值映射关系。用户可以基于默认参数模板的参数,自定义的参数值。不传入该参数,则保持原参数信息。

## 响应参数

状态码: 200

表 4-413 响应 Body 参数

参数	参数类型	描述
job_id	String	修改指定实例参数的任务ID。
restart_required	Boolean	是否需要重启。 <ul style="list-style-type: none"><li>true: 是。</li><li>false: 否。</li></ul>

状态码: 400

表 4-414 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-415 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改指定实例的参数。

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
3ef58db3986540d19f95151309368d34in07/configurations  
  
{  
  "parameter_values": {  
    "max_user_connections": "100"  
  }  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "job_id": "e5d698a9-d8db-47d2-bf75-3c9018f72b6f",  
  "restart_required": false  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改指定实例的参数。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
```



```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.Map;
import java.util.HashMap;

public class UpdateInstanceConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateInstanceConfigurationsRequest request = new UpdateInstanceConfigurationsRequest();
        UpdateInstanceConfigurationsRequestBody body = new UpdateInstanceConfigurationsRequestBody();
        Map<String, String> listbodyParameterValues = new HashMap<>();
        listbodyParameterValues.put("max_user_connections", "100");
        body.withParameterValues(listbodyParameterValues);
        request.withBody(body);
        try {
            UpdateInstanceConfigurationsResponse response = client.updateInstanceConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改指定实例的参数。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateInstanceConfigurationsRequest()
    listParameterValuesbody = {
        "max_user_connections": "100"
    }
    request.body = UpdateInstanceConfigurationsRequestBody(
        parameter_values=listParameterValuesbody
    )
    response = client.update_instance_configurations(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改指定实例的参数。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateInstanceConfigurationsRequest{}
    var listParameterValuesbody = map[string]string{
        "max_user_connections": "100",
    }
    request.Body = &model.UpdateInstanceConfigurationsRequestBody{
        ParameterValues: listParameterValuesbody,
    }
    response, err := client.UpdateInstanceConfigurations(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
```

```
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.5.13 复制实例参数组

### 功能介绍

复制实例参数组。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/configurations/{configuration\_id}/copy

表 4-416 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

参数	是否必选	参数类型	描述
configuration_id	是	String	参数组ID。 通过调用 <a href="#">查询实例详情信息</a> 接口获取。 请求响应成功后在响应消息体中包含的“configuration_id”的值即为configuration_id值。

## 请求参数

表 4-417 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
Content-Type	是	String	内容类型。 取值：application/json。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-418 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	复制后的参数模板名称。 取值范围：长度1到64个字符之间，区分大小写字母，可包含字母、数字、中划线、下划线或句点，不能包含其他特殊字符。
description	否	String	复制后的参数模板描述。默认为空。 取值范围：描述不能超过256个字符，且不能包含回车和特殊字符！< " = ' > &。

## 响应参数

状态码： 200

表 4-419 响应 Body 参数

参数	参数类型	描述
configuration_id	String	参数模板ID。

状态码： 400

表 4-420 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-421 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

复制实例参数组。

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/configurations/b26ab68e7a77495c8d84b92e4eaa33d3pr07/copy
{
  "name": "paramTemplate-test-1",
  "description": "test"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "configuration_id": "c82d8c54c4c7416a946f58d9ee89ed8epr07"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

复制实例参数组。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class CopyInstanceConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CopyInstanceConfigurationsRequest request = new CopyInstanceConfigurationsRequest();
        CopyInstanceConfigurationsRequestBody body = new CopyInstanceConfigurationsRequestBody();
        body.withDescription("test");
        body.withName("paramTemplate-test-1");
        request.withBody(body);
        try {
            CopyInstanceConfigurationsResponse response = client.copyInstanceConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

复制实例参数组。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CopyInstanceConfigurationsRequest()
        request.body = CopyInstanceConfigurationsRequestBody(
            description="test",
            name="paramTemplate-test-1"
        )
        response = client.copy_instance_configurations(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

复制实例参数组。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

```
request := &model.CopyInstanceConfigurationsRequest{}
descriptionCopyInstanceConfigurationsRequestBody:= "test"
request.Body = &model.CopyInstanceConfigurationsRequestBody{
    Description: &descriptionCopyInstanceConfigurationsRequestBody,
    Name: "paramTemplate-test-1",
}
response, err := client.CopyInstanceConfigurations(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6 配额管理

### 4.6.1 查询租户的实例配额

#### 功能介绍

获取指定租户的资源配额。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/project-quotas



表 4-422 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-423 Query 参数

参数	是否必选	参数类型	描述
type	否	String	功能说明：根据type过滤查询指定类型的配额。 取值范围： <ul style="list-style-type: none"><li>instance</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>instance</b></li></ul>

## 请求参数

表 4-424 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-425 响应 Body 参数

参数	参数类型	描述
quotas	<b>project-quotas</b> object	租户实例配额信息。

表 4-426 project-quotas

参数	参数类型	描述
resources	Array of <b>resource</b> objects	资源列表对象。

表 4-427 resource

参数	参数类型	描述
type	String	指定类型的配额。 <ul style="list-style-type: none"><li>instance: 表示实例的配额</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>instance</b></li></ul>
used	Integer	已创建的资源个数。
quota	Integer	资源最大的配额数。

状态码： 400

表 4-428 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-429 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

查询租户的实例配额。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/project-quotas?type=instance
```

## 响应示例

状态码: 200

Success.

```
{
  "quotas": {
    "resources": [ {
      "type": "instance",
      "used": "4",
      "quota": 50
    } ]
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLProjectQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
```

```
        .build();
        ShowGaussMySqlProjectQuotasRequest request = new ShowGaussMySqlProjectQuotasRequest();
        request.withType(ShowGaussMySqlProjectQuotasRequest.TypeEnum.fromValue("<type>"));
        try {
            ShowGaussMySqlProjectQuotasResponse response = client.showGaussMySqlProjectQuotas(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySqlProjectQuotasRequest()
        request.type = "<type>"
        response = client.show_gauss_my_sql_project_quotas(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowGaussMySqlProjectQuotasRequest{}
typeRequest:= model.GetShowGaussMySqlProjectQuotasRequestTypeEnum().<TYPE>
request.Type = &typeRequest
response, err := client.ShowGaussMySqlProjectQuotas(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.2 查询租户基于企业项目的资源配额

### 功能介绍

获取指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/quotas

表 4-430 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-431 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。 取值范围：0 - 10000
limit	否	String	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
enterprise_project_name	否	String	企业项目名称。

## 请求参数

表 4-432 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-433 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <b>quota</b> objects	资源列表对象。
total_count	Integer	配额记录的条数。

表 4-434 quota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
enterprise_project_name	String	企业项目名称。
instance_quota	Integer	实例个数配额。
vcpus_quota	Integer	CPU核数配额。
ram_quota	Integer	内存使用配额，单位为GB。
availability_instance_quota	Integer	实例剩余配额。
availability_vcpus_quota	Integer	CPU核数剩余配额。
availability_ram_quota	Integer	内存剩余配额。

状态码： 400

表 4-435 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-436 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取资源配额。

GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas

## 响应示例

状态码： 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40,
    "availability_instance_quota": 1,
    "availability_vcpus_quota": 4,
    "availability_ram_quota": 8
  } ],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```



```
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLQuotasRequest request = new ShowGaussMySQLQuotasRequest();
        request.withOffset("<offset>");
        request.withLimit("<limit>");
        request.withEnterpriseProjectName("<enterprise_project_name>");
        try {
            ShowGaussMySQLQuotasResponse response = client.showGaussMySQLQuotas(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = ShowGaussMySqlQuotasRequest()
    request.offset = "<offset>"
    request.limit = "<limit>"
    request.enterprise_project_name = "<enterprise_project_name>"
    response = client.show_gauss_my_sql_quotas(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySqlQuotasRequest{}
    offsetRequest := "<offset>"
    request.Offset = &offsetRequest
    limitRequest := "<limit>"
    request.Limit = &limitRequest
    enterpriseProjectNameRequest := "<enterprise_project_name>"
    request.EnterpriseProjectName = &enterpriseProjectNameRequest
    response, err := client.ShowGaussMySqlQuotas(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.3 设置租户基于企业项目的资源配额

### 功能介绍

设置指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/quotas

表 4-437 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-438 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-439 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-440 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	否	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	否	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	否	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)

## 响应参数

状态码： 200

表 4-441 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-442 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
instance_quota	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)

状态码： 400

表 4-443 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-444 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置资源配额。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置资源配额。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class SetGaussMySQLQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SetGaussMySqlQuotasRequest request = new SetGaussMySqlQuotasRequest();
SetQuotasRequestBody body = new SetQuotasRequestBody();
List<SetQuota> listbodyQuotaList = new ArrayList<>();
listbodyQuotaList.add(
    new SetQuota()
        .withEnterpriseProjectId("0")
        .withInstanceQuota(20)
        .withVcpusQuota(20)
        .withRamQuota(40)
);
body.withQuotaList(listbodyQuotaList);
request.withBody(body);
try {
    SetGaussMySqlQuotasResponse response = client.setGaussMySqlQuotas(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

设置资源配额。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetGaussMySqlQuotasRequest()
        listQuotaListbody = [
            SetQuota(
                enterprise_project_id="0",
                instance_quota=20,
                vcpus_quota=20,
                ram_quota=40
            )
        ]
        body = SetQuotasRequestBody(listQuotaListbody)
        request.with_body(body)
        response = client.set_gauss_my_sql_quotas(request)
        print(response.to_dict())
    except exceptions.ApiException as e:
        print("The api call failed: %s" % e)
```

```
)
]
request.body = SetQuotasRequestBody(
    quota_list=listQuotaListbody
)
response = client.set_gauss_my_sql_quotas(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置资源配额。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SetGaussMySqlQuotasRequest{
        instanceQuotaQuotaList:= int32(20)
        vcpusQuotaQuotaList:= int32(20)
        ramQuotaQuotaList:= int32(40)
        var listQuotaListbody = []model.SetQuota{
            {
                EnterpriseProjectId: "0",
                InstanceQuota: &instanceQuotaQuotaList,
                VcpusQuota: &vcpusQuotaQuotaList,
                RamQuota: &ramQuotaQuotaList,
            },
        },
    }
    request.Body = &model.SetQuotasRequestBody{
        QuotaList: listQuotaListbody,
    }
    response, err := client.SetGaussMySqlQuotas(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```



## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.4 修改租户基于企业项目的资源配额

### 功能介绍

修改指定企业项目的资源配额。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/quotas

表 4-445 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-446 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-447 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-448 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	否	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	否	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	否	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)

## 响应参数

状态码： 200

表 4-449 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 4-450 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
instance_quota	Integer	实例个数配额。取值范围0~100000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额，单位为GB。取值范围0~2147483646。(如果已经存在实例，应该大于已经占用的内存数)

状态码： 400

表 4-451 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-452 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改指定企业项目的资源配额。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改指定企业项目的资源配额。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateGaussMySqlQuotasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySQLQuotasRequest request = new UpdateGaussMySQLQuotasRequest();
SetQuotasRequestBody body = new SetQuotasRequestBody();
List<SetQuota> listbodyQuotaList = new ArrayList<>();
listbodyQuotaList.add(
    new SetQuota()
        .withEnterpriseProjectId("0")
        .withInstanceQuota(20)
        .withVcpusQuota(20)
        .withRamQuota(40)
);
body.withQuotaList(listbodyQuotaList);
request.withBody(body);
try {
    UpdateGaussMySQLQuotasResponse response = client.updateGaussMySQLQuotas(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

修改指定企业项目的资源配额。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySQLQuotasRequest()
        listQuotaListbody = [
            SetQuota(
                enterprise_project_id="0",
                instance_quota=20,
                vcpus_quota=20,
                ram_quota=40
            )
        ]
        body = SetQuotasRequestBody(listQuotaListbody)
        request.with_body(body)
        response = client.update_gauss_mysql_quotas(request)
        print(response.to_dict())
    except exceptions.ApiException as e:
        print("The returned http status code: {}".format(e.status_code))
        print("The returned message: {}".format(e.message))
        print("The returned headers: {}".format(e.headers))
        print("The returned body: {}".format(e.body))
```

```
)
]
request.body = SetQuotasRequestBody(
    quota_list=listQuotaListbody
)
response = client.update_gauss_my_sql_quotas(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改指定企业项目的资源配额。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlQuotasRequest{
        instanceQuotaQuotaList:= int32(20)
        vcpusQuotaQuotaList:= int32(20)
        ramQuotaQuotaList:= int32(40)
        var listQuotaListbody = []model.SetQuota{
            {
                EnterpriseProjectId: "0",
                InstanceQuota: &instanceQuotaQuotaList,
                VcpusQuota: &vcpusQuotaQuotaList,
                RamQuota: &ramQuotaQuotaList,
            },
        },
    }
    request.Body = &model.SetQuotasRequestBody{
        QuotaList: listQuotaListbody,
    }
    response, err := client.UpdateGaussMySqlQuotas(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.6.5 查询企业项目

### 功能介绍

查询企业项目。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/enterprise-projects

表 4-453 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-454 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-455 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-456 响应 Body 参数

参数	参数类型	描述
enterprise_projects	Array of <a href="#">EnterpriseProjectItem</a> objects	企业项目信息列表。
total_count	Integer	总数。



表 4-457 EnterpriseProjectItem

参数	参数类型	描述
id	String	企业项目ID。
name	String	企业项目名称。
description	String	描述。
status	String	状态。 <ul style="list-style-type: none"><li>• 1: 正常。</li><li>• 0: 异常。</li></ul>
created	String	创建时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式为“yyyy-mm-ddThh:mm:ssZ”。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。

状态码: 400

表 4-458 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-459 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询企业项目。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/enterprise-projects
```

## 响应示例

**状态码： 200**

Success.

```
{
  "total_count" : 4,
  "enterprise_projects" : [ {
    "id" : 0,
    "name" : "default",
    "description" : null,
    "status" : 1,
    "created" : null,
    "updated" : null
  }, {
    "id" : "5c7d11e0-3201-4558-bcce-1172137cf7e2",
    "name" : "sjw-eps",
    "description" : null,
    "status" : 1,
    "created" : "2023-06-12T02:14:28+0000",
    "updated" : "2023-06-12T02:14:28+0000"
  }, {
    "id" : "12093327-28dc-46c5-8ba6-d42c9236f9d6",
    "name" : "adf",
    "description" : null,
    "status" : 1,
    "created" : "2023-05-06T08:33:03+0000",
    "updated" : "2023-05-06T08:33:03+0000"
  }, {
    "id" : "07d90b3f-422b-40c9-b9b3-6d00d1d7a60b",
    "name" : "eps-test",
    "description" : null,
    "status" : 1,
    "created" : "2023-03-16T01:38:13+0000",
    "updated" : "2023-03-16T01:38:13+0000"
  }
  ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListEnterpriseProjectsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ListEnterpriseProjectsRequest request = new ListEnterpriseProjectsRequest();
request.withOffset(<offset>);
request.withLimit(<limit>);
try {
    ListEnterpriseProjectsResponse response = client.listEnterpriseProjects(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListEnterpriseProjectsRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_enterprise_projects(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListEnterpriseProjectsRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ListEnterpriseProjects(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7 数据库代理

### 4.7.1 开启数据库代理

#### 功能介绍

开启数据库代理，只支持ELB模式。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy

表 4-460 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

#### 请求参数

表 4-461 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-462 请求 Body 参数

参数	是否必选	参数类型	描述
flavor_ref	是	String	数据库代理规格码。
node_num	是	Integer	数据库代理节点数，取值整数 2-16。
proxy_name	否	String	数据库代理名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。 取值范围：最小为4个字符，最大为64个字符且不超过64个字节（注意：一个中文字符占用3个字节），必须以字母或中文开头，区分大小写，可以包含字母、数字、中划线、下划线或中文，不能包含其他特殊字符。
proxy_mode	否	String	数据库代理类型。默认类型为 readwrite。 枚举值： <ul style="list-style-type: none"> <li>● readwrite</li> <li>● readonly</li> </ul>
route_mode	否	Integer	数据库代理路由模式，默认为 0，权重负载模式。 取值范围： <ul style="list-style-type: none"> <li>● 0：表示权重负载模式。</li> <li>● 1：表示负载均衡模式（数据库主节点不接受读请求）。</li> <li>● 2：表示负载均衡模式（数据库主节点接受读请求）。</li> </ul>
nodes_read_weight	否	Array of NodesWeight objects	数据库节点的读权重设置。 在 proxy_mode 为 readonly 时，只能为只读节点选择权重。
subnet_id	否	String	数据库 VPC 下的子网 ID。
new_node_auto_add_status	否	String	是否开启新增节点自动加入该 Proxy。如果需要设置是否开启新增节点自动加入该 Proxy，请联系客服人员添加白名单，加入白名单后，方可输入该字段。 取值范围： <ul style="list-style-type: none"> <li>● ON：开启。</li> <li>● OFF：关闭。</li> </ul>

参数	是否必选	参数类型	描述
new_node_weight	否	Integer	新增节点的读权重： <ul style="list-style-type: none"><li>如果路由模式为0，新增节点自动加入为ON，取值为0~1000。</li><li>如果路由模式不为0或新增节点自动加入为OFF，则可不输入读权重。</li></ul>

表 4-463 NodesWeight

参数	是否必选	参数类型	描述
id	否	String	数据库节点ID。
weight	否	Integer	权重： <ul style="list-style-type: none"><li>如果路由模式为0，取值为0~1000。</li><li>如果路由模式为1，数据库主节点取值为0，只读节点取值为0或1。</li><li>如果路由模式为2，数据库主节点取值为1，只读节点取值为0或1。</li></ul>

## 响应参数

状态码： 201

表 4-464 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-465 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-466 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启数据库代理，规格2U8GB，代理模式只读模式。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/43e4feaab48f11e89039fa163ebaa7e4br01/proxy
{
  "flavor_ref" : "gaussdb.proxy.large.x86.2",
  "node_num" : 2,
  "proxy_name" : "gaussdb-proxy",
  "proxy_mode" : "readonly",
  "route_mode" : 0,
  "nodes_read_weight" : [ {
    "id" : "45021bf73a244312a3f2af95092feecno07",
    "weight" : 50
  }, {
    "id" : "d78a65690cea4af5ad14585e110ff89bno07",
    "weight" : 400
  } ],
  "subnet_id" : "6991d82d-9166-4aff-a1fa-d2a8748b7084"
}
```

## 响应示例

状态码： 201

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开启数据库代理，规格2U8GB，代理模式只读模式。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
```



```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateGaussMySQLProxySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateGaussMySQLProxyRequest request = new CreateGaussMySQLProxyRequest();
        OpenMysqlProxyRequestBody body = new OpenMysqlProxyRequestBody();
        List<NodesWeight> listbodyNodesReadWeight = new ArrayList<>();
        listbodyNodesReadWeight.add(
            new NodesWeight()
                .withId("45021bf73a244312a3f2af95092feecno07")
                .withWeight(50)
        );
        listbodyNodesReadWeight.add(
            new NodesWeight()
                .withId("d78a65690cea4af5ad14585e110ff89bno07")
                .withWeight(400)
        );
        body.withSubnetId("6991d82d-9166-4aff-a1fa-d2a8748b7084");
        body.withNodesReadWeight(listbodyNodesReadWeight);
        body.withRouteMode(0);
        body.withProxyMode(OpenMysqlProxyRequestBody.ProxyModeEnum.fromValue("readonly"));
        body.withProxyName("gaussdb-proxy");
        body.withNodeNum(2);
        body.withFlavorRef("gaussdb.proxy.large.x86.2");
        request.withBody(body);
        try {
            CreateGaussMySQLProxyResponse response = client.createGaussMySQLProxy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

开启数据库代理，规格2U8GB，代理模式只读模式。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySqlProxyRequest()
        listNodesReadWeightbody = [
            NodesWeight(
                id="45021bf73a244312a3f2af95092feecno07",
                weight=50
            ),
            NodesWeight(
                id="d78a65690cea4af5ad14585e110ff89bno07",
                weight=400
            )
        ]
        request.body = OpenMysqlProxyRequestBody(
            subnet_id="6991d82d-9166-4aff-a1fa-d2a8748b7084",
            nodes_read_weight=listNodesReadWeightbody,
            route_mode=0,
            proxy_mode="readonly",
            proxy_name="gaussdb-proxy",
            node_num=2,
            flavor_ref="gaussdb.proxy.large.x86.2"
        )
        response = client.create_gauss_my_sql_proxy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

开启数据库代理，规格2U8GB，代理模式只读模式。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMySQLProxyRequest{}
idNodesReadWeight:= "45021bf73a244312a3f2af95092feecno07"
weightNodesReadWeight:= int32(50)
idNodesReadWeight1:= "d78a65690cea4af5ad14585e110ff89bno07"
weightNodesReadWeight1:= int32(400)
var listNodesReadWeightbody = []model.NodesWeight{
    {
        Id: &idNodesReadWeight,
        Weight: &weightNodesReadWeight,
    },
    {
        Id: &idNodesReadWeight1,
        Weight: &weightNodesReadWeight1,
    },
}
subnetIdOpenMysqlProxyRequestBody:= "6991d82d-9166-4aff-a1fa-d2a8748b7084"
routeModeOpenMysqlProxyRequestBody:= int32(0)
proxyModeOpenMysqlProxyRequestBody:=
model.GetOpenMysqlProxyRequestBodyProxyModeEnum().READONLY
proxyNameOpenMysqlProxyRequestBody:= "gaussdb-proxy"
request.Body = &model.OpenMysqlProxyRequestBody{
    SubnetId: &subnetIdOpenMysqlProxyRequestBody,
    NodesReadWeight: &listNodesReadWeightbody,
    RouteMode: &routeModeOpenMysqlProxyRequestBody,
    ProxyMode: &proxyModeOpenMysqlProxyRequestBody,
    ProxyName: &proxyNameOpenMysqlProxyRequestBody,
    NodeNum: int32(2),
    FlavorRef: "gaussdb.proxy.large.x86.2",
}
response, err := client.CreateGaussMySQLProxy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.2 关闭数据库代理

### 功能介绍

关闭数据库代理。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/proxy

表 4-467 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-468 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-469 请求 Body 参数

参数	是否必选	参数类型	描述
proxy_ids	否	Array of strings	数据库代理ID列表。 如果实例只开启了一个代理，可不传该字段；如果实例开启了多个代理，则必须指定要关闭的代理。

## 响应参数

状态码： 200

表 4-470 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-471 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-472 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

关闭数据库代理。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy  
{
```

```
"proxy_ids" : [ "151c14381ac14ecfb9703a745b992677po01" ]  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.3 查询数据库代理信息列表

### 功能介绍

查询数据库代理信息列表。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/proxies

表 4-473 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID, 严格匹配UUID规则。

表 4-474 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-475 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-476 响应 Body 参数

参数	参数类型	描述
proxy_list	Array of <a href="#">MysqlShowProxyResponseV3</a> objects	数据库代理信息列表。

表 4-477 MysqlShowProxyResponseV3

参数	参数类型	描述
proxy	<a href="#">MysqlProxyV3 object</a>	数据库代理信息。
master_node	<a href="#">MysqlProxyNodeV3 object</a>	主节点信息。
readonly_nodes	Array of <a href="#">MysqlProxyNodeV3 objects</a>	只读节点信息。

表 4-478 MysqlProxyV3

参数	参数类型	描述
pool_id	String	数据库代理ID。
status	String	数据库代理开启状态。 取值: <ul style="list-style-type: none"> <li>● ACTIVE: 表示数据库代理正常。</li> <li>● FAILED: 表示数据库代理创建失败。</li> <li>● DELETED: 表示数据库代理已删除。</li> <li>● ABNORMAL: 表示数据库代理异常。</li> <li>● ENABLING PROXY: 表示数据库代理正在开启。</li> <li>● DISABLING PROXY: 表示数据库代理正在关闭。</li> <li>● ADDING PROXY NODE: 表示数据库代理正在扩容。</li> <li>● DELETING READ REPLICAS FROM PROXY: 表示数据库代理正在移除只读节点。</li> <li>● ADDING READ REPLICAS TO PROXY: 表示数据库代理正在添加只读节点。</li> <li>● CHANGING WEIGHTS: 表示数据库代理正在修改只读节点权重。</li> </ul>
address	String	Proxy读写分离地址。
port	Integer	Proxy端口信息。



参数	参数类型	描述
pool_status	String	数据库代理状态。 取值范围： <ul style="list-style-type: none"> <li>ACTIVE：表示数据库代理正常。</li> <li>ABNORMAL：表示数据库代理异常。</li> <li>FAILED：表示数据库代理创建失败。</li> <li>DELETED：表示数据库代理已删除。</li> </ul>
delay_threshold_in_seconds	Integer	延时阈值，单位：秒。
elb_vip	String	Elb模式的虚拟IP信息。
eip	String	弹性公网IP地址地址信息。
vcpus	String	数据库代理规格的CPU数量。
ram	String	数据库代理规格的内存数量。
node_num	Integer	数据库代理节点个数。
mode	String	数据库代理主备模式，取值范围：Cluster。
nodes	Array of <a href="#">MysqlProxyNodes</a> objects	数据库代理节点信息。
flavor_ref	String	数据库代理规格信息。
name	String	数据库代理名称。
transaction_split	String	数据库代理事务拆分开关状态。 <ul style="list-style-type: none"> <li>ON：开启。</li> <li>OFF：关闭。</li> </ul>
connection_pool_type	String	连接池类型。 取值范围： <ul style="list-style-type: none"> <li>CLOSED: 关闭连接池。</li> <li>SESSION: 开启会话级连接池。</li> </ul>
switch_connection_pool_type_enabled	Boolean	数据库代理版本是否支持会话级连接池。 取值范围： <ul style="list-style-type: none"> <li>true: 支持。</li> <li>false: 不支持。</li> </ul>

参数	参数类型	描述
route_mode	Integer	数据库代理路由模式，默认为0，权重负载模式。 取值范围： <ul style="list-style-type: none"> <li>0：表示权重负载模式。</li> <li>1：表示负载均衡模式（数据库主节点不接受读请求）。</li> <li>2：表示负载均衡模式（数据库主节点接受读请求）。</li> </ul>
balance_route_mode_enabled	Boolean	数据库代理版本是否支持负载均衡模式。 取值范围： <ul style="list-style-type: none"> <li>true 支持；</li> <li>false 不支持。</li> </ul>
consistence_mode	String	一致性模式。默认值为空，此时以会话一致性参数session_consistence的值为准。 取值范围： <ul style="list-style-type: none"> <li>session: 会话一致性。</li> <li>global: 全局一致性。</li> <li>eventual: 最终一致性。</li> </ul>
subnet_id	String	数据库代理所属的子网ID。
ssl_option	String	SSL数据加密开关设置。 取值范围： <ul style="list-style-type: none"> <li>true: 开启SSL数据加密。</li> <li>false: 关闭SSL数据加密。</li> </ul>
new_node_auto_add_status	String	新增节点是否自动加入该Proxy。 取值范围： <ul style="list-style-type: none"> <li>ON: 自动加入。</li> <li>OFF: 不自动加入。</li> </ul>
new_node_weight	Integer	新增节点的读权重。

表 4-479 MysqlProxyNodes

参数	参数类型	描述
id	String	数据库代理节点ID。

参数	参数类型	描述
status	String	数据库代理节点状态。 取值范围： <ul style="list-style-type: none"> <li>ACTIVE：表示节点正常。</li> <li>ABNORMAL：表示节点异常。</li> <li>FAILED：表示节点失败。</li> <li>DELETED：表示节点已删除。</li> </ul>
name	String	数据库代理节点名称。
role	String	数据库代理节点角色： <ul style="list-style-type: none"> <li>master：主节点。</li> <li>slave：备节点。</li> </ul>
az_code	String	可用区。
frozen_flag	Integer	数据库代理节点是否被冻结。 取值范围： <ul style="list-style-type: none"> <li>0：未冻结。</li> <li>1：冻结。</li> <li>2：冻结删除。</li> </ul>

表 4-480 MysqlProxyNodeV3

参数	参数类型	描述
id	String	节点ID。
instance_id	String	实例ID，严格匹配UUID规则。
status	String	节点状态。
name	String	节点名称。
weight	Integer	节点读写分离读权重。
availability_zone	Array of <a href="#">MysqlProxyAvailable</a> objects	可用区信息。

表 4-481 MysqlProxyAvailable

参数	参数类型	描述
code	String	可用区编码。

参数	参数类型	描述
description	String	可用区描述。

状态码： 400

表 4-482 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-483 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例的数据库代理信息列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
517ea793ab91438cbfcd9c4b1c958b1ein07/proxies?offset=0&limit=10
```

## 响应示例

状态码： 200

Success.

```
{  
  "proxy_list": [ {  
    "proxy": {  
      "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
      "status": "ACTIVE",  
      "address": "192.168.125.69",  
      "port": 3306,  
      "pool_status": "ACTIVE",  
      "delay_threshold_in_seconds": 30,  
      "elb_vip": "192.168.125.60",  
      "eip": "192.168.125.50",  
      "vcpus": 4,  
      "ram": 8,  
      "node_num": 2,  
      "mode": "Cluster",  
      "nodes": [ {  
        "id": "db53a238a02240c49365e72e284a4890pn01",
```

```
"name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",
"role": "master",
"az_code": "az1xahz",
"status": "ACTIVE",
"frozen_flag": 0
}],
"name": "proxy-name",
"connection_pool_type": "SESSION",
"switch_connection_pool_type_enabled": true,
"route_mode": 1,
"balance_route_mode_enabled": true,
"transaction_split": false,
"consistence_mode": "session",
"subnet_id": "6991d82d-9166-4aff-a1fa-d2a8748b7084",
"new_node_auto_add_status": "ON",
"new_node_weight": 100
},
"master_node": {
  "id": "c01a5645eb2c4fb6a9373542f5366e50no07",
  "instance_id": "517ea793ab91438cbfcd9c4b1c958b1ein07",
  "status": "ACTIVE",
  "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",
  "weight": 0,
  "availability_zone": [ {
    "code": "az1",
    "description": "可用区1"
  } ]
},
"readonly_nodes": {
  "id": "d23535333138462880bfa1838fdced2no07",
  "instance_id": "517ea793ab91438cbfcd9c4b1c958b1ein07",
  "status": "ACTIVE",
  "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",
  "weight": 100,
  "availability_zone": [ {
    "code": "az1",
    "description": "可用区1"
  } ]
}
}
}
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLProxyListSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowGaussMySQLProxyListRequest request = new ShowGaussMySQLProxyListRequest();
request.withOffset(<offset>);
request.withLimit(<limit>);
try {
    ShowGaussMySQLProxyListResponse response = client.showGaussMySQLProxyList(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLProxyListRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.show_gauss_my_sql_proxy_list(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySQLProxyListRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ShowGaussMySQLProxyList(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.4 查询数据库代理规格信息

### 功能介绍

查询数据库代理规格信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy/flavors

表 4-484 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-485 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

### 响应参数

状态码： 200



表 4-486 响应 Body 参数

参数	参数类型	描述
proxy_flavor_groups	Array of <a href="#">MysqlProxyFlavorGroups</a> objects	规格组信息。

表 4-487 MysqlProxyFlavorGroups

参数	参数类型	描述
group_type	String	规格组类型，如x86、arm。
proxy_flavors	Array of <a href="#">MysqlProxyComputeFlavor</a> objects	规格信息。

表 4-488 MysqlProxyComputeFlavor

参数	参数类型	描述
vcpus	String	CPU大小。例如：1表示1U。
ram	String	内存大小，单位为GB。
db_type	String	数据库类型。
id	String	数据库代理规格ID。
spec_code	String	数据库代理规格码。
az_status	Object	其中key是可用区编号，value是规格所在AZ的状态。

状态码： 400

表 4-489 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-490 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例的数据库代理规格信息。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy/flavors
```

## 响应示例

状态码： 200

Success.

```
{  
  "proxy_flavor_groups": {  
    "group_type": "X86",  
    "proxy_flavors": {  
      "id": "19be4c5d-d363-3342-bdbc-0dd9dbf7fafa",  
      "spec_code": "gaussdb.proxy.large.x86.2",  
      "vcpus": 2,  
      "ram": 4,  
      "db_type": "Proxy",  
      "az_status": {  
        "az1": "normal"  
      }  
    }  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowGaussMySQLProxyFlavorsSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowGaussMySQLProxyFlavorsRequest request = new ShowGaussMySQLProxyFlavorsRequest();
try {
    ShowGaussMySQLProxyFlavorsResponse response = client.showGaussMySQLProxyFlavors(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowGaussMySQLProxyFlavorsRequest()
        response = client.show_gauss_my_sql_proxy_flavors(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main
```

```
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ShowGaussMySQLProxyFlavorsRequest{}  
    response, err := client.ShowGaussMySQLProxyFlavors(request)  
    if err == nil {  
        fmt.Printf("%v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.5 扩容数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。DeC专属云账号暂不支持数据库代理。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/enlarge

表 4-491 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-492 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-493 请求 Body 参数

参数	是否必选	参数类型	描述
node_num	是	Integer	数据库代理节点扩容操作需要扩容的节点数。 扩容的节点数的取值范围：1~14之间的整数。 限制条件：该实例的数据库代理节点的总数量小于等于16。

参数	是否必选	参数类型	描述
proxy_id	否	String	数据库代理ID。 如果实例只开启了一个代理，可不传该参数；如果实例开启了多个代理，则必须指定一个数据库代理，扩容新的代理节点。

## 响应参数

状态码： 201

表 4-494 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-495 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-496 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

扩容数据库代理节点。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/enlarge  
  
{  
  "node_num" : 2,  
}
```

```
"proxy_id": "151c14381ac14ecfb9703a745b992677po01"  
}
```

## 响应示例

**状态码： 201**

Success.

```
{  
  "job_id": "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

扩容数据库代理节点。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ExpandGaussMySQLProxySolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ExpandGaussMySQLProxyRequest request = new ExpandGaussMySQLProxyRequest();  
        EnlargeProxyRequest body = new EnlargeProxyRequest();  
        body.withProxyId("151c14381ac14ecfb9703a745b992677po01");  
        body.withNodeNum(2);  
        request.withBody(body);  
        try {  
            ExpandGaussMySQLProxyResponse response = client.expandGaussMySQLProxy(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
        }  
    }  
}
```

```
        System.out.println(e.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

扩容数据库代理节点。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ExpandGaussMySQLProxyRequest()
        request.body = EnlargeProxyRequest(
            proxy_id="151c14381ac14ecfb9703a745b992677po01",
            node_num=2
        )
        response = client.expand_gauss_my_sql_proxy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

扩容数据库代理节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```



```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ExpandGaussMySqlProxyRequest{
    proxyIdEnlargeProxyRequest:= "151c14381ac14ecfb9703a745b992677po01"
    request.Body = &model.EnlargeProxyRequest{
        ProxyId: &proxyIdEnlargeProxyRequest,
        NodeNum: int32(2),
    }
}
response, err := client.ExpandGaussMySqlProxy(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.6 减少数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。DeC专属云账号暂不支持数据库代理。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/reduce

表 4-497 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-498 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-499 请求 Body 参数

参数	是否必选	参数类型	描述
node_num	是	Integer	数据库代理节点缩容操作需要减少的节点数。 缩容的节点数的取值范围：1~14之间的整数。 限制条件：该实例的数据库代理节点的总数量小于等于16，大于等于2。

## 响应参数

状态码： 201

表 4-500 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-501 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-502 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

缩容数据库代理节点。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/reduce  
{  
  "node_num" : 1  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

扩容数据库代理节点。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShrinkGaussMySQLProxySolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShrinkGaussMySQLProxyRequest request = new ShrinkGaussMySQLProxyRequest();
        ShrinkGaussMySQLProxyRequestBody body = new ShrinkGaussMySQLProxyRequestBody();
        body.withNodeNum(1);
        request.withBody(body);
        try {
            ShrinkGaussMySQLProxyResponse response = client.shrinkGaussMySQLProxy(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

扩容数据库代理节点。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShrinkGaussMySQLProxyRequest()
        request.body = ShrinkGaussMySQLProxyRequestBody(
            node_num=1
        )
        response = client.shrink_gauss_my_sql_proxy(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

缩容数据库代理节点。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShrinkGaussMySQLProxyRequest{}
    request.Body = &model.ShrinkGaussMySQLProxyRequestBody{
```

```
    NodeNum: int32(1),
  }
  response, err := client.ShrinkGaussMySQLProxy(request)
  if err == nil {
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.7 数据库代理规格变更

### 功能介绍

数据库代理规格变更。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/flavor

表 4-503 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

参数	是否必选	参数类型	描述
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

## 请求参数

表 4-504 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-505 请求 Body 参数

参数	是否必选	参数类型	描述
flavor_ref	是	String	需要变更的新规格ID。

## 响应参数

状态码： 200

表 4-506 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-507 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-508 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

变更数据库代理的规格为4U8GB。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/flavor  
{  
  "flavor_ref" : "gaussdb.proxy.xlarge.arm.2"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

变更数据库代理的规格为4U8GB。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;
```



```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ChangeGaussMySQLProxySpecificationSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ChangeGaussMySQLProxySpecificationRequest request = new
        ChangeGaussMySQLProxySpecificationRequest();
        TaurusProxyScaleRequest body = new TaurusProxyScaleRequest();
        body.withFlavorRef("gaussdb.proxy.xlarge.arm.2");
        request.withBody(body);
        try {
            ChangeGaussMySQLProxySpecificationResponse response =
            client.changeGaussMySQLProxySpecification(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

变更数据库代理的规格为4U8GB。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
```

```
.with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
.build()

try:
    request = ChangeGaussMySqlProxySpecificationRequest()
    request.body = TaurusProxyScaleRequest(
        flavor_ref="gaussdb.proxy.xlarge.arm.2"
    )
    response = client.change_gauss_my_sql_proxy_specification(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

变更数据库代理的规格为4U8GB。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeGaussMySqlProxySpecificationRequest{
        request.Body = &model.TaurusProxyScaleRequest{
            FlavorRef: "gaussdb.proxy.xlarge.arm.2",
        }
    }
    response, err := client.ChangeGaussMySqlProxySpecification(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.8 设置读写分离权重

### 功能介绍

设置读写分离权重。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/weight

表 4-509 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-510 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-511 请求 Body 参数

参数	是否必选	参数类型	描述
master_weight	否	Integer	主节点权重。
readonly_nodes	否	Array of <a href="#">ModifyProxyWeightReadonlyNode</a> objects	只读节点权重配置信息。

表 4-512 ModifyProxyWeightReadonlyNode

参数	是否必选	参数类型	描述
id	否	String	只读节点ID。
weight	否	Integer	只读节点权重。

## 响应参数

状态码： 200

表 4-513 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-514 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-515 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置实例的主节点权重是100。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/weight  
{  
  "master_weight": 100  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id": "04efe8e2-9255-44ae-a98b-d87c11411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

## Java

设置实例的主节点权重是100。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SetGaussMySQLProxyWeightSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SetGaussMySQLProxyWeightRequest request = new SetGaussMySQLProxyWeightRequest();
        TaurusModifyProxyWeightRequest body = new TaurusModifyProxyWeightRequest();
        body.withMasterWeight(100);
        request.withBody(body);
        try {
            SetGaussMySQLProxyWeightResponse response = client.setGaussMySQLProxyWeight(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

设置实例的主节点权重是100。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
```

```
# The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = SetGaussMySqlProxyWeightRequest()
    request.body = TaurusModifyProxyWeightRequest(
        master_weight=100
    )
    response = client.set_gauss_my_sql_proxy_weight(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置实例的主节点权重是100。

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/ HuaweiCloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SetGaussMySqlProxyWeightRequest{
        masterWeightTaurusModifyProxyWeightRequest:= int32(100)
    }
    request.Body = &model.TaurusModifyProxyWeightRequest{
        MasterWeight: &masterWeightTaurusModifyProxyWeightRequest,
    }
    response, err := client.SetGaussMySqlProxyWeight(request)
    if err == nil {
```

```
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.9 设置读写分离路由模式

### 功能介绍

设置读写分离路由模式。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/route-mode

表 4-516 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。



参数	是否必选	参数类型	描述
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

## 请求参数

表 4-517 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-518 请求 Body 参数

参数	是否必选	参数类型	描述
route_mode	是	Integer	数据库代理路由模式。 取值范围： <ul style="list-style-type: none"><li>0: 表示权重负载模式。</li><li>1: 表示负载均衡模式(数据库主节点不接受读请求)。</li><li>2: 表示负载均衡模式(数据库主节点接受读请求)。</li></ul>
master_weight	否	Integer	主节点权重： <ul style="list-style-type: none"><li>如果路由模式为0, 取值为0~1000。</li><li>如果路由模式为1, 取值为0。</li><li>如果路由模式为2, 取值为1。</li></ul>

参数	是否必选	参数类型	描述
readonly_nodes	否	Array of <b>ModifyProxyRouteWeightReadonlyNode</b> objects	只读节点权重配置信息。
new_node_auto_add_status	否	String	是否开启新增节点自动加入该Proxy。如果需要设置是否开启新增节点自动加入该Proxy，请联系客服人员添加白名单，加入白名单后，方可输入该字段。 取值范围： <ul style="list-style-type: none"> <li>• ON：开启。</li> <li>• OFF：关闭。</li> </ul>
new_node_weight	否	Integer	新增节点的读权重： <ul style="list-style-type: none"> <li>• 如果路由模式为0，新增节点自动加入为ON，取值为0~1000。</li> <li>• 如果路由模式不为0或新增节点自动加入为OFF，则可不输入读权重。</li> </ul>

表 4-519 ModifyProxyRouteWeightReadonlyNode

参数	是否必选	参数类型	描述
id	是	String	只读节点ID。
weight	是	Integer	只读节点权重： <ul style="list-style-type: none"> <li>• 如果路由模式为0，取值为0~1000；</li> <li>• 如果路由模式为1或2，取值为0或1。</li> </ul>

## 响应参数

状态码： 200

表 4-520 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

**状态码： 400**

**表 4-521 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码： 500**

**表 4-522 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 修改路由模式为权重负载模式。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-
mode

{
  "route_mode": 0,
  "master_weight": 100,
  "readonly_nodes": {
    "id": "d23535333138462880bfa1838fdced2no07",
    "weight": 200
  }
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-
mode

{
  "route_mode": 1,
  "master_weight": 0,
  "readonly_nodes": {
    "id": "d23535333138462880bfa1838fdced2no07",
    "weight": 1
  }
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-
mode

{
  "route_mode": 2,
  "master_weight": 1,
  "readonly_nodes": {

```

```
"id" : "d23535333138462880bfa1838fdced2no07",  
"weight" : 0  
}  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87c11411890"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 修改路由模式为权重负载模式。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class ModifyGaussMySQLProxyRouteModeSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ModifyGaussMySQLProxyRouteModeRequest request = new  
        ModifyGaussMySQLProxyRouteModeRequest();  
        ModifyGaussMySQLProxyRouteModeRequestBody body = new  
        ModifyGaussMySQLProxyRouteModeRequestBody();  
        body.withMasterWeight(100);  
        body.withRouteMode(0);  
        request.withBody(body);  
        try {  
            ModifyGaussMySQLProxyRouteModeResponse response =  
            client.modifyGaussMySQLProxyRouteMode(request);  

```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class ModifyGaussMySqlProxyRouteModeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyGaussMySqlProxyRouteModeRequest request = new
        ModifyGaussMySqlProxyRouteModeRequest();
        ModifyGaussMySqlProxyRouteModeRequestBody body = new
        ModifyGaussMySqlProxyRouteModeRequestBody();
        body.withMasterWeight(0);
        body.withRouteMode(1);
        request.withBody(body);
        try {
            ModifyGaussMySqlProxyRouteModeResponse response =
            client.modifyGaussMySqlProxyRouteMode(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```

```
        System.out.println(e.getErrMsg());
    }
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class ModifyGaussMySQLProxyRouteModeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ModifyGaussMySQLProxyRouteModeRequest request = new
        ModifyGaussMySQLProxyRouteModeRequest();
        ModifyGaussMySQLProxyRouteModeRequestBody body = new
        ModifyGaussMySQLProxyRouteModeRequestBody();
        body.withMasterWeight(1);
        body.withRouteMode(2);
        request.withBody(body);
        try {
            ModifyGaussMySQLProxyRouteModeResponse response =
            client.modifyGaussMySQLProxyRouteMode(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrMsg());
        }
    }
}
```

## Python

- 修改路由模式为权重负载均衡模式。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMySqlProxyRouteModeRequest()
        request.body = ModifyGaussMySqlProxyRouteModeRequestBody(
            master_weight=100,
            route_mode=0
        )
        response = client.modify_gauss_my_sql_proxy_route_mode(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMySqlProxyRouteModeRequest()
        request.body = ModifyGaussMySqlProxyRouteModeRequestBody(
            master_weight=0,
            route_mode=1
        )
        response = client.modify_gauss_my_sql_proxy_route_mode(request)
```

```
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ModifyGaussMySQLProxyRouteModeRequest()
        request.body = ModifyGaussMySQLProxyRouteModeRequestBody(
            master_weight=1,
            route_mode=2
        )
        response = client.modify_gauss_my_sql_proxy_route_mode(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 修改路由模式为权重负载模式。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```



```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ModifyGaussMySQLProxyRouteModeRequest{
    masterWeightModifyGaussMySQLProxyRouteModeRequestBody:= int32(100)
    request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
        MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
        RouteMode: int32(0),
    }
}
response, err := client.ModifyGaussMySQLProxyRouteMode(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 修改路由模式为负载均衡模式（数据库主节点不接受读请求）。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyGaussMySQLProxyRouteModeRequest{
        masterWeightModifyGaussMySQLProxyRouteModeRequestBody:= int32(0)
        request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
            MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
            RouteMode: int32(1),
        }
    }
    response, err := client.ModifyGaussMySQLProxyRouteMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 修改路由模式为负载均衡模式（数据库主节点接受读请求）。

```

    }
}

package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ModifyGaussMySQLProxyRouteModeRequest{
        masterWeightModifyGaussMySQLProxyRouteModeRequestBody:= int32(1)
        request.Body = &model.ModifyGaussMySQLProxyRouteModeRequestBody{
            MasterWeight: &masterWeightModifyGaussMySQLProxyRouteModeRequestBody,
            RouteMode: int32(2),
        }
    }
    response, err := client.ModifyGaussMySQLProxyRouteMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.10 设置数据库代理事务拆分

### 功能介绍

设置数据库代理事务拆分。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/transaction-split

表 4-523 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-524 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-525 请求 Body 参数

参数	是否必选	参数类型	描述
transaction_split	是	String	开启/关闭事务拆分。 取值范围： <ul style="list-style-type: none"> <li>ON：开启。</li> <li>OFF：关闭。</li> </ul>
proxy_id_list	是	Array of strings	实例的数据库代理列表。

## 响应参数

状态码： 200

表 4-526 响应 Body 参数

参数	参数类型	描述
job_id	String	工作流ID。

状态码： 400

表 4-527 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-528 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

关闭数据库代理的事务拆分。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/6b030d160ac24eda9a5320fb38dc2d0ain07/proxy/transaction-split
```

```
{
  "transaction_split" : "OFF",
  "proxy_id_list" : [ "2a2060f2486e4a47934182d91a3b53d2po01" ]
}
```

## 响应示例

状态码: 200

success

```
{
  "job_id" : "11921bf5-f286-45ee-ab35-12a3d4084c57"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

关闭数据库代理的事务拆分。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateTransactionSplitStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateTransactionSplitStatusRequest request = new UpdateTransactionSplitStatusRequest();
        ProxyTransactionSplitRequest body = new ProxyTransactionSplitRequest();
        List<String> listbodyProxyIdList = new ArrayList<>();
        listbodyProxyIdList.add("2a2060f2486e4a47934182d91a3b53d2po01");
        body.withProxyIdList(listbodyProxyIdList);
        body.withTransactionSplit("OFF");
        request.withBody(body);
        try {
            UpdateTransactionSplitStatusResponse response = client.updateTransactionSplitStatus(request);
        }
    }
}
```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

关闭数据库代理的事务拆分。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTransactionSplitStatusRequest()
        listProxyIdListbody = [
            "2a2060f2486e4a47934182d91a3b53d2po01"
        ]
        request.body = ProxyTransactionSplitRequest(
            proxy_id_list=listProxyIdListbody,
            transaction_split="OFF"
        )
        response = client.update_transaction_split_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

关闭数据库代理的事务拆分。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTransactionSplitStatusRequest{}
    var listProxyIdListbody = []string{
        "2a2060f2486e4a47934182d91a3b53d2po01",
    }
    request.Body = &model.ProxyTransactionSplitRequest{
        ProxyIdList: listProxyIdListbody,
        TransactionSplit: "OFF",
    }
    response, err := client.UpdateTransactionSplitStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	success
400	Client error
500	Server error

## 错误码

请参见[错误码](#)。

## 4.7.11 开启或关闭新增节点自动加入该 Proxy

### 功能介绍

开启或关闭新增节点自动加入该Proxy。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/new-node-auto-add

表 4-529 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

### 请求参数

表 4-530 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>



表 4-531 请求 Body 参数

参数	是否必选	参数类型	描述
switch_status	是	String	是否开启新增节点自动加入该 Proxy。 取值范围： <ul style="list-style-type: none"><li>ON：开启。</li><li>OFF：关闭。</li></ul>
weight	否	Integer	新增节点的读权重： <ul style="list-style-type: none"><li>新增节点自动加入为ON，取值为0~1000。</li><li>新增节点自动加入为OFF，则可不输入读权重。</li></ul>

## 响应参数

状态码： 200

表 4-532 响应 Body 参数

参数	参数类型	描述
result	String	开启或关闭新增节点自动加入该Proxy的操作结果。

状态码： 400

表 4-533 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-534 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开启新增节点自动加入该Proxy。

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/new-node-
auto-add

{
  "switch_status": "ON",
  "weight": 100
}
```

## 响应示例

状态码： 200

Success.

```
{
  "result": "success"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开启新增节点自动加入该Proxy。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateNewNodeAutoAddSwitchSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateNewNodeAutoAddSwitchRequest request = new UpdateNewNodeAutoAddSwitchRequest();
        UpdateNewNodeAutoAddSwitchRequestBody body = new
        UpdateNewNodeAutoAddSwitchRequestBody();
        body.withWeight(100);
    }
}
```

```
        body.withSwitchStatus("ON");
        request.withBody(body);
        try {
            UpdateNewNodeAutoAddSwitchResponse response =
client.updateNewNodeAutoAddSwitch(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

开启新增节点自动加入该Proxy。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateNewNodeAutoAddSwitchRequest()
        request.body = UpdateNewNodeAutoAddSwitchRequestBody(
            weight=100,
            switch_status="ON"
        )
        response = client.update_new_node_auto_add_switch(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

开启新增节点自动加入该Proxy。

```
package main

import (
```

```
"fmt"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateNewNodeAutoAddSwitchRequest{}
    weightUpdateNewNodeAutoAddSwitchRequestBody:= int32(100)
    request.Body = &model.UpdateNewNodeAutoAddSwitchRequestBody{
        Weight: &weightUpdateNewNodeAutoAddSwitchRequestBody,
        SwitchStatus: "ON",
    }
    response, err := client.UpdateNewNodeAutoAddSwitch(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.12 修改代理会话一致性

### 功能介绍

修改代理会话一致性。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/session-consistence

表 4-535 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID, 严格匹配UUID规则。
proxy_id	是	String	数据库代理ID, 严格匹配UUID规则。

### 请求参数

表 4-536 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul> 缺省值： <b>en-us</b>

表 4-537 请求 Body 参数

参数	是否必选	参数类型	描述
session_consistence	是	String	会话一致性。 取值范围： <ul style="list-style-type: none"><li>• true: 时表示会话一致性开启。</li><li>• false: 时表示会话一致性关闭。</li></ul>
consistence_mode	否	String	一致性模式。默认值为空，此时以会话一致性参数 session_consistence 的值为准。 取值范围： <ul style="list-style-type: none"><li>• session: 会话一致性。</li><li>• global: 全局一致性。</li><li>• eventual: 最终一致性。</li></ul>

## 响应参数

状态码： 200

表 4-538 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-539 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-540 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

开启数据库代理的会话一致性。

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/d512257ecca04d96a0f3a9021018a385in07/proxy/7bf4a8bbb4f4fb58233a242ee13603bpo01/session-consistence
{
  "session_consistence": "true",
  "consistence_mode": "session"
}
```

## 响应示例

状态码： 200

Success

```
{
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开启数据库代理的会话一致性。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxySessionConsistenceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateProxySessionConsistenceRequest request = new UpdateProxySessionConsistenceRequest();
ModifyProxyConsistRequest body = new ModifyProxyConsistRequest();
body.withConsistenceMode("session");
body.withSessionConsistence("true");
request.withBody(body);
try {
    UpdateProxySessionConsistenceResponse response = client.updateProxySessionConsistence(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

开启数据库代理的会话一致性。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxySessionConsistenceRequest()
        request.body = ModifyProxyConsistRequest(
            consistence_mode="session",
            session_consistence="true"
        )
        response = client.update_proxy_session_consistence(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```



## Go

开启数据库代理的会话一致性。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxySessionConsistenceRequest{}
    consistenceModeModifyProxyConsistRequest := "session"
    request.Body = &model.ModifyProxyConsistRequest{
        ConsistenceMode: &consistenceModeModifyProxyConsistRequest,
        SessionConsistence: "true",
    }
    response, err := client.UpdateProxySessionConsistence(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.13 更改数据库代理连接池类型

### 功能介绍

更改数据库代理连接池类型。

### 接口约束

该接口目前公测阶段，如需使用，请提交工单联系客服人员申请权限。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/connection-pool-type

表 4-541 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-542 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-543 请求 Body 参数

参数	是否必选	参数类型	描述
connection_pool_type	是	String	连接池类型。 取值范围： <ul style="list-style-type: none"><li>CLOSED：关闭连接池。</li><li>SESSION：开启会话级连接池。</li></ul>

## 响应参数

状态码： 200

表 4-544 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-545 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-546 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

- 开启数据库代理的会话连接池。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/proxy/5881e1ca66af4aefbc64dc2874e55b3fpo01/connection-pool-type
```

```
{
  "connection_pool_type": "SESSION"
}
```

- 关闭数据库代理的连接池。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/proxy/5881e1ca66af4aefbc64dc2874e55b3fpo01/connection-pool-type
```

```
{
  "connection_pool_type": "CLOSED"
}
```

## 响应示例

状态码: 200

Success.

```
{
  "job_id": "a4217ac4-12cd-4fb3-acfc-db4a4a1896ea"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启数据库代理的会话连接池。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class UpdateProxyConnectionPoolTypeSolution {
```

```
    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
```

```
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

UpdateProxyConnectionPoolTypeRequest request = new
UpdateProxyConnectionPoolTypeRequest();
ProxyUpdateProxyConnectionPoolTypeRequest body = new
ProxyUpdateProxyConnectionPoolTypeRequest();
body.withConnectionPoolType("SESSION");
request.withBody(body);
try {
    UpdateProxyConnectionPoolTypeResponse response =
client.updateProxyConnectionPoolType(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 关闭数据库代理的连接池。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxyConnectionPoolTypeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxyConnectionPoolTypeRequest request = new
```

```
UpdateProxyConnectionPoolTypeRequest();
    ProxyUpdateProxyConnectionPoolTypeRequest body = new
ProxyUpdateProxyConnectionPoolTypeRequest();
    body.withConnectionPoolType("CLOSED");
    request.withBody(body);
    try {
        UpdateProxyConnectionPoolTypeResponse response =
client.updateProxyConnectionPoolType(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

- 开启数据库代理的会话连接池。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyConnectionPoolTypeRequest()
        request.body = ProxyUpdateProxyConnectionPoolTypeRequest(
            connection_pool_type="SESSION"
        )
        response = client.update_proxy_connection_pool_type(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭数据库代理的连接池。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyConnectionPoolTypeRequest()
        request.body = ProxyUpdateProxyConnectionPoolTypeRequest(
            connection_pool_type="CLOSED"
        )
        response = client.update_proxy_connection_pool_type(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启数据库代理的会话连接池。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyConnectionPoolTypeRequest{}
    request.Body = &model.ProxyUpdateProxyConnectionPoolTypeRequest{
```

```

        ConnectionPoolType: "SESSION",
    }
    response, err := client.UpdateProxyConnectionPoolType(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

- 关闭数据库代理的连接池。

```

package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyConnectionPoolTypeRequest{}
    request.Body = &model.ProxyUpdateProxyConnectionPoolTypeRequest{
        ConnectionPoolType: "CLOSED",
    }
    response, err := client.UpdateProxyConnectionPoolType(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.



状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.14 修改读写分离端口号

### 功能介绍

修改读写分离端口号。

### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/port

表 4-547 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-548 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-549 请求 Body 参数

参数	是否必选	参数类型	描述
port	是	Integer	修改后的读写分离端口。 GaussDB(for MySQL) Proxy端口号范围：大于等于1025，小于等于65534，不包含端口1033、5342-5345、12017、20000、20201、20202、33062、33071。

## 响应参数

状态码： 200

表 4-550 响应 Body 参数

参数	参数类型	描述
job_id	String	修改proxy端口号的任务ID。

状态码： 400

表 4-551 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-552 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改读写分离端口号。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/proxy/fbece38953e24a2b891488ed2fdf81abpo01/port
{
  "port" : 3308
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "ef5dbd00-ad3c-41f7-902b-51b4466ae9b9"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改读写分离端口号。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
```

```
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateProxyPortSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxyPortRequest request = new UpdateProxyPortRequest();
        UpdateProxyPortRequestBody body = new UpdateProxyPortRequestBody();
        body.withPort(3308);
        request.withBody(body);
        try {
            UpdateProxyPortResponse response = client.updateProxyPort(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改读写分离端口号。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = UpdateProxyPortRequest()
    request.body = UpdateProxyPortRequestBody(
        port=3308
    )
    response = client.update_proxy_port(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改读写分离端口号。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateProxyPortRequest{}
    request.Body = &model.UpdateProxyPortRequestBody{
        Port: int32(3308),
    }
    response, err := client.UpdateProxyPort(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.7.15 修改代理实例参数

#### 功能介绍

修改数据库代理参数。

#### 调用方法

请参见[如何调用API](#)。

#### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/configurations

表 4-553 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-554 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-555 请求 Body 参数

参数	是否必选	参数类型	描述
configurations	是	Array of <a href="#">UpdateProxyConfigurationItem</a> objects	修改的配置信息。

表 4-556 UpdateProxyConfigurationItem

参数	是否必选	参数类型	描述
name	是	String	参数名。
value	是	String	参数值。
elem_type	是	String	父标签类型。

## 响应参数

状态码： 200

表 4-557 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-558 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-559 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改数据库代理参数。

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/configurations
{
  "configurations" : [ {
    "name" : "multiStatementType",
    "value" : "Loose",
    "elem_type" : "system"
  } ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "994cb0aa-9547-4271-bfc2-08f968276744"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库代理参数。

```
package com.huaweicloud.sdk.test;
```



```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateProxyNewConfigurationsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateProxyNewConfigurationsRequest request = new UpdateProxyNewConfigurationsRequest();
        UpdateProxyNewConfigRequestRequestBody body = new UpdateProxyNewConfigRequestRequestBody();
        List<UpdateProxyConfigurationItem> listbodyConfigurations = new ArrayList<>();
        listbodyConfigurations.add(
            new UpdateProxyConfigurationItem()
                .withName("multiStatementType")
                .withValue("Loose")
                .withElemType("system")
        );
        body.withConfigurations(listbodyConfigurations);
        request.withBody(body);
        try {
            UpdateProxyNewConfigurationsResponse response = client.updateProxyNewConfigurations(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

修改数据库代理参数。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateProxyNewConfigurationsRequest()
        listConfigurationsbody = [
            UpdateProxyConfigurationItem(
                name="multiStatementType",
                value="Loose",
                elem_type="system"
            )
        ]
        request.body = UpdateProxyNewConfigRequestBody(
            configurations=listConfigurationsbody
        )
        response = client.update_proxy_new_configurations(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库代理参数。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

```
Build()  
  
request := &model.UpdateProxyNewConfigurationsRequest{}  
var listConfigurationsbody = []model.UpdateProxyConfigurationItem{  
    {  
        Name: "multiStatementType",  
        Value: "Loose",  
        ElemType: "system",  
    },  
}  
request.Body = &model.UpdateProxyNewConfigRequestBody{  
    Configurations: listConfigurationsbody,  
}  
response, err := client.UpdateProxyNewConfigurations(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.16 开启或关闭访问控制

### 功能介绍

开启或关闭访问控制。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/access-control-switch

表 4-560 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-561 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-562 请求 Body 参数

参数	是否必选	参数类型	描述
open_access_control	是	Boolean	是否开启访问控制。取值： <ul style="list-style-type: none"><li>true: 开启。</li><li>false: 关闭。</li></ul>

## 响应参数

状态码： 200

表 4-563 响应 Body 参数

参数	参数类型	描述
open_access_control	Boolean	是否已开启访问控制。取值： <ul style="list-style-type: none"><li>• true: 开启。</li><li>• false: 关闭。</li></ul>

状态码： 400

表 4-564 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-565 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启访问控制。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control-switch
```

```
{
  "open_access_control": true
}
```

- 关闭访问控制。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control-switch
```

```
{
  "open_access_control": false
}
```

## 响应示例

状态码： 200

Success.

- 开启访问控制。

```
{
  "open_access_control" : true
}
```

- 关闭访问控制。

```
{
  "open_access_control" : false
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启访问控制。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchAccessControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SwitchAccessControlRequest request = new SwitchAccessControlRequest();
        SwitchAccessControlRequestBody body = new SwitchAccessControlRequestBody();
        body.withOpenAccessControl(true);
        request.withBody(body);
        try {
            SwitchAccessControlResponse response = client.switchAccessControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
        }
    }
}
```

```
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

- 关闭访问控制。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchAccessControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        SwitchAccessControlRequest request = new SwitchAccessControlRequest();
        SwitchAccessControlRequestBody body = new SwitchAccessControlRequestBody();
        body.withOpenAccessControl(false);
        request.withBody(body);
        try {
            SwitchAccessControlResponse response = client.switchAccessControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启访问控制。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
```

```
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchAccessControlRequest()
        request.body = SwitchAccessControlRequestBody(
            open_access_control=True
        )
        response = client.switch_access_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭访问控制。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchAccessControlRequest()
        request.body = SwitchAccessControlRequestBody(
            open_access_control=False
        )
        response = client.switch_access_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```



## Go

- 开启访问控制。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchAccessControlRequest{}
    request.Body = &model.SwitchAccessControlRequestBody{
        OpenAccessControl: true,
    }
    response, err := client.SwitchAccessControl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- 关闭访问控制。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
```

```
WithSk(sk).
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.SwitchAccessControlRequest{}
request.Body = &model.SwitchAccessControlRequestBody{
    OpenAccessControl: false,
}
response, err := client.SwitchAccessControl(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.17 设置访问控制规则

### 功能介绍

设置访问控制规则。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/access-control

表 4-566 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
proxy_id	是	String	数据库代理ID，严格匹配UUID规则。

## 请求参数

表 4-567 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-568 请求 Body 参数

参数	是否必选	参数类型	描述
type	是	String	访问控制方式。取值： <ul style="list-style-type: none"><li>white: 表示白名单。</li><li>black: 表示黑名单。</li></ul>
ip_list	是	Array of <a href="#">AccessControlRule</a> objects	控制访问的IP地址数组，最多可添加300个IP地址或网段。

表 4-569 AccessControlRule

参数	是否必选	参数类型	描述
ip	是	String	IP地址或网段。
description	否	String	备注。备注长度范围是0到50个字符，不能包含<>。

## 响应参数

状态码： 200

表 4-570 响应 Body 参数

参数	参数类型	描述
open_access_control	Boolean	是否已开启访问控制。取值： <ul style="list-style-type: none"><li>• true: 开启。</li><li>• false: 关闭。</li></ul>

状态码： 400

表 4-571 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-572 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置访问控制规则。

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control
```

```
{
  "type": "black",
  "ip_list": [ {
    "ip": "192.107.0.1",
    "description": "black01"
  } ]
}
```

## 响应示例

**状态码: 200**

Success.

```
{
  "open_access_control": false
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置访问控制规则。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateAccessControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateAccessControlRequest request = new CreateAccessControlRequest();
        CreateAccessControlRequestBody body = new CreateAccessControlRequestBody();
        List<AccessControlRule> listbodyIpList = new ArrayList<>();
        listbodyIpList.add(
            new AccessControlRule()
                .withIp("192.107.0.1")
                .withDescription("black01")
        );
    }
}
```

```
);  
body.withIpList(listbodyIpList);  
body.withType("black");  
request.withBody(body);  
try {  
    CreateAccessControlResponse response = client.createAccessControl(request);  
    System.out.println(response.toString());  
} catch (ConnectionException e) {  
    e.printStackTrace();  
} catch (RequestTimeoutException e) {  
    e.printStackTrace();  
} catch (ServiceResponseException e) {  
    e.printStackTrace();  
    System.out.println(e.getStatusCode());  
    System.out.println(e.getRequestId());  
    System.out.println(e.getErrorCode());  
    System.out.println(e.getErrorMsg());  
}  
}  
}
```

## Python

设置访问控制规则。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = CreateAccessControlRequest()  
        listIpListbody = [  
            AccessControlRule(  
                ip="192.107.0.1",  
                description="black01"  
            )  
        ]  
        request.body = CreateAccessControlRequestBody(  
            ip_list=listIpListbody,  
            type="black"  
        )  
        response = client.create_access_control(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

设置访问控制规则。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAccessControlRequest{}
    descriptionIpList:= "black01"
    var listIpListbody = []model.AccessControlRule{
        {
            Ip: "192.107.0.1",
            Description: &descriptionIpList,
        },
    }
    request.Body = &model.CreateAccessControlRequestBody{
        IpList: listIpListbody,
        Type: "black",
    }
    response, err := client.CreateAccessControl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.7.18 开关数据库代理 SSL

### 功能介绍

为数据库代理设置SSL数据加密。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/proxy/{proxy\_id}/ssl

表 4-573 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	租户在某一project下的实例 ID。
proxy_id	是	String	数据库代理ID。



## 请求参数

表 4-574 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-575 请求 Body 参数

参数	是否必选	参数类型	描述
ssl_option	是	Boolean	SSL数据加密开关设置。 取值范围： <ul style="list-style-type: none"><li>true: 开启SSL数据加密。</li><li>false: 关闭SSL数据加密。</li></ul>

## 响应参数

状态码： 200

表 4-576 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 4-577 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-578 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

开关SSL数据加密示例。

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/proxyId/2ec617ba62da4eafb921b69438beed3cpo01/ssl
{
  "ssl_option" : true
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id" : "e0fbffc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

开关SSL数据加密示例。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class SwitchGaussMySQLProxySslSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
    }
}
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SwitchGaussMySqlProxySslRequest request = new SwitchGaussMySqlProxySslRequest();
SwitchProxySSLRequest body = new SwitchProxySSLRequest();
body.withSslOption(true);
request.withBody(body);
try {
    SwitchGaussMySqlProxySslResponse response = client.switchGaussMySqlProxySsl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrMsg());
}
}
```

## Python

开关SSL数据加密示例。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SwitchGaussMySqlProxySslRequest()
        request.body = SwitchProxySSLRequest(
            ssl_option=True
        )
        response = client.switch_gauss_my_sql_proxy_ssl(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

```
print(e.status_code)
print(e.request_id)
print(e.error_code)
print(e.error_msg)
```

## Go

开关SSL数据加密示例。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.SwitchGaussMySQLProxySslRequest{}
    request.Body = &model.SwitchProxySslRequest{
        SslOption: true,
    }
    response, err := client.SwitchGaussMySQLProxySsl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.

状态码	描述
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8 日志管理

### 4.8.1 开启或者关闭全量 SQL

#### 功能介绍

开启或者关闭全量SQL。关闭全量SQL后，可能导致DAS和DBSS服务全量SQL功能不可用，请谨慎关闭。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instance/{instance\_id}/audit-log/switch

表 4-579 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-580 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

表 4-581 请求 Body 参数

参数	是否必选	参数类型	描述
switch_status	是	String	全量SQL开关状态。取值： <ul style="list-style-type: none"> <li>ON：表示开启。</li> <li>OFF：表示关闭。</li> </ul>

## 响应参数

状态码： 200

表 4-582 响应 Body 参数

参数	参数类型	描述
result	String	开启/关闭全量SQL操作结果。

状态码： 400

表 4-583 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-584 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启全量SQL。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch
```

```
{  
  "switch_status" : "ON"  
}
```

- 关闭全量SQL。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch
```

```
{  
  "switch_status" : "OFF"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : "success"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启全量SQL。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateAuditLogSolution {  
    public static void main(String[] args) {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateAuditLogRequest request = new UpdateAuditLogRequest();
OperateAuditLogRequestV3Body body = new OperateAuditLogRequestV3Body();
body.withSwitchStatus("ON");
request.withBody(body);
try {
    UpdateAuditLogResponse response = client.updateAuditLog(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 关闭全量SQL。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateAuditLogSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
```



```
        .build();
        UpdateAuditLogRequest request = new UpdateAuditLogRequest();
        OperateAuditLogRequestV3Body body = new OperateAuditLogRequestV3Body();
        body.withSwitchStatus("OFF");
        request.withBody(body);
        try {
            UpdateAuditLogResponse response = client.updateAuditLog(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启全量SQL。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAuditLogRequest()
        request.body = OperateAuditLogRequestV3Body(
            switch_status="ON"
        )
        response = client.update_audit_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭全量SQL。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
```

```
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAuditLogRequest()
        request.body = OperateAuditLogRequestV3Body(
            switch_status="OFF"
        )
        response = client.update_audit_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

- 开启全量SQL。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAuditLogRequest{}
    request.Body = &model.OperateAuditLogRequestV3Body{
        SwitchStatus: "ON",
```

```

    }
    response, err := client.UpdateAuditLog(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

- 关闭全量SQL。

```

package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAuditLogRequest{}
    request.Body = &model.OperateAuditLogRequestV3Body{
        SwitchStatus: "OFF",
    }
    response, err := client.UpdateAuditLog(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.

状态码	描述
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.2 查询全量 SQL 开关状态

### 功能介绍

查询全量SQL开关状态。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instance/{instance\_id}/audit-log/switch-status

表 4-585 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-586 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-587 响应 Body 参数

参数	参数类型	描述
switch_status	String	全量SQL开关状态。取值： <ul style="list-style-type: none"><li>ON：表示开启。</li><li>OFF：表示关闭。</li></ul>

状态码： 400

表 4-588 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-589 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询全量SQL开关状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/  
61a4ea66210545909d74a05c27a7179ein07/audit-log/switch-status
```

## 响应示例

**状态码： 200**

Success.

```
{
  "switch_status" : "ON"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowAuditLogSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowAuditLogRequest request = new ShowAuditLogRequest();
        try {
            ShowAuditLogResponse response = client.showAuditLog(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAuditLogRequest()
        response = client.show_audit_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowAuditLogRequest{}
    response, err := client.ShowAuditLog(request)
```

```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.3 获取慢日志详情列表

### 功能介绍

获取指定实例的慢日志详情列表。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3.1/{project\_id}/instances/{instance\_id}/slow-logs

表 4-590 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。



## 请求参数

表 4-591 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-592 请求 Body 参数

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。
start_time	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
limit	是	Integer	查询记录数。
line_num	否	String	日志单行序列号，第一次查询时不需要此参数，后续分页查询时需要使用，可从上次查询的返回信息中获取。

参数	是否必选	参数类型	描述
operate_type	否	String	SQL语句类型，取空值，表示查询所有语句类型。也可指定如下日志类型： <ul style="list-style-type: none"><li>• INSERT</li><li>• UPDATE</li><li>• SELECT</li><li>• DELETE</li><li>• ALTER</li><li>• DROP</li><li>• CREATE</li></ul>
database	否	String	所属数据库。

## 响应参数

状态码： 200

表 4-593 响应 Body 参数

参数	参数类型	描述
slow_log_list	Array of <a href="#">LtsLogSlowDetail</a> objects	慢日志列表。

表 4-594 LtsLogSlowDetail

参数	参数类型	描述
node_id	String	节点ID。
count	String	执行次数。
time	String	执行时间。
lock_time	String	等待锁时间。
rows_sent	String	结果行数量。
rows_examined	String	扫描的行数量。
database	String	所属数据库。
users	String	账号。
query_sample	String	执行语法。

参数	参数类型	描述
type	String	语句类型。
start_time	String	发生时间，UTC时间。
client_ip	String	IP地址。
line_num	String	日志单行序列号。

**状态码： 400**

**表 4-595 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码： 500**

**表 4-596 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询慢日志详细信息。

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/slow-logs
```

```
{  
  "start_time": "2022-11-20T00:00:00+0800",  
  "end_time": "2022-11-29T00:00:00+0800",  
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
  "limit": 10,  
  "line_num": 1669344916000  
}
```

## 响应示例

**状态码： 200**

Success.

```
{  
  "slow_log_list": [ {
```

```
"node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
"count" : 1,
"time" : "1.04899 s",
"lock_time" : "0.00003 s",
"rows_sent" : 0,
"rows_examined" : 0,
"database" : "gaussdb-mysql",
"users" : "root",
"query_sample" : "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
"type" : "INSERT",
"start_time" : "2022-11-25T10:55:16.000",
"client_ip" : "192.**.1",
"line_num" : 1669344916000
} ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

查询慢日志详细信息。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListLtsSlowlogDetailsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListLtsSlowlogDetailsRequest request = new ListLtsSlowlogDetailsRequest();
        LtsLogSlowQueryRequest body = new LtsLogSlowQueryRequest();
        body.withLineNum("1669344916000");
        body.withLimit(10);
        body.withEndTime("2022-11-29T00:00:00+0800");
        body.withStartTime("2022-11-20T00:00:00+0800");
        body.withNodeId("cc07c60e94ec4575989840e648fb4f66no07");
        request.withBody(body);
        try {
            ListLtsSlowlogDetailsResponse response = client.listLtsSlowlogDetails(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

查询慢日志详细信息。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLtsSlowlogDetailsRequest()
        request.body = LtsLogSlowQueryRequest(
            line_num="1669344916000",
            limit=10,
            end_time="2022-11-29T00:00:00+0800",
            start_time="2022-11-20T00:00:00+0800",
            node_id="cc07c60e94ec4575989840e648fb4f66no07"
        )
        response = client.list_lts_slowlog_details(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

查询慢日志详细信息。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
)
```

```
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLtsSlowlogDetailsRequest{}
    lineNumLtsLogSlowQueryRequest := "1669344916000"
    request.Body = &model.LtsLogSlowQueryRequest{
        LineNum: &lineNumLtsLogSlowQueryRequest,
        Limit: int32(10),
        EndTime: "2022-11-29T00:00:00+0800",
        StartTime: "2022-11-20T00:00:00+0800",
        NodeId: "cc07c60e94ec4575989840e648fb4f66no07",
    }
    response, err := client.ListLtsSlowlogDetails(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.4 获取错误日志详情列表

### 功能介绍

获取指定实例的错误日志详情列表。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3.1/{project\_id}/instances/{instance\_id}/error-logs

表 4-597 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-598 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-599 请求 Body 参数

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。

参数	是否必选	参数类型	描述
start_time	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
limit	是	Integer	查询记录数。
line_num	否	String	日志单行序列号，第一次查询时不需要此参数，后续分页查询时需要使用，可从上次查询的返回信息中获取。
level	否	String	日志级别，默认为ALL。 取值范围： <ul style="list-style-type: none"> <li>• ALL</li> <li>• INFO</li> <li>• LOG</li> <li>• WARNING</li> <li>• ERROR</li> <li>• FATAL</li> <li>• PANIC</li> <li>• NOTE</li> </ul>

## 响应参数

状态码： 200

表 4-600 响应 Body 参数

参数	参数类型	描述
error_log_list	Array of <a href="#">LtsLogErrorDetail</a> objects	错误日志列表。



表 4-601 LtsLogErrorDetail

参数	参数类型	描述
node_id	String	节点ID。
time	String	执行时间。
level	String	日志级别。
content	String	错误日志内容。
line_num	String	日志单行序列号。

状态码： 400

表 4-602 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-603 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询错误日志详细信息。

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/error-logs
```

```
{  
  "start_time": "2022-11-20T00:00:00+0800",  
  "end_time": "2022-11-29T00:00:00+0800",  
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
  "limit": 10,  
  "line_num": 1669344916000  
}
```

## 响应示例

状态码： 200

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2022-11-25T10:55:16.000",
    "level": "ERROR",
    "content": "[MY013508] [Repl] do failed: 1",
    "line_num": 1669344916000
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

查询错误日志详细信息。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListLtsErrorLogDetailsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ListLtsErrorLogDetailsRequest request = new ListLtsErrorLogDetailsRequest();
        LtsLogErrorQueryRequest body = new LtsLogErrorQueryRequest();
        body.withLineNum("1669344916000");
        body.withLimit(10);
        body.withEndTime("2022-11-29T00:00:00+0800");
        body.withStartTime("2022-11-20T00:00:00+0800");
        body.withNodeId("cc07c60e94ec4575989840e648fb4f66no07");
        request.withBody(body);
        try {
            ListLtsErrorLogDetailsResponse response = client.listLtsErrorLogDetails(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
        }
    }
}
```

```
e.printStackTrace();
System.out.println(e.getStatusCode());
System.out.println(e.getRequestId());
System.out.println(e.getErrorCode());
System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

查询错误日志详细信息。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLtsErrorLogDetailsRequest()
        request.body = LtsLogErrorQueryRequest(
            line_num="1669344916000",
            limit=10,
            end_time="2022-11-29T00:00:00+0800",
            start_time="2022-11-20T00:00:00+0800",
            node_id="cc07c60e94ec4575989840e648fb4f66no07"
        )
        response = client.list_lts_error_log_details(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

查询错误日志详细信息。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```

```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListLtsErrorLogDetailsRequest{
    lineNumLtsLogErrorQueryRequest:= "1669344916000"
    request.Body = &model.LtsLogErrorQueryRequest{
        LineNum: &lineNumLtsLogErrorQueryRequest,
        Limit: int32(10),
        EndTime: "2022-11-29T00:00:00+0800",
        StartTime: "2022-11-20T00:00:00+0800",
        NodeId: "cc07c60e94ec4575989840e648fb4f66no07",
    }
}
response, err := client.ListLtsErrorLogDetails(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.8.5 获取全量 SQL 的临时下载链接

### 功能介绍

获取全量SQL的临时下载链接。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instance/{instance\_id}/auditlog/download-link

表 4-604 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-605 Query 参数

参数	是否必选	参数类型	描述
start_time	是	String	开始时间，不得早于实例创建时间。格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	是	String	结束时间，不得晚于当前时间。格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
node_id	否	String	节点ID。 <ul style="list-style-type: none"><li>若输入，则只获取该节点的全量SQL下载链接。</li><li>若不输入，则获取该实例所有节点的全量SQL下载链接。</li></ul>
last_file_name	否	String	上次查询的最后一个文件的文件名。 <ul style="list-style-type: none"><li>若输入，则从该文件名以后按字典顺序开始查询。</li><li>若不输入，则从第一个文件开始查询。</li></ul>

参数	是否必选	参数类型	描述
limit	否	Integer	一次查询返回的文件数量。 默认值为10，取值范围：1~50之间的整数值。

## 请求参数

表 4-606 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

## 响应参数

状态码： 200

表 4-607 响应 Body 参数

参数	参数类型	描述
files	Array of <a href="#">FileInfo</a> objects	获取到的全量SQL文件信息。

表 4-608 FileInfo

参数	参数类型	描述
name	String	文件名。
size	Long	文件大小，单位：KB。

参数	参数类型	描述
updated_time	String	SQL文件最后一次修改时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始，Z指时区偏移量，例如偏移1个小时显示为+0100。
download_link	String	文件下载链接。
link_expired_time	String	下载链接过期时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始，Z指时区偏移量，例如偏移1个小时显示为+0100。

状态码： 400

表 4-609 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-610 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取全量SQL的临时下载链接。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/669a94abef9f4979b2dfba92f48f4042in07/auditlog/download-link?node_id=2e723b45786148fc94c8737f5980786cno07&last_file_name=20230724160316_99b1d48896bb44178b715d64b68603f9in07_6a21d5df9bb24f5db83121c5fec0b1d2no07_SQLAudit_8b4b53d2-29f8-11ee-92aa-fa163ef00f0d&limit=10&start_time=2023-07-24T09:27:00+0800&end_time=2023-07-25T15:00:14+0800
```

## 响应示例

状态码： 200

Success.

```
{
  "files" : [ {
    "name" :
    "20230706023359_669a94abef9f4979b2dfba92f48f4042in07_b051c8f7b98f4deef88ba97c8daba9dno07_SQ
    LAudit_903bdbb6-1ba5-11ee-8b97-fa163ef0f8c2",
    "size" : 928,
    "updated_time" : "2023-07-06T02:43:57+0800",
    "download_link" : "https://obs.obs.domainname.com/bucketname/userid_instanceid/20230706/SQLAudit/
    xxxxxx",
    "link_expired_time" : "2023-07-13T012:30:36+0800"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListAuditLogDownloadLinkSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListAuditLogDownloadLinkRequest request = new ListAuditLogDownloadLinkRequest();
        request.withNodeId("<node_id>");
        request.withLastFileName("<last_file_name>");
        request.withLimit("<limit>");
        request.withStartTime("<start_time>");
        request.withEndTime("<end_time>");
        try {
            ListAuditLogDownloadLinkResponse response = client.listAuditLogDownloadLink(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
        }
    }
}
```



```
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAuditLogDownloadLinkRequest()
        request.node_id = "<node_id>"
        request.last_file_name = "<last_file_name>"
        request.limit = <limit>
        request.start_time = "<start_time>"
        request.end_time = "<end_time>"
        response = client.list_audit_log_download_link(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

```
Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ListAuditLogDownloadLinkRequest{}
nodeIdRequest:= "<node_id>"
request.NodeId = &nodeIdRequest
lastFileNameRequest:= "<last_file_name>"
request.LastFileName = &lastFileNameRequest
limitRequest:= int32(<limit>)
request.Limit = &limitRequest
request.StartTime = "<start_time>"
request.EndTime = "<end_time>"
response, err := client.ListAuditLogDownloadLink(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9 标签管理

### 4.9.1 查询资源标签

#### 功能介绍

查询指定实例的标签信息。

#### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/tags

表 4-611 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-612 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-613 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-614 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总记录数。
tags	Array of ResourceTagItem objects	标签列表。

表 4-615 ResourceTagItem

参数	参数类型	描述
key	String	标签键。
value	String	标签值。

状态码： 400

表 4-616 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-617 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询资源标签。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/tags?offset=0&limit=2
```

## 响应示例

**状态码： 200**

Success.

```
{
  "total_count" : 2,
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListInstanceTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListInstanceTagsRequest request = new ListInstanceTagsRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListInstanceTagsResponse response = client.listInstanceTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
        }
    }
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListInstanceTagsRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_instance_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()
```

```
client := gaussdb.NewGaussDBClient(  
    gaussdb.GaussDBClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.ListInstanceTagsRequest{}  
offsetRequest := int32(<offset>)  
request.Offset = &offsetRequest  
limitRequest := int32(<limit>)  
request.Limit = &limitRequest  
response, err := client.ListInstanceTags(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9.2 查询项目标签

### 功能介绍

查询指定project ID下实例的所有标签集合。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/tags

表 4-618 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-619 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-620 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200



表 4-621 响应 Body 参数

参数	参数类型	描述
total_count	Integer	总记录数。
tags	Array of ProjectTagItem objects	标签列表。

表 4-622 ProjectTagItem

参数	参数类型	描述
key	String	标签键。
values	Array of strings	标签值。

状态码： 400

表 4-623 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-624 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询项目标签。

GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/tags?offset=0&amp;limit=2

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 2,
  "tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  }, {
    "key": "key2",
    "values": [ "value3", "value4" ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListProjectTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListProjectTagsRequest request = new ListProjectTagsRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListProjectTagsResponse response = client.listProjectTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ListProjectTagsRequest()  
        request.offset = <offset>  
        request.limit = <limit>  
        response = client.list_project_tags(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).
```

```
WithCredential(auth).  
Build()  
  
request := &model.ListProjectTagsRequest{  
offsetRequest:= int32(<offset>)  
request.Offset = &offsetRequest  
limitRequest:= int32(<limit>)  
request.Limit = &limitRequest  
response, err := client.ListProjectTags(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.9.3 批量添加或删除标签

### 功能介绍

批量添加或删除指定实例的标签。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/tags/action

表 4-625 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-626 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-627 请求 Body 参数

参数	是否必选	参数类型	描述
action	是	String	操作标识，取值： <ul style="list-style-type: none"><li>create：表示添加标签。</li><li>delete：表示删除标签。</li></ul>
tags	是	Array of <a href="#">TagItem</a> objects	标签列表。

表 4-628 TagItem

参数	是否必选	参数类型	描述
key	是	String	标签键。最大长度36个unicode字符，不能为null或者空字符串，不能为空格。 字符集：0-9，A-Z，a-z，“_”，“-”，中文。
value	否	String	标签值。最大长度43个unicode字符，可以为空字符串，不能为空格。 字符集：0-9，A-Z，a-z，“_”，“.”，“-”，中文。 <ul style="list-style-type: none"><li>“action”值为“create”时，该参数必选。</li><li>“action”值为“delete”时，如果value有值，按照key-value删除，如果value没值，则按照key删除。</li></ul>

## 响应参数

状态码： 400

表 4-629 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-630 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 批量添加标签。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/tags/action
```

```
{
  "action": "create",
  "tags": [ {
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key2",
    "value": "value2"
  } ]
}
```

- 批量删除标签。

POST <https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/tags/action>

```
{
  "action": "delete",
  "tags": [ {
    "key": "key1"
  }, {
    "key": "key2",
    "value": "value2"
  } ]
}
```

## 响应示例

无

## SDK 代码示例

SDK代码示例如下。

### Java

- 批量添加标签。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchTagActionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);
```

```
GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
BatchTagActionRequest request = new BatchTagActionRequest();
BatchOperateInstanceTagRequestBody body = new BatchOperateInstanceTagRequestBody();
List<TagItem> listbodyTags = new ArrayList<>();
listbodyTags.add(
    new TagItem()
        .withKey("key1")
        .withValue("value1")
);
listbodyTags.add(
    new TagItem()
        .withKey("key2")
        .withValue("value2")
);
body.withTags(listbodyTags);
body.withAction("create");
request.withBody(body);
try {
    BatchTagActionResponse response = client.batchTagAction(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- 批量删除标签。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchTagActionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
```



```
.withCredential(auth)
.withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
.build();
BatchTagActionRequest request = new BatchTagActionRequest();
BatchOperateInstanceTagRequestBody body = new BatchOperateInstanceTagRequestBody();
List<TagItem> listbodyTags = new ArrayList<>();
listbodyTags.add(
    new TagItem()
        .withKey("key1")
);
listbodyTags.add(
    new TagItem()
        .withKey("key2")
        .withValue("value2")
);
body.withTags(listbodyTags);
body.withAction("delete");
request.withBody(body);
try {
    BatchTagActionResponse response = client.batchTagAction(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

- 批量添加标签。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchTagActionRequest()
        listTagsbody = [
            TagItem(
                key="key1",
                value="value1"
            ),
        ],
```

```
        TagItem(  
            key="key2",  
            value="value2"  
        )  
    ]  
    request.body = BatchOperateInstanceTagRequestBody(  
        tags=listTagsbody,  
        action="create"  
    )  
    response = client.batch_tag_action(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

- 批量删除标签。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    # environment variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before  
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    # environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = BatchTagActionRequest()  
        listTagsbody = [  
            TagItem(  
                key="key1"  
            ),  
            TagItem(  
                key="key2",  
                value="value2"  
            )  
        ]  
        request.body = BatchOperateInstanceTagRequestBody(  
            tags=listTagsbody,  
            action="delete"  
        )  
        response = client.batch_tag_action(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

- 批量添加标签。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchTagActionRequest{
        valueTags:= "value1"
        valueTags1:= "value2"
        var listTagsbody = []model.TagItem{
            {
                Key: "key1",
                Value: &valueTags,
            },
            {
                Key: "key2",
                Value: &valueTags1,
            },
        }
        request.Body = &model.BatchOperateInstanceTagRequestBody{
            Tags: listTagsbody,
            Action: "create",
        }
        response, err := client.BatchTagAction(request)
        if err == nil {
            fmt.Printf("%+v\n", response)
        } else {
            fmt.Println(err)
        }
    }
}
```

- 批量删除标签。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.BatchTagActionRequest{
    valueTags:= "value2"
    var listTagsbody = []model.TagItem{
        {
            Key: "key1",
        },
        {
            Key: "key2",
            Value: &valueTags,
        },
    }
    request.Body = &model.BatchOperateInstanceTagRequestBody{
        Tags: listTagsbody,
        Action: "delete",
    }
    response, err := client.BatchTagAction(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10 数据库用户管理

### 4.10.1 创建数据库用户

#### 功能介绍

创建云数据库GaussDB(for MySQL)实例数据库用户。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-631 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

#### 请求参数

表 4-632 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-633 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">CreateDatabaseUserList</a> objects	数据库用户列表，列表最大长度为50。

表 4-634 CreateDatabaseUserList

参数	是否必选	参数类型	描述
name	是	String	数据库用户名称，数据库用户名称在1到32个字符之间，由字母、数字、下划线组成，不能包含其他特殊字符。
password	是	String	数据库用户密码，不能同用户名称相同，非空，至少包含以下字符中的三种：大写字母、小写字母、数字和特殊符号~!@#\$%^*_-=+?,()&组成，长度8~32个字符。 建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。
comment	否	String	数据库备注,长度不能超过512个字符，不能包含回车和特殊字符!<"='>&。 该字段只针对新版本的实例生效，必须大于等于指定的内核版本-2.0.13.0，不符合内核版本要求，参考 <a href="#">内核版本升级</a> 至最新。
hosts	否	Array of strings	主机IP地址，即允许数据库用户在当前主机连接数据库，默认IP地址为%，表示允许所有地址访问GaussDB(for MySQL)实例。若IP地址为“10.10.10.%”，则表示10.10.10.X的IP地址都可以访问该GaussDB(for MySQL)实例。若您需要添加多个IP地址，请用英文逗号隔开（逗号前后都不能加空格），例如192.168.0.1,172.16.213.9，一次最多创建50个。

参数	是否必选	参数类型	描述
databases	否	Array of <a href="#">CreateDatabaseList</a> objects	数据库名称列表，即创建数据库用户时同步将列表中的数据库授权给用户，列表最大长度为50。列表可以为空，在需要给该用户授权某数据库时，调用 <a href="#">数据库用户授权</a> 接口即可。

表 4-635 CreateDatabaseList

参数	是否必选	参数类型	描述
name	是	String	数据库名称。
readonly	是	Boolean	是否为只读权限： <ul style="list-style-type: none"> <li>• true: 表示只读。</li> <li>• false: 表示可读写。</li> </ul>

## 响应参数

状态码： 201

表 4-636 响应 Body 参数

参数	参数类型	描述
job_id	String	创建数据库用户的任务ID。

状态码： 400

表 4-637 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-638 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "password": "****",  
    "hosts": [ "127.0.0.1" ],  
    "comment": "database_user_comment",  
    "databases": [{  
      "name": "test",  
      "readonly": false  
    }]  
  }]  
}
```

## 响应示例

状态码: 201

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CreateGaussMySQLDatabaseUserSolution {
```



```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");

    ICredential auth = new BasicCredentials()
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    CreateGaussMySQLDatabaseUserRequest request = new CreateGaussMySQLDatabaseUserRequest();
    CreateDatabaseUserRequest body = new CreateDatabaseUserRequest();
    List<CreateDatabaseList> listUsersDatabases = new ArrayList<>();
    listUsersDatabases.add(
        new CreateDatabaseList()
            .withName("test")
            .withReadOnly(false)
    );
    List<String> listUsersHosts = new ArrayList<>();
    listUsersHosts.add("127.0.0.1");
    List<CreateDatabaseUserList> listbodyUsers = new ArrayList<>();
    listbodyUsers.add(
        new CreateDatabaseUserList()
            .withName("gaussdb_mysql_user1")
            .withComment("database_user_comment")
            .withPassword("****")
            .withHosts(listUsersHosts)
            .withDatabases(listUsersDatabases)
    );
    body.withUsers(listbodyUsers);
    request.withBody(body);
    try {
        CreateGaussMySQLDatabaseUserResponse response =
        client.createGaussMySQLDatabaseUser(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
```

```
# The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateGaussMySqlDatabaseUserRequest()
    listDatabasesUsers = [
        CreateDatabaseList(
            name="test",
            readonly=False
        )
    ]
    listHostsUsers = [
        "127.0.0.1"
    ]
    listUsersbody = [
        CreateDatabaseUserList(
            name="gaussdb_mysql_user1",
            comment="database_user_comment",
            password="****",
            hosts=listHostsUsers,
            databases=listDatabasesUsers
        )
    ]
    request.body = CreateDatabaseUserRequest(
        users=listUsersbody
    )
    response = client.create_gauss_my_sql_database_user(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

创建数据库用户，读写权限，主机IP地址是127.0.0.1。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

```
auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateGaussMySQLDatabaseUserRequest{}
var listDatabasesUsers = []model.CreateDatabaseList{
    {
        Name: "test",
        Readonly: false,
    },
}
var listHostsUsers = []string{
    "127.0.0.1",
}
commentUsers := "database_user_comment"
var listUsersbody = []model.CreateDatabaseUserList{
    {
        Name: "gaussdb_mysql_user1",
        Comment: &commentUsers,
        Password: "****",
        Hosts: &listHostsUsers,
        Databases: &listDatabasesUsers,
    },
}
request.Body = &model.CreateDatabaseUserRequest{
    Users: listUsersbody,
}
response, err := client.CreateGaussMySQLDatabaseUser(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10.2 查询数据库用户

### 功能介绍

查询云数据库 GaussDB(for MySQL)实例数据库用户。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-639 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-640 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-641 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-642 响应 Body 参数

参数	参数类型	描述
users	Array of <a href="#">ListGaussMySqlDatabaseUser</a> objects	数据库用户列表。
total_count	Integer	实例的数据库用户总数

表 4-643 ListGaussMySqlDatabaseUser

参数	参数类型	描述
name	String	数据库用户名。
host	String	主机地址。
comment	String	数据库用户备注。
databases	Array of <a href="#">ListGaussMySqlDatabase</a> objects	数据库列表。

表 4-644 ListGaussMySqlDatabase

参数	参数类型	描述
name	String	数据库名称。
readonly	Boolean	是否为只读权限： <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul>

状态码： 400

表 4-645 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-646 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询数据库用户列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users?offset=0&limit=100
```

## 响应示例

状态码： 200

Success.

```
{  
  "users": [  
    {  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "comment": "database_user_comment",  
      "databases": [  
        {  
          "name": "test",  
          "readonly": false  
        }  
      ]  
    }  
  ]  
}
```

```
    } ],  
    "total_count" : 1  
  }  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySQLDatabaseUserSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListGaussMySQLDatabaseUserRequest request = new ListGaussMySQLDatabaseUserRequest();  
        request.withOffset(<offset>);  
        request.withLimit(<limit>);  
        try {  
            ListGaussMySQLDatabaseUserResponse response = client.listGaussMySQLDatabaseUser(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

### Python

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlDatabaseUserRequest()
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_gauss_my_sql_database_user(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySqlDatabaseUserRequest{}
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    response, err := client.ListGaussMySqlDatabaseUser(request)
```



```
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.10.3 删除数据库用户

#### 功能介绍

删除云数据库 GaussDB(for MySQL)实例数据库用户。

#### 调用方法

请参见[如何调用API](#)。

#### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/db-users

表 4-647 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

**表 4-648** 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

**表 4-649** 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">ListDeleteDatabaseUserRequest</a> objects	准备删除的数据库用户列表，列表最大长度为50。

**表 4-650** ListDeleteDatabaseUserRequest

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。

## 响应参数

状态码： 202

**表 4-651** 响应 Body 参数

参数	参数类型	描述
job_id	String	删除数据库用户的任务ID。

**状态码： 400****表 4-652 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**状态码： 500****表 4-653 响应 Body 参数**

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

**请求示例**

删除主机地址是"127.0.0.1"的数据库用户。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
```

```
{  
  "users" : [ {  
    "name" : "gaussdb_mysql_user1",  
    "host" : "127.0.0.1"  
  } ]  
}
```

**响应示例****状态码： 202**

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

**状态码**

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10.4 修改数据库用户备注

### 功能介绍

修改云数据库 GaussDB(for MySQL)实例数据库用户备注。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/db-users/comment

表 4-654 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-655 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-656 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">UpdateDatabaseUserComment</a> objects	准备修改备注的数据库用户列表，列表最大长度为50。

表 4-657 UpdateDatabaseUserComment

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。
comment	是	String	数据库用户备注,长度不能超过512个字符，不能包含回车和特殊字符!<"='>&。 该字段只针对新版本的实例生效，必须大于等于指定的内核版本-2.0.13.0，不符合内核版本要求，参考 <a href="#">升级内核版本</a> 升级至最新。

## 响应参数

状态码： 202

表 4-658 响应 Body 参数

参数	参数类型	描述
job_id	String	修改数据库用户备注的任务ID。

状态码： 400

表 4-659 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-660 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改数据库用户的备注。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/comment
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "comment": "first_database_user"  
  }]  
}
```

## 响应示例

状态码: 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库用户的备注。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class UpdateGaussMySQLDatabaseUserCommentSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
    }  
}
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateGaussMySqlDatabaseUserCommentRequest request = new
UpdateGaussMySqlDatabaseUserCommentRequest();
UpdateDatabaseUserCommentRequest body = new UpdateDatabaseUserCommentRequest();
List<UpdateDatabaseUserComment> listbodyUsers = new ArrayList<>();
listbodyUsers.add(
    new UpdateDatabaseUserComment()
        .withName("gaussdb_mysql_user1")
        .withHost("127.0.0.1")
        .withComment("first_database_user")
);
body.withUsers(listbodyUsers);
request.withBody(body);
try {
    UpdateGaussMySqlDatabaseUserCommentResponse response =
client.updateGaussMySqlDatabaseUserComment(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

修改数据库用户的备注。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = UpdateGaussMySqlDatabaseUserCommentRequest()
    listUsersbody = [
        UpdateDatabaseUserComment(
            name="gaussdb_mysql_user1",
            host="127.0.0.1",
            comment="first_database_user"
        )
    ]
    request.body = UpdateDatabaseUserCommentRequest(
        users=listUsersbody
    )
    response = client.update_gauss_my_sql_database_user_comment(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

修改数据库用户的备注。

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3"
    "github.com/ HuaweiCloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3/model"
    region "github.com/ huaweicloud/ huaweicloud-sdk-go-v3/services/ gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateGaussMySqlDatabaseUserCommentRequest{}
    var listUsersbody = []model.UpdateDatabaseUserComment{
        {
            Name: "gaussdb_mysql_user1",
            Host: "127.0.0.1",
            Comment: "first_database_user",
        },
    }
    request.Body = &model.UpdateDatabaseUserCommentRequest{
        Users: listUsersbody,
    }
    response, err := client.UpdateGaussMySqlDatabaseUserComment(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    }
}
```



```
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10.5 修改数据库用户密码

### 功能介绍

修改云数据库 GaussDB(for MySQL)实例数据库用户密码。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/db-users/password

表 4-661 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-662 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

表 4-663 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">ResetDatabasePassword</a> objects	准备修改密码的数据库用户列表，列表最大长度为50。

表 4-664 ResetDatabasePassword

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。
password	是	String	数据库用户密码，非空，至少包含以下字符中的三种：大写字母、小写字母、数字和特殊符号~!@#\$%^*_-=+?,()&组成，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险

## 响应参数

状态码： 202

表 4-665 响应 Body 参数

参数	参数类型	描述
job_id	String	修改数据库用户密码的任务ID。

状态码： 400

表 4-666 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-667 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/password
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "password": "****"  
  }]  
}
```

## 响应示例

状态码： 202

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库用户 “gaussdb\_mysql\_user1” 的密码。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class ResetGaussMySqlDatabasePasswordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ResetGaussMySqlDatabasePasswordRequest request = new
ResetGaussMySqlDatabasePasswordRequest();
        ResetDatabasePasswordRequest body = new ResetDatabasePasswordRequest();
        List<ResetDatabasePassword> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new ResetDatabasePassword()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withPassword("****")
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            ResetGaussMySqlDatabasePasswordResponse response =
client.resetGaussMySqlDatabasePassword(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

## Python

修改数据库用户“gaussdb\_mysql\_user1”的密码。

```
# coding: utf-8  
  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = __import__('os').getenv("CLOUD_SDK_AK")  
    sk = __import__('os').getenv("CLOUD_SDK_SK")  
  
    credentials = BasicCredentials(ak, sk) \  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ResetGaussMySqlDatabasePasswordRequest()  
        listUsersbody = [  
            ResetDatabasePassword(  
                name="gaussdb_mysql_user1",  
                host="127.0.0.1",  
                password="****"  
            )  
        ]  
        request.body = ResetDatabasePasswordRequest(  
            users=listUsersbody  
        )  
        response = client.reset_gauss_my_sql_database_password(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

## Go

修改数据库用户“gaussdb\_mysql\_user1”的密码。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.
```

```
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ResetGaussMySQLDatabasePasswordRequest{}
var listUsersbody = []model.ResetDatabasePassword{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
        Password: "****",
    },
}
request.Body = &model.ResetDatabasePasswordRequest{
    Users: listUsersbody,
}
response, err := client.ResetGaussMySQLDatabasePassword(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10.6 授予数据库用户数据库权限

### 功能介绍

授予云数据库 GaussDB(for MySQL)实例数据库用户数据库权限。

## 调用方法

请参见[如何调用API](#)。

## URI

POST /v3/{project\_id}/instances/{instance\_id}/db-users/privilege

表 4-668 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-669 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-670 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">GrantDatabasePermission</a> objects	数据库用户列表，列表最大长度为50。

表 4-671 GrantDatabasePermission

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。
databases	是	Array of DatabasePermission objects	数据库权限列表，列表最大长度为50。

表 4-672 DatabasePermission

参数	是否必选	参数类型	描述
name	是	String	数据库名称。
readonly	是	Boolean	是否为只读权限： <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul>

## 响应参数

状态码： 201

表 4-673 响应 Body 参数

参数	参数类型	描述
job_id	String	授予用户权限的任务ID。

状态码： 400

表 4-674 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500



表 4-675 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 授予数据库用户数据库读写权限。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "databases": [{  
      "name": "test",  
      "readonly": false  
    }]  
  }]  
}
```

- 授予数据库用户数据库只读权限。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
```

```
{  
  "users": [{  
    "name": "gaussdb_mysql_user1",  
    "host": "127.0.0.1",  
    "databases": [{  
      "name": "test",  
      "readonly": true  
    }]  
  }]  
}
```

## 响应示例

状态码: 201

Success.

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 授予数据库用户数据库读写权限。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```

```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class AddDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        AddDatabasePermissionRequest request = new AddDatabasePermissionRequest();
        GrantDatabasePermissionRequestBody body = new GrantDatabasePermissionRequestBody();
        List<DatabasePermission> listUsersDatabases = new ArrayList<>();
        listUsersDatabases.add(
            new DatabasePermission()
                .withName("test")
                .withReadOnly(false)
        );
        List<GrantDatabasePermission> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new GrantDatabasePermission()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withDatabases(listUsersDatabases)
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            AddDatabasePermissionResponse response = client.addDatabasePermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- 授予数据库用户数据库只读权限。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class AddDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        AddDatabasePermissionRequest request = new AddDatabasePermissionRequest();
        GrantDatabasePermissionRequestBody body = new GrantDatabasePermissionRequestBody();
        List<DatabasePermission> listUsersDatabases = new ArrayList<>();
        listUsersDatabases.add(
            new DatabasePermission()
                .withName("test")
                .withReadOnly(true)
        );
        List<GrantDatabasePermission> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new GrantDatabasePermission()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withDatabases(listUsersDatabases)
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            AddDatabasePermissionResponse response = client.addDatabasePermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 授予数据库用户数据库读写权限。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
```

```
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddDatabasePermissionRequest()
        listDatabasesUsers = [
            DatabasePermission(
                name="test",
                readonly=False
            )
        ]
        listUsersbody = [
            GrantDatabasePermission(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                databases=listDatabasesUsers
            )
        ]
        request.body = GrantDatabasePermissionRequestBody(
            users=listUsersbody
        )
        response = client.add_database_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 授予数据库用户数据库只读权限。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = AddDatabasePermissionRequest()
    listDatabasesUsers = [
        DatabasePermission(
            name="test",
            readonly=True
        )
    ]
    listUsersbody = [
        GrantDatabasePermission(
            name="gaussdb_mysql_user1",
            host="127.0.0.1",
            databases=listDatabasesUsers
        )
    ]
    request.body = GrantDatabasePermissionRequestBody(
        users=listUsersbody
    )
    response = client.add_database_permission(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

- 授予数据库用户数据库读写权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddDatabasePermissionRequest{}
    var listDatabasesUsers = []model.DatabasePermission{
        {
            Name: "test",
            Readonly: false,
        },
    }
}
```

```
var listUsersbody = []model.GrantDatabasePermission{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
        Databases: listDatabasesUsers,
    },
}
request.Body = &model.GrantDatabasePermissionRequestBody{
    Users: listUsersbody,
}
response, err := client.AddDatabasePermission(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- 授予数据库用户数据库只读权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddDatabasePermissionRequest{}
    var listDatabasesUsers = []model.DatabasePermission{
        {
            Name: "test",
            Readonly: true,
        },
    }
    var listUsersbody = []model.GrantDatabasePermission{
        {
            Name: "gaussdb_mysql_user1",
            Host: "127.0.0.1",
            Databases: listDatabasesUsers,
        },
    }
    request.Body = &model.GrantDatabasePermissionRequestBody{
        Users: listUsersbody,
    }
    response, err := client.AddDatabasePermission(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    }
}
```

```
} else {  
    fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.10.7 删除数据库用户的数据库权限

### 功能介绍

删除云数据库 GaussDB(for MySQL)实例数据库用户的数据库权限。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/db-users/privilege

表 4-676 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-677 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-678 请求 Body 参数

参数	是否必选	参数类型	描述
users	是	Array of <a href="#">DeleteDatabasePermission</a> objects	数据库用户列表，列表最大长度为50。

表 4-679 DeleteDatabasePermission

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。
databases	是	Array of strings	数据库列表。

## 响应参数

状态码：202

表 4-680 响应 Body 参数

参数	参数类型	描述
job_id	String	删除数据库用户的数据库权限任务ID。



状态码： 400

表 4-681 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-682 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "databases" : [ "test" ]
  } ]
}
```

## 响应示例

状态码： 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
package com.huaweicloud.sdk.test;
```

```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteDatabasePermissionSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        DeleteDatabasePermissionRequest request = new DeleteDatabasePermissionRequest();
        DeleteDatabasePermissionRequestBody body = new DeleteDatabasePermissionRequestBody();
        List<String> listUsersDatabases = new ArrayList<>();
        listUsersDatabases.add("test");
        List<DeleteDatabasePermission> listbodyUsers = new ArrayList<>();
        listbodyUsers.add(
            new DeleteDatabasePermission()
                .withName("gaussdb_mysql_user1")
                .withHost("127.0.0.1")
                .withDatabases(listUsersDatabases)
        );
        body.withUsers(listbodyUsers);
        request.withBody(body);
        try {
            DeleteDatabasePermissionResponse response = client.deleteDatabasePermission(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDatabasePermissionRequest()
        listDatabasesUsers = [
            "test"
        ]
        listUsersbody = [
            DeleteDatabasePermission(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                databases=listDatabasesUsers
            )
        ]
        request.body = DeleteDatabasePermissionRequestBody(
            users=listUsersbody
        )
        response = client.delete_database_permission(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

删除数据库用户"gaussdb\_mysql\_user1"的数据库权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()
```

```
client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.DeleteDatabasePermissionRequest{}
var listDatabasesUsers = []string{
    "test",
}
var listUsersbody = []model.DeleteDatabasePermission{
    {
        Name: "gaussdb_mysql_user1",
        Host: "127.0.0.1",
        Databases: listDatabasesUsers,
    },
}
request.Body = &model.DeleteDatabasePermissionRequestBody{
    Users: listUsersbody,
}
response, err := client.DeleteDatabasePermission(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.11 数据库管理

### 4.11.1 查询数据库可用字符集

#### 功能介绍

查询云数据库 GaussDB(for MySQL)实例数据库可用字符集。

## 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/databases/charsets

表 4-683 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-684 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-685 响应 Body 参数

参数	参数类型	描述
charsets	Array of strings	数据库字符集列表

状态码： 400

表 4-686 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-687 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询数据库可用字符集。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases/charsets
```

## 响应示例

状态码： 200

Success.

```
{  
  "charsets" : [ "utf8mb4", "gbk" ]  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySQLDatabaseCharsetsSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");

    ICredential auth = new BasicCredentials()
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListGaussMySqlDatabaseCharsetsRequest request = new ListGaussMySqlDatabaseCharsetsRequest();
    try {
        ListGaussMySqlDatabaseCharsetsResponse response =
client.listGaussMySqlDatabaseCharsets(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlDatabaseCharsetsRequest()
        response = client.list_gauss_my_sql_database_charsets(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
```

```
print(e.error_code)
print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListGaussMySQLDatabaseCharsetsRequest{}
    response, err := client.ListGaussMySQLDatabaseCharsets(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。



## 4.11.2 创建数据库

### 功能介绍

创建云数据库 GaussDB(for MySQL)实例数据库。

### 调用方法

请参见[如何调用API](#)。

### URI

POST /v3/{project\_id}/instances/{instance\_id}/databases

表 4-688 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-689 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-690 请求 Body 参数

参数	是否必选	参数类型	描述
databases	是	Array of <a href="#">CreateGaussMySQLDatabase</a> objects	数据库信息列表, 列表最大长度为50。

表 4-691 CreateGaussMySQLDatabase

参数	是否必选	参数类型	描述
name	是	String	数据库名称,数据库名称长度可在1~64个字符之间,由字母、数字、下划线、中划线组成,中划线的累计总长度小于等于10个字符,且不能包含其他特殊字符。
character_set	是	String	数据库使用的字符集名称,如utf8mb4、gbk。
comment	否	String	数据库备注,长度不能超过512个字符,不能包含回车和特殊字符!<"='>&。
users	否	Array of <a href="#">GaussMySQLDatabaseUser</a> objects	数据库用户列表,即创建数据库时同步授权给列表中的用户,列表最大长度为50。列表可以为空,即创建数据库时不授予其权限到数据库用户,在需要给该数据库授权某数据库用户时,调用 <a href="#">数据库用户授权</a> 接口即可。

表 4-692 GaussMySQLDatabaseUser

参数	是否必选	参数类型	描述
name	是	String	数据库用户名。
host	是	String	主机地址。
readonly	是	Boolean	是否为只读权限: <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul>

## 响应参数

状态码: 201

表 4-693 响应 Body 参数

参数	参数类型	描述
job_id	String	创建数据库的任务ID。

状态码： 400

表 4-694 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-695 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建数据库，字符集为utf8mb4，读写权限。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases
```

```
{  
  "databases": [ {  
    "name": "test",  
    "character_set": "utf8mb4",  
    "comment": "database_comment",  
    "users": [ {  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "readonly": false  
    } ]  
  } ]  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

创建数据库，字符集为utf8mb4，读写权限。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CreateGaussMySQLDatabaseSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CreateGaussMySQLDatabaseRequest request = new CreateGaussMySQLDatabaseRequest();  
        CreateGaussMySQLDatabaseRequestBody body = new CreateGaussMySQLDatabaseRequestBody();  
        List<GaussMySQLDatabaseUser> listDatabasesUsers = new ArrayList<>();  
        listDatabasesUsers.add(  
            new GaussMySQLDatabaseUser()  
                .withName("gaussdb_mysql_user1")  
                .withHost("127.0.0.1")  
                .withReadOnly(false)  
        );  
        List<CreateGaussMySQLDatabase> listbodyDatabases = new ArrayList<>();  
        listbodyDatabases.add(  
            new CreateGaussMySQLDatabase()  
                .withName("test")  
                .withComment("database_comment")  
                .withCharacterSet("utf8mb4")  
                .withUsers(listDatabasesUsers)  
        );  
        body.withDatabases(listbodyDatabases);  
        request.withBody(body);  
        try {  
            CreateGaussMySQLDatabaseResponse response = client.createGaussMySQLDatabase(request);  
            System.out.println(response.toString());  
        }  
    }  
}
```

```
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

创建数据库，字符集为utf8mb4，读写权限。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateGaussMySQLDatabaseRequest()
        listUsersDatabases = [
            GaussMySQLDatabaseUser(
                name="gaussdb_mysql_user1",
                host="127.0.0.1",
                readonly=False
            )
        ]
        listDatabasesbody = [
            CreateGaussMySQLDatabase(
                name="test",
                comment="database_comment",
                character_set="utf8mb4",
                users=listUsersDatabases
            )
        ]
        request.body = CreateGaussMySQLDatabaseRequestBody(
            databases=listDatabasesbody
        )
        response = client.create_gauss_my_sql_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

创建数据库，字符集为utf8mb4，读写权限。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateGaussMySQLDatabaseRequest{}
    var listUsersDatabases = []model.GaussMySQLDatabaseUser{
        {
            Name: "gaussdb_mysql_user1",
            Host: "127.0.0.1",
            Readonly: false,
        },
    }
    commentDatabases := "database_comment"
    var listDatabasesbody = []model.CreateGaussMySQLDatabase{
        {
            Name: "test",
            Comment: &commentDatabases,
            CharacterSet: "utf8mb4",
            Users: &listUsersDatabases,
        },
    }
    request.Body = &model.CreateGaussMySQLDatabaseRequestBody{
        Databases: listDatabasesbody,
    }
    response, err := client.CreateGaussMySQLDatabase(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.11.3 查询数据库列表

#### 功能介绍

查询 GaussDB(for MySQL)实例数据库。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/{instance\_id}/databases

表 4-696 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-697 Query 参数

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。

参数	是否必选	参数类型	描述
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
name	否	String	数据库名称。
charset	否	String	数据库使用的字符集，如 utf8mb4、gbk等。

## 请求参数

表 4-698 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-699 响应 Body 参数

参数	参数类型	描述
databases	Array of <a href="#">ListGaussMySQLDatabaseInfo</a> objects	数据库信息列表。
total_count	Integer	数据库总数。



表 4-700 ListGaussMysqlDatabaseInfo

参数	参数类型	描述
name	String	数据库名称。
charset	String	数据库使用的字符集，如utf8mb4、gbk等。
comment	String	数据库备注。
users	Array of GaussMySqlDatabaseInfo objects	已授权数据库用户列表。

表 4-701 GaussMySqlDatabaseInfo

参数	参数类型	描述
name	String	数据库用户名。
host	String	主机地址。
readonly	Boolean	是否为只读权限： <ul style="list-style-type: none"><li>• true: 表示只读。</li><li>• false: 表示可读写。</li></ul>

状态码： 400

表 4-702 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-703 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询数据库列表。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases?offset=0&limit=100&charset=utf8mb4&name=test
```

## 响应示例

状态码： 200

Success.

```
{  
  "databases": [ {  
    "name": "test",  
    "charset": "utf8mb4",  
    "comment": "database_comment",  
    "users": [ {  
      "name": "gaussdb_mysql_user1",  
      "host": "127.0.0.1",  
      "readonly": false  
    } ]  
  } ],  
  "total_count": 1  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ListGaussMySqlDatabaseSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ListGaussMySqlDatabaseRequest request = new ListGaussMySqlDatabaseRequest();  
        request.withOffset(<offset>);  
    }  
}
```

```
request.withLimit(<limit>);
request.withName("<name>");
request.withCharset("<charset>");
try {
    ListGaussMySqlDatabaseResponse response = client.listGaussMySqlDatabase(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListGaussMySqlDatabaseRequest()
        request.offset = <offset>
        request.limit = <limit>
        request.name = "<name>"
        request.charset = "<charset>"
        response = client.list_gauss_my_sql_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
```

```
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ListGaussMySQLDatabaseRequest{  
        offsetRequest:= int32(<offset>)  
        request.Offset = &offsetRequest  
        limitRequest:= int32(<limit>)  
        request.Limit = &limitRequest  
        nameRequest:= "<name>"  
        request.Name = &nameRequest  
        charsetRequest:= "<charset>"  
        request.Charset = &charsetRequest  
        response, err := client.ListGaussMySQLDatabase(request)  
        if err == nil {  
            fmt.Printf("%+v\n", response)  
        } else {  
            fmt.Println(err)  
        }  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.11.4 删除数据库

### 功能介绍

删除云数据库 GaussDB(for MySQL)实例数据库。

### 调用方法

请参见[如何调用API](#)。

### URI

DELETE /v3/{project\_id}/instances/{instance\_id}/databases

表 4-704 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-705 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-706 请求 Body 参数

参数	是否必选	参数类型	描述
databases	是	Array of strings	准备删除的数据库列表，列表最大长度为50。

## 响应参数

状态码： 202

表 4-707 响应 Body 参数

参数	参数类型	描述
job_id	String	删除数据库的任务ID。

状态码： 400

表 4-708 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-709 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除数据库。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases
```

```
{  
  "databases": [ "test" ]  
}
```

## 响应示例

**状态码： 202**

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除数据库。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteGaussMySqlDatabaseSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        DeleteGaussMySqlDatabaseRequest request = new DeleteGaussMySqlDatabaseRequest();
        DeleteGaussMySqlDatabaseRequestBody body = new DeleteGaussMySqlDatabaseRequestBody();
        List<String> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add("test");
        body.withDatabases(listbodyDatabases);
        request.withBody(body);
        try {
            DeleteGaussMySqlDatabaseResponse response = client.deleteGaussMySqlDatabase(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
        }
    }
}
```

```
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

删除数据库。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteGaussMySQLDatabaseRequest()
        listDatabasesbody = [
            "test"
        ]
        request.body = DeleteGaussMySQLDatabaseRequestBody(
            databases=listDatabasesbody
        )
        response = client.delete_gauss_my_sql_database(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

删除数据库。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
```



```
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.DeleteGaussMySQLDatabaseRequest{}
var listDatabasesbody = []string{
    "test",
}
request.Body = &model.DeleteGaussMySQLDatabaseRequestBody{
    Databases: listDatabasesbody,
}
response, err := client.DeleteGaussMySQLDatabase(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.11.5 修改数据库备注

#### 功能介绍

修改云数据库 GaussDB(for MySQL)实例数据库备注。

#### 调用方法

请参见[如何调用API](#)。

## URI

PUT /v3/{project\_id}/instances/{instance\_id}/databases/comment

表 4-710 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-711 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

表 4-712 请求 Body 参数

参数	是否必选	参数类型	描述
databases	是	Array of <a href="#">UpdateDatabaseComment</a> objects	准备修改备注的数据库列表，列表最大长度为50。

表 4-713 UpdateDatabaseComment

参数	是否必选	参数类型	描述
name	是	String	数据库名称。

参数	是否必选	参数类型	描述
comment	是	String	数据库备注,长度不能超过512个字符,不能包含回车和特殊字符!<"='>&。

## 响应参数

状态码： 202

表 4-714 响应 Body 参数

参数	参数类型	描述
job_id	String	修改数据库备注的任务ID。

状态码： 400

表 4-715 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-716 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改数据库备注。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases/comment
```

```
{  
  "databases": [{  
    "name": "gaussdb_mysql_user1",  
    "comment": "first_database"  
  }]  
}
```

## 响应示例

状态码： 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

修改数据库备注。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateGaussMySQLDatabaseCommentSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateGaussMySQLDatabaseCommentRequest request = new
        UpdateGaussMySQLDatabaseCommentRequest();
        UpdateDatabaseCommentRequest body = new UpdateDatabaseCommentRequest();
        List<UpdateDatabaseComment> listbodyDatabases = new ArrayList<>();
        listbodyDatabases.add(
            new UpdateDatabaseComment()
                .withName("gaussdb_mysql_user1")
                .withComment("first_database")
        );
        body.withDatabases(listbodyDatabases);
        request.withBody(body);
        try {
            UpdateGaussMySQLDatabaseCommentResponse response =
            client.updateGaussMySQLDatabaseComment(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

修改数据库备注。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateGaussMySqlDatabaseCommentRequest()
        listDatabasesbody = [
            UpdateDatabaseComment(
                name="gaussdb_mysql_user1",
                comment="first_database"
            )
        ]
        request.body = UpdateDatabaseCommentRequest(
            databases=listDatabasesbody
        )
        response = client.update_gauss_my_sql_database_comment(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

修改数据库备注。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.UpdateGaussMySQLDatabaseCommentRequest{}  
    var listDatabasesbody = []model.UpdateDatabaseComment{  
        {  
            Name: "gaussdb_mysql_user1",  
            Comment: "first_database",  
        },  
    }  
    request.Body = &model.UpdateDatabaseCommentRequest{  
        Databases: listDatabasesbody,  
    }  
    response, err := client.UpdateGaussMySQLDatabaseComment(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.12 SQL 限流

### 4.12.1 开启或者关闭 SQL 限流

#### 功能介绍

开启或者关闭SQL限流。

#### 调用方法

请参见[如何调用API](#)。

#### URI

POST /v3/{project\_id}/instances/{instance\_id}/sql-filter/switch

表 4-717 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

#### 请求参数

表 4-718 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-719 请求 Body 参数

参数	是否必选	参数类型	描述
switch_status	是	String	SQL限流开关状态。取值： <ul style="list-style-type: none"><li>• ON: 表示开启。</li><li>• OFF: 表示关闭。</li></ul>

## 响应参数

状态码： 200

表 4-720 响应 Body 参数

参数	参数类型	描述
job_id	String	开启/关闭SQL限流任务ID。

状态码： 400

表 4-721 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-722 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

- 开启SQL限流。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

```
{  
  "switch_status": "ON"  
}
```



- 关闭SQL限流。

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

```
{  
  "switch_status": "OFF"  
}
```

## 响应示例

**状态码: 200**

Success.

```
{  
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

- 开启SQL限流。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class UpdateSqlFilterControlSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before  
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
        // environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        UpdateSqlFilterControlRequest request = new UpdateSqlFilterControlRequest();  
        OperateSqlFilterControlReq body = new OperateSqlFilterControlReq();  
        body.withSwitchStatus("ON");  
        request.withBody(body);  
        try {  
            UpdateSqlFilterControlResponse response = client.updateSqlFilterControl(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {
```

```
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

- 关闭SQL限流。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateSqlFilterControlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateSqlFilterControlRequest request = new UpdateSqlFilterControlRequest();
        OperateSqlFilterControlReq body = new OperateSqlFilterControlReq();
        body.withSwitchStatus("OFF");
        request.withBody(body);
        try {
            UpdateSqlFilterControlResponse response = client.updateSqlFilterControl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

- 开启SQL限流。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSqlFilterControlRequest()
        request.body = OperateSqlFilterControlReq(
            switch_status="ON"
        )
        response = client.update_sql_filter_control(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- 关闭SQL限流。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSqlFilterControlRequest()
        request.body = OperateSqlFilterControlReq(
            switch_status="OFF"
        )
```

```
)  
response = client.update_sql_filter_control(request)  
print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

## Go

- 开启SQL限流。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
    // environment variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before  
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local  
    // environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := gaussdb.NewGaussDBClient(  
        gaussdb.GaussDBClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.UpdateSqlFilterControlRequest{}  
    request.Body = &model.OperateSqlFilterControlReq{  
        SwitchStatus: "ON",  
    }  
    response, err := client.UpdateSqlFilterControl(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

- 关闭SQL限流。

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

```
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateSqlFilterControlRequest{
    request.Body = &model.OperateSqlFilterControlReq{
        SwitchStatus: "OFF",
    }
}
response, err := client.UpdateSqlFilterControl(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.12.2 查询 SQL 限流开关状态

### 功能介绍

查询SQL限流开关状态。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/sql-filter/switch

表 4-723 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-724 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码：200

表 4-725 响应 Body 参数

参数	参数类型	描述
switch_status	String	SQL限流开关状态。 取值： <ul style="list-style-type: none"><li>ON：已开启。</li><li>OFF：已关闭。</li></ul>

状态码：400

表 4-726 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-727 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询SQL限流开关状态。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

## 响应示例

状态码： 200

Success.

```
{  
  "switch_status": "ON"  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowSqlFilterControlSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD\_SDK\_AK and CLOUD\_SDK\_SK in the local environment

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
ShowSqlFilterControlRequest request = new ShowSqlFilterControlRequest();
try {
    ShowSqlFilterControlResponse response = client.showSqlFilterControl(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
```

```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

```
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
    credentials = BasicCredentials(ak, sk) \
```

```
    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
    try:
```

```
        request = ShowSqlFilterControlRequest()
        response = client.show_sql_filter_control(request)
        print(response)
```

```
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```



## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSqlFilterControlRequest{}
    response, err := client.ShowSqlFilterControl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.12.3 设置 SQL 限流规则

### 功能介绍

设置SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

### URI

PUT /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-728 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 4-729 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-730 请求 Body 参数

参数	是否必选	参数类型	描述
sql_filter_rules	是	Array of <a href="#">NodeSqlFilterRuleInfo</a> objects	节点级别的SQL限流规则。

表 4-731 NodeSqlFilterRuleInfo

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。
rules	是	Array of <a href="#">NodeSqlFilterRule</a> objects	SQL限流规则。集合的sql_type值不能重复。

表 4-732 NodeSqlFilterRule

参数	是否必选	参数类型	描述
sql_type	是	String	Sql限流类型。 取值范围： <ul style="list-style-type: none"> <li>• SELECT</li> <li>• UPDATE</li> <li>• DELETE</li> </ul>
patterns	是	Array of <a href="#">NodeSqlFilterRulePattern</a> objects	SQL限流具体规则。

表 4-733 NodeSqlFilterRulePattern

参数	是否必选	参数类型	描述
pattern	是	String	SQL限流规则，由一个或多个关键字（最多为128个关键字）组成，关键字之间通过"~"分隔符分开，如select~from~t1。规则中不能包含‘\’、中英文逗号、‘~~’，不能以‘~’结尾。
max_concurrency	是	Integer	最大并发数。取值范围：非负整数。

## 响应参数

状态码： 200

表 4-734 响应 Body 参数

参数	参数类型	描述
job_id	String	设置SQL限流规则任务ID。

状态码： 400

表 4-735 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-736 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
```

```
{  
  "sql_filter_rules": [{  
    "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",  
    "rules": [{  
      "sql_type": "SELECT",  
      "patterns": [{  
        "pattern": "select-from-t1",  
        "max_concurrency": 0  
      }, {  
        "pattern": "select-from-t3-where-id",  
        "max_concurrency": 10  
      }]  
    }]  
  }, {
```

```
"sql_type": "UPDATE",
"patterns": [ {
  "pattern": "update~t3~where~id",
  "max_concurrency": 10
}]
}]
}, {
  "node_id": "b234a5645eb2c4ji3b9372342f5362397no07",
  "rules": [ {
    "sql_type": "SELECT",
    "patterns": [ {
      "pattern": "select~from~t3~where~id",
      "max_concurrency": 10
    }]
  }, {
    "sql_type": "DELETE",
    "patterns": [ {
      "pattern": "delete~t3~where~id",
      "max_concurrency": 10
    }]
  }
]
}]
}
```

## 响应示例

**状态码：** 200

Success.

```
{
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class SetSqlFilterRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
    }
}
```

```
ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
SetSqlFilterRuleRequest request = new SetSqlFilterRuleRequest();
OperateSqlFilterRuleReq body = new OperateSqlFilterRuleReq();
List<NodeSqlFilterRulePattern> listRulesPatterns = new ArrayList<>();
listRulesPatterns.add(
    new NodeSqlFilterRulePattern()
        .withPattern("delete~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRulePattern> listRulesPatterns1 = new ArrayList<>();
listRulesPatterns1.add(
    new NodeSqlFilterRulePattern()
        .withPattern("select~from~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRule> listSqlFilterRulesRules = new ArrayList<>();
listSqlFilterRulesRules.add(
    new NodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns1)
);
listSqlFilterRulesRules.add(
    new NodeSqlFilterRule()
        .withSqlType("DELETE")
        .withPatterns(listRulesPatterns)
);
List<NodeSqlFilterRulePattern> listRulesPatterns2 = new ArrayList<>();
listRulesPatterns2.add(
    new NodeSqlFilterRulePattern()
        .withPattern("update~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRulePattern> listRulesPatterns3 = new ArrayList<>();
listRulesPatterns3.add(
    new NodeSqlFilterRulePattern()
        .withPattern("select~from~t1")
        .withMaxConcurrency(0)
);
listRulesPatterns3.add(
    new NodeSqlFilterRulePattern()
        .withPattern("select~from~t3~where~id")
        .withMaxConcurrency(10)
);
List<NodeSqlFilterRule> listSqlFilterRulesRules1 = new ArrayList<>();
listSqlFilterRulesRules1.add(
    new NodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns3)
);
listSqlFilterRulesRules1.add(
    new NodeSqlFilterRule()
        .withSqlType("UPDATE")
        .withPatterns(listRulesPatterns2)
);
List<NodeSqlFilterRuleInfo> listbodySqlFilterRules = new ArrayList<>();
listbodySqlFilterRules.add(
    new NodeSqlFilterRuleInfo()
        .withNodeId("c01a5645eb2c4fb6a9373542f5366e50no07")
        .withRules(listSqlFilterRulesRules1)
);
listbodySqlFilterRules.add(
```

```
        new NodeSqlFilterRuleInfo()
            .withNodeId("b234a5645eb2c4ji3b9372342f5362397no07")
            .withRules(listSqlFilterRulesRules)
    );
    body.withSqlFilterRules(listbodySqlFilterRules);
    request.withBody(body);
    try {
        SetSqlFilterRuleResponse response = client.setSqlFilterRule(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SetSqlFilterRuleRequest()
        listPatternsRules = [
            NodeSqlFilterRulePattern(
                pattern="delete~t3~where~id",
                max_concurrency=10
            )
        ]
        listPatternsRules1 = [
            NodeSqlFilterRulePattern(
                pattern="select~from~t3~where~id",
                max_concurrency=10
            )
        ]
        listRulesSqlFilterRules = [
            NodeSqlFilterRule(
                sql_type="SELECT",
                patterns=listPatternsRules1
            ),
```

```
        NodeSqlFilterRule(
            sql_type="DELETE",
            patterns=listPatternsRules
        )
    ]
    listPatternsRules2 = [
        NodeSqlFilterRulePattern(
            pattern="update~t3~where~id",
            max_concurrency=10
        )
    ]
    listPatternsRules3 = [
        NodeSqlFilterRulePattern(
            pattern="select~from~t1",
            max_concurrency=0
        ),
        NodeSqlFilterRulePattern(
            pattern="select~from~t3~where~id",
            max_concurrency=10
        )
    ]
    listRulesSqlFilterRules1 = [
        NodeSqlFilterRule(
            sql_type="SELECT",
            patterns=listPatternsRules3
        ),
        NodeSqlFilterRule(
            sql_type="UPDATE",
            patterns=listPatternsRules2
        )
    ]
    listSqlFilterRulesbody = [
        NodeSqlFilterRuleInfo(
            node_id="c01a5645eb2c4fb6a9373542f5366e50no07",
            rules=listRulesSqlFilterRules1
        ),
        NodeSqlFilterRuleInfo(
            node_id="b234a5645eb2c4ji3b9372342f5362397no07",
            rules=listRulesSqlFilterRules
        )
    ]
    request.body = OperateSqlFilterRuleReq(
        sql_filter_rules=listSqlFilterRulesbody
    )
    response = client.set_sql_filter_rule(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

设置SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```



```
variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.SetSqlFilterRuleRequest{}
var listPatternsRules = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "delete~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listPatternsRules1 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "select~from~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listRulesSqlFilterRules = []model.NodeSqlFilterRule{
    {
        SqlType: "SELECT",
        Patterns: listPatternsRules1,
    },
    {
        SqlType: "DELETE",
        Patterns: listPatternsRules,
    },
}
var listPatternsRules2 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "update~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listPatternsRules3 = []model.NodeSqlFilterRulePattern{
    {
        Pattern: "select~from~t1",
        MaxConcurrency: int32(0),
    },
    {
        Pattern: "select~from~t3~where~id",
        MaxConcurrency: int32(10),
    },
}
var listRulesSqlFilterRules1 = []model.NodeSqlFilterRule{
    {
        SqlType: "SELECT",
        Patterns: listPatternsRules3,
    },
    {
        SqlType: "UPDATE",
        Patterns: listPatternsRules2,
    },
}
var listSqlFilterRulesbody = []model.NodeSqlFilterRuleInfo{
    {
        NodeId: "c01a5645eb2c4fb6a9373542f5366e50no07",
```

```
Rules: listRulesSqlFilterRules1,  
},  
{  
  NodeId: "b234a5645eb2c4ji3b9372342f5362397no07",  
  Rules: listRulesSqlFilterRules,  
},  
}  
request.Body = &model.OperateSqlFilterRuleReq{  
  SqlFilterRules: listSqlFilterRulesbody,  
}  
response, err := client.SetSqlFilterRule(request)  
if err == nil {  
  fmt.Printf("%+v\n", response)  
} else {  
  fmt.Println(err)  
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.12.4 查询 SQL 限流规则

### 功能介绍

查询SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-737 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

表 4-738 Query 参数

参数	是否必选	参数类型	描述
node_id	是	String	节点ID。
sql_type	否	String	SQL限流类型，取值为SELECT、UPDATE、DELETE，不区分大小写；若不传则默认查询所有类型的限流规则。

## 请求参数

表 4-739 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-740 响应 Body 参数

参数	参数类型	描述
node_id	String	节点ID。
sql_filter_rules	Array of <a href="#">SqlFilterRule</a> objects	SQL限流规则。

表 4-741 SqlFilterRule

参数	参数类型	描述
sql_type	String	SQL限流类型。 取值范围： <ul style="list-style-type: none"><li>• SELECT</li><li>• UPDATE</li><li>• DELETE</li></ul>
patterns	Array of <a href="#">SqlFilterRule</a> <a href="#">Pattern</a> objects	SQL限流具体规则。

表 4-742 SqlFilterRulePattern

参数	参数类型	描述
pattern	String	SQL限流规则。
max_concurrency	Integer	最大并发数。

状态码： 400

表 4-743 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-744 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询SQL限流规则。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules?node_id=c01a5645eb2c4fb6a9373542f5366e50no07
```

## 响应示例

状态码： 200

Success.

```
{
  "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",
  "sql_filter_rules": [ {
    "sql_type": "SELECT",
    "patterns": [ {
      "pattern": "select~from~t1",
      "max_concurrency": 0
    }, {
      "pattern": "select~from~t2~where~id",
      "max_concurrency": 10
    } ]
  }, {
    "sql_type": "UDPATE",
    "patterns": [ {
      "pattern": "update~t1",
      "max_concurrency": 0
    }, {
      "pattern": "update~t2~where~id",
      "max_concurrency": 10
    } ]
  }, {
    "sql_type": "DELETE",
    "patterns": [ {
      "pattern": "delete~from",
      "max_concurrency": 0
    } ]
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowSqlFilterRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowSqlFilterRuleRequest request = new ShowSqlFilterRuleRequest();
        request.withNodeId("<node_id>");
        request.withSqlType("<sql_type>");
        try {
            ShowSqlFilterRuleResponse response = client.showSqlFilterRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
```

```
.build()

try:
    request = ShowSqlFilterRuleRequest()
    request.node_id = "<node_id>"
    request.sql_type = "<sql_type>"
    response = client.show_sql_filter_rule(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSqlFilterRuleRequest{}
    request.NodeId = "<node_id>"
    sqlTypeRequest := "<sql_type>"
    request.SqlType = &sqlTypeRequest
    response, err := client.ShowSqlFilterRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.12.5 删除 SQL 限流规则

### 功能介绍

删除SQL限流规则。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instances/{instance\_id}/sql-filter/rules

表 4-745 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。



## 请求参数

表 4-746 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"> <li>en-us</li> <li>zh-cn</li> </ul>

表 4-747 请求 Body 参数

参数	是否必选	参数类型	描述
sql_filter_rules	是	Array of <a href="#">DeleteNodeSqlFilterRuleInfo</a> objects	节点级别的SQL限流规则。

表 4-748 DeleteNodeSqlFilterRuleInfo

参数	是否必选	参数类型	描述
node_id	是	String	节点ID
rules	是	Array of <a href="#">DeleteNodeSqlFilterRuleInfo</a> objects	SQL限流规则。

表 4-749 DeleteNodeSqlFilterRule

参数	是否必选	参数类型	描述
sql_type	是	String	Sql限流类型。 取值范围： <ul style="list-style-type: none"><li>• SELECT</li><li>• UPDATE</li><li>• DELETE</li></ul>
patterns	是	Array of strings	SQL限流具体规则。

## 响应参数

状态码： 200

表 4-750 响应 Body 参数

参数	参数类型	描述
job_id	String	删除SQL限流规则任务ID。

状态码： 400

表 4-751 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-752 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules

{
  "sql_filter_rules" : [ {
    "node_id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules" : [ {
      "sql_type" : "SELECT",
      "patterns" : [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type" : "UPDATE",
      "patterns" : [ "udpate~t3~where~id" ]
    } ]
  }, {
    "node_id" : "b234a5645eb2c4ji3b9372342f5362397no07",
    "rules" : [ {
      "sql_type" : "SELECT",
      "patterns" : [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type" : "DELETE",
      "patterns" : [ "delete~t3~where~id" ]
    } ]
  } ]
}
```

## 响应示例

**状态码： 200**

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteSqlFilterRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```

```
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteSqlFilterRuleRequest request = new DeleteSqlFilterRuleRequest();
DeleteSqlFilterRuleReq body = new DeleteSqlFilterRuleReq();
List<String> listRulesPatterns = new ArrayList<>();
listRulesPatterns.add("delete~t3~where~id");
List<String> listRulesPatterns1 = new ArrayList<>();
listRulesPatterns1.add("select~from~t1");
listRulesPatterns1.add("select~from~t2");
List<DeleteNodeSqlFilterRule> listSqlFilterRulesRules = new ArrayList<>();
listSqlFilterRulesRules.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns1)
);
listSqlFilterRulesRules.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("DELETE")
        .withPatterns(listRulesPatterns)
);
List<String> listRulesPatterns2 = new ArrayList<>();
listRulesPatterns2.add("udpate~t3~where~id");
List<String> listRulesPatterns3 = new ArrayList<>();
listRulesPatterns3.add("select~from~t1");
listRulesPatterns3.add("select~from~t2");
List<DeleteNodeSqlFilterRule> listSqlFilterRulesRules1 = new ArrayList<>();
listSqlFilterRulesRules1.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("SELECT")
        .withPatterns(listRulesPatterns3)
);
listSqlFilterRulesRules1.add(
    new DeleteNodeSqlFilterRule()
        .withSqlType("UPDATE")
        .withPatterns(listRulesPatterns2)
);
List<DeleteNodeSqlFilterRuleInfo> listbodySqlFilterRules = new ArrayList<>();
listbodySqlFilterRules.add(
    new DeleteNodeSqlFilterRuleInfo()
        .withNodeId("c01a5645eb2c4fb6a9373542f5366e50no07")
        .withRules(listSqlFilterRulesRules1)
);
listbodySqlFilterRules.add(
    new DeleteNodeSqlFilterRuleInfo()
        .withNodeId("b234a5645eb2c4ji3b9372342f5362397no07")
        .withRules(listSqlFilterRulesRules)
);
body.withSqlFilterRules(listbodySqlFilterRules);
request.withBody(body);
try {
    DeleteSqlFilterRuleResponse response = client.deleteSqlFilterRule(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
# coding: utf-8
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *
```

```
if __name__ == "__main__":
```

```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

```
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```

```
    ak = __import__('os').getenv("CLOUD_SDK_AK")
```

```
    sk = __import__('os').getenv("CLOUD_SDK_SK")
```

```
    credentials = BasicCredentials(ak, sk) \
```

```
    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
    try:
```

```
        request = DeleteSqlFilterRuleRequest()
```

```
        listPatternsRules = [
            "delete~t3~where~id"
        ]
```

```
        listPatternsRules1 = [
            "select~from~t1",
            "select~from~t2"
        ]
```

```
        listRulesSqlFilterRules = [
            DeleteNodeSqlFilterRule(
                sql_type="SELECT",
                patterns=listPatternsRules1
            ),
            DeleteNodeSqlFilterRule(
                sql_type="DELETE",
                patterns=listPatternsRules
            )
        ]
```

```
        listPatternsRules2 = [
            "udpate~t3~where~id"
        ]
```

```
        listPatternsRules3 = [
            "select~from~t1",
            "select~from~t2"
        ]
```

```
        listRulesSqlFilterRules1 = [
            DeleteNodeSqlFilterRule(
                sql_type="SELECT",
                patterns=listPatternsRules3
            ),
            DeleteNodeSqlFilterRule(
                sql_type="UPDATE",
                patterns=listPatternsRules2
            )
        ]
```

```
        listSqlFilterRulesbody = [
```

```
        DeleteNodeSqlFilterRuleInfo(
            node_id="c01a5645eb2c4fb6a9373542f5366e50no07",
            rules=listRulesSqlFilterRules1
        ),
        DeleteNodeSqlFilterRuleInfo(
            node_id="b234a5645eb2c4ji3b9372342f5362397no07",
            rules=listRulesSqlFilterRules
        )
    ]
    request.body = DeleteSqlFilterRuleReq(
        sql_filter_rules=listSqlFilterRulesbody
    )
    response = client.delete_sql_filter_rule(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

删除SQL限流规则，限流类型为SELECT、UPDATE、DELETE。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteSqlFilterRuleRequest{}
    var listPatternsRules = []string{
        "delete~t3~where~id",
    }
    var listPatternsRules1 = []string{
        "select~from~t1",
        "select~from~t2",
    }
    var listRulesSqlFilterRules = []model.DeleteNodeSqlFilterRule{
        {
            SqlType: "SELECT",
            Patterns: listPatternsRules1,
        },
        {
            SqlType: "DELETE",
```

```
        Patterns: listPatternsRules,
    },
}
var listPatternsRules2 = []string{
    "update~t3~where~id",
}
var listPatternsRules3 = []string{
    "select~from~t1",
    "select~from~t2",
}
var listRulesSqlFilterRules1 = []model.DeleteNodeSqlFilterRule{
    {
        SqlType: "SELECT",
        Patterns: listPatternsRules3,
    },
    {
        SqlType: "UPDATE",
        Patterns: listPatternsRules2,
    },
}
var listSqlFilterRulesbody = []model.DeleteNodeSqlFilterRuleInfo{
    {
        NodeId: "c01a5645eb2c4fb6a9373542f5366e50no07",
        Rules: listRulesSqlFilterRules1,
    },
    {
        NodeId: "b234a5645eb2c4ji3b9372342f5362397no07",
        Rules: listRulesSqlFilterRules,
    },
}
request.Body = &model.DeleteSqlFilterRuleReq{
    SqlFilterRules: listSqlFilterRulesbody,
}
response, err := client.DeleteSqlFilterRule(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.13 任务中心

### 4.13.1 获取指定 ID 的任务信息

#### 功能介绍

获取GaussDB(for MySQL)任务中心指定ID的任务信息。

#### 接口约束

- 该接口只可查询任务中心一个月内的异步任务。
- job生成后，通常需要数秒之后才能查询到job ID。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/jobs

表 4-753 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-754 Query 参数

参数	是否必选	参数类型	描述
id	是	String	任务ID。 获取方法参见 <a href="#">获取即时任务列表</a> 和 <a href="#">获取定时任务列表</a> 。



## 请求参数

表 4-755 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-756 响应 Body 参数

参数	参数类型	描述
job	<a href="#">GetJobInfoDetail</a> object	任务信息。

表 4-757 GetJobInfoDetail

参数	参数类型	描述
id	String	任务ID。
name	String	任务名称。

参数	参数类型	描述
status	String	任务执行状态。 取值： <ul style="list-style-type: none"><li>● Pending：表示延时任务，未执行。</li><li>● Running：表示任务正在执行。</li><li>● Completed：表示任务执行成功。</li><li>● Failed：表示任务执行失败。</li></ul> 枚举值： <ul style="list-style-type: none"><li>● <b>Pending</b></li><li>● <b>Running</b></li><li>● <b>Completed</b></li><li>● <b>Failed</b></li></ul>
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
ended	String	结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
process	String	任务执行进度。执行中状态才返回执行进度，例如60%，否则返回""。
instance	<a href="#">GetJobInstanceInfoDetail</a> object	指定ID任务的实例信息。
entities	Object	根据不同的任务，显示不同的内容。
fail_reason	String	任务执行失败时的错误信息。

表 4-758 GetJobInstanceInfoDetail

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	实例名称。

状态码： 400

表 4-759 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-760 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取指定ID的任务信息。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=f9959f52-aa4d-43f7-be74-44b6fc20b239
```

## 响应示例

状态码： 200

Success.

```
{
  "job": {
    "id": "f9959f52-aa4d-43f7-be74-44b6fc20b239",
    "name": "CreateGaussDBforMySQLInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0800",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin07",
      "name": "DO-NOT-TOUCH-mgr2-mysql-single"
    },
    "entities": {
      "instance": {
        "endpoint": "192.168.1.203:3306",
        "type": "Cluster",
        "datastore": {
          "type": "gaussdb-mysql",
          "version": "8.0"
        }
      }
    },
    "resource_ids": [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
      "a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
  }
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowGaussMySQLJobInfoSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowGaussMySQLJobInfoRequest request = new ShowGaussMySQLJobInfoRequest();
        request.withId("<id>");
        try {
            ShowGaussMySQLJobInfoResponse response = client.showGaussMySQLJobInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```

```
variables and decrypted during use to ensure security.
# In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak = __import__('os').getenv("CLOUD_SDK_AK")
sk = __import__('os').getenv("CLOUD_SDK_SK")

credentials = BasicCredentials(ak, sk) \

client = GaussDBClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ShowGaussMySqlJobInfoRequest()
    request.id = "<id>"
    response = client.show_gauss_my_sql_job_info(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/ HuaweiCloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/ HuaweiCloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/ HuaweiCloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/ HuaweiCloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowGaussMySqlJobInfoRequest{}
    request.Id = "<id>"
    response, err := client.ShowGaussMySqlJobInfo(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.13.2 获取即时任务列表

### 功能介绍

获取即时任务列表。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/immediate-jobs

表 4-761 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-762 Query 参数

参数	是否必选	参数类型	描述
status	否	String	任务执行状态。取值： <ul style="list-style-type: none"><li>• Running：表示任务正在执行。</li><li>• Completed：表示任务执行成功。</li><li>• Failed：表示任务执行失败。</li><li>• Pending：表示任务未执行。</li></ul>

参数	是否必选	参数类型	描述
job_name	否	String	任务名称。取值有： <ul style="list-style-type: none"><li>"CreateGaussDBforMySQLInstance"表示创建实例。</li><li>"RestoreGaussDBforMySQLNewInstance"表示恢复新实例。</li><li>"AddGaussDBforMySQLNodes"表示添加节点。</li><li>"DeleteGaussDBforMySQLNode"表示删除节点。</li><li>"RebootGaussDBforMySQLInstance"表示重启实例。</li><li>"ModifyGaussDBforMySQLPort"表示修改实例端口。</li><li>"ModifyGaussDBforMySQLSecurityGroup"表示修改实例安全组。</li><li>"ResizeGaussDBforMySQLFlavor"表示实例规格变更。</li><li>"SwitchoverGaussDBforMySQLMasterNode"表示只读升主。</li><li>"GaussDBforMySQLBindEIP"表示绑定弹性公网IP地址。</li><li>"GaussDBforMySQLUnbindEIP"表示解绑弹性公网IP地址。</li><li>"RenameGaussDBforMySQLInstance"表示修改实例名称。</li><li>"DeleteGaussDBforMySQLInstance"表示删除实例集群。</li><li>"UpgradeGaussDBforMySQLDatabaseVersion"表示版本升级。</li><li>"EnlargeGaussDBforMySQLProxy"表示实例的数据库代理节点扩容。</li><li>"OpenGaussDBforMySQLProxy"表示开启实例的数据库代理。</li></ul>



参数	是否必选	参数类型	描述
			<ul style="list-style-type: none"> <li>"CloseGaussDBforMySQLProxy"表示关闭实例的数据库代理。</li> <li>"GaussdbforMySQLModifyProxyIp"表示修改数据库代理ip。</li> <li>"ScaleGaussDBforMySQLProxy"表示实例的数据库代理节点规格变更。</li> <li>"GaussDBforMySQLModifyInstanceMetricExtend"表示实例秒级监控。</li> <li>"GaussDBforMySQLModifyInstanceDataVip"表示修改实例数据Vip。</li> <li>"GaussDBforMySQLSwitchSSL"表示切换实例SSL开关。</li> <li>"GaussDBforMySQLModifyProxyConsist"表示修改代理一致性。</li> <li>"GaussDBforMySQLModifyProxyWeight"表示修改代理权重。</li> </ul>
job_id	否	String	任务ID。
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为1，必须为数字，不能为负数。
limit	否	String	查询记录数。默认为10，取值为10、20、50。
start_time	否	String	起始时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	否	String	结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

## 请求参数

表 4-763 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-764 响应 Body 参数

参数	参数类型	描述
jobs	Array of <a href="#">TaskDetailInfo</a> objects	任务详情。
total_count	Integer	任务总数。

表 4-765 TaskDetailInfo

参数	参数类型	描述
instance_id	String	实例ID，严格匹配UUID规则。
instance_name	String	实例名称。

参数	参数类型	描述
instance_statuses	String	实例状态。 取值范围： <ul style="list-style-type: none"><li>• createfail: 表示实例创建失败。</li><li>• creating: 表示实例创建中。</li><li>• normal: 表示实例正常。</li><li>• abnormal: 表示实例异常。</li><li>• deleted: 表示实例已删除。</li></ul>
job_id	String	任务ID。
order_id	String	订单ID。

参数	参数类型	描述
job_name	String	<p>任务名称。</p> <p>取值范围有：</p> <ul style="list-style-type: none"> <li>● CreateGaussDBforMySQLInstance：表示创建实例。</li> <li>● RestoreGaussDBforMySQLNewInstance：表示恢复新实例。</li> <li>● AddGaussDBforMySQLNodes：表示添加节点。</li> <li>● DeleteGaussDBforMySQLNode：表示删除节点。</li> <li>● RebootGaussDBforMySQLInstance：表示重启实例。</li> <li>● ModifyGaussDBforMySQLPort：表示修改实例端口。</li> <li>● ModifyGaussDBforMySQLSecurityGroup：表示修改实例安全组。</li> <li>● ResizeGaussDBforMySQLFlavor：表示实例规格变更。</li> <li>● SwitchoverGaussDBforMySQLMasterNode：表示只读升主。</li> <li>● GaussDBforMySQLBindEIP：表示绑定弹性公网IP地址。</li> <li>● GaussDBforMySQLUnbindEIP：表示解绑弹性公网IP地址。</li> <li>● RenameGaussDBforMySQLInstance：表示修改实例名称。</li> <li>● DeleteGaussDBforMySQLInstance：表示删除实例集群。</li> <li>● UpgradeGaussDBforMySQLDatabaseVersion：表示版本升级。</li> <li>● EnlargeGaussDBforMySQLProxy：表示实例的数据库代理节点扩容。</li> <li>● OpenGaussDBforMySQLProxy：表示开启实例的数据库代理。</li> <li>● CloseGaussDBforMySQLProxy：表示关闭实例的数据库代理。</li> <li>● GaussdbforMySQLModifyProxyIp：表示修改数据库读写分离地址。</li> <li>● ScaleGaussDBforMySQLProxy：表示实例的数据库代理节点规格变更。</li> <li>● GaussDBforMySQLModifyInstanceMetricExtend：表示实例秒级监控。</li> </ul>

参数	参数类型	描述
		<ul style="list-style-type: none"><li>• GaussDBforMySQLModifyInstanceDataVip: 表示修改实例数据浮动IP。</li><li>• GaussDBforMySQLSwitchSSL: 表示切换实例SSL开关。</li><li>• GaussDBforMySQLModifyProxyConsist: 表示修改代理一致性。</li><li>• GaussDBforMySQLModifyProxyWeight: 表示修改代理权重。</li></ul>
status	String	任务执行状态。 取值范围: <ul style="list-style-type: none"><li>• Pending: 表示延时任务, 未执行。</li><li>• Running: 表示任务正在执行。</li><li>• Completed: 表示任务执行成功。</li><li>• Failed: 表示任务执行失败。</li></ul>
process	String	任务进度。
created_time	String	任务创建时间。格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
ended_time	String	任务结束时间。格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
fail_reason	String	任务失败原因。

状态码: 400

表 4-766 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-767 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

获取即时任务列表。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/immediate-jobs
```

## 响应示例

状态码: 200

Success.

```
{
  "jobs": [ {
    "instance_id": "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name": "gauss-1234",
    "instance_status": "deleted",
    "job_id": "7155730b-a60b-4dc0-9f89-3f55897f29d6",
    "order_id": "",
    "job_name": "CloseGaussDBforMySQLProxy",
    "status": "Completed",
    "process": "",
    "created_time": "2018-08-06T10:41:14+0000",
    "ended_time": "2018-08-06T12:41:14+0000",
    "fail_reason": null
  }, {
    "instance_id": "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name": "gauss-1234",
    "instance_status": "deleted",
    "job_id": "335ab2a4-a038-4fa9-a62c-49dd84015011",
    "order_id": "",
    "job_name": "ResizeGaussDBforMySQLFlavor",
    "status": "Failed",
    "process": "",
    "created_time": "2018-08-06T11:25:23+0000",
    "ended_time": "2018-08-06T11:31:12+0000",
    "fail_reason": "Single task exception."
  } ],
  "total_count": 2
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;
```

```
public class ListImmediateJobsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ListImmediateJobsRequest request = new ListImmediateJobsRequest();
        request.withStatus("<status>");
        request.withJobName("<job_name>");
        request.withJobId("<job_id>");
        request.withOffset("<offset>");
        request.withLimit("<limit>");
        request.withStartTime("<start_time>");
        request.withEndTime("<end_time>");
        try {
            ListImmediateJobsResponse response = client.listImmediateJobs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()
```

```
try:
    request = ListImmediateJobsRequest()
    request.status = "<status>"
    request.job_name = "<job_name>"
    request.job_id = "<job_id>"
    request.offset = "<offset>"
    request.limit = "<limit>"
    request.start_time = "<start_time>"
    request.end_time = "<end_time>"
    response = client.list_immediate_jobs(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListImmediateJobsRequest{}
    statusRequest := "<status>"
    request.Status = &statusRequest
    jobNameRequest := "<job_name>"
    request.JobName = &jobNameRequest
    jobIdRequest := "<job_id>"
    request.JobId = &jobIdRequest
    offsetRequest := "<offset>"
    request.Offset = &offsetRequest
    limitRequest := "<limit>"
    request.Limit = &limitRequest
    startTimeRequest := "<start_time>"
    request.StartTime = &startTimeRequest
    endTimeRequest := "<end_time>"
    request.EndTime = &endTimeRequest
    response, err := client.ListImmediateJobs(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
```



```
    fmt.Println(err)
  }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.13.3 获取定时任务列表

### 功能介绍

获取定时任务列表。

### 调用方法

请参见[如何调用API](#)。

## URI

GET /v3/{project\_id}/scheduled-jobs

表 4-768 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-769 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为1，必须为数字，不能为负数。
limit	否	String	查询记录数。默认为10
status	否	String	任务执行状态。取值： <ul style="list-style-type: none"><li>• Running：表示任务正在执行。</li><li>• Completed：表示任务执行成功。</li><li>• Failed：表示任务执行失败。</li><li>• Pending：表示任务未执行。</li></ul>
start_time	否	String	起始时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_time	否	String	结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
job_id	否	String	任务ID。
job_name	否	String	任务调度类型。

## 请求参数

表 4-770 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。

参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-771 响应 Body 参数

参数	参数类型	描述
schedules	Array of <a href="#">ScheduleTask</a> objects	任务详情
total_count	Integer	记录总数。

表 4-772 ScheduleTask

参数	参数类型	描述
job_id	String	任务ID。
instance_id	String	实例ID，严格匹配UUID规则。
instance_name	String	实例名称。
instance_statuses	String	实例状态。 取值范围： <ul style="list-style-type: none"><li>createfail：表示实例创建失败。</li><li>creating：表示实例创建中。</li><li>normal：表示实例正常。</li><li>abnormal：表示实例异常。</li><li>deleted：表示实例已删除。</li></ul>
project_id	String	租户在某一Region下的project ID。

参数	参数类型	描述
job_name	String	<p>任务名称。</p> <p>取值范围有：</p> <ul style="list-style-type: none"> <li>● CreateGaussDBforMySQLInstance：表示创建实例。</li> <li>● RestoreGaussDBforMySQLNewInstance：表示恢复新实例。</li> <li>● AddGaussDBforMySQLNodes：表示添加节点。</li> <li>● DeleteGaussDBforMySQLNode：表示删除节点。</li> <li>● RebootGaussDBforMySQLInstance：表示重启实例。</li> <li>● ModifyGaussDBforMySQLPort：表示修改实例端口。</li> <li>● ModifyGaussDBforMySQLSecurityGroup：表示修改实例安全组。</li> <li>● ResizeGaussDBforMySQLFlavor：表示实例规格变更。</li> <li>● SwitchoverGaussDBforMySQLMasterNode：表示只读升主。</li> <li>● GaussDBforMySQLBindEIP：表示绑定弹性公网IP地址。</li> <li>● GaussDBforMySQLUnbindEIP：表示解绑弹性公网IP地址。</li> <li>● RenameGaussDBforMySQLInstance：表示修改实例名称。</li> <li>● DeleteGaussDBforMySQLInstance：表示删除实例集群。</li> <li>● UpgradeGaussDBforMySQLDatabaseVersion：表示版本升级。</li> <li>● EnlargeGaussDBforMySQLProxy：表示实例的数据库代理节点扩容。</li> <li>● OpenGaussDBforMySQLProxy：表示开启实例的数据库代理。</li> <li>● CloseGaussDBforMySQLProxy：表示关闭实例的数据库代理。</li> <li>● GaussdbforMySQLModifyProxyIp：表示修改数据库读写分离地址。</li> <li>● ScaleGaussDBforMySQLProxy：表示实例的数据库代理节点规格变更。</li> <li>● GaussDBforMySQLModifyInstanceMetricExtend：表示实例秒级监控。</li> </ul>

参数	参数类型	描述
		<ul style="list-style-type: none"> <li>GaussDBforMySQLModifyInstanceDataVip: 表示修改实例数据浮动IP。</li> <li>GaussDBforMySQLSwitchSSL: 表示切换实例SSL开关。</li> <li>GaussDBforMySQLModifyProxyConsist: 表示修改代理一致性。</li> <li>GaussDBforMySQLModifyProxyWeight: 表示修改代理权重。</li> </ul>
create_time	String	任务创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
start_time	String	任务开始时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
end_time	String	任务结束时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
job_status	String	任务执行状态。 取值范围: <ul style="list-style-type: none"> <li>Pending: 表示延时任务, 未执行。</li> <li>Running: 表示任务正在执行。</li> <li>Completed: 表示任务执行成功。</li> <li>Failed: 表示任务执行失败。</li> </ul>
datastore_type	String	数据库类型。
target_config	Object	实例配置相关信息, 比如规格等。

状态码: 400

表 4-773 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 4-774 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

获取定时任务列表。

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs?offset=1&limit=10
```

## 响应示例

状态码： 200

Success.

```
{
  "schedules": [ {
    "job_id": "56d3c1138dcf4f1da73b0170700c78d0",
    "instance_id": "79bc540dd4d6432784894a981fdfacfcin07",
    "instance_name": "gauss-f821",
    "instance_status": "BUILD",
    "project_id": "053f533ead80d5102f0cc012e8d468a4",
    "job_name": "VERSION_UPGRADE",
    "create_time": "2018-08-06T10:41:14+0000",
    "start_time": "2018-08-06T10:41:14+0000",
    "end_time": "2018-08-06T10:41:14+0000",
    "job_status": "Completed",
    "datastore_type": "gaussdb-mysql",
    "target_config": {
      "flavor": "gaussdb.mysql.xlarge.arm.4",
      "mem": "16",
      "cpu": "4"
    }
  }
],
  "total_count": 1
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ListScheduleJobsSolution {
```

```
public static void main(String[] args) {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running
    // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    String ak = System.getenv("CLOUD_SDK_AK");
    String sk = System.getenv("CLOUD_SDK_SK");

    ICredential auth = new BasicCredentials()
        .withAk(ak)
        .withSk(sk);

    GaussDBClient client = GaussDBClient.newBuilder()
        .withCredential(auth)
        .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
        .build();
    ListScheduleJobsRequest request = new ListScheduleJobsRequest();
    request.withOffset("<offset>");
    request.withLimit("<limit>");
    request.withStatus("<status>");
    request.withStartTime("<start_time>");
    request.withEndTime("<end_time>");
    request.withJobId("<job_id>");
    request.withJobName("<job_name>");
    try {
        ListScheduleJobsResponse response = client.listScheduleJobs(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListScheduleJobsRequest()
```

```
request.offset = "<offset>"
request.limit = "<limit>"
request.status = "<status>"
request.start_time = "<start_time>"
request.end_time = "<end_time>"
request.job_id = "<job_id>"
request.job_name = "<job_name>"
response = client.list_schedule_jobs(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListScheduleJobsRequest{
        offsetRequest:= "<offset>"
        request.Offset = &offsetRequest
        limitRequest:= "<limit>"
        request.Limit = &limitRequest
        statusRequest:= "<status>"
        request.Status = &statusRequest
        startTimeRequest:= "<start_time>"
        request.StartTime = &startTimeRequest
        endTimeRequest:= "<end_time>"
        request.EndTime = &endTimeRequest
        jobIdRequest:= "<job_id>"
        request.JobId = &jobIdRequest
        jobNameRequest:= "<job_name>"
        request.JobName = &jobNameRequest
        response, err := client.ListScheduleJobs(request)
        if err == nil {
            fmt.Printf("%+v\n", response)
        } else {
            fmt.Println(err)
        }
    }
}
```



## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.13.4 取消定时任务

#### 功能介绍

取消定时任务。

#### 调用方法

请参见[如何调用API](#)。

#### URI

DELETE /v3/{project\_id}/scheduled-jobs

表 4-775 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 4-776 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-777 请求 Body 参数

参数	是否必选	参数类型	描述
job_ids	是	Array of strings	任务ID。

## 响应参数

状态码： 200

表 4-778 响应 Body 参数

参数	参数类型	描述
job_ids	Array of strings	任务ID，表示成功取消定时调度任务的ID。

状态码： 400

表 4-779 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-780 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

取消定时任务。

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

取消定时任务。

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

import java.util.List;
import java.util.ArrayList;

public class CancelScheduleTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    }
}
```

```
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");

ICredential auth = new BasicCredentials()
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

CancelScheduleTaskRequest request = new CancelScheduleTaskRequest();
CancelScheduleTask body = new CancelScheduleTask();
List<String> listbodyJobIds = new ArrayList<>();
listbodyJobIds.add("56d3c1138dcf4f1da73b0170700c78d0");
body.withJobIds(listbodyJobIds);
request.withBody(body);
try {
    CancelScheduleTaskResponse response = client.cancelScheduleTask(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

取消定时任务。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CancelScheduleTaskRequest()
        listJobIdsbody = [
            "56d3c1138dcf4f1da73b0170700c78d0"
        ]
        request.body = CancelScheduleTask(
            job_ids=listJobIdsbody
        )
```

```
response = client.cancel_schedule_task(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

## Go

取消定时任务。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CancelScheduleTaskRequest{}
    var listJobIdsbody = []string{
        "56d3c1138dcf4f1da73b0170700c78d0",
    }
    request.Body = &model.CancelScheduleTask{
        JobIds: listJobIdsbody,
    }
    response, err := client.CancelScheduleTask(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 4.13.5 删除指定任务记录

#### 功能介绍

删除指定任务记录。

#### 调用方法

请参见[如何调用API](#)。

#### URI

DELETE /v3/{project\_id}/jobs/{job\_id}

表 4-781 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
job_id	是	String	任务ID，通过 <a href="#">获取即时任务列表</a> 获取job_id。

## 请求参数

表 4-782 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 400

表 4-783 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-784 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除指定任务记录。

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/jobs/6b00c41d-d54f-4bcb-80da-566cccdc2b5d
```

## 响应示例

状态码: 200

Success.

```
{ }
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DeleteTaskRecordSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteTaskRecordRequest request = new DeleteTaskRecordRequest();
        try {
            DeleteTaskRecordResponse response = client.deleteTaskRecord(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

### Python

```
# coding: utf-8
```



```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteTaskRecordRequest()
        response = client.delete_task_record(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTaskRecordRequest{}
    response, err := client.DeleteTaskRecord(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

```
}  
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.13.6 删除定时任务

### 功能介绍

删除定时任务。

### 调用方法

请参见[如何调用API](#)。

## URI

DELETE /v3/{project\_id}/instance/{instance\_id}/scheduled-jobs

表 4-785 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 4-786 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

表 4-787 请求 Body 参数

参数	是否必选	参数类型	描述
job_id	是	String	任务ID。

## 响应参数

状态码：200

表 4-788 响应 Body 参数

参数	参数类型	描述
result	Boolean	结果。

状态码：400

表 4-789 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 4-790 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

删除调度任务。

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instance/  
34cbc6c13e074761a0f893e9f30e6edfin07/scheduled-jobs
```

```
{  
  "job_id" : "54c219a29a5f477ba69e36d0116d05d7"  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "result" : true  
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

删除调度任务。

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class DeleteScheduleTaskSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
  
        ICredential auth = new BasicCredentials()
```

```
.withAk(ak)
.withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteScheduleTaskRequest request = new DeleteScheduleTaskRequest();
DeleteScheduleTaskRequestBody body = new DeleteScheduleTaskRequestBody();
body.withJobId("54c219a29a5f477ba69e36d0116d05d7");
request.withBody(body);
try {
    DeleteScheduleTaskResponse response = client.deleteScheduleTask(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

删除调度任务。

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteScheduleTaskRequest()
        request.body = DeleteScheduleTaskRequestBody(
            job_id="54c219a29a5f477ba69e36d0116d05d7"
        )
        response = client.delete_schedule_tas_k(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

删除调度任务。

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteScheduleTaskRequest{}
    request.Body = &model.DeleteScheduleTaskRequestBody{
        JobId: "54c219a29a5f477ba69e36d0116d05d7",
    }
    response, err := client.DeleteScheduleTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.14 智能诊断

### 4.14.1 获取各指标的异常实例数

#### 功能介绍

获取各指标的异常实例数。

#### 调用方法

请参见[如何调用API](#)。

#### URI

GET /v3/{project\_id}/instances/diagnosis-instance-count

表 4-791 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

#### 请求参数

表 4-792 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-793 响应 Body 参数

参数	参数类型	描述
diagnosis_info	Array of <b>DiagnosisInfo</b> objects	诊断信息列表。

表 4-794 DiagnosisInfo

参数	参数类型	描述
metric_name	String	指标名称。
count	Integer	实例数量。

状态码： 400

表 4-795 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-796 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

通过project\_id获取各指标的异常实例数。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-count
```



## 响应示例

**状态码： 200**

Success.

```
{
  "diagnosis_info" : [ {
    "metric_name" : "high_pressure",
    "count" : 8
  }, {
    "metric_name" : "insufficient_capacity",
    "count" : 0
  }, {
    "metric_name" : "slow_sql_frequency",
    "count" : 0
  }, {
    "metric_name" : "mem_overrun",
    "count" : 0
  }, {
    "metric_name" : "connections_exceed",
    "count" : 0
  } ]
}
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowIntelligentDiagnosisAbnormalCountOfInstancesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();

        ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest request = new
        ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest();
        try {
            ShowIntelligentDiagnosisAbnormalCountOfInstancesResponse response =
            client.showIntelligentDiagnosisAbnormalCountOfInstances(request);
        }
    }
}
```

```
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest()
        response = client.show_intelligent_diagnosis_abnormal_count_of_instances(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

```
sk := os.Getenv("CLOUD_SDK_SK")

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowIntelligentDiagnosisAbnormalCountOfInstancesRequest{}
response, err := client.ShowIntelligentDiagnosisAbnormalCountOfInstances(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 4.14.2 获取某个指标的异常实例信息

### 功能介绍

获取某个指标的异常实例信息。

### 调用方法

请参见[如何调用API](#)。

### URI

GET /v3/{project\_id}/instances/diagnosis-instance-infos

表 4-797 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 4-798 Query 参数

参数	是否必选	参数类型	描述
metric_name	是	String	指标名。
offset	是	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	是	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。

## 请求参数

表 4-799 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 4-800 响应 Body 参数

参数	参数类型	描述
total_count	Integer	当前指标的异常实例总数。
instance_infos	Array of InstanceInfoForDiagnosis objects	异常实例信息。

表 4-801 InstanceInfoForDiagnosis

参数	参数类型	描述
instance_id	String	实例ID。
master_node_id	String	主节点ID。

状态码： 400

表 4-802 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 4-803 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

通过project\_id以及指标名分页获取各指标的异常实例信息。

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-infos?metric_name=high_pressure&offset=0&limit=10
```

## 响应示例

状态码: 200

Success.

```
{
  "total_count": 6,
  "instance_infos": [ {
    "instance_id": "6206d5be05914703938ff9dfe5c07d34in07",
    "master_node_id": "7fe925aa8bab4cc9bac3990a94386c29no07"
  }, {
    "instance_id": "cbdb32e08f0440158c4f2998dbf69b14in07",
    "master_node_id": "3e90e7b99b964dca9704b3af903fcb41no07"
  }, {
    "instance_id": "325af119c2ca4e77b1deb4810a9b921bin07",
    "master_node_id": "f4dfb362039a45818e59416abc9a5ca6no07"
  }, {
    "instance_id": "9e8b52a5b6e84f4a9e4db01235b1c770in07",
    "master_node_id": "408666cd6f104133ad0685b722f88cffno07"
  }, {
    "instance_id": "5814254f12f74d16bd0a93885b00867fin07",
    "master_node_id": "637d96ffbf6745ff835445fe87d08fc5no07"
  }, {
    "instance_id": "d0da4882ebdf44bd9d3f1edf9b0bd4a2in07",
    "master_node_id": "7a670f4ecdf14db5a4b5df737b0911a5no07"
  }
]
```

## SDK 代码示例

SDK代码示例如下。

### Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class ShowIntelligentDiagnosisInstanceInfosPerMetricSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowIntelligentDiagnosisInstanceInfosPerMetricRequest request = new
```

```
ShowIntelligentDiagnosisInstanceInfosPerMetricRequest();
    request.withMetricName("<metric_name>");
    request.withOffset(<offset>);
    request.withLimit(<limit>);
    try {
        ShowIntelligentDiagnosisInstanceInfosPerMetricResponse response =
client.showIntelligentDiagnosisInstanceInfosPerMetric(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

## Python

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = __import__('os').getenv("CLOUD_SDK_AK")
    sk = __import__('os').getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk) \

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowIntelligentDiagnosisInstanceInfosPerMetricRequest()
        request.metric_name = "<metric_name>"
        request.offset = <offset>
        request.limit = <limit>
        response = client.show_intelligent_diagnosis_instance_infos_per_metric(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

## Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
```

```
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowIntelligentDiagnosisInstanceInfosPerMetricRequest{}
    request.MetricName = "<metric_name>"
    request.Offset = int32(<offset>)
    request.Limit = int32(<limit>)
    response, err := client.ShowIntelligentDiagnosisInstanceInfosPerMetric(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## 更多

更多编程语言的SDK代码示例，请参见[API Explorer](#)的代码示例页签，可生成自动对应的SDK代码示例。

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。



# 5 API (即将下线)

## 5.1 查询数据库引擎的版本

### 5.1.1 查询数据库引擎的版本

#### 功能介绍

获取指定数据库引擎对应的数据库版本信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库引擎的版本](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/datastores/{database\_name}

表 5-1 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
database_name	是	String	数据库引擎。支持的引擎如下，不区分大小写：gaussdb-mysql

## 请求参数

表 5-2 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

## 响应参数

状态码： 202

表 5-3 响应 Body 参数

参数	参数类型	描述
datastores	Array of <a href="#">MysqlEngineVersionInfo</a> objects	数据库版本信息列表

表 5-4 MysqlEngineVersionInfo

参数	参数类型	描述
id	String	数据库版本ID, 该字段不会有重复
name	String	数据库版本号, 只返回两位数的大版本号

状态码： 400

表 5-5 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-6 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql

## 响应示例

状态码: 202

Success.

```
{
  "datastores": [{
    "id": "87620726-6802-46c0-9028-a8785e1f1921",
    "name": "8.0"
  }]
}
```

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.2 查询数据库规格

### 5.2.1 查询数据库规格

#### 功能介绍

获取指定数据库引擎版本对应的规格信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库规格](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/flavors/{database\_name}

表 5-7 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
database_name	是	String	数据库引擎名称。

表 5-8 Query 参数

参数	是否必选	参数类型	描述
version_name	否	String	数据库版本号，目前仅支持兼容MySQL 8.0。
availability_zone_mode	是	String	规格的可用区模式，现在仅支持"single"、"multi"，不区分大小写。
spec_code	否	String	规格编码。

## 请求参数

表 5-9 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

## 响应参数

状态码： 202

表 5-10 响应 Body 参数

参数	参数类型	描述
flavors	Array of <a href="#">MysqlFlavorsInfo</a> objects	实例规格信息列表

表 5-11 MysqlFlavorsInfo

参数	参数类型	描述
vcpus	String	CPU大小。例如：1表示1U。
ram	String	内存大小，单位为GB。
type	String	规格类型，取值为arm和x86。
id	String	规格ID，该字段唯一
spec_code	String	资源规格编码，同创建指定的flavor_ref。例如：gaussdb.mysql.xlarge.x86.4。
version_name	String	数据库版本号。
instance_mode	String	实例类型。目前仅支持Cluster。
az_status	Map<String,String>	规格所在az的状态，包含以下状态： <ul style="list-style-type: none"><li>• normal，在售</li><li>• unsupported，暂不支持该规格</li><li>• sellout，售罄。</li></ul>

状态码： 400

表 5-12 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-13 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?
version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

## 响应示例

状态码: 202

Success.

```
{
  "flavors": [ {
    "vcpus": "1",
    "ram": "4",
    "type": "x86",
    "id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code": "gaussdb.mysql.xlarge.x86.4",
    "instance_mode": "Cluster",
    "version_name": "8.0",
    "az_status": {
      "az1": "normal",
      "az2": "normal"
    }
  }
}]
```

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3 实例管理

## 5.3.1 创建数据库实例

### 功能介绍

创建云数据库 GaussDB(for MySQL)实例。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建数据库实例](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

POST /mysql/v3/{project\_id}/instances

表 5-14 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

### 请求参数

表 5-15 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

表 5-16 请求 Body 参数

参数	是否必选	参数类型	描述
charge_info	否	<a href="#">MysqlChargeInfo</a> object	计费类型信息，支持包年包月和按需，默认为按需。说明：DeC专属云账号不支持创建包周期。
region	是	String	区域ID。

参数	是否必选	参数类型	描述
name	是	String	实例名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。取值范围：4~64个字符之间，必须以字母开头，区分大小写，可以包含字母、数字、中划线或者下划线，不能包含其他的特殊字符。
datastore	是	<b>MysqlDatastore</b> object	数据库信息。
mode	是	String	实例类型，目前仅支持 Cluster。
flavor_ref	是	String	规格码。
vpc_id	是	String	虚拟私有云ID。
subnet_id	是	String	子网的网络ID。
security_group_id	否	String	安全组ID。如果实例所选用的子网开启网络ACL进行访问控制，则该参数非必选。如果未开启ACL进行访问控制，则该参数必选。
configuration_id	否	String	参数模板ID。
password	是	String	数据库密码。取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号~!@#\$%^*_-=+?,()&，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。
backup_strategy	否	<b>MysqlBackupStrategy</b> object	自动备份策略
time_zone	否	String	时区。
availability_zone_mode	是	String	可用区类型,单可用区Single或多可用区multi。
master_availability_zone	否	String	主可用区。
slave_count	是	Integer	备节点个数。单次接口调用最多支持创建9个备节点。



参数	是否必选	参数类型	描述
volume	否	<b>MysqlVolume</b> object	volume信息。创建包周期实例可选。
tags	否	Array of <b>MysqlTags</b> objects	<p>标签列表，根据标签键值对创建实例。</p> <ul style="list-style-type: none"> <li>• {key}表示标签键，不可以为空或重复。</li> <li>• {value}表示标签值，可以为空。</li> </ul> <p>如果创建实例时同时使用多个标签键值对，中间使用逗号分隔，最多包含10组。</p>
enterprise_project_id	否	String	企业项目ID。如果账户开通企业项目服务则该参数必选，未开启该参数不可选。
dedicated_resource_id	否	String	专属资源池ID，只有开通专属资源池后才可以下发此参数。

表 5-17 MysqlChargeInfo

参数	是否必选	参数类型	描述
charge_mode	是	String	<p>计费模式。</p> <p>取值范围：</p> <ul style="list-style-type: none"> <li>• prePaid: 预付费，即包年/包月。</li> <li>• postPaid: 后付费，即按需付费。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>prePaid</b></li> <li>• <b>postPaid</b></li> </ul>
period_type	否	String	<p>订购周期类型。</p> <p>取值范围：</p> <ul style="list-style-type: none"> <li>• month: 包月。</li> <li>• year: 包年。</li> </ul> <p>说明：“charge_mode”为“prePaid”时生效，且为必选值。</p> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>month</b></li> <li>• <b>year</b></li> </ul>

参数	是否必选	参数类型	描述
period_num	否	Integer	<p>“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。</p> <p>取值范围： 当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。</p>
is_auto_renew	否	String	<p>创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。</p> <ul style="list-style-type: none"> <li>• true，为自动续订。</li> <li>• false，为不自动续订，默认该方式。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
is_auto_pay	否	String	<p>创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。</p> <ul style="list-style-type: none"> <li>• true，为自动支付，默认该方式。</li> <li>• false，为手动支付。</li> </ul> <p>枚举值：</p> <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>

表 5-18 MysqlDatastore

参数	是否必选	参数类型	描述
type	是	String	数据库引擎，现在只支持gaussdb-mysql
version	是	String	<p>数据库版本。</p> <p>数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。</p>

表 5-19 MysqlBackupStrategy

参数	是否必选	参数类型	描述
start_time	是	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为 hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	否	String	自动备份保留天数，取值范围：1-732

表 5-20 MysqlVolume

参数	是否必选	参数类型	描述
size	是	String	磁盘大小。默认值为40，单位GB。取值范围：40~128000，必须为10的整数倍。

表 5-21 MysqlTags

参数	是否必选	参数类型	描述
key	是	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。字符集：A-Z, a-z, 0-9, '-', '_', UNICODE字符 (\u4E00-\u9FFF)。
value	是	String	标签值。最大长度43个unicode字符。可以为空字符串。字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符 (\u4E00-\u9FFF)。

## 响应参数

状态码： 201

表 5-22 响应 Body 参数

参数	参数类型	描述
instance	<a href="#">MysqlInstanceResponse</a> object	实例信息
job_id	String	实例创建的任务id。 仅创建按需实例时会返回该参数。
order_id	String	订单号，创建包年包月时返回该参数。

表 5-23 MysqlInstanceResponse

参数	参数类型	描述
id	String	实例ID。
name	String	实例名称。用于表示实例的名称，同一租户下，同类型的实例名称可相同。取值范围：4~64个字符之间，必须以字母开头，不区分大小写，可以包含字母、数字、中划线或者下划线，不能包含其它的特殊字符。
status	String	实例状态。
datastore	<a href="#">MysqlDatastore</a> object	数据库信息。
mode	String	实例类型，仅支持Cluster。
configuration_id	String	参数组ID。
port	String	数据库端口信息。
backup_strategy	<a href="#">MysqlBackupStrategy</a> object	自动备份策略
enterprise_project_id	String	企业项目ID。
region	String	区域ID，与请求参数相同。
availability_zone_mode	String	可用区模式，与请求参数相同。
master_availability_zone	String	主可用区ID。
vpc_id	String	虚拟私有云ID，与请求参数相同。
security_group_id	String	安全组ID，与请求参数相同。

参数	参数类型	描述
subnet_id	String	子网ID, 与请求参数相同。
flavor_ref	String	规格码, 与请求参数相同。
charge_info	<b>MysqlChargeInfo</b> object	计费类型信息, 支持包年包月和按需, 默认为按需。

表 5-24 MysqlDatastore

参数	参数类型	描述
type	String	数据库引擎, 现在只支持gaussdb-mysql
version	String	数据库版本。 数据库支持的详细版本信息, 可调用查询数据库引擎的版本接口获取。

表 5-25 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围: 非空, 格式必须为hh:mm-HH:MM且有效, 当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同, 且取值必须为00。
keep_days	String	自动备份保留天数, 取值范围: 1-732

表 5-26 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围: <ul style="list-style-type: none"><li>prePaid: 预付费, 即包年/包月。</li><li>postPaid: 后付费, 即按需付费。</li></ul> 枚举值: <ul style="list-style-type: none"><li>prePaid</li><li>postPaid</li></ul>

参数	参数类型	描述
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"> <li>month: 包月。</li> <li>year: 包年。</li> </ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。 枚举值： <ul style="list-style-type: none"> <li><b>month</b></li> <li><b>year</b></li> </ul>
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： 当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。
is_auto_renew	String	创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"> <li>true, 为自动续订。</li> <li>false, 为不自动续订，默认该方式。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li><b>true</b></li> <li><b>false</b></li> </ul>
is_auto_pay	String	创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>true, 为自动支付，默认该方式。</li> <li>false, 为手动支付。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li><b>true</b></li> <li><b>false</b></li> </ul>

状态码： 400

表 5-27 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-28 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 创建实例

POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance1",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "taurus.large.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "Hu2wei@13",
  "backup_strategy": {
    "start_time": "08:00-09:00"
  },
  "availability_zone_mode": "single",
  "slave_count": 1,
  "enterprise_project_id": 0
}
```

## 响应示例

状态码： 201

Success.

```
{
  "instance": {
    "id": "5eebbb4c0f9f4a99b42ed1b6334569aain07",
    "name": "gaussdb-mysql-instance1",
    "region": "br-iaas-odin1",
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0"
    },
    "mode": "Cluster",
    "flavor_ref": "taurus.large.4",
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  }
}
```

```
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",  
"configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",  
"backup_strategy" : {  
  "start_time" : "08:00-09:00",  
  "keep_days" : 7  
},  
"availability_zone_mode" : "single",  
"slave_count" : 1  
},  
"job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.2 查询实例列表

### 功能介绍

根据指定条件查询实例列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances

表 5-29 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。



表 5-30 Query 参数

参数	是否必选	参数类型	描述
id	否	String	实例ID。“ ”为系统保留字符, 如果id是以“ ”起始, 表示按照“ ”后面的值模糊匹配, 否则, 按照id精确匹配查询。不能只传入“ ”。
name	否	String	实例名称。“ ”为系统保留字符, 如果name是以“ ”起始, 表示按照“ ”后面的值模糊匹配, 否则, 按照name精确匹配查询。不能只传入“ ”。
type	否	String	按照实例类型查询。目前仅支持Cluster。
datastore_type	否	String	数据库类型, 现在只支持gaussdb-mysql。
vpc_id	否	String	虚拟私有云ID。
subnet_id	否	String	子网的网络ID信息。
offset	否	Integer	索引位置, 偏移量。从第一条数据偏移offset条数据后开始查询, 默认为0 (偏移0条数据, 表示从第一条数据开始查询), 必须为数字, 不能为负数。
limit	否	Integer	查询记录数。默认为100, 不能为负数, 最小值为1, 最大值为100。

## 请求参数

表 5-31 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 5-32 响应 Body 参数

参数	参数类型	描述
instances	Array of <b>MysqlInstanceListInfo</b> objects	实例列表信息。
total_count	Integer	总记录数。

表 5-33 MysqlInstanceListInfo

参数	参数类型	描述
id	String	实例ID。
name	String	创建的实例名称。
status	String	实例状态。
private_ips	Array of strings	实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空字符串。
public_ips	Array of strings	实例外网IP地址列表。
port	String	数据库端口号。
type	String	实例类型，取值为“Cluster”。
region	String	实例所在区域。
datastore	<b>MysqlDatastore</b> object	数据库信息。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
updated	String	更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
flavor_ref	String	规格码。

参数	参数类型	描述
flavor_info	<b>MysqlFlavorInfo</b> object	flavor规格信息。
volume	<b>MysqlVolumeInfo</b> object	存储盘信息。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
charge_info	<b>MysqlChargeInfo</b> object	计费类型信息，支持包年包月和按需，默认为按需。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。

表 5-34 MysqlDatastore

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql
version	String	数据库版本。 数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

表 5-35 MysqlFlavorInfo

参数	参数类型	描述
vcpus	String	CPU核数。
ram	String	内存大小，单位GB。

表 5-36 MysqlVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
size	String	已使用磁盘大小，单位GB。

表 5-37 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732

表 5-38 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围： <ul style="list-style-type: none"><li>prePaid：预付费，即包年/包月。</li><li>postPaid：后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>prePaid</b></li><li><b>postPaid</b></li></ul>
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"><li>month：包月。</li><li>year：包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。 枚举值： <ul style="list-style-type: none"><li><b>month</b></li><li><b>year</b></li></ul>
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： 当“period_type”为“month”时，取值为1~9。当“period_type”为“year”时，取值为1~3。

参数	参数类型	描述
is_auto_renew	String	创建包周期实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>• true，为自动续订。</li><li>• false，为不自动续订，默认该方式。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• true</li><li>• false</li></ul>
is_auto_pay	String	创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>• true，为自动支付，默认该方式。</li><li>• false，为手动支付。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• true</li><li>• false</li></ul>

状态码： 400

表 5-39 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-40 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例列表

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances?
id=ed7cc6166ec24360a5ed5c5c9c2ed726in01&name=hy&type=Cluster&datastore_type=gaussdb-
```

```
mysql&vpc_id=19e5d45d-70fd-4a91-87e9-  
b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&offset=0&limit=10
```

## 响应示例

**状态码: 200**

Success.

```
{  
  "total_count": 1,  
  "instances": [ {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "name": "gaussdb-mysql-instance01",  
    "status": "ACTIVE",  
    "port": 3306,  
    "type": "Cluster",  
    "private_ips": [ "192.168.0.142" ],  
    "db_user_name": "root",  
    "region": "cn-north-4",  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0"  
    },  
    "created": "2018-08-20T02:33:49_0800",  
    "updated": "2018-08-20T02:33:49_0800",  
    "volume": {  
      "type": "POOL",  
      "used_size": 100  
    },  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "flavor_ref": "gaussdb.mysql.c3.small.4",  
    "flavor_info": {  
      "vcpus": 8,  
      "ram": 16  
    },  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "charge_info": {  
      "charge_mode": "postPaid"  
    },  
    "enterprise_project_id": 0,  
    "time_zone": "UTC",  
    "tags": [ ]  
  } ]  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.3 查询实例列表

### 功能介绍

根据指定条件查询实例列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例列表](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /v3/{project\_id}/instances

表 5-41 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-42 Query 参数

参数	是否必选	参数类型	描述
id	否	String	实例ID。“*”为系统保留字符，如果id是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照id精确匹配查询。不能只传入“*”。
name	否	String	实例名称。 “*”为系统保留字符，如果name是以“*”起始，表示按照“*”后面的值模糊匹配，否则，按照name精确匹配查询。不能只传入“*”。
type	否	String	按照实例类型查询。目前仅支持Cluster。

参数	是否必选	参数类型	描述
datastore_type	否	String	数据库类型，现在只支持 gaussdb-mysql。
vpc_id	否	String	虚拟私有云ID。
subnet_id	否	String	子网的网络ID信息。
private_ip	否	String	读写内网IP地址。
readonly_private_ip	否	String	读内网IP地址。
proxy_ip	否	String	读写分离IP地址。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
tags	否	String	根据实例标签键值对进行查询。 <ul style="list-style-type: none"><li>• {key}表示标签键。</li><li>• {value}表示标签值。</li></ul> 如果同时使用多个标签键值对进行查询，中间使用逗号分隔开，表示查询同时包含指定标签键值对的实例。key不能重复，key之间是与的关系。

## 请求参数

表 5-43 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。



参数	是否必选	参数类型	描述
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 5-44 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">MysqlInstanceListInfo</a> objects	实例列表信息。
total_count	Integer	总记录数。

表 5-45 MysqlInstanceListInfo

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	创建的实例名称。
status	String	实例状态。
private_ips	Array of strings	实例写内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。
proxy_ips	Array of strings	实例读写分离IP地址列表。GaussDB(for MySQL)实例开启代理成功后该值存在，其他情况下为空列表。
readonly_private_ips	Array of strings	实例读内网IP地址列表。弹性云服务器创建成功后该值存在，其他情况下为空列表。
public_ips	Array of strings	实例外网IP地址列表。
port	String	数据库端口号。
type	String	实例类型，取值为“Cluster”。
region	String	实例所在区域。

参数	参数类型	描述
datastore	<b>MysqlDatastoreWithKernelVersion</b> object	数据库信息。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
flavor_ref	String	规格码。
flavor_info	<b>MysqlFlavorInfo</b> object	flavor规格信息。
volume	<b>MysqlVolumeInfo</b> object	存储盘信息。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
charge_info	<b>MysqlChargeInfo</b> object	计费类型信息，支持包年包月和按需，默认为按需。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
tags	Array of <b>InstanceTagItem</b> objects	标签列表。

表 5-46 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 5-47 MysqlFlavorInfo

参数	参数类型	描述
vcpus	String	CPU核数。
ram	String	内存大小，单位GB。

表 5-48 MysqlVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
size	String	已使用磁盘大小，单位GB。

表 5-49 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 5-50 MysqlChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。 取值范围： <ul style="list-style-type: none"><li>• prePaid: 预付费，即包年/包月。</li><li>• postPaid: 后付费，即按需付费。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• <b>prePaid</b></li><li>• <b>postPaid</b></li></ul>
period_type	String	订购周期类型。 取值范围： <ul style="list-style-type: none"><li>• month: 包月。</li><li>• year: 包年。</li></ul> 说明：“charge_mode”为“prePaid”时生效，且为必选值。 枚举值： <ul style="list-style-type: none"><li>• <b>month</b></li><li>• <b>year</b></li></ul>
period_num	Integer	“charge_mode”为“prePaid”时生效，且为必选值，指定订购的时间。 取值范围： <ul style="list-style-type: none"><li>• “period_type”为“month”时，取值为1~9。</li><li>• “period_type”为“year”时，取值为1~3。</li></ul>
is_auto_renew	String	创建包年/包月实例时可指定，表示是否自动续订，续订的周期和原周期相同，且续订时会自动支付。 <ul style="list-style-type: none"><li>• true: 为自动续订。</li><li>• false: 为不自动续订，默认该方式。</li></ul>
is_auto_pay	String	创建包年/包月实例时可指定，表示是否自动从客户的帐户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"><li>• true: 为自动支付，默认该方式。</li><li>• false: 为手动支付。</li></ul>

表 5-51 InstanceTagItem

参数	参数类型	描述
key	String	标签键。

参数	参数类型	描述
value	String	标签值。

状态码： 400

表 5-52 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-53 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询GaussDB(for MySQL)实例列表，读写内网IP地址是192.168.0.142。

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.168.0.142&offset=
0&limit=10&tags=taurusKey1=value1
```

## 响应示例

状态码： 200

Success.

```
{
  "total_count": 1,
  "instances": [ {
    "id": "61a4ea66210545909d74a05c27a7179ein07",
    "name": "gaussdb-mysql-instance01",
    "status": "ACTIVE",
    "port": 3306,
    "type": "Cluster",
    "private_ips": [ "192.168.0.142" ],
    "readonly_private_ips": [ "192.168.0.228", "192.168.0.165" ],
    "proxy_ips": [ "192.168.0.15" ],
    "db_user_name": "root",
    "region": "cn-north-4",
    "datastore": {
```

```
{
  "type": "gaussdb-mysql",
  "version": "8.0",
  "kernel_version": "2.0.29.1"
},
"created": "2018-08-20T02:33:49_0800",
"updated": "2018-08-20T02:33:49_0800",
"volume": {
  "type": "POOL",
  "size": 100
},
"vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
"subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
"flavor_ref": "gaussdb.mysql.c3.small.4",
"flavor_info": {
  "vcpus": 8,
  "ram": 16
},
"backup_strategy": {
  "start_time": "19:00-20:00",
  "keep_days": 7
},
"charge_info": {
  "charge_mode": "postPaid"
},
"enterprise_project_id": 0,
"time_zone": "UTC",
"tags": [ {
  "key": "taurusKey1",
  "value": "value1"
} ]
} ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.4 删除实例

### 功能介绍

删除数据库实例，不支持删除包周期实例。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[删除实例](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}

表 5-54 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-55 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

## 响应参数

状态码： 200

表 5-56 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 5-57 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-58 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01
```

## 响应示例

状态码： 500

Server error.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.5 查询实例详情信息

### 功能介绍

查询实例详情信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例详情信息](#)。



## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}

表 5-59 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID。

## 请求参数

表 5-60 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

## 响应参数

状态码： 201

表 5-61 响应 Body 参数

参数	参数类型	描述
instance	<a href="#">MysqlInstanceInfoDetail</a> object	实例信息。

表 5-62 MysqlInstanceInfoDetail

参数	参数类型	描述
id	String	实例ID。
name	String	创建的实例名称。

参数	参数类型	描述
project_id	String	租户在某一region下的project ID。
status	String	实例状态。取值：值为“BUILD”，表示实例正在创建。值为“ACTIVE”，表示实例正常。值为“FAILED”，表示实例异常。值为“FROZEN”，表示实例冻结。值为“MODIFYING”，表示实例正在扩容。值为“REBOOTING”，表示实例正在重启。值为“RESTORING”，表示实例正在恢复。值为“MODIFYING INSTANCE TYPE”，表示实例正在转主备。值为“SWITCHOVER”，表示实例正在主备切换。值为“MIGRATING”，表示实例正在迁移。值为“BACKING UP”，表示实例正在进行备份。值为“MODIFYING DATABASE PORT”，表示实例正在修改数据库端口。值为“STORAGE FULL”，表示实例磁盘空间满。
port	String	数据库端口号。
type	String	实例类型，取值为“Cluster”。
node_count	Integer	节点个数。
datastore	<a href="#">MysqlDatastore</a> object	数据库信息。
backup_used_space	Number	备份空间使用大小，单位为GB。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
updated	String	更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
private_write_ips	Array of strings	实例的写内网IP。
public_ips	String	实例的公网IP。
db_user_name	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
configuration_id	String	实例创建的模板ID，或者应用到实例的最新参数组模板ID。

参数	参数类型	描述
volume	<a href="#">MysqlVolumeInfo</a> object	存储盘信息。
backup_strategy	<a href="#">MysqlBackupStrategy</a> object	自动备份策略
nodes	Array of <a href="#">MysqlInstanceNodeInfo</a> objects	节点信息。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
az_mode	String	可用区模式，单可用区single或多可用区multi。
master_az_code	String	主可用区。
maintenance_window	String	可维护时间窗，为UTC时间。
tags	Array of <a href="#">MysqlTags</a> objects	实例标签。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。

表 5-63 MysqlDatastore

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql
version	String	数据库版本。 数据库支持的详细版本信息，可调用查询数据库引擎的版本接口获取。

表 5-64 MysqlVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
size	String	已使用磁盘大小，单位GB。

表 5-65 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732

表 5-66 MysqlInstanceNodeInfo

参数	参数类型	描述
id	String	实例ID。
name	String	节点名称。
type	String	节点类型，master或slave。
status	String	节点状态。
port	Integer	数据库端口号。
private_read_ips	Array of strings	节点的读内网地址。
volume	<a href="#">MysqlVolume Info</a> object	存储盘信息。
az_code	String	可用区。
region_code	String	实例所在的区域。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
updated	String	更新时间，格式与"created"字段对应格式完全相同。说明：创建时返回值为空，数据库实例创建成功后该值不为空。
flavor_ref	String	规格码。
max_connections	String	允许的最大连接数。
vcpus	String	CPU核数。
ram	String	内存大小，单位为GB。

参数	参数类型	描述
need_restart	Boolean	是否需要重启使修改的参数生效。
priotiry	Integer	主备倒换优先级。

表 5-67 MysqlTags

参数	参数类型	描述
key	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。字符集：A-Z，a-z，0-9，‘-’，‘_’，UNICODE字符（\u4E00-\u9FFF）。
value	String	标签值。最大长度43个unicode字符。可以为空字符串。字符集：A-Z，a-z，0-9，‘.’，‘-’，‘_’，UNICODE字符（\u4E00-\u9FFF）。

状态码： 400

表 5-68 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-69 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询实例详情信息

```
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/436aaafb689c4250a9a5bb33cb271e8cin07
```

## 响应示例

**状态码： 201**

Success.

```
{
  "instance": {
    "id": "d738399de028480fabb2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "status": "ACTIVE",
    "port": 3306,
    "type": "Cluster",
    "node_count": 2,
    "backup_used_space": 20,
    "private_write_ips": [ "192.168.0.142" ],
    "public_ips": [ "10.154.219.187" ],
    "db_user_name": "root",
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0"
    },
    "created": "2018-08-20T02:33:49_0800",
    "updated": "2018-08-20T02:33:49_0800",
    "volume": {
      "type": "POOL",
      "used_size": 100
    },
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "configuration_id": "3cedfc54-b105-4652-a4e0-24faec3fdd23",
    "backup_strategy": {
      "start_time": "19:00-20:00",
      "keep_days": 7
    },
    "enterprise_project_id": 0,
    "time_zone": "UTC+08:00",
    "az_mode": "single",
    "master_az_code": "az1",
    "maintenance_window": "18:00-22:00",
    "nodes": [ {
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
      "name": "gauss-d616-lb07_node01",
      "type": "master",
      "status": "normal",
      "port": 3306,
      "private_read_ips": [ "192.168.0.163" ],
      "volume": {
        "type": "POOL",
        "used": 0.0
      },
      "az_code": "az1xahz",
      "region_code": "cn-xianhz-1",
      "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "flavor_ref": "taurus.large.4",
      "max_connections": null,
      "vcpus": 1,
      "ram": 4,
      "need_restart": false,
      "priority": 1
    }, {
      "id": "799a0f2fa49a4151bf9f7063c1fbba35no07",
      "name": "gauss-d616-lb07_node02",
      "type": "slave",
      "status": "normal",
      "port": 3306,
      "private_read_ips": [ "192.168.0.162" ],
```

```
"volume": {
  "type": "POOL",
  "used": 0.0
},
"az_code": "az1xahz",
"region_code": "cn-xianhz-1",
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
"flavor_ref": "taurus.large.4",
"max_connections": null,
"vcpus": 1,
"ram": 4,
"need_restart": false,
"priority": 1
}]
}
```

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.6 查询实例详情信息

### 功能介绍

查询实例详情信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询实例详情信息](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /v3/{project\_id}/instances/{instance\_id}

表 5-70 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-71 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200

表 5-72 响应 Body 参数

参数	参数类型	描述
instance	<a href="#">MysqlInstanceInfoDetail</a> object	实例信息。

表 5-73 MysqlInstanceInfoDetail

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	创建的实例名称。



参数	参数类型	描述
project_id	String	租户在某一Region下的project ID。
status	String	实例状态。 取值： <ul style="list-style-type: none"> <li>• BUILD：表示实例正在创建。</li> <li>• ACTIVE：表示实例正常。</li> <li>• FAILED：表示实例创建失败。</li> <li>• FROZEN：表示实例冻结。</li> <li>• MODIFYING：表示实例正在扩容。</li> <li>• REBOOTING：表示实例正在重启。</li> <li>• RESTORING：表示实例正在恢复。</li> <li>• SWITCHOVER：表示实例正在主备切换。</li> <li>• MIGRATING：表示实例正在迁移。</li> <li>• BACKING UP：表示实例正在进行备份。</li> <li>• MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li> <li>• STORAGE FULL：表示实例磁盘空间满。</li> </ul>
port	String	数据库端口号。
alias	String	实例备注
type	String	实例类型，取Cluster”。
charge_info	<b>MysqlInstanceChargeInfo</b> object	计费类型信息，支持包年包月和按需，默认为按需。
node_count	Integer	节点个数。
datastore	<b>MysqlDatastoreWithKernelVersion</b> object	数据库信息。
backup_used_space	Double	备份空间使用大小，单位为GB。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
private_write_ips	Array of strings	实例的写内网IP地址。

参数	参数类型	描述
private_dns_names	Array of strings	实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。
public_ips	String	实例的公网IP地址。
db_username	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
configuration_id	String	实例创建的模板ID，或者应用到实例的最新参数组模板ID。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略。
nodes	Array of <b>MysqlInstanceNodeInfo</b> objects	节点信息。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
az_mode	String	可用区模式。 取值范围： <ul style="list-style-type: none"> <li>single: 单可用区。</li> <li>multi: 多可用区。</li> </ul>
master_az_code	String	主可用区。
maintenance_window	String	可维护时间窗，为UTC时间。
tags	Array of <b>MysqlTags</b> objects	实例标签。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
proxies	Array of <b>MysqlProxyInfo</b> objects	数据库代理信息。

表 5-74 MysqlInstanceChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。
order_id	String	订单号。仅包年包月返回。

表 5-75 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 5-76 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 5-77 MysqlInstanceNodeInfo

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	节点名称。
type	String	节点类型。 取值范围： <ul style="list-style-type: none"><li>• master：主节点。</li><li>• slave：只读节点。</li></ul>
status	String	节点状态。
port	Integer	数据库端口号。

参数	参数类型	描述
private_read_ips	Array of strings	节点的读内网地址。
volume	<b>MySQLInstanceNodeVolumeInfo</b> object	存储盘信息。
az_code	String	可用区。
region_code	String	实例所在的区域。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
flavor_id	String	规格ID。
flavor_ref	String	规格码。
max_connections	String	允许的最大连接数。
vcpus	String	CPU核数。
ram	String	内存大小，单位为GB。
need_restart	Boolean	是否需要重启使修改的参数生效。
priority	Integer	主备倒换优先级。

表 5-78 MySQLInstanceNodeVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。
used	String	已使用磁盘大小，单位GB。
size	Long	包年/包月实例购买的存储空间大小，单位GB。

表 5-79 MySQLTags

参数	参数类型	描述
key	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串，不能为空格。 字符集：A-Z，a-z，0-9，'-'，'_'， UNICODE字符（\u4E00-\u9FFF）。

参数	参数类型	描述
value	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集：A-Z, a-z, 0-9, '.', '-', '_', UNICOD字符 (\u4E00-\u9FFF)。

表 5-80 MysqlProxyInfo

参数	参数类型	描述
pool_id	String	数据库代理ID。
name	String	数据库代理名称。
address	String	Proxy读写分离地址。

状态码： 400

表 5-81 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-82 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

查询指定实例的详细信息。

```
GET https://{endpoint}/v3/3cedfc54-b105-4652-a4e0-847b11576628/instances/d738399de028480fab2b8120d4e01a4in07
```

## 响应示例

状态码： 200

Success.

```
{
  "instance": {
    "id": "d738399de028480fabb2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "ACTIVE",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": "10.154.219.187",
  "private_write_ips": [ "192.168.0.142" ],
  "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "backup_strategy": {
    "start_time": "19:00-20:00",
    "keep_days": 7
  },
  "nodes": [ {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "ACTIVE",
    "port": 3306,
    "private_read_ips": [ "192.168.0.163" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "az1xahz",
  "region_code": "cn-xianhz-1",
  "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "max_connections": 1500,
  "vcpus": 1,
  "ram": 4,
  "need_restart": false,
  "priority": 1,
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T09:24:18+0800"
  }, {
    "id": "799a0f2fa49a4151bf9f7063c1fbba35no07",
    "name": "gauss-d616-lb07_node02",
    "type": "slave",
    "status": "ACTIVE",
    "port": 3306,
    "private_read_ips": [ "192.168.0.162" ],
    "volume": {
      "type": "POOL",
      "used": 0.07
    },
  },
  "az_code": "az1xahz",
```

```
"region_code": "cn-xianhz-1",  
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",  
"flavor_ref": "gaussdb.mysql.xlarge.arm.4",  
"max_connections": 1500,  
"vcpus": 1,  
"ram": 4,  
"need_restart": false,  
"priority": 1,  
"created": "2022-07-14T16:26:58+0800",  
"updated": "2022-07-18T09:36:18+0800"  
}],  
"time_zone": "UTC+08:00",  
"backup_used_space": 0.24,  
"az_mode": "single",  
"master_az_code": "az1",  
"maintenance_window": "18:00-22:00",  
"tags": [],  
"configuration_id": "53570e0de54e40c5a15f331aa5sd2176pr07",  
"dedicated_resource_id": "",  
"proxies": [{  
  "pool_id": "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",  
  "address": "192.168.10.76",  
  "name": "proxy-name"  
}]  
}  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.7 批量查询实例详情

### 功能介绍

批量查询实例详情。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[批量查询实例详情](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /v3/{project\_id}/instances/details

表 5-83 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一Region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-84 Query 参数

参数	是否必选	参数类型	描述
instance_ids	是	String	实例ID，严格匹配UUID规则。 最多同时输入20个实例ID，用英文逗号分隔。

## 请求参数

表 5-85 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。 通过调用IAM服务 <a href="#">获取用户Token</a> 接口获取。 请求响应成功后在响应消息头中包含的“X-Subject-Token”的值即为Token值。
X-Language	否	String	请求语言类型。默认en-us。取值范围： <ul style="list-style-type: none"><li>en-us</li><li>zh-cn</li></ul>

## 响应参数

状态码： 200



表 5-86 响应 Body 参数

参数	参数类型	描述
instances	Array of <a href="#">MysqlInstanceInfoDetail</a> objects	实例详情。

表 5-87 MysqlInstanceInfoDetail

参数	参数类型	描述
id	String	实例ID，严格匹配UUID规则。
name	String	创建的实例名称。
project_id	String	租户在某一Region下的project ID。
status	String	实例状态。 取值： <ul style="list-style-type: none"> <li>● BUILD：表示实例正在创建。</li> <li>● ACTIVE：表示实例正常。</li> <li>● FAILED：表示实例创建失败。</li> <li>● FROZEN：表示实例冻结。</li> <li>● MODIFYING：表示实例正在扩容。</li> <li>● REBOOTING：表示实例正在重启。</li> <li>● RESTORING：表示实例正在恢复。</li> <li>● SWITCHOVER：表示实例正在主备切换。</li> <li>● MIGRATING：表示实例正在迁移。</li> <li>● BACKING UP：表示实例正在进行备份。</li> <li>● MODIFYING DATABASE PORT：表示实例正在修改数据库端口。</li> <li>● STORAGE FULL：表示实例磁盘空间满。</li> </ul>
port	String	数据库端口号。
alias	String	实例备注
type	String	实例类型，取Cluster”。
charge_info	<a href="#">MysqlInstanceChargeInfo</a> object	计费类型信息，支持包年包月和按需，默认为按需。
node_count	Integer	节点个数。

参数	参数类型	描述
datastore	<b>MysqlDatastoreWithKernelVersion</b> object	数据库信息。
backup_used_space	Double	备份空间使用大小，单位为GB。
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
updated	String	更新时间，格式与"created"字段对应格式完全相同。
private_write_ips	Array of strings	实例的写内网IP地址。
private_dns_names	Array of strings	实例内网域名列表。实例创建成功后，需要手动申请内网域名，否则查询内网域名为空。
public_ips	String	实例的公网IP地址。
db_username	String	默认用户名。
vpc_id	String	虚拟私有云ID。
subnet_id	String	子网的网络ID信息。
security_group_id	String	安全组ID。
configuration_id	String	实例创建的模板ID，或者应用到实例的最新参数组模板ID。
backup_strategy	<b>MysqlBackupStrategy</b> object	自动备份策略。
nodes	Array of <b>MysqlInstanceNodeInfo</b> objects	节点信息。
enterprise_project_id	String	企业项目ID。
time_zone	String	时区。
az_mode	String	可用区模式。 取值范围： <ul style="list-style-type: none"> <li>• single: 单可用区。</li> <li>• multi: 多可用区。</li> </ul>

参数	参数类型	描述
master_az_code	String	主可用区。
maintenance_window	String	可维护时间窗，为UTC时间。
tags	Array of <b>MysqlTags</b> objects	实例标签。
dedicated_resource_id	String	专属资源池ID，只有数据库实例属于专属资源池才会返回该参数。
proxies	Array of <b>MysqlProxyInfo</b> objects	数据库代理信息。

表 5-88 MysqlInstanceChargeInfo

参数	参数类型	描述
charge_mode	String	计费模式。
order_id	String	订单号。仅包年包月返回。

表 5-89 MysqlDatastoreWithKernelVersion

参数	参数类型	描述
type	String	数据库引擎，现在只支持gaussdb-mysql。
version	String	数据库版本。
kernel_version	String	数据库内核版本。

表 5-90 MysqlBackupStrategy

参数	参数类型	描述
start_time	String	自动备份开始时间段。自动备份将在该时间一个小时内触发。 取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。 1. HH取值必须比hh大1。 2. mm和MM取值必须相同，且取值必须为00。
keep_days	String	自动备份保留天数，取值范围：1-732。

表 5-91 MysqlInstanceNodeInfo

参数	参数类型	描述
id	String	实例ID, 严格匹配UUID规则。
name	String	节点名称。
type	String	节点类型。 取值范围: <ul style="list-style-type: none"> <li>• master: 主节点。</li> <li>• slave: 只读节点。</li> </ul>
status	String	节点状态。
port	Integer	数据库端口号。
private_read_ips	Array of strings	节点的读内网地址。
volume	<a href="#">MysqlInstanceNodeVolumeInfo</a> object	存储盘信息。
az_code	String	可用区。
region_code	String	实例所在的区域。
created	String	创建时间, 格式为"yyyy-mm-ddThh:mm:ssZ"。 其中, T指某个时间的开始; Z指时区偏移量, 例如偏移1个小时显示为+0100。
updated	String	更新时间, 格式与"created"字段对应格式完全相同。
flavor_id	String	规格ID。
flavor_ref	String	规格码。
max_connections	String	允许的最大连接数。
vcpus	String	CPU核数。
ram	String	内存大小, 单位为GB。
need_restart	Boolean	是否需要重启使修改的参数生效。
priority	Integer	主备倒换优先级。

表 5-92 MysqlInstanceNodeVolumeInfo

参数	参数类型	描述
type	String	磁盘类型。

参数	参数类型	描述
used	String	已使用磁盘大小, 单位GB。
size	Long	包年/包月实例购买的存储空间大小, 单位GB。

表 5-93 MysqlTags

参数	参数类型	描述
key	String	标签键。最大长度36个unicode字符。key不能为空或者空字符串, 不能为空格。 字符集: A-Z, a-z, 0-9, '-', '_', UNICODE字符(\u4E00-\u9FFF)。
value	String	标签值。最大长度43个unicode字符。可以为空字符串。 字符集: A-Z, a-z, 0-9, '.', '-', '_', UNICODE字符(\u4E00-\u9FFF)。

表 5-94 MysqlProxyInfo

参数	参数类型	描述
pool_id	String	数据库代理ID。
name	String	数据库代理名称。
address	String	Proxy读写分离地址。

状态码: 400

表 5-95 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 5-96 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

批量查询实例信息。

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/details?  
instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

## 响应示例

状态码： 200

Success.

```
{  
  "instances": [ {  
    "id": "11684a0e59e94bceba7880d58cfb07b5in07",  
    "name": "gaussdb-mysql-instance01",  
    "alias": "",  
    "status": "ACTIVE",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "enterprise_project_id": 0,  
    "type": "Cluster",  
    "charge_info": {  
      "charge_mode": "postPaid",  
      "order_id": ""  
    },  
    "node_count": 2,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.29.1"  
    },  
    "created": "2022-07-14T16:26:58+0800",  
    "updated": "2022-07-18T14:20:33+0800",  
    "public_ips": "10.154.219.187",  
    "private_write_ips": [ "192.168.0.142" ],  
    "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-  
xianhz-1.gaussdbformysql.myhuaweicloud.com" ],  
    "db_user_name": "root",  
    "port": 3306,  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
      "type": "master",  
      "status": "ACTIVE",  
      "port": 3306,  
      "private_read_ips": [ "192.168.0.163" ],  
      "volume": {  
        "type": "POOL",
```

```

    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "ACTIVE",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
} ]
} ]
} ]
}

```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.8 创建只读节点

### 功能介绍

创建只读节点。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建只读节点](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/nodes/enlarge

表 5-97 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 5-98 请求 Header 参数

参数	是否必选	参数类型	描述
x-auth-token	是	String	用户Token。
X-Language	否	String	语言。



表 5-99 请求 Body 参数

参数	是否必选	参数类型	描述
priorities	是	Array of integers	指定创建的只读节点故障倒换优先级。倒换优先级列表个数即为只读节点格式。故障倒换优先级的取值范围为1~16，数字越小，优先级越大，即故障倒换时，主节点会优先倒换到优先级高的备节点上，优先级相同的备节点选为主节点的概率相同。
is_auto_pay	否	String	创建包周期时可指定，表示是否自动从客户的账户中支付，此字段不影响自动续订的支付方式。 <ul style="list-style-type: none"> <li>• true，为自动支付，默认该方式。</li> <li>• false，为手动支付。</li> </ul> 枚举值： <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

## 响应参数

状态码： 201

表 5-100 响应 Body 参数

参数	参数类型	描述
instance_id	String	实例ID。
node_names	Array of strings	节点名称列表。
job_id	String	实例创建的任务id。 仅创建按需实例时会返回该参数。
order_id	String	订单号，创建包年包月时返回该参数。

状态码： 400

表 5-101 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 5-102 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

创建只读节点

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/nodes/enlarge
```

```
{  
  "priorities": [ 1, 2 ]  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "instance_id": "f381d0b539e644df8f5b0d3a62129515in07",  
  "node_names": [ "gauss-ccf5_node03" ],  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.9 删除只读节点

### 功能介绍

删除实例的只读节点。多可用区模式删除只读节点时，要保证删除后，剩余的只读节点和主节点在不同的可用区中，否则无法删除该只读节点。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[删除只读节点](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}/nodes/{node\_id}

表 5-103 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。
node_id	是	String	节点ID，严格匹配UUID规则。

### 请求参数

表 5-104 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

### 响应参数

状态码： 200

表 5-105 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 5-106 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-107 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/nodes/ss62c18799854a919bab633874c159dfin55
```

## 响应示例

状态码： 500

Server error.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.10 包周期存储扩容

### 功能介绍

包周期存储扩容。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[包周期存储扩容](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/volume/extend

表 5-108 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 5-109 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-110 请求 Body 参数

参数	是否必选	参数类型	描述
size	是	Integer	扩容后的容量，每次扩容最小容量为10GB，实例所选容量大小必须为10的整数倍
is_auto_pay	否	String	表示是否自动从客户的账户中支付。 <ul style="list-style-type: none"><li>• true，为自动支付，默认该方式。</li><li>• false，为手动支付。</li></ul> 枚举值： <ul style="list-style-type: none"><li>• true</li><li>• false</li></ul>

## 响应参数

状态码： 200

表 5-111 响应 Body 参数

参数	参数类型	描述
size	Integer	扩容后容量。
order_id	String	订单号。

状态码： 400

表 5-112 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-113 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

## 请求示例

包周期存储扩容

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend
```

```
{  
  "size" : 50  
}
```

## 响应示例

状态码: 200

Success.

```
{  
  "size" : 50,  
  "order_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 5.3.11 修改实例名称

#### 功能介绍

修改实例名称。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[修改实例名称](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

PUT /mysql/v3/{project\_id}/instances/{instance\_id}/name

表 5-114 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-115 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-116 请求 Body 参数

参数	是否必选	参数类型	描述
name	是	String	实例名称。用于表示实例的名称，同一租户下，同类型的实例名可重名。取值范围：4~64个字符之间，必须以字母开头，区分大小写，可以包含字母、数字、中划线或者下划线，不能包含其他的特殊字符。

## 响应参数

状态码： 200



表 5-117 响应 Body 参数

参数	参数类型	描述
job_id	String	修改实例名称的任务id

状态码： 400

表 5-118 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-119 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改实例名称

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/name
{
  "name": "gaussdb-name"
}
```

## 响应示例

状态码： 200

Success.

```
{
  "job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 5.3.12 重置数据库密码

#### 功能介绍

重置数据库密码。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[重置数据库密码](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/password

表 5-120 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-121 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-122 请求 Body 参数

参数	是否必选	参数类型	描述
password	是	String	数据库密码。取值范围：至少包含以下字符的三种：大小写字母、数字和特殊符号~!@#\$%^*_+=?(),&，长度8~32个字符。建议您输入高强度密码，以提高安全性，防止出现密码被暴力破解等安全风险。如果您输入弱密码，系统会自动判定密码非法。

## 响应参数

状态码： 400

表 5-123 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-124 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 重置数据库密码

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/password
{
  "password" : "Test_345612"
}
```

## 响应示例

无

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.3.13 变更实例规格

### 功能介绍

变更数据库实例的规格。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[变更实例规格](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/action

表 5-125 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-126 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-127 请求 Body 参数

参数	是否必选	参数类型	描述
resize_flavor	是	<a href="#">MysqlResizeFlavor</a> object	规格变更信息。
is_auto_pay	否	String	变更包周期实例规格时可指定，表示是否自动从客户的账户中支付。true，为自动支付，默认该方式。false，为手动支付。

表 5-128 MysqlResizeFlavor

参数	是否必选	参数类型	描述
spec_code	是	String	规格码

## 响应参数

状态码： 200

表 5-129 响应 Body 参数

参数	参数类型	描述
job_id	String	规格变更的任务id, 仅变更按需实例时会返回该参数
order_id	String	订单id, 仅变更包周期实例时会返回该参数

状态码: 400

表 5-130 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 5-131 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

变更实例规格

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/action
```

```
{  
  "resize_flavor": {  
    "spec_code": "taurus.large.4"  
  }  
}
```

## 响应示例

无

## 状态码

状态码	描述
200	Success.

状态码	描述
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.4 备份管理

### 5.4.1 修改备份策略

#### 功能介绍

修改备份策略。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[设置备份策略](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

PUT /mysql/v3/{project\_id}/instances/{instance\_id}/backups/policy/update

表 5-132 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-133 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-134 请求 Body 参数

参数	是否必选	参数类型	描述
backup_policy	是	<b>MysqlBackup Policy</b> object	数据库信息。

表 5-135 MysqlBackupPolicy

参数	是否必选	参数类型	描述
start_time	是	String	备份时间段。自动备份将在该时间段内触发。取值范围：非空，格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。HH取值必须比hh大1。mm和MM取值必须相同，且取值必须为00。取值示例：21:00-22:00
keep_days	是	Integer	备份文件的保留天数。
period	是	String	备份周期配置。自动备份将在每星期指定的天进行。取值范围：格式为逗号隔开的数字，数字代表星期。取值示例：1,2,3,4则表示备份周期配置为星期一、星期二、星期三和星期四。
retention_num_backup_level1	否	Integer	1级备份保留数量，默认值为0。当一级备份开关开启时，该参数值有效。取值：0或1

## 响应参数

状态码： 200



表 5-136 响应 Body 参数

参数	参数类型	描述
status	String	状态信息
instance_id	String	实例ID
instance_name	String	实例名称

状态码： 400

表 5-137 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-138 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

修改备份策略

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
ba62a0b83a1b42bfab275829d86ac0fdin07/backups/policy/update
```

```
{  
  "backup_policy": {  
    "keep_days": 7,  
    "start_time": "19:00-20:00",  
    "period": "1,2,3,4,5"  
  }  
}
```

## 响应示例

状态码： 200

Success.

```
{  
  "status": "COMPLETED",
```

```
"instance_id": "ef25188419f941309882d2986b2210b9in07",  
"instance_name": "gauss-mysql"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.4.2 创建手动备份

### 功能介绍

创建手动备份。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[创建手动备份](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/backups/create

表 5-139 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 5-140 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

表 5-141 请求 Body 参数

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID，严格匹配UUID规则。
name	是	String	备份名称。取值范围：4~64个字符之间，必须以字母开头，区分大小写，可以包含字母、数字、中划线或者下划线，不能包含其他的特殊字符。
description	否	String	备份描述，不能包含>!<"&'=特殊字符，不大于256个字符。

## 响应参数

状态码： 200

表 5-142 响应 Body 参数

参数	参数类型	描述
backup	<b>backup</b> object	备份信息。

表 5-143 backup

参数	参数类型	描述
id	String	备份ID
name	String	备份名称。
descriprion	String	备份描述。
begin_time	String	备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”，其中T指时间字段的开始；Z指时区偏移量。

参数	参数类型	描述
status	Object	备份状态 枚举值： <ul style="list-style-type: none"><li>● <b>BUILDING</b>: 备份中。</li><li>● <b>COMPLETED</b>: 备份完成。</li><li>● <b>FAILED</b>: 备份失败。</li><li>● <b>AVAILABLE</b>: 备份可用。</li></ul>
type	Object	备份类型，取值： 枚举值： <ul style="list-style-type: none"><li>● <b>manual</b>: 手动全量备份。</li></ul>
instance_id	String	实例ID。

状态码： 400

表 5-144 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-145 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

### 创建手动备份

```
POST https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2,3,4,5"
  }
}
```

## 响应示例

状态码: 200

Success.

```
{
  "backup": {
    "id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
    "name": "backup-1",
    "description": "手动备份",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "ef25188419f941309882d2986b2210b9in07"
  }
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

### 5.4.3 查询备份列表

#### 功能介绍

查询备份列表。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询备份列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/backups

表 5-146 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-147 Query 参数

参数	是否必选	参数类型	描述
instance_id	否	String	实例ID。
backup_id	否	String	备份ID。
backup_type	否	String	备份类型，取值："auto": 自动全量备份 "manual": 手动全量备份
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。
limit	否	String	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
begin_time	否	String	查询开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
end_time	否	String	查询结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”，且大于查询开始时间。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。

## 请求参数

表 5-148 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token

参数	是否必选	参数类型	描述
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-149 响应 Body 参数

参数	参数类型	描述
backups	Array of <b>backups</b> objects	备份信息。
total_count	Number	备份文件的总数。

表 5-150 backups

参数	参数类型	描述
id	String	备份ID。
name	String	备份名称。
begin_time	String	备份开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
end_time	String	备份结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
status	Object	备份状态 枚举值： <ul style="list-style-type: none"><li>● <b>BUILDING</b>：备份中。</li><li>● <b>COMPLETED</b>：备份完成。</li><li>● <b>FAILED</b>：备份失败。</li><li>● <b>AVAILABLE</b>：备份可用。</li></ul>
take_up_time	Integer	备份花费时间(单位：minutes)

参数	参数类型	描述
type	Object	备份类型 枚举值： <ul style="list-style-type: none"><li>• <b>auto</b>: 自动全量备份。</li><li>• <b>manual</b>: 手动全量备份。</li></ul>
size	Number	备份大小, (单位: MB)
datastore	<b>MysqlDatastore</b> object	数据库信息。
instance_id	String	实例ID。
backup_level	Object	备份级别。当开启一级备份开关时, 返回该参数。 枚举值： <ul style="list-style-type: none"><li>• <b>0</b>: 备份正在创建中或者备份失败。</li><li>• <b>1</b>: 一级备份。</li><li>• <b>2</b>: 二级备份。</li></ul>
description	String	备份文件描述信息

表 5-151 MysqlDatastore

参数	参数类型	描述
type	String	数据库引擎, 现在只支持gaussdb-mysql
version	String	数据库版本。 数据库支持的详细版本信息, 可调用查询数据库引擎的版本接口获取。

状态码: 400

表 5-152 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500



表 5-153 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/backups?  
instance_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_id=c0c9f155c7b7423a9d30f0175998b63bbr0  
1&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T1  
0:41:14+0800
```

## 响应示例

状态码： 200

Success.

```
{  
  "backups": [ {  
    "id": "1fe4feaab48f11e6654hfa163eba87e4b66u",  
    "name": "GaussDBforMySQL-gauss-e747-20200705185048266",  
    "begin_time": "2018-08-06T12:41:14+0800",  
    "end_time": "2018-08-06T12:45:14+0800",  
    "take_up_time": 2,  
    "status": "COMPLETED",  
    "type": "auto",  
    "size": 2803,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0"  
    },  
    "instance_id": "43e4feaab48f11e89039fa163ebaa7e4br01",  
    "backup_level": "2"  
  } ],  
  "total_count": 1  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.4.4 查询自动备份策略

### 功能介绍

查询自动备份策略。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询自动备份策略](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/backups/policy

表 5-154 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

### 请求参数

表 5-155 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

### 响应参数

状态码： 200

表 5-156 响应 Body 参数

参数	参数类型	描述
backup_policy	BackupPolicy object	备份策略信息。

表 5-157 BackupPolicy

参数	参数类型	描述
keep_days	Integer	指定已生成的备份文件可以保存的天数。取值范围：1~732。 最小值：1 最大值：732
start_time	String	备份时间段。自动备份将在该时间段内触发。取值范围：格式必须为hh:mm-HH:MM且有效，当前时间指UTC时间。
period	String	备份周期配置。自动备份将在每星期指定的天进行。取值范围：格式为逗号隔开的数字，数字代表星期。
retention_num_backup_level1	Integer	1级备份保留数量。当一级备份开关开启时，返回此参数。

状态码：400

表 5-158 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码：500

表 5-159 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
get https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
e73893ef73754465a8bd2e0857bbf13ein07/backups/policy
```

## 响应示例

状态码: 200

Success.

```
{  
  "backup_policy" : {  
    "keep_days" : "7",  
    "start_time" : "19:00-20:00",  
    "period" : "1,2",  
    "retention_num_backup_level1" : 1  
  }  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.5 参数模板管理

### 5.5.1 查询参数模板

#### 功能介绍

获取参数模板列表，包括所有数据库的默认参数模板和用户创建的参数模板。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询参数模板](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/configurations

表 5-160 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 5-161 请求 Header 参数

参数	是否必选	参数类型	描述
x-auth-token	是	String	用户Token。
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-162 响应 Body 参数

参数	参数类型	描述
configurations	Array of <a href="#">ConfigurationSummary</a> objects	参数模板信息。
total_count	Integer	参数模板的总数。

表 5-163 ConfigurationSummary

参数	参数类型	描述
id	String	参数组ID。
name	String	参数组名称。
description	String	参数组描述。
datastore_version_name	String	引擎版本。

参数	参数类型	描述
datastore_name	String	引擎名。
created	String	创建时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
updated	String	更新时间，格式为"yyyy-MM-ddTHH:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
user_defined	Boolean	是否是用户自定义参数模板： <ul style="list-style-type: none"><li>• false，表示为系统默认参数模板。</li><li>• true，表示为用户自定义参数模板。</li></ul>

状态码： 400

表 5-164 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-165 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/configurations
```

## 响应示例

状态码： 200

Success.

```
{  
  "configurations" : [ {  
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
```

```
"name" : "configuration_test",  
"description" : "configuration_test",  
"datastore_version_name" : "8.0",  
"datastore_name" : "GaussDB(for MySQL)",  
"created" : "2019-05-15T11:53:34+0000",  
"updated" : "2019-05-15T11:53:34+0000",  
"user_defined" : true  
}, {  
  "id" : "3bc1e9cc0d34404b9225ed7a58fb284epr07",  
  "name" : "Default-GaussDBforMySQL",  
  "description" : "Default parameter template for GaussDBforMySQL",  
  "datastore_version_name" : "8.0",  
  "datastore_name" : "GaussDB(for MySQL)",  
  "created" : "2019-05-27T03:38:51+0000",  
  "updated" : "2019-05-27T03:38:51+0000",  
  "user_defined" : false  
}]  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.6 配额管理

### 5.6.1 查询租户的实例配额

#### 功能介绍

获取指定租户的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询租户的实例配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/project-quotas

表 5-166 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-167 Query 参数

参数	是否必选	参数类型	描述
type	否	String	根据type过滤查询指定类型的配额。 取值范围: instance 枚举值: <ul style="list-style-type: none"><li>instance</li></ul>

## 请求参数

表 5-168 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-169 响应 Body 参数

参数	参数类型	描述
quotas	<a href="#">project-quotas</a> object	租户实例配额信息。



表 5-170 project-quotas

参数	参数类型	描述
resources	Array of <b>resource</b> objects	资源列表对象。

表 5-171 resource

参数	参数类型	描述
mode	String	资源类型。 • cluster: 表示主备版实例的配额 枚举值: • <b>cluster</b>
type	String	指定类型的配额。 • instance: 表示实例的配额 枚举值: • <b>instance</b>
used	Integer	已创建的资源个数。
quota	Integer	资源最大的配额数。

状态码: 400

表 5-172 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 5-173 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas?type=instance
```

## 响应示例

状态码: 200

Success.

```
{
  "quotas": [
    {
      "resources": [
        {
          "type": "instance",
          "used": "4",
          "quota": "50",
          "mode": "cluster"
        }
      ]
    }
  ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.6.2 查询租户基于企业项目的资源配额

### 功能介绍

获取指定企业项目的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询租户基于企业项目的资源配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

```
GET /mysql/v3/{project_id}/quotas
```

表 5-174 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-175 Query 参数

参数	是否必选	参数类型	描述
offset	否	String	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数。取值范围：0 - 10000
limit	否	String	查询记录数。默认为10，不能为负数，最小值为1，最大值为100。
enterprise_project_name	否	String	企业项目名称。

## 请求参数

表 5-176 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-177 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">quota</a> objects	资源列表对象。
total_count	Integer	配额记录的条数。

表 5-178 quota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
enterprise_project_name	String	企业项目名称。
instance_quota	Integer	实例个数配额。
vcpus_quota	Integer	CPU核数配额。
ram_quota	Integer	内存使用配额，单位为GB。
availability_instance_quota	Integer	实例剩余配额。
availability_vcpus_quota	Integer	CPU核数剩余配额。
availability_ram_quota	Integer	内存剩余配额。

状态码： 400

表 5-179 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-180 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas

## 响应示例

状态码： 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40,
    "availability_instance_quota": 1,
    "availability_vcpus_quota": 4,
    "availability_ram_quota": 8
  } ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.6.3 设置租户基于企业项目的资源配额

### 功能介绍

设置指定企业项目的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[设置租户基于企业项目的资源配额](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/quotas

表 5-181 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

## 请求参数

表 5-182 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token
X-Language	否	String	语言

表 5-183 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 5-184 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	是	Integer	实例个数配额。取值范围0~1000。(如果已经存在实例,应该大于已经存在的实例个数)
vcpus_quota	是	Integer	CPU核数配额。取值范围0~3600000。(如果已经存在实例,应该大于已经占用的cpu个数)
ram_quota	是	Integer	内存使用配额,单位为GB。取值范围0~19200000。(如果已经存在实例,应该大于已经占用的内存数)

## 响应参数

状态码： 200

表 5-185 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 5-186 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。
instance_quota	Integer	实例个数配额。取值范围0~1000。(如果已经存在实例，应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围0~3600000。(如果已经存在实例，应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额，单位为GB。取值范围0~19200000。(如果已经存在实例，应该大于已经占用的内存数)

## 请求示例

无

## 响应示例

状态码： 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 状态码

状态码	描述
200	Success.

## 错误码

请参见[错误码](#)。

## 5.6.4 修改租户基于企业项目的资源配额

### 功能介绍

修改指定企业项目的资源配额。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[修改租户基于企业项目的资源配额](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

PUT /mysql/v3/{project\_id}/quotas

表 5-187 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

### 请求参数

表 5-188 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token
X-Language	否	String	语言



表 5-189 请求 Body 参数

参数	是否必选	参数类型	描述
quota_list	是	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 5-190 setQuota

参数	是否必选	参数类型	描述
enterprise_project_id	是	String	企业项目ID。
instance_quota	是	Integer	实例个数配额。取值范围0~1000。(如果已经存在实例,应该大于已经存在的实例个数)
vcpus_quota	是	Integer	CPU核数配额。取值范围0~3600000。(如果已经存在实例,应该大于已经占用的cpu个数)
ram_quota	是	Integer	内存使用配额,单位为GB。取值范围0~19200000。(如果已经存在实例,应该大于已经占用的内存数)

## 响应参数

状态码: 200

表 5-191 响应 Body 参数

参数	参数类型	描述
quota_list	Array of <a href="#">setQuota</a> objects	资源列表对象。

表 5-192 setQuota

参数	参数类型	描述
enterprise_project_id	String	企业项目ID。

参数	参数类型	描述
instance_quota	Integer	实例个数配额。取值范围0~1000。(如果已经存在实例, 应该大于已经存在的实例个数)
vcpus_quota	Integer	CPU核数配额。取值范围0~3600000。(如果已经存在实例, 应该大于已经占用的cpu个数)
ram_quota	Integer	内存使用配额, 单位为GB。取值范围0~19200000。(如果已经存在实例, 应该大于已经占用的内存数)

状态码: 400

表 5-193 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 5-194 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
POST https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

## 响应示例

状态码: 200

Success.

```
{
  "quota_list": [ {
```

```
"enterprise_project_id" : "0",  
"instance_quota" : 20,  
"vcpu_quota" : 20,  
"ram_quota" : 40  
}]  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7 数据库代理

### 5.7.1 开启数据库代理

#### 功能介绍

开启数据库代理，只支持ELB模式。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[开启数据库代理](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-195 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

参数	是否必选	参数类型	描述
instance_id	是	String	实例ID

## 请求参数

表 5-196 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token
X-Language	否	String	语言

表 5-197 请求 Body 参数

参数	是否必选	参数类型	描述
flavor_ref	否	String	代理规格码。
node_num	否	Integer	代理实例节点数，取值整数 2-32。

## 响应参数

状态码： 202

表 5-198 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 5-199 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-200 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/43e4feaab48f11e89039fa163ebaa7e4br01/proxy
```

```
{
  "flavor_ref" : "gaussdb.mysql.large.x86.4",
  "node_num" : 2
}
```

## 响应示例

状态码: 202

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7.2 关闭数据库代理

### 功能介绍

关闭数据库代理。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[关闭数据库代理](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

DELETE /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-201 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

## 请求参数

表 5-202 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-203 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 5-204 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-205 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
DELETE https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/proxy
```

## 响应示例

状态码： 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7.3 查询单个数据库代理信息

### 功能介绍

查询单个数据库代理信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理信息列表](#)。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/proxy

表 5-206 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

## 请求参数

表 5-207 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-208 响应 Body 参数

参数	参数类型	描述
proxy	<a href="#">MysqlProxy</a> object	Proxy实例信息。
master_node	<a href="#">MysqlProxyNode</a> object	主节点信息。
readonly_nodes	Array of <a href="#">MysqlProxyNode</a> objects	只读节点信息。

表 5-209 MysqlProxy

参数	参数类型	描述
pool_id	String	Proxy实例id。



参数	参数类型	描述
status	String	Proxy实例开启状态。 取值范围：closed、open、frozen、opening、closing、enlarging、freezing和unfreezing。
address	String	Proxy读写分离地址。
port	Integer	Proxy端口信息。
pool_status	String	Proxy实例状态。取值范围：ACTIVE、BUILD、FAILED和DELETED。
delay_threshold_in_seconds	Integer	延时阈值，单位：秒。
elb_vip	String	Elb模式的虚拟ip信息。
eip	String	弹性公网IP信息。
vcpus	String	Proxy实例规格的CPU数量。
ram	String	Proxy实例规格的内存数量。
node_num	Integer	Proxy节点个数。
mode	String	Proxy主备模式，取值范围：Cluster。
nodes	Array of <a href="#">MysqlProxyNodes</a> objects	Proxy节点信息。
flavor_ref	String	Proxy规格信息。
name	String	Proxy实例名称。

表 5-210 MysqlProxyNodes

参数	参数类型	描述
id	String	Proxy节点id。
status	String	Proxy节点状态。取值范围：ACTIVE、ABNORMAL、BUILD和FAILED。
name	String	Proxy节点名称。
role	String	Proxy节点角色：master和slave。
az_code	String	可用区。
frozen_flag	Integer	Proxy节点是否被冻结：0-未冻结；1-冻结；2-冻结删除。

表 5-211 MysqlProxyNode

参数	参数类型	描述
id	String	节点id。
instance_id	String	实例id。
status	String	节点状态。
name	String	节点名称。
weight	Integer	节点读写分离读权重。
available_zones	Array of <b>MysqlProxyAvailable</b> objects	可用区信息。

表 5-212 MysqlProxyAvailable

参数	参数类型	描述
code	String	可用区编码。
description	String	可用区描述。

状态码： 400

表 5-213 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-214 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy
```

## 响应示例

状态码: 200

Success.

```
{  
  "proxy": {  
    "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
    "status": "open",  
    "address": "192.168.125.69",  
    "port": 3306,  
    "pool_status": "ACTIVE",  
    "delay_threshold_in_seconds": 30,  
    "elb_vip": "192.168.125.60",  
    "eip": "192.168.125.50",  
    "vcpu": 4,  
    "ram": 8,  
    "node_num": 2,  
    "mode": "Cluster",  
    "nodes": {  
      "id": "db53a238a02240c49365e72e284a4890pn01",  
      "name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
      "role": "master",  
      "az_code": "az1xahz",  
      "status": "ACTIVE",  
      "frozen_flag": 0  
    },  
    "name": "proxy-name"  
  },  
  "master_node": {  
    "id": "5ee8010ab992460d8d9cffcc5edabb59no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",  
    "weight": 0,  
    "available_zones": {  
      "code": "az1",  
      "description": "可用区1"  
    }  
  },  
  "readonly_nodes": {  
    "id": "d23535333138462880bfa1838dfced2no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",  
    "weight": 100,  
    "available_zones": {  
      "code": "az1",  
      "description": "可用区1"  
    }  
  }  
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.

状态码	描述
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7.4 查询数据库代理信息

### 功能介绍

查询数据库代理信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理信息列表](#)。

### 调试

您可以在[API Explorer](#)中调试该接口。

### URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/proxy

表 5-215 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

### 请求参数

表 5-216 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 202

表 5-217 响应 Body 参数

参数	参数类型	描述
proxy	<a href="#">MysqlProxy</a> object	Proxy实例信息。
master_node	<a href="#">MysqlProxyNode</a> object	主节点信息。
readonly_nodes	Array of <a href="#">MysqlProxyNodes</a> objects	只读节点信息。

表 5-218 MysqlProxy

参数	参数类型	描述
pool_id	String	Proxy实例id。
status	String	Proxy实例开启状态。 取值范围：closed、open、frozen、opening、closing、enlarging、freezing和unfreezing。
address	String	Proxy读写分离地址。
port	Integer	Proxy端口信息。
pool_status	String	Proxy实例状态。取值范围：abnormal、normal、creating和deleted。
delay_threshold_in_seconds	Integer	延时阈值，单位：秒。
elb_vip	String	Elb模式的虚拟ip信息。
eip	String	弹性公网IP信息。
vcpus	String	Proxy实例规格的CPU数量。
ram	String	Proxy实例规格的内存数量。
node_num	Integer	Proxy节点个数。
mode	String	Proxy主备模式，取值范围：Cluster。
nodes	Array of <a href="#">MysqlProxyNodes</a> objects	Proxy节点信息。
flavor_ref	String	Proxy规格信息。

表 5-219 MysqlProxyNodes

参数	参数类型	描述
id	String	Proxy节点id。
status	String	Proxy节点状态。取值范围：normal、abnormal、creating和deleted。
name	String	Proxy节点名称。
role	String	Proxy节点角色：master和slave。
az_code	String	可用区。
frozen_flag	Integer	Proxy节点是否被冻结：0-未冻结；1-冻结；2-冻结删除。

表 5-220 MysqlProxyNode

参数	参数类型	描述
id	String	节点id。
instance_id	String	实例id。
status	String	节点状态。
name	String	节点名称。
weight	Integer	节点读写分离权重。
available_zones	Array of <a href="#">MysqlProxyAvailable</a> objects	可用区信息。

表 5-221 MysqlProxyAvailable

参数	参数类型	描述
code	String	可用区编码。
description	String	可用区描述。

状态码： 400

表 5-222 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-223 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/proxy
```

## 响应示例

状态码： 202

Success.

```
{  
  "proxy": {  
    "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
    "status": "open",  
    "address": "192.168.125.69",  
    "port": 3306,  
    "pool_status": "ACTIVE",  
    "delay_threshold_in_seconds": 30,  
    "elb_vip": "192.168.125.60",  
    "eip": "192.168.125.50",  
    "vcpus": 4,  
    "ram": 8,  
    "node_num": 2,  
    "mode": "Cluster",  
    "nodes": {  
      "id": "db53a238a02240c49365e72e284a4890pn01",  
      "name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
      "role": "master",  
      "az_code": "az1xahz",  
      "status": "ACTIVE",  
      "frozen_flag": 0  
    }  
  },  
  "master_node": {  
    "id": "2a111d6d494e4327ad2e326afb591108in07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",  
    "weight": 0,  
    "available_zones": {
```

```
"code" : "az1xahz",
"description" : "可用区1"
},
},
"readonly_nodes" : {
  "id" : "d23535333138462880bfa1838dfced2no07",
  "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",
  "status" : "ACTIVE",
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",
  "weight" : 100,
  "available_zones" : {
    "code" : "az1xahz",
    "description" : "可用区1"
  }
}
}
```

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7.5 查询数据库代理规格信息

### 功能介绍

查询数据库代理规格信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[查询数据库代理规格信息](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/proxy/flavors



表 5-224 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

## 请求参数

表 5-225 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 202

表 5-226 响应 Body 参数

参数	参数类型	描述
proxy_flavor_groups	Array of <a href="#">MysqlProxyFlavorGroups</a> objects	规格组信息。

表 5-227 MysqlProxyFlavorGroups

参数	参数类型	描述
group_type	String	规格组类型,如x86, arm。
proxy_flavors	Array of <a href="#">MysqlProxyComputeFlavor</a> objects	规格信息。

表 5-228 MysqlProxyComputeFlavor

参数	参数类型	描述
id	String	Proxy规格id。
spec_code	String	Proxy规格码。
vcpus	String	CPU大小。例如：1表示1U。
ram	String	内存大小，单位为GB。
db_type	String	数据库类型。
az_status	Object	其中key是可用区编号，value是规格所在az的状态。
region_status	String	Region状态。

状态码： 400

表 5-229 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-230 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/proxy/flavors
```

## 响应示例

状态码： 202

Success.

```
{  
  "proxy_flavor_groups": {  
    "group_type": "X86",
```

```
"proxy_flavors" : {  
  "id" : "19be4c5d-d363-3342-bdbc-0dd9dbf7fafa",  
  "spec_code" : "gaussdb.proxy.large.x86.2",  
  "vcpus" : 2,  
  "ram" : 4,  
  "db_type" : "Proxy",  
  "az_status" : {  
    "az1" : "normal"  
  },  
  "region_status" : "normal"  
}
```

## 状态码

状态码	描述
202	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.7.6 扩容数据库代理节点的数量

### 功能介绍

扩容数据库代理节点的数量。DeC专属云账号暂不支持数据库代理。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[扩容数据库代理节点的数量](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

POST /mysql/v3/{project\_id}/instances/{instance\_id}/proxy/enlarge

表 5-231 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID，严格匹配UUID规则。

## 请求参数

表 5-232 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	是	String	用户Token。
X-Language	否	String	语言。

表 5-233 请求 Body 参数

参数	是否必选	参数类型	描述
node_num	是	Integer	proxy节点扩容操作需要扩容的节点数。本次扩容的节点数的取值范围：1~30之间的整数。限制条件：该实例的proxy节点的总数量小于等于32。

## 响应参数

状态码： 201

表 5-234 响应 Body 参数

参数	参数类型	描述
job_id	String	任务ID。

状态码： 400

表 5-235 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-236 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
post https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
e73893ef73754465a8bd2e0857bbf13ein07/proxy/enlarge  
  
{  
  "node_num" : 2  
}
```

## 响应示例

状态码： 201

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

## 状态码

状态码	描述
201	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.8 日志管理

### 5.8.1 查询数据库错误日志

#### 功能介绍

查询数据库错误日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取错误日志详情列表](#)。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/errorlog

表 5-237 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

表 5-238 Query 参数

参数	是否必选	参数类型	描述
start_date	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
end_date	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。

参数	是否必选	参数类型	描述
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100
level	否	String	日志级别
node_id	否	String	节点ID

## 请求参数

表 5-239 请求 Header 参数

参数	是否必选	参数类型	描述
x-auth-token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-240 响应 Body 参数

参数	参数类型	描述
error_log_list	Array of <a href="#">MysqlErrorLogList</a> objects	错误日志具体信息。
total_record	Integer	总记录数。

表 5-241 MysqlErrorLogList

参数	参数类型	描述
node_id	String	节点ID。
time	String	日期时间UTC时间。
level	String	日志级别。

参数	参数类型	描述
content	String	错误日志内容。

状态码： 400

表 5-242 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-243 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

无

## 响应示例

状态码： 200

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2021-03-06T12:07:05",
    "level": "ERROR, content:[MY013508] [Repl] do failed: 1",
    "total_record": 15
  } ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.



状态码	描述
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.8.2 查询数据库错误日志

### 功能介绍

查询数据库错误日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取错误日志详情列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口，支持自动认证鉴权。API Explorer可以自动生成SDK代码示例，并提供SDK代码示例调试功能。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/errorlog

表 5-244 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

表 5-245 Query 参数

参数	是否必选	参数类型	描述
start_date	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。

参数	是否必选	参数类型	描述
end_date	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
level	否	String	日志级别。 取值范围： <ul style="list-style-type: none"> <li>• ALL</li> <li>• INFO</li> <li>• LOG</li> <li>• WARNING</li> <li>• ERROR</li> <li>• FATAL</li> <li>• PANIC</li> <li>• NOTE</li> </ul>
node_id	是	String	节点ID

## 请求参数

表 5-246 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-247 响应 Body 参数

参数	参数类型	描述
error_log_list	Array of <a href="#">MysqlErrorLogList</a> objects	错误日志具体信息。
total_record	Integer	总记录数。

表 5-248 MysqlErrorLogList

参数	参数类型	描述
node_id	String	节点ID。
time	String	日期时间UTC时间。
level	String	日志级别。
content	String	错误日志内容。

状态码： 400

表 5-249 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-250 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/errorlog?  
offset=0&limit=1&level=ALL&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&  
node_id=cc07c60e94ec4575989840e648fb4f66no07
```

## 响应示例

状态码: 200

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2022-07-17T07:34:33",
    "level": "ERROR",
    "content": "[MY013508] [Repl] do failed: 1"
  } ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.8.3 查询数据库慢日志

### 功能介绍

查询数据库慢日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取慢日志详情列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口。

## URI

GET /mysql/v3/{project\_id}/instances/{instance\_id}/slowlog

表 5-251 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID

表 5-252 Query 参数

参数	是否必选	参数类型	描述
start_date	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
end_date	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为+0800。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100
type	否	String	语句类型，取空值，表示查询所有语句类型，也可指定如下日志类型：INSERT、UPDATE、SELECT、DELETE和CREATE
node_id	是	String	节点ID

## 请求参数

表 5-253 请求 Header 参数

参数	是否必选	参数类型	描述
x-auth-token	否	String	用户Token

参数	是否必选	参数类型	描述
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-254 响应 Body 参数

参数	参数类型	描述
slow_log_list	Array of <a href="#">MysqlSlowLogList</a> objects	错误日志具体信息。
long_query_time	String	慢日志阈值。
total_record	Integer	总记录数。

表 5-255 MysqlSlowLogList

参数	参数类型	描述
node_id	String	节点ID。
count	String	执行次数。
time	String	执行时间。
lock_time	String	等待锁时间。
rows_sent	String	结果行数量。
rows_examined	String	扫描的行数量。
database	String	所属数据库。
users	String	账号。
query_sample	String	执行语法。
type	String	语句类型。
start_time	String	发生时间,UTC时间
client_ip	String	IP地址。

状态码： 400

表 5-256 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码: 500

表 5-257 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/instances/  
3d39c18788b54a919bab633874c159dfin01/slowlog
```

## 响应示例

状态码: 200

Success.

- 示例 1

```
{  
  "error_log_list": [ {  
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",  
    "count": 1,  
    "time": "1.04899 s",  
    "lock_time": "0.00003 s",  
    "rows_sent": 0,  
    "rows_examined": 0,  
    "database": "gaussdb-mysql",  
    "users": "root",  
    "query_sample": "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N  
@time_zone_id);",  
    "type": "INSERT",  
    "start_time": "2121-03-25T10:55:16",  
    "client_ip": "192.*.*1"  
  } ]  
}
```

- 示例 2

10

- 示例 3

15

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.8.4 查询数据库慢日志

### 功能介绍

查询数据库慢日志。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取慢日志详情列表](#)。

## 调试

您可以在[API Explorer](#)中调试该接口，支持自动认证鉴权。API Explorer可以自动生成SDK代码示例，并提供SDK代码示例调试功能。

## URI

GET /v3/{project\_id}/instances/{instance\_id}/slowlog

表 5-258 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。
instance_id	是	String	实例ID



表 5-259 Query 参数

参数	是否必选	参数类型	描述
start_date	是	String	开始时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
end_date	是	String	结束时间，格式为“yyyy-mm-ddThh:mm:ssZ”。 其中，T指某个时间的开始；Z指时区偏移量，例如偏移1个小时显示为+0100。
offset	否	Integer	索引位置，偏移量。从第一条数据偏移offset条数据后开始查询，默认为0（偏移0条数据，表示从第一条数据开始查询），必须为数字，不能为负数
limit	否	Integer	查询记录数。默认为100，不能为负数，最小值为1，最大值为100。
type	否	String	语句类型，取空值，表示查询所有语句类型，也可指定如下日志类型： <ul style="list-style-type: none"><li>• INSERT</li><li>• UPDATE</li><li>• SELECT</li><li>• DELETE</li><li>• ALTER</li><li>• DROP</li><li>• CREATE</li></ul>
node_id	是	String	节点ID

## 请求参数

表 5-260 请求 Header 参数

参数	是否必选	参数类型	描述
X-Auth-Token	否	String	用户Token
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-261 响应 Body 参数

参数	参数类型	描述
slow_log_list	Array of <a href="#">MysqlSlowLogList</a> objects	错误日志具体信息。
long_query_time	String	慢日志阈值。
total_record	Integer	总记录数。

表 5-262 MysqlSlowLogList

参数	参数类型	描述
node_id	String	节点ID。
count	String	执行次数。
time	String	执行时间。
lock_time	String	等待锁时间。
rows_sent	String	结果行数量。
rows_examined	String	扫描的行数量。
database	String	所属数据库。
users	String	账号。
query_sample	String	执行语法。
type	String	语句类型。
start_time	String	发生时间，UTC时间
client_ip	String	IP地址。

状态码： 400

表 5-263 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。

参数	参数类型	描述
error_msg	String	错误消息。

状态码： 500

表 5-264 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/slowlog?offset=0&limit=1&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07&type=INSERT
```

## 响应示例

状态码： 200

Success.

```
{
  "slow_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "count": 1,
    "time": "1.04899 s",
    "lock_time": "0.00003 s",
    "rows_sent": 0,
    "rows_examined": 0,
    "database": "gaussdb-mysql",
    "users": "root",
    "query_sample": "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type": "INSERT",
    "start_time": "2121-03-25T10:55:16.000Z",
    "client_ip": "192.*.*.1"
  } ],
  "long_query_time": 10,
  "total_record": 15
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

## 5.9 获取任务信息

### 5.9.1 获取指定 ID 的任务信息

#### 功能介绍

获取指定ID的任务信息。

#### 须知

该接口计划于2025-03-31下线，建议及时切换到新接口[获取指定ID的任务信息](#)。

#### 接口约束

该接口只可查询任务中心一个月内的异步任务。

#### 调试

您可以在[API Explorer](#)中调试该接口。

#### URI

GET /mysql/v3/{project\_id}/jobs

表 5-265 路径参数

参数	是否必选	参数类型	描述
project_id	是	String	租户在某一region下的project ID。 获取方法请参见 <a href="#">获取项目ID</a> 。

表 5-266 Query 参数

参数	是否必选	参数类型	描述
id	是	String	任务ID。

## 请求参数

表 5-267 请求 Header 参数

参数	是否必选	参数类型	描述
x-auth-token	是	String	用户Token。
X-Language	否	String	语言

## 响应参数

状态码： 200

表 5-268 响应 Body 参数

参数	参数类型	描述
job	<a href="#">GetJobInfoDetail</a> object	任务信息。

表 5-269 GetJobInfoDetail

参数	参数类型	描述
id	String	任务ID。
name	String	任务名称。
status	String	任务执行状态。 取值： <ul style="list-style-type: none"><li>值为“Running”，表示任务正在执行。</li><li>值为“Completed”，表示任务执行成功。</li><li>值为“Failed”，表示任务执行失败。</li></ul> 枚举值： <ul style="list-style-type: none"><li><b>Running</b></li><li><b>Completed</b></li><li><b>Failed</b></li></ul>
created	String	创建时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为 +0800 说明：创建时返回值为空，数据库实例创建成功后该值不为空。
ended	String	结束时间，格式为"yyyy-mm-ddThh:mm:ssZ"。其中，T指某个时间的开始；Z指时区偏移量，例如北京时间偏移显示为 +0800 说明：创建时返回值为空，数据库实例创建成功后该值不为空。

参数	参数类型	描述
process	String	任务执行进度。执行中状态才返回执行进度，例如60%，否则返回""。
instance	<a href="#">GetJobInstanceInfoDetail</a> object	指定ID任务的实例信息。
entities	Object	根据不同的任务，显示不同的内容。
fail_reason	String	任务执行失败时的错误信息。

表 5-270 GetJobInstanceInfoDetail

参数	参数类型	描述
id	String	实例ID。
name	String	实例名称。

状态码： 400

表 5-271 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

状态码： 500

表 5-272 响应 Body 参数

参数	参数类型	描述
error_code	String	错误码。
error_msg	String	错误消息。

## 请求示例

```
GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514
```

## 响应示例

状态码： 200

Success.

```
{
  "job": {
    "id": "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
    "name": "CreateMysqlInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0800",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin07",
      "name": "DO-NOT-TOUCH-mgr2-mysql-single"
    }
  },
  "entities": {
    "instance": {
      "endpoint": "192.168.1.203:3306",
      "type": "Cluster",
      "datastore": {
        "type": "gaussdb-mysql",
        "version": "8.0"
      }
    }
  },
  "resource_ids": [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
"a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
}
```

## 状态码

状态码	描述
200	Success.
400	Client error.
500	Server error.

## 错误码

请参见[错误码](#)。

# 6 权限策略和授权项

## 6.1 策略及授权项说明

如果您需要对您所拥有的云数据库GaussDB(for MySQL)进行精细的权限管理，您可以使用统一身份认证服务（Identity and Access Management，简称IAM），如果华为账号已经能满足您的要求，不需要创建独立的IAM用户，您可以跳过本章节，不影响您使用云数据库GaussDB(for MySQL)的其它功能。

默认情况下，新建的IAM用户没有任何权限，您需要将其加入用户组，并给用户组授予策略或角色，才能使用户组中的用户获得相应的权限，这一过程称为授权。授权后，用户就可以基于已有权限对云服务进行操作。

权限根据授权的精细程度，分为**角色**和**策略**。角色以服务为粒度，是IAM最初提供的一种根据用户的工作职能定义权限的粗粒度授权机制。策略以API接口为粒度进行权限拆分，授权更加精细，可以精确到某个操作、资源和条件，能够满足企业对权限最小化的安全管控要求。

### 说明

如果您要允许或是禁止某个接口的操作权限，请使用策略。

账号具备所有接口的调用权限，如果使用账号下的IAM用户发起API请求时，该IAM用户必须具备调用该接口所需的权限，否则，API请求将调用失败。每个接口所需要的权限，与各个接口所对应的授权项相对应，只有发起请求的用户被授予授权项所对应的策略，该用户才能成功调用该接口。例如，用户要调用接口来查询GaussDB实例列表，那么这个IAM用户被授予的策略中必须包含允许“gaussdb:instance:list”的授权项，该接口才能调用成功。

## 支持的授权项

策略包含系统策略和自定义策略，如果系统策略不满足授权要求，管理员可以创建自定义策略，并通过给用户组授予自定义策略来进行精细的访问控制。策略支持的操作与API相对应，授权项列表说明如下：

- 权限：允许或拒绝某项操作。
- 对应API接口：自定义策略实际调用的API接口。
- 授权项：自定义策略中支持的Action，在自定义策略中的Action中写入授权项，可以实现授权项对应的权限功能。



- 依赖的授权项：部分Action存在对其他Action的依赖，需要将依赖的Action同时写入授权项，才能实现对应的权限功能。
- IAM项目(Project)/企业项目(Enterprise Project)：自定义策略的授权范围，包括IAM项目与企业项目。授权范围如果同时支持IAM项目和企业项目，表示此授权项对应的自定义策略，可以在IAM和企业管理两个服务中给用户组授权并生效。如果仅支持IAM项目，不支持企业项目，表示仅能在IAM中给用户组授权并生效，如果在企业管理中授权，则该自定义策略不生效。关于IAM项目与企业项目的区别，详情请参见：[IAM与企业管理的区别](#)。

 说明

“√”表示支持，“x”表示暂不支持。

## 6.2 GaussDB(for MySQL)授权分类

表 6-1 授权列表

权限	对应API接口	授权项 ( Action )	IAM项目 ( Project )	企业项目 ( Enterprise Project )
查询资源配额	GET /mysql/v3/{project_id}/quotas	gaussdb:instance:list	√	√
设置资源配额	POST /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
修改资源配额	PUT /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
查询数据库引擎版本	GET /mysql/v3/{project_id}/datastores/{database_name}	gaussdb:instance:list	√	√
查询数据库规格	GET /mysql/v3/{project_id}/flavors/{database}?version_name={version_name}&spec_code={spec_code}	gaussdb:instance:list	√	√

权限	对应API接口	授权项 ( Action )	IAM项目 ( Project )	企业项目 ( Enterprise Project )
创建实例	POST /mysql/v3/ {projectId}/ instances	gaussdb:instance:create	√	√
查询实例列表	GET /mysql/v3/ {projectId}/ instances	gaussdb:instance:list	√	√
查询实例详细信息	GET /mysql/v3/ {project_id}/ instances/ {instance_id}	gaussdb:instance:list	√	√
删除实例	DELETE /mysql/v3/ {project_id}/ instances/ {instance_id}	gaussdb:instance:delete	√	√
查询参数模板	GET /mysql/v3/ {project_id}/ configurations	gaussdb:parameter:list	√	√
获取任务信息	GET /mysql/v3/ {projectId}/jobs	gaussdb:instance:list	√	√
新增只读节点	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ nodes/enlarge	gaussdb:instance:create	√	√
删除只读节点	DELETE /mysql/v3/ {project_id}/ instances/ {instance_id}/ nodes/{node_id}	gaussdb:instance:delete	√	√

权限	对应API接口	授权项 ( Action )	IAM项目 ( Project )	企业项目 ( Enterprise Project )
扩容包周期实例 磁盘容量	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ volume/extend	gaussdb:instance:modifySpec	√	√
修改实例名称	PUT /mysql/v3/ {project_id}/ instances/ {instance_id}/ name	gaussdb:instance:modify	√	√
重置数据库密码	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ password	gaussdb:instance:modify	√	√
变更数据库实例 的规格	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ action	gaussdb:instance:modifySpec	√	√
创建手动备份	POST /mysql/v3/ {project_id}/ backups/create	gaussdb:backup:create	√	√
查询备份列表	GET /mysql/v3/ {project_id}/ backups	gaussdb:backup:list	√	√
查询自动备份策略	GET /mysql/v3/ {project_id}/ instances/ {instance_id}/ backups/policy	gaussdb:backup:list	√	√

权限	对应API接口	授权项 ( Action )	IAM项目 ( Project )	企业项目 ( Enterprise Project )
修改自动备份策略	PUT /mysql/v3/ {project_id}/ instances/ {instance_id}/ backups/policy/ update	gaussdb:instance:modifyBackupPolicy	√	√

# 7 附录

## 7.1 异常请求结果

- 异常响应要素说明

表 7-1 异常响应要素说明

名称	参数类型	说明
error_code	String	提交任务异常时返回的错误编码，详细错误码描述请参见 <a href="#">错误码</a> 。
error_msg	String	提交任务异常时返回的错误描述信息。

- 响应样例

```
{  
  "error_code": "DBS.280234",  
  "error_msg": "非法实例名称"  
}
```

## 7.2 状态码

状态码列表：

表 7-2 状态码说明

状态码	编码	错误码说明
100	Continue	继续请求。 这个临时响应用来通知客户端，它的部分请求已经被服务器接收，且仍未被拒绝。
101	Switching Protocols	切换协议。只能切换到更高级的协议。 例如，切换到HTTP的新版本协议。

状态码	编码	错误码说明
200	OK	请求成功。
201	Created	创建类的请求完全成功。
202	Accepted	已经接受请求，但未处理完成。
203	Non-Authoritative Information	非授权信息，请求成功。
204	NoContent	请求完全成功，同时HTTP响应不包含响应体。在响应OPTIONS方法的HTTP请求时返回此状态码。
205	Reset Content	重置内容，服务器处理成功。
206	Partial Content	服务器成功处理了部分GET请求。
300	Multiple Choices	多种选择。请求的资源可包括多个位置，相应可返回一个资源特征与地址的列表用于用户终端（例如：浏览器）选择。
301	Moved Permanently	永久移动，请求的资源已被永久的移动到新的URI，返回信息会包括新的URI。
302	Found	资源被临时移动。
303	See Other	查看其它地址。 使用GET和POST请求查看。
304	Not Modified	所请求的资源未修改，服务器返回此状态码时，不会返回任何资源。
305	Use Proxy	所请求的资源必须通过代理访问。
306	Unused	已经被废弃的HTTP状态码。
400	BadRequest	非法请求。 建议直接修改该请求，不要重试该请求。
401	Unauthorized	在客户端提供认证信息后，返回该状态码，表明服务端指出客户端所提供的认证信息不正确或非法。
402	Payment Required	保留请求。
403	Forbidden	请求被拒绝访问。 返回该状态码，表明请求能够到达服务端，且服务端能够理解用户请求，但是拒绝做更多的事情，因为该请求被设置为拒绝访问，建议直接修改该请求，不要重试该请求。
404	NotFound	所请求的资源不存在。 建议直接修改该请求，不要重试该请求。

状态码	编码	错误码说明
405	MethodNotAllowed	请求中带有该资源不支持的方法。 建议直接修改该请求，不要重试该请求。
406	Not Acceptable	服务器无法根据客户端请求的内容特性完成请求。
407	Proxy Authentication Required	请求要求代理的身份认证，与401类似，但请求者应当使用代理进行授权。
408	Request Time-out	服务器等候请求时发生超时。 客户端可以随时再次提交该请求而无需进行任何更改。
409	Conflict	服务器在完成请求时发生冲突。 返回该状态码，表明客户端尝试创建的资源已经存在，或者由于冲突请求的更新操作不能被完成。
410	Gone	客户端请求的资源已经不存在。 返回该状态码，表明请求的资源已被永久删除。
411	Length Required	服务器无法处理客户端发送的不带Content-Length的请求信息。
412	Precondition Failed	未满足前提条件，服务器未满足请求者在请求中设置的其中一个前提条件。
413	Request Entity Too Large	由于请求的实体过大，服务器无法处理，因此拒绝请求。为防止客户端的连续请求，服务器可能会关闭连接。如果只是服务器暂时无法处理，则会包含一个Retry-After的响应信息。
414	Request-URI Too Large	请求的URI过长（URI通常为网址），服务器无法处理。
415	Unsupported Media Type	服务器无法处理请求附带的媒体格式。
416	Requested range not satisfiable	客户端请求的范围无效。
417	Expectation Failed	服务器无法满足Expect的请求头信息。
422	UnprocessableEntity	请求格式正确，但是由于含有语义错误，无法响应。
429	TooManyRequests	表明请求超出了客户端访问频率的限制或者服务端接收到多于它能处理的请求。建议客户端读取相应的Retry-After首部，然后等待该首部指出的时间后再重试。
500	InternalServerError	表明服务端能被请求访问到，但是不能理解用户的请求。

状态码	编码	错误码说明
501	Not Implemented	服务器不支持请求的功能，无法完成请求。
502	Bad Gateway	充当网关或代理的服务器，从远端服务器接收到了一个无效的请求。
503	ServiceUnavailabl e	被请求的服务无效。 建议直接修改该请求，不要重试该请求。
504	ServerTimeout	请求在给定的时间内无法完成。客户端仅在为请求指定超时（Timeout）参数时会得到该响应。
505	HTTP Version not supported	服务器不支持请求的HTTP协议的版本，无法完成处理。

## 7.3 错误码

当您调用API时，如果遇到“APIGW”开头的错误码，请参见[API网关错误码](#)进行处理。

状态码	错误码	错误信息	描述	处理措施
400	DBS.200001	Parameter error.	参数错误。	检查传入的参数或URL是否全部正确。
400	DBS.200004	Parameter error.	参数错误。	检查传入的参数或URL是否全部正确。
400	DBS.200006	The request is null. Enter a request parameter.	请求为空，请输入请求参数。	检查是否有必选请求参数为空。
400	DBS.200021	Invalid DB instance name.	实例名非法。	检查实例名称是否正确。
400	DBS.200023	Storage space is out of range.	卷大小超出允许范围。	检查磁盘大小是否超出允许范围。
400	DBS.200024	Invalid region.	Region非法。	检查可用区名称是否正确，可用区是否在可用范围内。
400	DBS.200025	Invalid AZ.	可用区取值非法。	检查可用区名称是否正确，可用区是否在可用范围内。



状态码	错误码	错误信息	描述	处理措施
400	DBS.200026	Invalid storage type.	卷类型非法。	检查磁盘类型是否正确。
400	DBS.200027	Storage space must be a multiple of 10.	卷大小不是10的整数倍。	检查磁盘大小是否是10的整数倍。
400	DBS.200040	The DB engine or version is not supported.	不支持的数据库类型或版本。	检查是否数据库类型和版本是否匹配，数据库类型和版本是否符合要求。
400	DBS.200041	Invalid database version.	数据库版本非法。	检查数据库的版本号是否支持。
400	DBS.200042	The DB engine does not exist.	引擎版本不存在。	检查数据库引擎是否为云数据库 GaussDB支持的引擎。
400	DBS.200043	Invalid synchronize model.	HA同步模式非法。	检查HA同步模式是否符合要求。
400	DBS.200048	Invalid VPC ID.	VPC id非法。	检查VPC ID、名称是否正确，是否符合要求。
400	DBS.200049	Invalid subnet ID.	子网的网络id非法。	检查子网ID、名称是否正确，是否符合要求。
400	DBS.200051	Invalid HA mode.	不合法的ha模式。	检查HA模式是否符合要求。
400	DBS.200052	Invalid database root password.	数据库root密码非法。	检查用户名和密码是否匹配，密码是否符合密码要求。
400	DBS.200053	The selected specifications do not exist.	所选规格不存在。	检查规格是否正确，当前可用区是否支持该规格。
400	DBS.200054	Invalid specifications.	所选规格非法。	检查规格是否正确，当前可用区是否支持该规格。

状态码	错误码	错误信息	描述	处理措施
400	DBS.200056	The maximum number of nodes has been reached.	节点个数达到最大值。	检查实例节点个数是否达到最大值。
400	DBS.200063	Invalid cluster mode.	集群模式非法。	检查传入的mode参数是否非法。
400	DBS.200086	This operation is not allowed by the DB instance status.	实例状态不允许做该操作。	检查实例的状态或实例正在进行的操作是否与请求冲突。
400	DBS.200087	The number of tags added for the DB instance has reached the quota.	单个实例标签数量达到最大配额。	检查实例的标签是否超过最大限制
400	DBS.200098	The tag already exists.	该资源标签已存在。	检查标签是否已经存在。
400	DBS.200302	Storage space must be a multiple of 10.	磁盘大小不是10的整数倍。	检查磁盘大小是否是10的倍数。
400	DBS.200306	The new storage space must be greater than or equal to the original storage space.	扩容参数不合法。	检查设置的磁盘大小是否已经超过上限。
400	DBS.200461	The parameter value is out of range.	参数值超出范围。	检查传入的port参数是否非法
400	DBS.200504	Invalid database version.	数据库版本非法。	检查传入的数据库版本号是否非法
400	DBS.200543	The job does not exist.	任务不存在	检查传入的任务Id是否非法
400	DBS.200823	The database does not exist.	数据库不存在。	检查传入的数据库是否不存在

状态码	错误码	错误信息	描述	处理措施
400	DBS.200824	The database account does not exist.	数据库帐号不存在。	检查传入的用户是否存在
400	DBS.201014	This operation is not allowed by the DB instance status.	实例状态不允许做该操作。	检查实例的状态或实例正在进行的操作是否与请求冲突。
400	DBS.201101	Invalid backup cycle.	备份周期非法。	检查备份周期是否符合要求。
400	DBS.201103	Invalid backup start time.	备份开始时间非法。	检查备份开始时间是否符合要求。
400	DBS.201106	Invalid retention days.	备份保留天数非法。	检查备份保留天数是否符合要求。
400	DBS.201203	The backup file does not exist.	备份文件不存在。	检查该备份是否存在，备份是否匹配实例。
400	DBS.201207	The DB engine or version is not supported.	不支持该数据库引擎或版本。	检查数据库引擎是否为云数据库 GaussDB支持的引擎。
400	DBS.201208	The operation is not allowed by the backup status.	备份状态不允许。	请检查备份状态是否为"备份完成"。
400	DBS.212002	Incorrect parameter group quota.	参数组配额错误。	参数组配额超过限制，请删除无用的参数模板再重新创建。
400	DBS.212003	Operation not allowed.	不支持此操作。	默认参数模板不允许重置和删除。
400	DBS.212004	Parameter group update error.	参数组更新错误。	请检查要修改的参数值是否合法。
400	DBS.212005	The node does not belong to the group.	节点不属于组。	该节点不属于该实例，请检查实例id或节点Id是否正确。

状态码	错误码	错误信息	描述	处理措施
400	DBS.212007	The DB engine does not exist.	引擎不存在。	检查数据库引擎是否存在。
400	DBS.212008	The DB engine is not supported.	不支持的引擎。	检查数据库引擎是否为云数据库 GaussDB支持的引擎。
400	DBS.212009	Task processing failed.	任务处理失败。	任务处理失败，请联系客服解决。
400	DBS.212010	The parameter group is being applied.	绑定正在执行。	正在应用参数模板，待完成后再进行其他操作。
400	DBS.212011	Application failed.	绑定失败。	应用参数模板失败，请联系客服解决。
400	DBS.212012	The parameter does not exist.	参数不存在。	请检查要修改的参数名是否正确。
400	DBS.212014	The node does not have a default parameter group.	节点没有默认参数组。	请检查节点ID或参数组ID是否正确。
400	DBS.212015	Partial success.	部分成功。	请检查要修改的参数名是否正确。
400	DBS.212016	Parameter update failed.	参数更新失败。	修改参数失败，请联系客服解决。
400	DBS.212017	Invalid parameter.	参数错误。	请检查参数名是否合法。
400	DBS.212025	Update failed.	更新失败。	修改参数失败，请联系客服解决
400	DBS.212030	Parameter error	参数错误。	参数模板名已经存在。
400	DBS.212032	The parameter template has been applied.	参数模板已被应用。	参数模板已经被应用，不能删除该模板。

状态码	错误码	错误信息	描述	处理措施
400	DBS.212037	Parameters are incorrectly set.	参数设置不正确。	检查参数是否合法或参数是否在合法范围内。
400	DBS.270024	Proxy instance does not exist.	Proxy实例不存在。	检查租户是否拥有该proxy实例，传入的proxy实例id是否正确，代理实例是否存在。
400	DBS.270025	Invalid weight.	权重非法。	检查传入的权重格式和范围是否正确。
400	DBS.270026	Invalid proxy mode.	数据库代理类型非法。	检查传入的数据库代理类型是否正确。
400	DBS.270027	Select a proxy instance.	未指定数据库代理。	检查参数数据库代理id是否为空。
400	DBS.280001	Parameter error.	参数错误。	检查传入的参数或URL是否全部正确，是否符合要求。
400	DBS.280127	Invalid backup description.	备份描述非法。	检查备份描述是否正确，是否符合要求。
400	DBS.280128	The database name does not exist.	数据库名不存在。	检查租户是否拥有该实例，实例名或实例ID是否正确，实例是否存在。
400	DBS.280203	This is a weak password. Please enter a strong password.	这是一个弱密码，请输入一个强度大一些的密码。	检查密码是否过于简单，请更改为较复杂的密码。
400	DBS.280204	Invalid parameter.	输入参数不合法。	检查参数是否合法或参数是否在合法范围内。
400	DBS.280214	The backup does not exist.	备份不存在。	检查备份保留天数是否正确。
400	DBS.280216	Invalid backup start time.	备份开始时间非法。	检查备份开始时间是否符合要求，备份开始时间和备份结束时间的关系是否正确。

状态码	错误码	错误信息	描述	处理措施
400	DBS.280235	Invalid database type.	数据库类型非法	检查数据库引擎名称是否正确。
400	DBS.280237	Datastore not specified.	Datastore为空。	检查数据库引擎是否为云数据库 GaussDB支持的引擎。
400	DBS.280238	The DB engine or version is not supported.	不支持的数据库类型或版本。	检查是否数据库类型和版本是否匹配，数据库类型和版本是否符合要求。
400	DBS.280239	Invalid specifications.	所选规格非法。	检查规格码是否正确，规格在当前可用区是否存在，规格是否支持。
400	DBS.280241	Invalid storage type.	卷类型非法。	检查磁盘的类型是否正确，是否符合要求。
400	DBS.280242	Storage space is out of range.	卷大小超出允许范围。	检查磁盘大小的值是否正确。
400	DBS.280246	Invalid database root password	数据库root密码非法。	检查用户名和密码是否匹配，密码是否符合密码要求。
400	DBS.280250	Invalid backup retention days.	备份保留期非法。	检查输入备份数据的保留时间是否合法或是否在合法范围内。
400	DBS.280251	Invalid backup cycle.	备份周期不合法。	检查输入备份周期是否合法或是否在合法范围内。
400	DBS.280253	Invalid backup start time.	备份开始时间非法。	检查备份开始时间是否符合要求，备份开始时间和备份结束时间的关系是否正确。
400	DBS.280260	Invalid available zone mode.	无效的可用区模式。	检查可用区的模式是否有效。

状态码	错误码	错误信息	描述	处理措施
400	DBS.280270	The parameter does not exist.	参数不存在。	请检查要修改的参数名是否正确。
400	DBS.280271	The parameter value is out of range.	参数值超出范围。	检查参数值是否在有效范围内。
400	DBS.280272	The tag key must be unique.	新增tag存在重复的key。	检查新增tag是否已存在。
400	DBS.280277	Invalid backup name.	备份名称非法。	检查备份名称是否正确，是否符合要求。
400	DBS.280285	Invalid AZ.	可用区取值非法。	检查可用区名称是否正确，可用区是否在可用范围内。
400	DBS.280288	Invalid FlavorRef.	规格非法。	检查规格ID是否为null或空串。
400	DBS.280311	Invalid storage space size.	存储空间大小非法。	检查磁盘大小的值是否正确，是否符合要求。
400	DBS.280325	Invalid storage information.	硬盘信息不合法。	检查磁盘大小或磁盘类型是否合法。
400	DBS.280342	Invalid cluster mode.	集群模式非法。	检查实例模式是否正确，是否符合要求，实例模式与实例ID是否匹配。
400	DBS.280364	Invalid database port.	数据库端口号无效。	检查数据库设置的端口是否可用。
400	DBS.280402	Invalid HA mode.	Ha模式非法。	检查输入的Ha模式是否符合要求。
400	DBS.280404	Invalid DB instance ID or node ID format.	实例ID非法。	检查实例ID是否符合规则。
400	DBS.280434	Invalid specification code.	所选规格码非法。	检查规格码是否符合规则，规格是否存在，规格是否可用。

状态码	错误码	错误信息	描述	处理措施
400	DBS.280439	Invalid records. Enter a positive integer less than 100.	无效的查询记录数，请输入小于100的正整数。	检查查询记录数是否在有效范围内。
400	DBS.280448	The storage type is sold out.	当前卷类型已售罄。	检查当前卷类型是否存在可用。
400	DBS.280449	Operation not allowed on frozen objects.	不能对冻结的对象执行该操作。	检查实例是否冻结，当前操作是否支持在实例冻结期间进行。
400	DBS.280450	The DB instance specifications are sold out.	当前规格已售罄。	规格已售罄，请更换可用区或联系客服。
400	DBS.280500	ELB must be enabled.	需开启ELB。	需开启ELB。
400	DBS.280505	CBC error: There are unprocessed orders.	CBC错误：存在未处理的订单，不能进行当前操作。	检查当前订单是否已处理完成。
400	DBS.290000	Parameter error.	参数错误。	检查传入的参数或URL是否全部正确，是否符合要求。
400	DBS.290001	Invalid parameter letter case.	参数大小写错误。	检查传入的参数大小写是否正确，是否符合要求。
403	DBS.200010	The DB instance ID or user ID may be null, or the operation is not authorized.	实例ID和用户ID可能为空，或者操作越权。	检查入参是否正确，实例是否存在，检查租户是否操作越权。
403	DBS.200044	Resource not found or permission denied.	访问资源不存在，或者无访问权限。	检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。



状态码	错误码	错误信息	描述	处理措施
403	DBS.200604	The DB instance ID or user ID may be null, or the operation is not authorized.	实例ID和用户ID可能为空，或者操作越权。	检查入参是否正确，实例是否存在，检查租户是否操作越权。
403	DBS.200810	You are not allowed to create databases on read replicas.	不能在只读实例创建数据库。	只读实例不允许创建数据库，请更换读写实例创建数据库。
403	DBS.200819	You are not allowed to delete database users on read replicas.	不能在只读实例执行删除数据库用户。	只读实例不允许删除数据库用户。
403	DBS.201003	Resource not found or permission denied.	访问资源不存在，或者无访问权限。	检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。
403	DBS.280015	Resource not found or permission denied.	访问资源不存在，或者无访问权限。	检查入参是否正确，访问资源是否存在，检查租户是否有访问权限。
403	DBS.280056	Invalid token.	Token非法。	检查实例是否属于租户，token是否已经重新获取。
404	DBS.200002	The DB instance does not exist.	实例不存在。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.200008	The ECS information of the DB instance cannot be found.	请检查数据库，确认实例的虚拟机信息，找不到该实例的虚拟机信息。	检查入参是否正确，实例状态是否正常。
404	DBS.200013	The original DB instance does not exist.	源实例不存在。	检查实例ID、实例是否正确，实例是否存在。

状态码	错误码	错误信息	描述	处理措施
404	DBS.200045	The DB instance does not exist.	实例不存在。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.200050	The security group does not exist or does not belong to the VPC.	安全组不存在，或不属于该VPC。	检查输入安全组ID是否合法，安全组是否存在，节点的读内网地址是否属于该安全组。
404	DBS.200408	The DB instance does not exist.	实例不存在或已删除。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.200470	The region or AZ does not exist.	Region或可用区不存在。	检查可用区是否正确。
404	DBS.200501	The subnet does not exist or does not belong to the VPC.	子网不存在，或不属于该VPC。	检查子网ID、名称是否存在，是否匹配VPC。
404	DBS.200503	The VPC does not exist or does not belong to the user.	VPC不存在，或不属于该用户。	检查租户是否拥有该VPC。
404	DBS.200602	The DB instance does not exist.	该实例不存在。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.201010	The backup information does not exist.	备份信息不存在。	检查该备份是否存在，备份是否匹配实例。
404	DBS.201028	The DB instance does not exist.	实例不存在或已删除。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.212001	The parameter group does not exist.	参数组不存在。	检查参数组是否存在。
404	DBS.290002	The selected specifications do not exist.	所选规格不存在。	检查规格是否正确，当前可用区是否支持该规格。

状态码	错误码	错误信息	描述	处理措施
404	DBS.290005	The DB instance does not exist.	该实例不存在。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.290011	The DB instance does not exist.	实例不存在。	检查实例ID、实例是否正确，实例是否存在。
404	DBS.290013	Resource not found.	未找到资源。	检查入参是否正确，实例是否存在。
409	DBS.200011	Another operation is being performed on the DB instance or the DB instance is faulty.	该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。	检查实例状态或实例正在进行的操作是否和请求冲突。
409	DBS.200019	Another operation is being performed on the DB instance or the DB instance is faulty.	该实例正在进行其他操作或该实例故障，无法执行该操作，请稍后重试。	检查实例状态或实例正在进行的操作是否和请求冲突。
409	DBS.200022	The DB instance name already exists.	实例名称已存在。	检查实例名称是否已经存在。
409	DBS.200047	Another operation is being performed on the DB instance or the DB instance is faulty.	该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。	检查实例状态或实例正在进行的操作是否和请求冲突。

状态码	错误码	错误信息	描述	处理措施
409	DBS.200316	This operation cannot be performed because the DB instance status is Storage full.	当前实例状态为存储空间满，不能进行该操作。	实例存储空间已满，请调整存储空间大小。
409	DBS.200826	The database name already exists.	数据库名称已存在。	检查数据库名称是否合法。
409	DBS.200827	The database user already exists.	账号名称已存在。	检查数据库用户是否合法。
409	DBS.200828	You are not allowed to create a database built-in account.	数据库内置账号，用户不可创建。	检查数据库用户是否合法。
409	DBS.201202	Another operation is being performed on the DB instance or the DB instance is faulty.	该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。	检查实例状态或实例正在进行的操作是否和请求冲突。
409	DBS.201205	Backup is in progress, please wait.	正在备份中，请稍等。	实例正在备份中，等待备份完成后重试操作。
409	DBS.212006	Another operation is being performed on the DB instance or the DB instance is faulty.	该实例正在进行其它操作或该实例故障，无法执行该操作，请稍后重试。	检查实例状态或实例正在进行的操作是否和请求冲突。
409	DBS.280406	Operation not allowed by the DB instance type or status.	实例类型或状态受限，操作不允许。	操作不允许，可能是实例类型错误或实例状态不允许，请检查实例类型和实例状态。

状态码	错误码	错误信息	描述	处理措施
413	DBS.200046	The number of DB instances has reached the quota.	实例数量达到配额。	实例数量配额达到限制，请联系管理员调整配额。
413	DBS.290003	The number of DB instances has reached the quota.	实例数量达到配额。	实例数量配额达到限制，请联系管理员调整配额。
422	DBS.212019	The parameter cannot be processed.	请求中的参数或对象不能被正确识别。	请求参数错误，请检查参数合法性。
500	DBS.108000	Server failure.	服务器错误。	服务内部错误，请联系客服。
500	DBS.108002	Server failure.	服务器错误。	服务内部错误，请联系客服。
500	DBS.108005	Server failure.	服务器错误。	服务内部错误，请联系客服。
500	DBS.200005	Server failure.	服务器错误。	服务内部错误，请联系客服。
500	DBS.200208	Server failure.	服务器错误。	服务内部错误，请联系客服。
500	DBS.200811	Failed to create the database.	创建数据库失败。	检查失败原因，可能是资源不足，请联系客服。
500	DBS.200821	Failed to modify database user permissions.	修改数据库用户权限失败。	可能是操作状态校验拦截，请重试。
500	DBS.213002	Failed to process the request.	请求处理失败。	服务内部错误，请联系客服。
500	DBS.213004	Failed to process the request.	请求处理失败。	服务内部错误，请联系客服。
500	DBS.290006	Failed to process the request.	请求处理失败。	服务内部错误，请联系客服。

状态码	错误码	错误信息	描述	处理措施
500	DBS.290015	Failed to process the request.	请求处理失败。	服务内部错误，请联系客服。

## 7.4 获取项目 ID

### 操作场景

在调用接口的时候，部分URL中需要填入项目编号，所以需要获取到项目编号。有如下两种获取方式：

- [调用API获取项目ID](#)
- [从控制台获取项目ID](#)

### 调用 API 获取项目 ID

项目ID可以通过调用[查询指定条件下的项目信息](#)API获取。

获取项目ID的接口为“GET https://{Endpoint}/v3/projects”，其中{Endpoint}为IAM的终端节点，可以从[地区和终端节点](#)获取。接口的认证鉴权请参见[认证鉴权](#)。

响应示例如下，其中projects下的“id”即为项目ID。

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

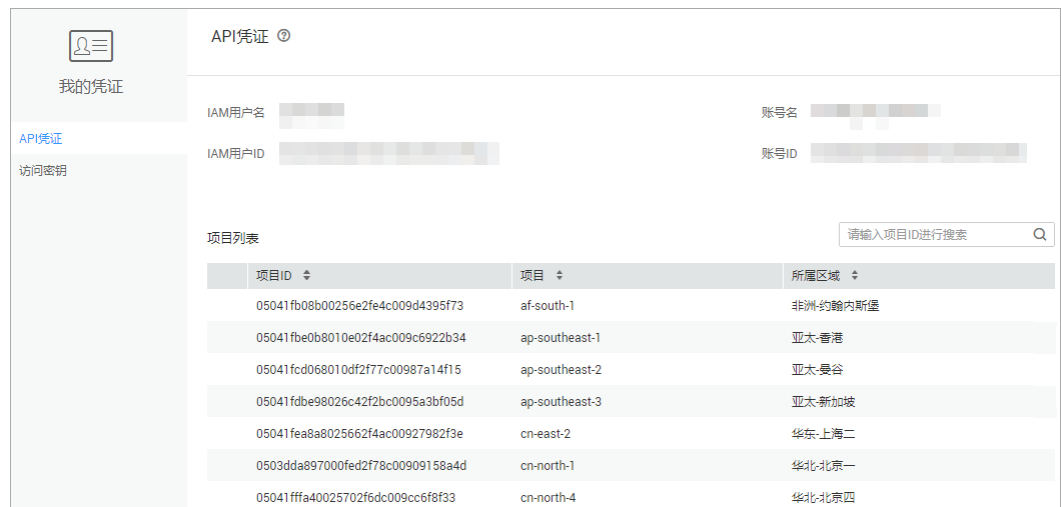
### 从控制台获取项目 ID

**步骤1** 注册并登录管理控制台。

**步骤2** 鼠标悬停在右上角的用户名，选择下拉列表中“我的凭证”。

在“API凭证”页面的项目列表中查看项目ID。

图 7-1 查看项目 ID



----结束

## 7.5 云数据库 GaussDB(for MySQL)监控指标说明

### 功能说明

本节定义了云数据库GaussDB(for MySQL)上报云监控的监控指标的命名空间，监控指标列表和维度定义，用户可以通过云监控提供的API接口来检索云数据库GaussDB(for MySQL)产生的监控指标和告警信息。

### 命名空间

SYS.GAUSSDB

### 监控指标

表 7-3 监控指标说明

指标	指标名称	含义	取值范围	备注
gaussdb_mysql001_cpu_util	CPU使用率	该指标用于统计测量对象的CPU利用率。	0 ~ 100%	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql002_mem_util	内存使用率	该指标用于统计测量对象的内存利用率。	0 ~ 100%	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例

指标	指标名称	含义	取值范围	备注
gaussdb_mysql004_bytes_in	网络输入吞吐量	该指标用于统计平均每秒从测量对象的所有网络适配器输入的流量。	≥0 Bytes/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql005_bytes_out	网络输出吞吐量	该指标用于统计平均每秒从测量对象的所有网络适配器输出的流量。	≥0 Bytes/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql006_conn_count	数据库总连接数	该指标用于统计连接到MySQL服务器的总连接数。	≥0 Connections	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql007_conn_active_count	当前活跃连接数	该指标用于统计当前活跃的连接数。	≥0 Connections	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql008_qps	QPS	该指标用于统计SQL语句查询次数，包含DDL，DML，SHOW语句，SET语句和存储过程。	≥0 Times/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql009_tps	TPS	该指标用于统计平均每秒事务执行次数，包含提交的和回退的。	≥0 Times/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql010_innodb_buf_usage	缓冲池利用率	该指标用于统计使用的页与InnoDB缓存中数据页总数比例。	0 ~ 100%	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql011_innodb_buf_hit	缓冲池命中率	该指标用于统计该段时间读命中与读请求数比例。	0 ~ 100%	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例



指标	指标名称	含义	取值范围	备注
gaussdb_mysql012_innodb_buf_dirty	缓冲池脏块率	该指标用于统计InnoDB缓存中脏数据与数据比例。	0 ~ 100%	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql013_innodb_reads	InnoDB读取吞吐量	该指标用于统计InnoDB平均每秒读字节数。	≥0 Bytes/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql014_innodb_writes	InnoDB写入吞吐量	该指标用于统计InnoDB平均每秒写字节数。	≥0 Bytes/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql017_innodb_log_write_req_count	InnoDB日志写请求频率	该指标用于统计平均每秒的日志写请求数。	≥0 Requests/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql020_temp_tbl_count	临时表数量	该指标用于统计MySQL执行语句时在硬盘上自动创建的临时表的数量。	≥0 Tables	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql028_comdml_del_count	Delete语句执行频率	该指标用于统计平均每秒Delete语句执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql029_comdml_ins_count	Insert语句执行频率	该指标用于统计平均每秒Insert语句执行次数。	≥0 Statement s/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql030_comdml_ins_sel_count	Insert_Select语句执行频率	该指标用于统计平均每秒Insert_Select语句执行次数。	≥0 Statement s/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例

指标	指标名称	含义	取值范围	备注
gaussdb_mysql031_comdml_rep_count	Replace 语句执行频率	该指标用于统计平均每秒 Replace 语句执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql032_comdml_rep_sel_count	Replace_Selection 语句执行频率	该指标用于统计平均每秒 Replace_Selection 语句执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql033_comdml_sel_count	Select 语句执行频率	该指标用于统计平均每秒 Select 语句执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql034_comdml_upd_count	Update 语句执行频率	该指标用于统计平均每秒 Update 语句执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql035_innodb_delete_row_count	行删除速率	该指标用于统计平均每秒从 InnoDB 表删除的行数。	≥0 Rows/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql036_innodb_inserts_row_count	行插入速率	该指标用于统计平均每秒向 InnoDB 表插入的行数。	≥0 Rows/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql037_innodb_read_row_count	行读取速率	该指标用于统计平均每秒从 InnoDB 表读取的行数。	≥0 Rows/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql038_innodb_update_row_count	行更新速率	该指标用于统计平均每秒向 InnoDB 表更新的行数。	≥0 Rows/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例

指标	指标名称	含义	取值范围	备注
gaussdb_mysql048_disk_used_size	磁盘使用量	该指标用于统计测量对象的磁盘使用大小。	0GB ~ 128TB	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql072_conn_usage	连接数使用率	该指标用于统计当前已用的MySQL连接数占最大连接数的百分比。	0~100%	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql074_slow_queries	慢日志个数统计	该指标展示每分钟MySQL产生慢日志的数量。	≥0 Queries/min	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql077_replication_delay	数据同步延迟	该指标用于采集主备实例的数据同步延迟时间。	≥0 s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql104_dfv_write_delay	存储写时延	该指标用于统计某段时间写入数据到存储层的平均时延。	≥0 ms	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql105_dfv_read_delay	存储读时延	该指标用于统计某段时间从存储层读取数据的平均时延。	≥0 ms	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql106_innodb_row_lock_current_waits	InnoDB行锁数量	该指标用于采集InnoDB表上的操作当前正在等待的行锁数量。	≥0 Locks	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql107_comdml_ins_and_ins_sel_count	Insert和Insert_Select语句执行频率	该指标用于统计平均每秒Insert和Insert_Select语句的执行次数。	≥0 Statement s/s	测量对象：弹性云服务器 监控实例类型：GaussDB(for MySQL)实例

指标	指标名称	含义	取值范围	备注
gaussdb_mysql108_com_commit_count	Commit语句执行频率	该指标用于统计平均每每秒Commit语句的执行次数。	≥0 Statement s/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql109_com_rollback_count	Rollback语句执行频率	该指标用于统计平均每每秒Rollback语句的执行次数。	≥0 Statement s/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql110_innodb_bufferpool_reads	InnoDB存储层读请求频率	该指标用于统计平均每每秒InnoDB从存储层读取数据的请求次数。	≥0 Times/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql111_innodb_bufferpool_read_requests	InnoDB读请求频率	该指标用于统计平均每每秒InnoDB读取数据的请求次数。	≥0 Requests/s	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql114_innodb_bufferpool_read_ahead	innodb顺序预读页数	该指标用于统计innodb顺序预读页数。	≥0 Pages	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql115_innodb_bufferpool_read_ahead_evicted	innodb顺序预读，但未访问过的页数	该指标用于统计innodb顺序预读，但未访问过的页数。	≥0 Pages	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql116_innodb_bufferpool_read_ahead_rnd	innodb随机预读页数	该指标用于统计innodb随机预读页数。	≥0 Read-aheads	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例
gaussdb_mysql117_innodb_pages_read	innodb读取物理page的数量	该指标用于统计innodb读取物理page的数量。	≥0 Pages	测量对象：数据库 监控实例类型：GaussDB(for MySQL)实例

指标	指标名称	含义	取值范围	备注
gaussdb_mysql118_innodb_pages_written	innodb 写入物理page的数量	该指标用于统计innodb 写入物理page的数量。	≥0 Pages	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql019_innodb_log_writes	innodb log buffer 写入log file的总次数	该指标用于统计对 InnoDB redo log文件的物理写入次数。	≥0 Writes	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql342_iostat_iops_write	IO写 IOPS	该指标用于采集磁盘每秒写次数。	≥0 Operation s/s	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql344_iostat_iops_read	IO读 IOPS	该指标用于采集磁盘每秒读次数。	≥0 Operation s/s	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql346_iostat_throughput_write	IO写带宽	该指标用于采集磁盘每秒写带宽。	≥0 Bytes/s	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql348_iostat_throughput_read	IO读带宽	该指标用于采集磁盘每秒读带宽。	≥0 Bytes/s	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例
gaussdb_mysql119_disk_usage_ratio	磁盘使用率	该指标用于统计磁盘的使用率。	0~100%	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例 1分钟
gaussdb_mysql371_taurus_binlog_total_file_counts	Binlog 文件个数	该指标用于统计 GaussDB(for MySQL)Binlog文件数量。	≥0	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例 5分钟

指标	指标名称	含义	取值范围	备注
gaussdb_mysql378_create_temp_tbl_per_min	临时表每分钟创建数	该指标用于统计 GaussDB(for MySQL) 执行语句时在硬盘上每分钟自动创建的临时表的数量。	≥0 Tables/min	测量对象：数据库 监控实例类型： GaussDB(for MySQL)实例 1分钟

## 维度

Key	Value
gaussdb_mysql_instance_id	GaussDB(for MySQL)实例ID。
gaussdb_mysql_node_id	GaussDB(for MySQL)实例下的节点ID。