Cloud Firewall (CFW)

API Reference

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Contents

1 Before You Start

1.1 Overview

Cloud Firewall (CFW) is a next-generation cloud-native firewall. It protects Internet and VPC borders on the cloud by real-time intrusion detection and prevention, global unified access control, full traffic analysis, log audit, and tracing. It employs AI for intelligent defense, and can be elastically scaled to meet changing business needs, helping you easily handle security threats. CFW is a basic service that provides network security protection for user services on the cloud.

This document describes how to use application programming interfaces (APIs) to perform operations on CFW, such as querying and updating.

If you plan to access CFW through an API, ensure that you are familiar with CFW. For more information, see **What Is CFW?**

1.2 API Calling

CFW provides Representational State Transfer (REST) APIs, allowing you to use HTTPS requests to call them. For details, see **API Calling**.

1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see **Regions and Endpoints**.

1.4 Concepts

- Account

  An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity and should not be used directly to perform routine management. For security purposes, create users and grant them permissions for routine management.

- User

  A user is created using a domain to use cloud services. Each user has its own identity credentials (password and access keys).

- Region

  Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified as universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides services of the same type only or for specific tenants.

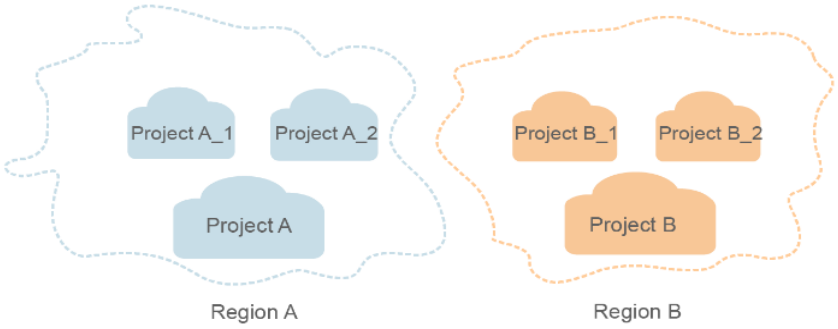
- Availability Zone (AZ)

  An AZ comprises one or multiple physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Compute, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.

- Project

  A project corresponds to a region. Projects group and isolate resources (including compute, storage, and network resources) across physical regions. Users can be granted permissions in a default project to access all resources in the region associated with the project. For more refined access control, create subprojects under a project and purchase resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

  Figure 1-1 Project isolation model



2 API Overview

You can use all functions of CFW through its APIs.

Type	Description
Firewall Management	This API is used to query firewall information, including querying the firewall list, querying firewall details, and modifying firewall protection status.
EIP Management	This API is used to manage EIPs, including enabling or disabling EIPs, querying the number of EIPs, and querying the EIP list.
Network ACL Rule Management	This API is used to manage ACL rules, including creating, updating, and deleting ACL rules.
Blacklist/Whitelist Management	This API is used to manage blacklists and whitelists, including creating, updating, and deleting items in blacklists and whitelists.
Address Group Management	This API is used to manage address groups, including adding, querying, and updating address groups.
Service Group Management	This API is used to manage service groups, including adding, querying, and modifying service groups.
Domain Name Resolution and Domain Name Group Management	This API is used to manage domain groups, including adding, querying, and updating domain groups.
IPS Management	This API is used to manage the IPS switch, including querying the IPS status, IPS switch, and protection mode.
Log Management	This API is used to manage logs, including querying API of three types of logs.

3 API Calling

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

Request URI

A request URI is in the following format:

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

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

- **URI-scheme**:

  Protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint**:

  Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**.

  For example, the endpoint of IAM in region **CN-Hong Kong** is **iam.ap-southeast-1.myhuaweicloud.com**.
- **resource-path**:

  Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
- **query-string**:

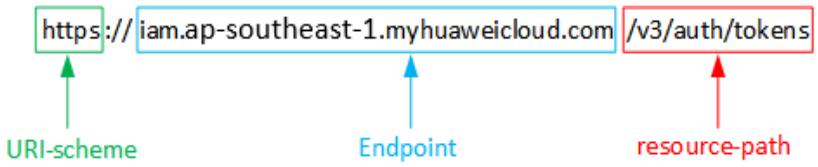
  Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "Parameter name=Parameter value". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com)) for this region and

the **resource-path** (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Figure 3-1 Example URI



NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server:

- **GET**: requests the server to return specified resources.
- **PUT**: requests the server to update specified resources.
- **POST**: requests the server to add resources or perform special operations.
- **DELETE**: requests the server to delete specified resources, for example, an object.
- **HEAD**: same as GET except that the server must return only the response header.
- **PATCH**: requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to **obtain a user token**, the request method is POST. The request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows:

- **Content-Type**: specifies the request body type or format. This field is mandatory and its default value is **application/json**. Other values of this field will be provided for specific APIs if any.
- **X-Auth-Token**: specifies a user token only for token-based API authentication. The user token is a response to the API used to **obtain a user token**. This API is the only one that does not require authentication.

> **NOTE**
>
> In addition to supporting token-based authentication, APIs also support authentication using access key ID/secret access key (AK/SK). During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.
>
> For more information, see **AK/SK-based Authentication**.

The API used to **obtain a user token** does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

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

Request Body

The body of a request is often sent in a structured format as specified in the **Content-Type** header field. The request body transfers content except the request header.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Set ***username*** to the name of a user, ***domainname*** to the name of the account that the user belongs to, ********* to the user's login password, and ***xxxxxxxxxxxxxxxxx*** to the project name. You can learn more information about projects from **Regions and Endpoints**. Check the value of the **Region** column.

> **NOTE**
>
> The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see **Obtaining a User Token**.

```
POST https://iam.ap-southeast-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": "xxxxxxxxxxxxxxxxx"
            }
        }
```

```
    }
}
```

If all data required for the API request is available, you can send the request to call the API through **curl**, **Postman**, or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. This method is recommended because it provides higher security than token-based authentication.

Token-based Authentication

NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

The token can be obtained by calling the required API. For more information, see **Obtaining a User Token**. A project-level token is required for calling this API, that is, **auth.scope** must be set to **project** in the request body. Example:

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

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

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

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests and use the signing SDK, see **API Signature Guide**.

NOTICE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

3.3 Returned Values

Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see **Status Code**.

For example, if status code **201** is returned for calling the API used to **obtain a user token**, the request is successful.

Response Header

A response header corresponds to a request header, for example, **Content-Type**.

Figure 3-2 shows the response header for the API of **obtaining a user token**, in which **x-subject-token** is the desired user token. Then, you can use the token to authenticate the calling of other APIs.

Figure 3-2 Header of the response to the request for obtaining a user token

(Optional) Response Body

A response body is generally returned in a structured format, corresponding to the **Content-Type** in the response header, and is used to transfer content other than the response header.

The following shows part of the response body for the API to **obtain a user token**. For the sake of space, only part of the content is displayed here.

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

If an error occurs during API calling, the system returns an error code and a message to you. The following shows the format of an error response body:

```
{
    "error": {
        "message": "The request you have made requires authentication.",
        "title": "Unauthorized"
    }
}
```

In the preceding information, **error_code** is an error code, and **error_msg** describes the error.

4 API

4.1 Firewall Management

4.1.1 Create Firewall

Function

This API is used to create firewall.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/firewall

Table 4-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.
X-Client-Token	No	String	An identity that guarantees the idempotency of client requests. The identifier is in 32-bit UUID format, generated by the client, and must be unique between requests.
X-Trace-Id	No	String	

Table 4-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Firewall Name
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project. Default: **0**
tags	No	Array of **tags** objects	Resource Tag
flavor	No	**flavor** object	flavor
charge_info	Yes	**charge_info** object	Billing type information, prepaid and postpaid, the default is postpaid.

Table 4-4 tags

Parameter	Mandatory	Type	Description
key	Yes	String	Tag Key
value	Yes	String	Tag Value

Table 4-5 flavor

Parameter	Mandatory	Type	Description
version	No	String	Firewall version: If charge_mode is set to prePaid, only the Professional Edition is supported, and when charge_mode is set to postPaid, the Standard and Professional Editions are supported. Enumeration values: • **Standard** • **Professional**
extend_eip_count	No	Integer	Expand the number of EIPs and take effect only in the prepaid mode. Minimum: **0** Maximum: **2000** Default: **0**
extend_bandwidth	No	Integer	Expand band width and take effect only in the prepaid mode. Minimum: **0** Maximum: **5000**
extend_vpc_count	No	Integer	Expand the number of VPCs and take effect only in the prepaid mode. Minimum: **0** Maximum: **100**

Table 4-6 charge_info

Parameter	Mandatory	Type	Description
charge_mode	Yes	String	The billing mode can be prepaid, i.e., yearly/monthly, and postPaid: postpaid, i.e., pay-per-use.
period_type	No	String	The value range of the subscription cycle,include monthly and yearly. Note: This parameter takes effect when charge_mode is set to prePaid, and the value is required.

Parameter	Mandatory	Type	Description
period_num	No	Integer	the time of the subscription, take effect when charge_mode is prePaid and it is required, value range: 1~9 when period_type is set to month, and 1~3 when period_type is set to year.
is_auto_renew	Yes	Boolean	whether the firewall instance is auto renewed Default: **false**
is_auto_pay	Yes	Boolean	whether the firewall instance is auto paid Default: **false**

Response Parameters

Status code: 200

Table 4-7 Response body parameters

Parameter	Type	Description
job_id	String	The job id, created when the firewall instance is created, which is returned only when the billing mode is postpaid.
order_id	String	Order id,which is returned when the firewall instance is created.
data	**CreateFirewallReq** object	Create Firewall Request

Table 4-8 CreateFirewallReq

Parameter	Type	Description
name	String	Firewall Name
enterprise_project_id	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project. Default: **0**
tags	Array of **tags** objects	Resource Tag

Parameter	Type	Description
flavor	**flavor** object	flavor
charge_info	**charge_info** object	Billing type information, prepaid and postpaid, the default is postpaid.

Table 4-9 tags

Parameter	Type	Description
key	String	Tag Key
value	String	Tag Value

Table 4-10 flavor

Parameter	Type	Description
version	String	Firewall version: If charge_mode is set to prePaid, only the Professional Edition is supported, and when charge_mode is set to postPaid, the Standard and Professional Editions are supported. Enumeration values: • **Standard** • **Professional**
extend_eip_count	Integer	Expand the number of EIPs and take effect only in the prepaid mode. Minimum: **0** Maximum: **2000** Default: **0**
extend_bandwidth	Integer	Expand band width and take effect only in the prepaid mode. Minimum: **0** Maximum: **5000**
extend_vpc_count	Integer	Expand the number of VPCs and take effect only in the prepaid mode. Minimum: **0** Maximum: **100**

Table 4-11 charge_info

Parameter	Type	Description
charge_mode	String	The billing mode can be prepaid, i.e., yearly/monthly, and postPaid: postpaid, i.e., pay-per-use.
period_type	String	The value range of the subscription cycle,include monthly and yearly. Note: This parameter takes effect when charge_mode is set to prePaid, and the value is required.
period_num	Integer	the time of the subscription, take effect when charge_mode is prePaid and it is required, value range: 1~9 when period_type is set to month, and 1~3 when period_type is set to year.
is_auto_renew	Boolean	whether the firewall instance is auto renewed Default: **false**
is_auto_pay	Boolean	whether the firewall instance is auto paid Default: **false**

Status code: 400

Table 4-12 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Enable a standard firewall with 2000 extended EIP, 5,000 Mbps extended protection bandwidth, 100 extended protection VCPs under a monthly billing auto-renewal model.

```
https://{Endpoint}/v2/124147da-5b08-471a-93d2-bc82acc290c6/firewall

{
  "name" : "CFW-TEST",
  "enterprise_project_id" : "0",
  "tags" : [ {
    "key" : "TagKey",
```



```
    "value" : "TagVal"
  } ],
  "flavor" : {
    "version" : "standard",
    "extend_eip_count" : 2000,
    "extend_bandwidth" : 5000,
    "extend_vpc_count" : 100
  },
  "charge_info" : {
    "charge_mode" : "prePaid",
    "period_type" : "month",
    "period_num" : 1,
    "is_auto_renew" : true,
    "is_auto_pay" : true
  }
}
```

Example Responses

Status code: 200

Create Firewall Response

```
{
  "data" : {
    "charge_info" : {
      "charge_mode" : "prePaid",
      "is_auto_pay" : true,
      "is_auto_renew" : true,
      "period_num" : 1,
      "period_type" : "month"
    },
    "enterprise_project_id" : "0",
    "flavor" : {
      "extend_bandwidth" : 5000,
      "extend_eip_count" : 2000,
      "extend_vpc_count" : 100,
      "version" : "Standard"
    },
    "name" : "CFW-TEST",
    "tags" : [ {
      "key" : "TagKey",
      "value" : "TagVal"
    } ]
  },
  "order_id" : "CS2403271050ZEM0L"
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00100001",
  "error_msg" : "The system is busy. Please try again later."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Enable a standard firewall with 2000 extended EIP, 5,000 Mbps extended protection bandwidth, 100 extended protection VCPs under a monthly billing auto-renewal model.


```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class CreateFirewallSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateFirewallRequest request = new CreateFirewallRequest();
        CreateFirewallReq body = new CreateFirewallReq();
        CreateFirewallReqChargeInfo chargeInfobody = new CreateFirewallReqChargeInfo();
        chargeInfobody.withChargeMode("prePaid")
            .withPeriodType("month")
            .withPeriodNum(1)
            .withIsAutoRenew(true)
            .withIsAutoPay(true);
        CreateFirewallReqFlavor flavorbody = new CreateFirewallReqFlavor();
        flavorbody.withVersion(CreateFirewallReqFlavor.VersionEnum.fromValue("standard"))
            .withExtendEipCount(2000)
            .withExtendBandwidth(5000)
            .withExtendVpcCount(100);
        List<CreateFirewallReqTags> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new CreateFirewallReqTags()
                .withKey("TagKey")
                .withValue("TagVal")
        );
        body.withChargeInfo(chargeInfobody);
        body.withFlavor(flavorbody);
        body.withTags(listbodyTags);
        body.withEnterpriseProjectId("0");
        body.withName("CFW-TEST");
        request.withBody(body);
        try {
            CreateFirewallResponse response = client.createFirewall(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

Enable a standard firewall with 2000 extended EIP, 5,000 Mbps extended protection bandwidth, 100 extended protection VCPs under a monthly billing auto-renewal model.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateFirewallRequest()
        chargeInfobody = CreateFirewallReqChargeInfo(
            charge_mode="prePaid",
            period_type="month",
            period_num=1,
            is_auto_renew=True,
            is_auto_pay=True
        )
        flavorbody = CreateFirewallReqFlavor(
            version="standard",
            extend_eip_count=2000,
            extend_bandwidth=5000,
            extend_vpc_count=100
        )
        listTagsbody = [
            CreateFirewallReqTags(
                key="TagKey",
                value="TagVal"
            )
        ]
        request.body = CreateFirewallReq(
            charge_info=chargeInfobody,
            flavor=flavorbody,
            tags=listTagsbody,
            enterprise_project_id="0",
            name="CFW-TEST"
        )
        response = client.create_firewall(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

Enable a standard firewall with 2000 extended EIP, 5,000 Mbps extended protection bandwidth, 100 extended protection VCPs under a monthly billing auto-renewal model.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateFirewallRequest{}
    periodTypeChargeInfo:= "month"
    periodNumChargeInfo:= int32(1)
    chargeInfobody := &model.CreateFirewallReqChargeInfo{
        ChargeMode: "prePaid",
        PeriodType: &periodTypeChargeInfo,
        PeriodNum: &periodNumChargeInfo,
        IsAutoRenew: true,
        IsAutoPay: true,
    }
    versionFlavor:= model.GetCreateFirewallReqFlavorVersionEnum().STANDARD
    extendEipCountFlavor:= int32(2000)
    extendBandwidthFlavor:= int32(5000)
    extendVpcCountFlavor:= int32(100)
    flavorbody := &model.CreateFirewallReqFlavor{
        Version: &versionFlavor,
        ExtendEipCount: &extendEipCountFlavor,
        ExtendBandwidth: &extendBandwidthFlavor,
        ExtendVpcCount: &extendVpcCountFlavor,
    }
    var listTagsbody = []model.CreateFirewallReqTags{
        {
            Key: "TagKey",
            Value: "TagVal",
        },
    }
    enterpriseProjectIdCreateFirewallReq:= "0"
    request.Body = &model.CreateFirewallReq{
        ChargeInfo: chargeInfobody,
```



```
        Flavor: flavorbody,
        Tags: &listTagsbody,
        EnterpriseProjectId: &enterpriseProjectIdCreateFirewallReq,
        Name: "CFW-TEST",
    }
    response, err := client.CreateFirewall(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Create Firewall Response
400	Bad Request

Error Codes

See **Error Codes**.

4.1.2 List Job Status

Function

This API is used to obtain job status.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/{project_id}/jobs/{job_id}

Table 4-13 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
job_id	Yes	String	job id

Request Parameters

Table 4-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-15 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**
data	**data** object	Job Result

Table 4-16 data

Parameter	Type	Description
id	String	Job Id
status	String	Job execution status. Running means the job is being executed, Success means the job is successful, Failed means the job is failed. Enumeration values: • **Running** • **Success** • **Failed**

Parameter	Type	Description
begin_time	String	Creation time, in the format yyyy-mm-ddThh:mm:ssZ. where T refers to the beginning of a certain time; Z refers to the time zone offset, for example, the Beijing time offset is displayed as +0800.
end_time	String	End time, in the format "yyyy-mm-ddThh:mm:ssZ". where T refers to the beginning of a certain time; Z refers to the time zone offset, for example, the Beijing time offset is displayed as +0800.

Example Requests

Get job status of the job which job id is f588ce71-e26c-400d-8981-f854355f6849 and project id is 09bb24e6fe80d23d2fa2c010b53b418c.

```
/v3/09bb24e6fe80d23d2fa2c010b53b418c/jobs/f588ce71-e26c-400d-8981-f854355f6849
```

Example Responses

Status code: 200

Get Job Response

```
{
  "data" : {
    "begin_time" : 1641370501000,
    "end_time" : 1641370515000,
    "id" : "f588ce71-e26c-400d-8981-f854355f6849",
    "status" : "Success"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListJobSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListJobRequest request = new ListJobRequest();
        try {
            ListJobResponse response = client.listJob(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListJobRequest()
        response = client.list_job(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Get Job Response

Error Codes

See **Error Codes**.

4.1.3 Delete firewall instance

Function

Delete firewall instance,only postpaid mode is supported.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/firewall/{resource_id}

Table 4-17 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
resource_id	Yes	String	Resource Id

Request Parameters

Table 4-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-19 Response body parameters

Parameter	Type	Description
data	String	Delete Firewall Response

Example Requests

Delete firewall whose firewall instance id is 08065281-860a-4c98-aeb5-82cf65c44c46c46 and project id is 06217ebc876e427a80a2c05d51264ab1.

```
https://{Endpoint}/v2/06217ebc876e427a80a2c05d51264ab1/firewall/08065281-860a-4c98-aeb5-82cf65c44c46
```

Example Responses

Status code: 200

Delete Firewall Response

```
{
  "data" : "56884cd0-cf3c-4cb7-bbeb-59d8722a2671"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteFirewallSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteFirewallRequest request = new DeleteFirewallRequest();
        try {
            DeleteFirewallResponse response = client.deleteFirewall(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteFirewallRequest()
        response = client.delete_firewall(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteFirewallRequest{}
    response, err := client.DeleteFirewall(request)
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Delete Firewall Response

Error Codes

See **Error Codes**.

4.1.4 list firewall list

Function

list firewall list

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/firewalls/list

Table 4-20 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-21 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-23 Request body parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
key_word	No	String	key
tags	No	Array of **TagInfo** objects	tags
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.

Table 4-24 TagInfo

Parameter	Mandatory	Type	Description
key	No	String	key
values	No	Array of strings	tag values

Response Parameters

Status code: 200

Table 4-25 Response body parameters

Parameter	Type	Description
user_support_eps	Boolean	Whether to enable eps. The options are true (yes) and false (no).
has_ndr	Boolean	Whether NDR exists
is_support_postpaid	Boolean	Whether postpaid is supported
is_support_basic_version	Boolean	Whether basic version is supported
is_support_buy_professional	Boolean	Whether professional version firewall is supported to buy
data	**HttpFirewallInstanceListResponseData** object	query firewall instance list response

Table 4-26 HttpFirewallInstanceListResponseData

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
project_id	String	project ID
total	Integer	total

Parameter	Type	Description
records	Array of **FirewallInstanceVO** objects	query firewall isntance list

Table 4-27 FirewallInstanceVO

Parameter	Type	Description
fw_instance_id	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
resource_id	String	resource id
name	String	name
fw_instance_name	String	firewall instance name
enterprise_project_id	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
ha_type	Integer	ha type
charge_mode	Integer	Billing mode 0: Yearly/monthly subscription 1: On-demand
service_type	Integer	service type
engine_type	Integer	
flavor	**Flavor** object	flavor

Parameter	Type	Description
status	Integer	Firewall status list. The options are as follows: -1: waiting for payment; 0: creating; 1: deleting; 2: running; 3: upgrading; 4: deletion completed; 5: freezing; 6: creation failed; 7: deletion failed; 8: freezing failed; 9: storage in progress; 10: storage failed; 11: upgrade failed
tags	String	tags

Table 4-28 Flavor

Parameter	Type	Description
version	Integer	Firewall version. The value can be 0 (standard edition), 1 (professional edition), 2 (platinum edition), or 3 (basic edition). Enumeration values: • **0** • **1** • **2** • **3**
eip_count	Integer	Number of EIPs Minimum: **1**
vpc_count	Integer	Number of VPCs Minimum: **1**
bandwidth	Integer	Bandwidth Minimum: **1**
log_storage	Integer	Log storage
session_concurrent	Integer	concurrent session
session_create	Integer	created session
total_rule_count	Integer	total rule count
used_rule_count	Integer	used rule count
vpc_bandwith	Integer	vpc bandwith
default_bandwidth	Integer	default bandwidth

Parameter	Type	Description
default_eip_count	Integer	default eip count
default_log_storage	Integer	default log storage
default_vpc_count	Integer	default vpc count

Example Requests

Query the firewall list on the first page of the enterprise project whose ID is all_granted_eps and project ID is 14181c1245cf4fd786824efe1e2b9388.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/firewalls/list?
enterprise_project_id=all_granted_eps

{
  "limit" : 10,
  "offset" : 0
}
```

Example Responses

Status code: 200

list firewall list response

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "project_id" : "14181c1245cf4fd786824efe1e2b9388",
    "records" : [ {
      "charge_mode" : 0,
      "engine_type" : 1,
      "enterprise_project_id" : "default",
      "flavor" : {
        "bandwidth" : 60,
        "eip_count" : 51,
        "log_storage" : 0,
        "version" : 1,
        "vpc_count" : 8,
        "default_eip_count" : 20,
        "default_vpc_count" : 0,
        "default_bandwidth" : 10,
        "default_log_storage" : 0
      },
      "fw_instance_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
      "fw_instance_name" : "test",
      "ha_type" : 1,
      "name" : "1680054140516",
      "resource_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
      "service_type" : 0,
      "status" : 2,
      "tags" : "{\"key1234\":\"1234\",\"key122\":\"2222\"}"
    } ],
    "total" : 1
  },
  "user_support_eps" : false,
```

```
  "has_ndr" : false,
  "is_support_postpaid" : false,
  "is_support_basic_version" : false,
  "is_support_buy_professional" : false
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query the firewall list on the first page of the enterprise project whose ID is all_granted_eps and project ID is 14181c1245cf4fd786824efe1e2b9388.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListFirewallListSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListFirewallListRequest request = new ListFirewallListRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        QueryFireWallInstanceDto body = new QueryFireWallInstanceDto();
        body.withOffset(0);
        body.withLimit(10);
        request.withBody(body);
        try {
            ListFirewallListResponse response = client.listFirewallList(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

Query the firewall list on the first page of the enterprise project whose ID is all_granted_eps and project ID is 14181c1245cf4fd786824efe1e2b9388.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListFirewallListRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.body = QueryFireWallInstanceDto(
            offset=0,
            limit=10
        )
        response = client.list_firewall_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

Query the firewall list on the first page of the enterprise project whose ID is all_granted_eps and project ID is 14181c1245cf4fd786824efe1e2b9388.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListFirewallListRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.Body = &model.QueryFireWallInstanceDto{
        Offset: int32(0),
        Limit: int32(10),
    }
    response, err := client.ListFirewallList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	list firewall list response

Error Codes

See **Error Codes**.

4.1.5 Obtaining East-West Firewall Information

Function

This API is used to obtain east-west firewall information.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/firewall/east-west

Table 4-29 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-30 Query Parameters

Parameter	Mandatory	Type	Description
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-31 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-32 Response body parameters

Parameter	Type	Description
data	**GetEastWestFirewallResponseBody** object	Get east west firewall data response

Table 4-33 GetEastWestFirewallResponseBody

Parameter	Type	Description
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
project_id	String	Project ID
status	Integer	Protection status. The value can be 0 (protection enabled) or 1 (protection disabled).
er_associated_subnet	**SubnetInfo** object	Information about the subnet associated with ER

Parameter	Type	Description
firewall_associated_subnets	Array of **SubnetInfo** objects	Subnet associated with CFW
er	**ErInstance** object	Information about the associated outbound enterprise router
inspection_vpc	**VpcDetail** object	Monitoring VPC information
protect_infos	Array of **EwProtectResourceInfo** objects	East-west protection resource information
total	Integer	Total number of protected VPCs
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
mode	String	mode
ew_vpc_route_limit	Integer	east west vpc route limit

Table 4-34 SubnetInfo

Parameter	Type	Description
availability_zone	String	Subnet ID
cidr	String	vpc cidr
name	String	Subnet name
id	String	Subnet ID
gateway_ip	String	Subnet gateway IP address
vpc_id	String	vpc id
status	String	Subnet status
ipv6_enable	Boolean	Whether IPv6 is supported. The value true indicates yes and the value false indicates no.

Table 4-35 ErInstance

Parameter	Type	Description
id	String	ER instance ID
name	String	ER name
state	String	ER status
enterprise_project_id	String	Enterprise user ID
project_id	String	User ID
enable_ipv6	String	Whether to enable IPv6

Table 4-36 VpcDetail

Parameter	Type	Description
id	String	id
name	String	Name
cidr	String	vpc cidr
status	String	Status

Table 4-37 EwProtectResourceInfo

Parameter	Type	Description
protected_resource_type	Integer	Protection resource type. The value can be 0 (VPC) or 1 (VGW).
protected_resource_name	String	Protected resource name
protected_resource_id	String	Protected resource ID
protected_resource_nat_name	String	Name of the NAT gateway of the protected resource
protected_resource_nat_id	String	ID of the NAT gateway of the protected resource
protected_resource_project_id	String	Tenant ID of the protected resource

Parameter	Type	Description
protected_resource_mode	String	protected resource mode
status	Integer	The protection status of the protected VPC, 0 indicates that it is associated, and 1 indicates that it is not associated.

Status code: 500

Table 4-38 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Obtain the east-west firewall information of the project whose ID is 09bb24e6f280d23d0f9fc0104b901480.

```
https://{Endpoint}/v1/09bb24e6f280d23d0f9fc0104b901480/firewall/east-west?limit=10&offset=0
```

Example Responses

Status code: 200

Response to the request for querying east-west firewall information

```
{
  "data" : {
    "ew_vpc_route_limit" : 5,
    "inspection_vpc" : {
      "cidr" : "10.90.90.0/24",
      "id" : "4471b50f-811a-4f9b-9575-a491e6c81dd0",
      "name" : "inspection-vpc"
    },
    "limit" : 50,
    "mode" : "peer",
    "object_id" : "5681ed03-ff3f-4dab-9bb1-daf388121ad1",
    "offset" : 0,
    "project_id" : "28f403ddd3f141daa6e046e85cb15519",
    "protect_infos" : [ {
      "protected_resource_id" : "4c51e814-03b5-4754-87cb-243701f5b4ff",
      "protected_resource_mode" : "peer",
      "protected_resource_name" : "vpc-c247",
      "protected_resource_project_id" : "28f403ddd3f141daa6e046e85cb15519",
```



```
    "protected_resource_type" : 0,
    "status" : 0
   }, {
    "protected_resource_id" : "af44c693-a13c-46a7-a6d2-eb2cb2570e57",
    "protected_resource_mode" : "peer",
    "protected_resource_name" : "vpc-10.1",
    "protected_resource_project_id" : "28f403ddd3f141daa6e046e85cb15519",
    "protected_resource_type" : 0,
    "status" : 0
   }, {
    "protected_resource_id" : "2ae53845-64b8-4cd5-bcbe-efb93a7c9207",
    "protected_resource_mode" : "peer",
    "protected_resource_name" : "vpc-test",
    "protected_resource_project_id" : "28f403ddd3f141daa6e046e85cb15519",
    "protected_resource_type" : 0,
    "status" : 1
   }, {
    "protected_resource_id" : "8a51174b-376b-40e5-8ccf-89d33703842b",
    "protected_resource_mode" : "peer",
    "protected_resource_name" : "vpc-a0c1",
    "protected_resource_project_id" : "28f403ddd3f141daa6e046e85cb15519",
    "protected_resource_type" : 0,
    "status" : 1
   }, {
    "protected_resource_id" : "9cccb096-31be-4d68-a7ee-156f0c947f0b",
    "protected_resource_mode" : "peer",
    "protected_resource_name" : "vpc-192.168",
    "protected_resource_project_id" : "28f403ddd3f141daa6e046e85cb15519",
    "protected_resource_type" : 0,
    "status" : 1
   } ],
   "status" : 0,
   "total" : 5
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListEastWestFirewallSolution {

    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);
```



```
        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListEastWestFirewallRequest request = new ListEastWestFirewallRequest();
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListEastWestFirewallResponse response = client.listEastWestFirewall(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListEastWestFirewallRequest()
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_east_west_firewall(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListEastWestFirewallRequest{}
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListEastWestFirewall(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for querying east-west firewall information
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.1.6 Create East West Firewall

Function

This API is used to create east west firewall.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/firewall/east-west

Table 4-39 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-40 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-41 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-42 Request body parameters

Parameter	Mandatory	Type	Description
er_id	No	String	Instance ID of the associated outbound ER
inspection_cidr	Yes	String	inspection cidr

Parameter	Mandatory	Type	Description
mode	Yes	String	east-west protection mode,only er mode is supported

Response Parameters

Status code: 200

Table 4-43 Response body parameters

Parameter	Type	Description
data	**IdObject** object	create east west firewall response

Table 4-44 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Example Requests

Create an east-west protection in ER mode under firewall 55b26ab5-e4b0-40e8-941c-a1778fe2a500, the project ID is 09bb24e6f280d23d0f9fc0104b901480, the inspection_cidr is 10.1.0.0/24, and the er_id is e0b22a23-02cf-4092-ace9-34b39e10dc77.

```
https://{Endpoint}/v1/09bb24e6f280d23d0f9fc0104b901480/firewall/east-west?fw_instance_id=55b26ab5-e4b0-40e8-941c-a1778fe2a500&enterprise_project_id=default

{
  "inspection_cidr" : "10.1.0.0/24",
  "mode" : "er",
  "er_id" : "e0b22a23-02cf-4092-ace9-34b39e10dc77"
}
```

Example Responses

Status code: 200

Create East West Firewall Response Body

```
{
  "data" : {
    "id" : "b6d4a7d5-388e-4594-b696-fb4bba1d2b9e"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create an east-west protection in ER mode under firewall 55b26ab5-e4b0-40e8-941c-a1778fe2a500, the project ID is 09bb24e6f280d23d0f9fc0104b901480, the inspection_cidr is 10.1.0.0/24, and the er_id is e0b22a23-02cf-4092-ace9-34b39e10dc77.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class CreateEastWestFirewallSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateEastWestFirewallRequest request = new CreateEastWestFirewallRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        CreateEastWestFirewallRequestBody body = new CreateEastWestFirewallRequestBody();
        body.withMode("er");
        body.withInspectionCidr("10.1.0.0/24");
        body.withErId("e0b22a23-02cf-4092-ace9-34b39e10dc77");
        request.withBody(body);
        try {
            CreateEastWestFirewallResponse response = client.createEastWestFirewall(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

Create an east-west protection in ER mode under firewall 55b26ab5-e4b0-40e8-941c-a1778fe2a500, the project ID is 09bb24e6f280d23d0f9fc0104b901480, the inspection_cidr is 10.1.0.0/24, and the er_id is e0b22a23-02cf-4092-ace9-34b39e10dc77.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateEastWestFirewallRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = CreateEastWestFirewallRequestBody(
            mode="er",
            inspection_cidr="10.1.0.0/24",
            er_id="e0b22a23-02cf-4092-ace9-34b39e10dc77"
        )
        response = client.create_east_west_firewall(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

Create an east-west protection in ER mode under firewall 55b26ab5-e4b0-40e8-941c-a1778fe2a500, the project ID is 09bb24e6f280d23d0f9fc0104b901480, the inspection_cidr is 10.1.0.0/24, and the er_id is e0b22a23-02cf-4092-ace9-34b39e10dc77.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateEastWestFirewallRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.FwInstanceId = "<fw_instance_id>"
    erIdCreateEastWestFirewallRequestBody:= "e0b22a23-02cf-4092-ace9-34b39e10dc77"
    request.Body = &model.CreateEastWestFirewallRequestBody{
        Mode: "er",
        InspectionCidr: "10.1.0.0/24",
        ErId: &erIdCreateEastWestFirewallRequestBody,
    }
    response, err := client.CreateEastWestFirewall(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Create East West Firewall Response Body

Error Codes

See **Error Codes**.

4.1.7 Querying the Number of Protected VPCs

Function

This API is used to query protected VPCs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/vpcs/protection

Table 4-45 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-46 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-47 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-48 Response body parameters

Parameter	Type	Description
trace_id	String	Call chain ID

Parameter	Type	Description
data	**VPCProtectsVo** object	Return value of VPC protection

Table 4-49 VPCProtectsVo

Parameter	Type	Description
total	Integer	Total number of VPCs
self_total	Integer	Total number of self VPCs
other_total	Integer	Total number of other VPCs
protect_vpcs	Array of **VpcAttachmentDetail** objects	Protect VPC
self_protect_vpcs	Array of **VpcAttachmentDetail** objects	Self Protect VPC
other_protect_vpcs	Array of **VpcAttachmentDetail** objects	Other Protect VPC
total_assets	Integer	Total Assets

Table 4-50 VpcAttachmentDetail

Parameter	Type	Description
id	String	id
name	String	name
vpc_id	String	vpc id
virsubnet_id	String	subnet id
state	String	state
created_at	String	create time
updated_at	String	update time
tags	Array of **Tag** objects	tag

Parameter	Type	Description
description	String	description
project_id	String	project id
vpc_project_id	String	vpc project id
enterprise_project_id	String	enterprise project id

Table 4-51 Tag

Parameter	Type	Description
key	String	key
value	String	value

Status code: 500

Table 4-52 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the east-west firewall protection information about the projected object with the ID 8839526e-b804-4a15-a082-a2c797dce633 in project 0b2179bbe180d3762fb0c01a2d5725c7.

```
https://{ENDPOINT}/v1/0b2179bbe180d3762fb0c01a2d5725c7/vpcs/protection?object_id=8839526e-b804-4a15-a082-a2c797dce633
```

Example Responses

Status code: 200

Return value of east-west protection query

```
{
  "data" : {
```

```
    "other_protect_vpcs" : [ ],
    "other_total" : 0,
    "protect_vpcs" : [ ],
    "self_protect_vpcs" : [ ],
    "self_total" : 0,
    "total" : 0,
    "total_assets" : 5
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00109004",
  "error_msg" : "http to external service error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListProtectedVpcsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListProtectedVpcsRequest request = new ListProtectedVpcsRequest();
        request.withObjectId("<object_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListProtectedVpcsResponse response = client.listProtectedVpcs(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListProtectedVpcsRequest()
        request.object_id = "<object_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_protected_vpcs(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListProtectedVpcsRequest{}
    request.ObjectId = "<object_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListProtectedVpcs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of east-west protection query
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.1.8 Changing the East-West Firewall Protection Status

Function

This API is used to enable or disable east-west protection.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/firewall/east-west/protect

Table 4-53 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-54 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-55 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-56 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
status	Yes	Integer	Protection status. The value can be 0 (enabled) or 1 (disabled). Enumeration values: • **0** • **1**

Response Parameters

Status code: 200

Table 4-57 Response body parameters

Parameter	Type	Description
data	**data** object	Response body

Parameter	Type	Description
trace_id	String	trace id

Table 4-58 data

Parameter	Type	Description
id	String	ID

Status code: 400

Table 4-59 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

In the project with the ID 09bb24e6fe80d23d2fa2c010b53b418c, enable east-west firewall protection for the object with the ID 74820b38-1cc0-4f0b-8cce-32490fa840a3.

```
https://{Endpoint}/v1/09bb24e6fe80d23d2fa2c010b53b418c/firewall/east-west/protect

{
  "object_id" : "74820b38-1cc0-4f0b-8cce-32490fa840a3",
  "status" : 1
}
```

Example Responses

Status code: 200

Response body for updating the east-west protection status

```
{
  "data" : {
    "id" : "5c539816-7a94-4833-9df0-944b362f0797"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

In the project with the ID 09bb24e6fe80d23d2fa2c010b53b418c, enable east-west firewall protection for the object with the ID 74820b38-1cc0-4f0b-8cce-32490fa840a3.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ChangeEastWestFirewallStatusSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ChangeEastWestFirewallStatusRequest request = new ChangeEastWestFirewallStatusRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        ChangeProtectStatusRequestBody body = new ChangeProtectStatusRequestBody();
        body.withStatus(ChangeProtectStatusRequestBody.StatusEnum.NUMBER_1);
        body.withObjectId("74820b38-1cc0-4f0b-8cce-32490fa840a3");
        request.withBody(body);
        try {
            ChangeEastWestFirewallStatusResponse response = client.changeEastWestFirewallStatus(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

In the project with the ID 09bb24e6fe80d23d2fa2c010b53b418c, enable east-west firewall protection for the object with the ID 74820b38-1cc0-4f0b-8cce-32490fa840a3.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeEastWestFirewallStatusRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = ChangeProtectStatusRequestBody(
            status=1,
            object_id="74820b38-1cc0-4f0b-8cce-32490fa840a3"
        )
        response = client.change_east_west_firewall_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

In the project with the ID 09bb24e6fe80d23d2fa2c010b53b418c, enable east-west firewall protection for the object with the ID 74820b38-1cc0-4f0b-8cce-32490fa840a3.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeEastWestFirewallStatusRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    request.Body = &model.ChangeProtectStatusRequestBody{
        Status: model.GetChangeProtectStatusRequestBodyStatusEnum().E_1,
        ObjectId: "74820b38-1cc0-4f0b-8cce-32490fa840a3",
    }
    response, err := client.ChangeEastWestFirewallStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response body for updating the east-west protection status
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.1.9 List Firewall Detail

Function

This API is used to query a firewall instance.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/firewall/exist

Table 4-60 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-61 Query Parameters

Parameter	Mandatory	Type	Description
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
service_type	Yes	Integer	Service type 0. North-south firewall 1. East-west firewall Minimum: **0** Maximum: **1** Enumeration values: • **0** • **1**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
name	No	String	firewall instance name

Request Parameters

Table 4-62 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-63 Response body parameters

Parameter	Type	Description
data	**GetFirewallInstanceData** object	get firewall instance response data

Table 4-64 GetFirewallInstanceData

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
total	Integer	total
records	Array of **GetFirewallInstanceResponseRecord** objects	Get firewall instance records

Table 4-65 GetFirewallInstanceResponseRecord

Parameter	Type	Description
fw_instance_id	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.
name	String	Firewall name
ha_type	Integer	Cluster type
charge_mode	Integer	Billing mode. The value can be 0 (yearly/monthly) or 1 (pay-per-use).
service_type	Integer	Service type
engine_type	Integer	Engine type
flavor	**Flavor** object	Firewall specifications
protect_objects	Array of **ProtectObjectVO** objects	Project list

Parameter	Type	Description
status	Integer	Firewall status list. The options are as follows: -1: waiting for payment; 0: creating; 1: deleting; 2: running; 3: upgrading; 4: deletion completed; 5: freezing; 6: creation failed; 7: deletion failed; 8: freezing failed; 9: storage in progress; 10: storage failed; 11: upgrade failed Enumeration values: • **-1** • **0** • **1** • **2** • **3** • **4** • **5** • **6** • **7** • **8** • **9** • **10** • **11**
is_old_firewall_instance	Boolean	Whether the engine is an old engine. The options are true (yes) and false (no). Enumeration values: • **true** • **false**
is_available_obs	Boolean	Whether obs is available
is_support_threat_tags	Boolean	Whether threat tags is supported
support_ipv6	Boolean	Whether IPv6 is supported. The options are true (yes) and false (no).
feature_toggle	Map<String,Boolean>	Whether to enable the feature. The options are true (yes) and false (no).
resources	Array of **FirewallInstanceResource** objects	Firewall instance resources
fw_instance_name	String	firewall name

Parameter	Type	Description
enterprise_project_id	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
resource_id	String	resource id
support_url_filtering	Boolean	whether to enable Application. The options are true (yes) and false (no).
tags	String	tags

Table 4-66 Flavor

Parameter	Type	Description
version	Integer	Firewall version. The value can be 0 (standard edition), 1 (professional edition), 2 (platinum edition), or 3 (basic edition). Enumeration values: • **0** • **1** • **2** • **3**
eip_count	Integer	Number of EIPs Minimum: **1**
vpc_count	Integer	Number of VPCs Minimum: **1**
bandwidth	Integer	Bandwidth Minimum: **1**
log_storage	Integer	Log storage
session_concurrent	Integer	concurrent session
session_create	Integer	created session
total_rule_count	Integer	total rule count
used_rule_count	Integer	used rule count
vpc_bandwith	Integer	vpc bandwith
default_bandwidth	Integer	default bandwidth

Parameter	Type	Description
default_eip_count	Integer	default eip count
default_log_storage	Integer	default log storage
default_vpc_count	Integer	default vpc count

Table 4-67 ProtectObjectVO

Parameter	Type	Description
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
object_name	String	Protected object name
type	Integer	Project type. The options are as follows: 0: north-south; 1: east-west. Enumeration values: • **0** • **1**

Table 4-68 FirewallInstanceResource

Parameter	Type	Description
resource_id	String	Resource ID
cloud_service_type	String	Service type, which is used by CBC. The value is hws.service.type.cfw.
resource_type	String	Resource type. The options are as follows:1. CFW: hws.resource.type.cfw 2. EIP:hws.resource.type.cfw.exp.eip 3. Bandwidth: hws.resource.type.cfw.exp.bandwidth 4. VPC: hws.resource.type.cfw.exp.vpc 5. Log storage: hws.resource.type.cfw.exp.logaudit

Parameter	Type	Description
resource_spec_code	String	Inventory unit code
resource_size	Integer	Resource quantity
resource_size_measure_id	Integer	Resource unit name

Example Requests

Query the firewall list of the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/firewall/exist?
service_type=0&offset=0&limit=10
```

Example Responses

Status code: 200

Response to the request for obtaining a firewall instance


```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "charge_mode" : 0,
      "engine_type" : 1,
      "enterprise_project_id" : "default",
      "feature_toggle" : {
        "is_support_anti_virus" : true,
        "is_support_application" : true,
        "is_support_tcp_proxy" : false,
        "is_support_url_profile" : true,
        "is_support_threat_tags" : true,
        "is_support_flow_associated_host" : false,
        "is_support_predefined" : true,
        "isSupportSession" : false,
        "is_support_acl_region_config" : true,
        "is_support_ips" : true,
        "is_support_ew_create_er_tenant_inspection_mode" : false,
        "ips_rule_list" : true,
        "long_connect" : true,
        "is_support_ew_create_vpc_peering_inspection_mode" : true,
        "alarm_config" : true,
        "is_not_support_resource_reduction" : false,
        "acl_multi_object" : true,
        "is_support_advanced_ips_rule" : true,
        "is_support_multi_account" : false,
        "is_support_capture" : true,
        "is_support_ew_create_er_bearer_inspection_mode" : true
      },
      "flavor" : {
        "bandwidth" : 60,
        "eip_count" : 51,
        "log_storage" : 0,
        "session_concurrent" : 200,
        "session_create" : 200,
        "total_rule_count" : 200,
        "used_rule_count" : 2136,
```



```
    "version" : 1,
    "vpc_bandwith" : 1400,
    "vpc_count" : 8,
    "default_eip_count" : 20,
    "default_vpc_count" : 0,
    "default_bandwidth" : 10,
    "default_log_storage" : 0
  },
  "tags" : "{\"key1234\":\"1234\",\"key122\":\"2222\"}",
  "fw_instance_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
  "fw_instance_name" : "test",
  "ha_type" : 1,
  "is_available_obs" : false,
  "is_old_firewall_instance" : false,
  "is_support_threat_tags" : false,
  "name" : "1680054140516",
  "protect_objects" : [ {
    "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    "object_name" : "1680054141674",
    "type" : 0
  }, {
    "object_id" : "be83d202-df0b-498d-a96e-41589dc85c86",
    "object_name" : "ew-1680070626042",
    "type" : 1
  } ],
  "resource_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
  "resources" : [ {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
    "resource_spec_code" : "cfw.professional",
    "resource_type" : "hws.resource.type.cfw"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "0acdd5c7-1178-4bea-b5b6-bd55dc5e2669",
    "resource_size" : 5,
    "resource_size_measure_id" : 14,
    "resource_spec_code" : "cfw.expack.vpc.professional",
    "resource_type" : "hws.resource.type.cfw.exp.vpc"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "4002620c-916a-49c7-8042-cbe02fc17e61",
    "resource_size" : 5,
    "resource_size_measure_id" : 36,
    "resource_spec_code" : "cfw.expack.bandwidth.professional",
    "resource_type" : "hws.resource.type.cfw.exp.bandwidth"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "0235c7db-0baa-4c82-8db2-7b8d5108bd86",
    "resource_size" : 2,
    "resource_size_measure_id" : 14,
    "resource_spec_code" : "cfw.expack.eip.professional",
    "resource_type" : "hws.resource.type.cfw.exp.eip"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "079ade46-18cd-4917-b7bb-00d402931097",
    "resource_size" : 6,
    "resource_size_measure_id" : 14,
    "resource_spec_code" : "cfw.expack.vpc.professional",
    "resource_type" : "hws.resource.type.cfw.exp.vpc"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "dd078faa-abfd-4e63-b681-1a93489955b9",
    "resource_size" : 1,
    "resource_size_measure_id" : 14,
    "resource_spec_code" : "cfw.expack.eip.professional",
    "resource_type" : "hws.resource.type.cfw.exp.eip"
  }, {
    "cloud_service_type" : "hws.service.type.cfw",
    "resource_id" : "4d78d523-745d-4d54-a9ca-e6d25e555bde",
```



```
      "resource_size" : 10,
      "resource_size_measure_id" : 36,
      "resource_spec_code" : "cfw.expack.bandwidth.professional",
      "resource_type" : "hws.resource.type.cfw.exp.bandwidth"
    } ],
    "service_type" : 0,
    "status" : 2,
    "support_ipv6" : true,
    "support_url_filtering" : true
  } ],
  "total" : 1
 }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListFirewallDetailSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListFirewallDetailRequest request = new ListFirewallDetailRequest();
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        request.withServiceType(ListFirewallDetailRequest.ServiceTypeEnum.NUMBER_<service_type>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListFirewallDetailResponse response = client.listFirewallDetail(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListFirewallDetailRequest()
        request.offset = <offset>
        request.limit = <limit>
        request.service_type = <service_type>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_firewall_detail(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListFirewallDetailRequest{}
    request.Offset = int32(<offset>)
    request.Limit = int32(<limit>)
    request.ServiceType = model.GetListFirewallDetailRequestServiceTypeEnum().<SERVICE_TYPE>
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListFirewallDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for obtaining a firewall instance
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.2 EIP Management

4.2.1 Querying the Number of EIPs

Function

This API is used to query the number of EIPs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/eip-count/{object_id}

Table 4-69 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID Minimum: **32** Maximum: **32**
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ. Minimum: **36** Maximum: **36**

Table 4-70 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-71 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-72 Response body parameters

Parameter	Type	Description
data	**EipCountRespData** object	eip count response data

Table 4-73 EipCountRespData

Parameter	Type	Description
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ. Minimum: **36** Maximum: **36**
eip_total	Integer	Total EIPs Minimum: **0** Default: **0**
eip_protected	Integer	protected eip count Minimum: **0** Default: **0**
eip_protected_self	Integer	self protected eip count

Status code: 400

Table 4-74 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the number of EIPs whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and protected object ID is cfebd347-b655-4b84-b938-3c54317599b2.


```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/eip-count/cfebd347-b655-4b84-b938-3c54317599b2
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "eip_protected" : 1,
    "eip_protected_self" : 4,
    "eip_total" : 5,
    "object_id" : "6d3db4fd-fd58-4d8e-914b-ef91aa268f62"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListEipCountSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListEipCountRequest request = new ListEipCountRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
```



```
        try {
            ListEipCountResponse response = client.listEipCount(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListEipCountRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_eip_count(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
      cfw.CfwClientBuilder().
         WithRegion(region.ValueOf("<YOUR REGION>")).
         WithCredential(auth).
         Build())

   request := &model.ListEipCountRequest{}
   enterpriseProjectIdRequest:= "<enterprise_project_id>"
   request.EnterpriseProjectId = &enterpriseProjectIdRequest
   fwInstanceIdRequest:= "<fw_instance_id>"
   request.FwInstanceId = &fwInstanceIdRequest
   response, err := client.ListEipCount(request)
   if err == nil {
      fmt.Printf("%+v\n", response)
   } else {
      fmt.Println(err)
   }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.2.2 Enabling or Disabling an EIP,To enable and disable EIP, you must use ListEips to synchronize EIP assets before enabling EIP protection for the first time after purchasing EIP, and set the sync field to 1.

Function

Enable and disable EIPs, you need to use ListEips to synchronize EIP assets and set the sync field to 1 before enabling EIP protection for the first time after purchasing an EIP.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/eip/protect

Table 4-75 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID Minimum: **32** Maximum: **32**

Table 4-76 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-77 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-78 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ. Minimum: **36** Maximum: **36**
status	Yes	Integer	EIP Status,0:protected,1:unprotected Minimum: **0** Maximum: **1**
ip_infos	Yes	Array of **ip_infos** objects	EIP information list Array Length: **0 - 50**

Table 4-79 ip_infos

Parameter	Mandatory	Type	Description
id	No	String	EIP data ID Minimum: **36** Maximum: **36**
public_ip	No	String	EIP Minimum: **0** Maximum: **255**
public_ipv6	No	String	EIP IPv6

Response Parameters

Status code: 200

Table 4-80 Response body parameters

Parameter	Type	Description
data	**EIPSwitchStatusVO** object	Eip Switch Status Vo

Table 4-81 EIPSwitchStatusVO

Parameter	Type	Description
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
fail_eip_id_list	Array of strings	failed eip id list
id	String	ID

Status code: 400

Table 4-82 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

- Enable EIP (100.85.121.62) traffic protection.

```
https://{Endpoint}/v1/857ddec2-55f2-4503-a93a-fe70021b743c/eip/protect

{
  "object_id" : "6d3db4fd-fd58-4d8e-914b-ef91aa268f62",
  "status" : 0,
  "ip_infos" : [ {
```

```
    "id" : "4a589be0-b40a-4694-94ff-c0710af9a0a2",
    "public_ip" : "1.2.3.4"
  } ]
}
```

- Disable EIP (100.85.121.62) traffic protection.

```
/v1/857ddec2-55f2-4503-a93a-fe70021b743c/eip/protect

{
  "object_id" : "6d3db4fd-fd58-4d8e-914b-ef91aa268f62",
  "status" : 1,
  "ip_infos" : [ {
    "id" : "4a589be0-b40a-4694-94ff-c0710af9a0a2",
    "public_ip" : "1.2.3.4"
  } ]
}
```

Example Responses

Status code: 200

Return value for enabling or disabling EIP protection

```
{
  "data" : {
    "fail_eip_id_list" : [ ],
    "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    "id" : "b0a2dacc-3886-4805-838e-281653d3cd1f"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Enable EIP (100.85.121.62) traffic protection.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class ChangeEipStatusSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ChangeEipStatusRequest request = new ChangeEipStatusRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        EipOperateProtectReq body = new EipOperateProtectReq();
        List<EipOperateProtectReqIpInfos> listbodyIpInfos = new ArrayList<>();
        listbodyIpInfos.add(
            new EipOperateProtectReqIpInfos()
                .withId("4a589be0-b40a-4694-94ff-c0710af9a0a2")
                .withPublicIp("1.2.3.4")
        );
        body.withIpInfos(listbodyIpInfos);
        body.withStatus(0);
        body.withObjectId("6d3db4fd-fd58-4d8e-914b-ef91aa268f62");
        request.withBody(body);
        try {
            ChangeEipStatusResponse response = client.changeEipStatus(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());
        }
    }
}
```

- Disable EIP (100.85.121.62) traffic protection.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class ChangeEipStatusSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
```



```
            .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
            .build();
        ChangeEipStatusRequest request = new ChangeEipStatusRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        EipOperateProtectReq body = new EipOperateProtectReq();
        List<EipOperateProtectReqIpInfos> listbodyIpInfos = new ArrayList<>();
        listbodyIpInfos.add(
            new EipOperateProtectReqIpInfos()
                .withId("4a589be0-b40a-4694-94ff-c0710af9a0a2")
                .withPublicIp("1.2.3.4")
        );
        body.withIpInfos(listbodyIpInfos);
        body.withStatus(1);
        body.withObjectId("6d3db4fd-fd58-4d8e-914b-ef91aa268f62");
        request.withBody(body);
        try {
            ChangeEipStatusResponse response = client.changeEipStatus(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

- Enable EIP (100.85.121.62) traffic protection.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeEipStatusRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listIpInfosbody = [
            EipOperateProtectReqIpInfos(
                id="4a589be0-b40a-4694-94ff-c0710af9a0a2",
                public_ip="1.2.3.4"
            )
```



```
        ]
        request.body = EipOperateProtectReq(
            ip_infos=listIpInfosbody,
            status=0,
            object_id="6d3db4fd-fd58-4d8e-914b-ef91aa268f62"
        )
        response = client.change_eip_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)
```

- Disable EIP (100.85.121.62) traffic protection.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeEipStatusRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listIpInfosbody = [
            EipOperateProtectReqIpInfos(
                id="4a589be0-b40a-4694-94ff-c0710af9a0a2",
                public_ip="1.2.3.4"
            )
        ]
        request.body = EipOperateProtectReq(
            ip_infos=listIpInfosbody,
            status=1,
            object_id="6d3db4fd-fd58-4d8e-914b-ef91aa268f62"
        )
        response = client.change_eip_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

- Enable EIP (100.85.121.62) traffic protection.

```
package main

import (
    "fmt"
```



```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeEipStatusRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    idIpInfos:= "4a589be0-b40a-4694-94ff-c0710af9a0a2"
    publicIpIpInfos:= "1.2.3.4"
    var listIpInfosbody = []model.EipOperateProtectReqIpInfos{
        {
            Id: &idIpInfos,
            PublicIp: &publicIpIpInfos,
        },
    }
    request.Body = &model.EipOperateProtectReq{
        IpInfos: listIpInfosbody,
        Status: int32(0),
        ObjectId: "6d3db4fd-fd58-4d8e-914b-ef91aa268f62",
    }
    response, err := client.ChangeEipStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Disable EIP (100.85.121.62) traffic protection.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeEipStatusRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    idIpInfos:= "4a589be0-b40a-4694-94ff-c0710af9a0a2"
    publicIpIpInfos:= "1.2.3.4"
    var listIpInfosbody = []model.EipOperateProtectReqIpInfos{
        {
            Id: &idIpInfos,
            PublicIp: &publicIpIpInfos,
        },
    }
    request.Body = &model.EipOperateProtectReq{
        IpInfos: listIpInfosbody,
        Status: int32(1),
        ObjectId: "6d3db4fd-fd58-4d8e-914b-ef91aa268f62",
    }
    response, err := client.ChangeEipStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value for enabling or disabling EIP protection
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.2.3 Querying the EIP List

Function

This API is used to query the EIP list.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/eips/protect

Table 4-83 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID Minimum: **32** Maximum: **32**

Table 4-84 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ. Minimum: **36** Maximum: **36**

Parameter	Mandatory	Type	Description
key_word	No	String	Public network ID or EIP Minimum: **0** Maximum: **255**
status	No	String	Specifies the protection status. The value can be null, 0 (enabled), or 1 (disabled). Enumeration values: • **null** • **0** • **1**
sync	No	Integer	Specifies whether to synchronize tenant EIP data. The options are as follows: 0: no; 1: yes Enumeration values: • **0** • **1**
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024 Minimum: **0**
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**. Minimum: **0**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
device_key	No	String	Device key
address_type	No	Integer	Specifies the address type. The value can be 0 (IPv4) or 1 (IPv6).

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
fw_key_word	No	String	The bound firewall name
eps_id	No	String	The enterprise project id of the eip
tags	No	String	Tag list

Request Parameters

Table 4-85 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-86 Response body parameters

Parameter	Type	Description
data	**EipResponseData** object	eip query response

Table 4-87 EipResponseData

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
total	Integer	total
records	Array of **EipResource** objects	eip records

Table 4-88 EipResource

Parameter	Type	Description
id	String	EIP ID
public_ip	String	EIP
status	Integer	EIP protection status,0:protected,1:unprotected Enumeration values: • **0** • **1**
public_ipv6	String	EIP IPv6
enterprise_project_id	String	Enterprise project ID
device_id	String	Device ID
device_name	String	Device name
device_owner	String	Device owner
associate_instance_type	String	Type of the associated instance
fw_instance_name	String	firewall name

Parameter	Type	Description
fw_instance_id	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.
fw_enterprise_project_id	String	Firewall enterprise project id bound to Eip
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
tags	String	tags
domain_id	String	domain id
owner	String	owner
fw_domain_id	String	firewall domain id

Status code: 400

Table 4-89 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the data on the non-synchronized first page whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and protected object ID is cfebd347-b655-4b84-b938-3c54317599b2.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/eips/protect?object_id=cfebd347-b655-4b84-b938-3c54317599b2&limit=10&offset=0&sync=0
```

Example Responses

Status code: 200

Return value of EIP data query

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "associate_instance_type" : "PORT",
      "device_id" : "c87579ab-c76a-4afd-83ce-62e0f531f13e",
      "device_name" : "test",
      "device_owner" : "compute:cn-north-7c",
      "domain_id" : "7d07807209524a4280266db9df63c4fa",
      "enterprise_project_id" : "0",
      "fw_domain_id" : "7d07807209524a4280266db9df63c4fa",
      "fw_enterprise_project_id" : "default",
      "fw_instance_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
      "fw_instance_name" : "test",
      "id" : "465b34fe-e017-4831-a21c-9c6c753bb1f2",
      "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
      "public_ip" : "100.85.223.15",
      "status" : 0,
      "tags" : "combined_order_id=CBRCS23040615138M2KW912"
    } ],
    "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00109004",
  "error_msg" : "http to external service error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListEipsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListEipsRequest request = new ListEipsRequest();
        request.withObjectId("<object_id>");
        request.withKeyWord("<key_word>");
        request.withStatus(ListEipsRequest.StatusEnum.fromValue("<status>"));
        request.withSync(ListEipsRequest.SyncEnum.NUMBER_<sync>);
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withDeviceKey("<device_key>");
        request.withAddressType(<address_type>);
        request.withFwInstanceId("<fw_instance_id>");
        request.withFwKeyWord("<fw_key_word>");
        request.withEpsId("<eps_id>");
        request.withTags("<tags>");
        try {
            ListEipsResponse response = client.listEips(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()
```



```
    try:
        request = ListEipsRequest()
        request.object_id = "<object_id>"
        request.key_word = "<key_word>"
        request.status = "<status>"
        request.sync = <sync>
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.device_key = "<device_key>"
        request.address_type = <address_type>
        request.fw_instance_id = "<fw_instance_id>"
        request.fw_key_word = "<fw_key_word>"
        request.eps_id = "<eps_id>"
        request.tags = "<tags>"
        response = client.list_eips(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListEipsRequest{}
    request.ObjectId = "<object_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    statusRequest:= model.GetListEipsRequestStatusEnum().<STATUS>
    request.Status = &statusRequest
    syncRequest:= model.GetListEipsRequestSyncEnum().<SYNC>
    request.Sync = &syncRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    deviceKeyRequest:= "<device_key>"
    request.DeviceKey = &deviceKeyRequest
```



```
    addressTypeRequest:= int32(<address_type>)
    request.AddressType = &addressTypeRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    fwKeyWordRequest:= "<fw_key_word>"
    request.FwKeyWord = &fwKeyWordRequest
    epsIdRequest:= "<eps_id>"
    request.EpsId = &epsIdRequest
    tagsRequest:= "<tags>"
    request.Tags = &tagsRequest
    response, err := client.ListEips(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of EIP data query
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3 ACL Rule Management

4.3.1 Creating an ACL Rule

Function

This API is used to create an ACL rule.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/acl-rule

Table 4-90 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-91 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-92 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-93 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
type	Yes	Integer	Rule type. The value can be 0 (Internet rule), 1 (VPC rule), or 2 (NAT rule). Enumeration values: • **0** • **1** • **2**
rules	Yes	Array of **rules** objects	rules

Table 4-94 rules

Parameter	Mandatory	Type	Description
name	Yes	String	Rule name

Parameter	Mandatory	Type	Description
sequence	Yes	**OrderRuleAclDto** object	Rule sequence
address_type	Yes	Integer	Address type. The value can be 0 (IPv4), 1 (IPv6), or 2 (domain). Enumeration values: • **0** • **1** • **2**
action_type	Yes	Integer	Action. 0: allow; 1: deny
status	Yes	Integer	Rule delivery status. 0: disabled; 1: enabled. Enumeration values: • **0** • **1**
applications	No	Array of strings	applications
applicationsJsonString	No	String	applications json string
long_connect_time	No	Long	Persistent connection duration
long_connect_time_hour	No	Long	Persistent connection duration (hour)
long_connect_time_minute	No	Long	Persistent connection duration (minute)
long_connect_time_second	No	Long	Persistent Connection Duration (second)
long_connect_enable	Yes	Integer	Whether to support persistent connections. 0: not supported; 1: supported. Enumeration values: • **0** • **1**
description	No	String	Description

Parameter	Mandatory	Type	Description
direction	No	Integer	Direction: 0 means outside to inside, 1 means inside to outside, direction value is required when rule type is internet or nat. Enumeration values: • **0** • **1**
profile	No	**RuleProfileDto** object	domain url info
source	Yes	**RuleAddressDtoForRequest** object	Source address transmission object
destination	Yes	**RuleAddressDtoForRequest** object	Destination address transmission object
service	Yes	**RuleServiceDto** object	Service object
tag	No	**TagsVO** object	Tag value

Table 4-95 OrderRuleAclDto

Parameter	Mandatory	Type	Description
dest_rule_id	No	String	ID of the rule that the added rule will follow. This parameter cannot be left blank if the rule is not pinned on top, and is empty when the added rule is pinned on top.
top	No	Integer	Whether to pin on top. The options are as follows: 0: no; 1: yes.
bottom	No	Integer	Whether to pin on bottom. The options are as follows: 0: no; 1: yes.

Table 4-96 RuleProfileDto

Parameter	Mandatory	Type	Description
url	No	String	doamin url

Table 4-97 RuleAddressDtoForRequest

Parameter	Mandatory	Type	Description
type	Yes	Integer	Source type. 0: manual input; 1: associated IP address group; 2: domain name; 3: region; 4: domain set 5: multi object, 6: domain set dns, 7: domain url profile
address_type	No	Integer	Source type. 0: IPv4; 1: IPv6
address	No	String	Source IP address. The value cannot be empty for the manual type, and cannot be empty for the automatic or domain type.
address_set_id	No	String	ID of the associated IP address group. The value cannot be empty for the automatic type or for the manual or domain type.
address_set_name	No	String	IP address group name
domain_address_name	No	String	Name of the domain name address. This parameter cannot be left empty for the domain name type, and is empty for the manual or automatic type.
region_list_json	No	String	JSON value of the rule region list.
region_list	No	Array of **IpRegionDto** objects	Region list of a rule
domain_set_id	No	String	domain set id
domain_set_name	No	String	domain set name
ip_address	No	Array of strings	IP address list

Parameter	Mandatory	Type	Description
address_set_type	No	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.
predefined_group	No	Array of strings	predefined group

Table 4-98 IpRegionDto

Parameter	Mandatory	Type	Description
region_id	No	String	region id
description_cn	No	String	cn description
description_en	No	String	en description
region_type	No	Integer	Region type, 0 means country, 1 means province, 2 means continent

Table 4-99 RuleServiceDto

Parameter	Mandatory	Type	Description
type	Yes	Integer	Service input type. The value 0 indicates manual input, and the value 1 indicates automatic input.
protocol	No	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
protocols	No	Array of integers	Protocols
source_port	No	String	Source port

Parameter	Mandatory	Type	Description
dest_port	No	String	Destination port
service_set_id	No	String	Service group ID. This parameter is left blank for the manual type and cannot be left blank for the automatic type.
service_set_name	No	String	Service group name
custom_service	No	Array of **ServiceItem** objects	custom service
predefined_group	No	Array of strings	predefined group
service_group	No	Array of strings	Service group list
service_group_names	No	Array of **AddressGroupVO** objects	Service group name list
service_set_type	No	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-100 ServiceItem

Parameter	Mandatory	Type	Description
protocol	No	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
source_port	No	String	source port
dest_port	No	String	destination port
description	No	String	description

Parameter	Mandatory	Type	Description
name	No	String	name

Table 4-101 AddressGroupVO

Parameter	Mandatory	Type	Description
set_id	No	String	set id
name	No	String	name
protocols	No	Array of integers	Protocols
service_set_type	No	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-102 TagsVO

Parameter	Mandatory	Type	Description
tag_id	No	String	tag id
tag_key	No	String	tag key
tag_value	No	String	tag value

Response Parameters

Status code: 200

Table 4-103 Response body parameters

Parameter	Type	Description
data	**RuleIdList** object	Rule ID list

Table 4-104 RuleIdList

Parameter	Type	Description
rules	Array of **RuleId** objects	Rule ID list

Table 4-105 RuleId

Parameter	Type	Description
id	String	id
name	String	name

Status code: 400

Table 4-106 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

The following example shows how to add an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rule

{
  "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
  "rules" : [ {
    "name" : "TestRule",
    "status" : 1,
    "action_type" : 0,
    "description" : "",
    "source" : {
      "type" : 0,
      "address" : "1.1.1.1"
    },
    "destination" : {
```

```
    "type" : 0,
    "address" : "2.2.2.2"
   },
   "service" : {
    "type" : 0,
    "protocol" : 6,
    "source_port" : "0",
    "dest_port" : "0"
   },
   "address_type" : 0,
   "tag" : {
    "tag_key" : "",
    "tag_value" : ""
   },
   "long_connect_enable" : 0,
   "direction" : 0,
   "sequence" : {
    "top" : 1,
    "dest_rule_id" : null
   }
  } ],
  "type" : 0
}
```

Example Responses

Status code: 200

Response to the request for adding an ACL

```
{
  "data" : {
    "rules" : [ {
      "id" : "0475c516-0e41-4caf-990b-0c504eebd73f"
    } ]
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00900016",
  "error_msg" : "The import task is in progress. Please operate after the task is completed"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

The following example shows how to add an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class AddAclRuleSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddAclRuleRequest request = new AddAclRuleRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddRuleAclDto body = new AddRuleAclDto();
        TagsVO tagRules = new TagsVO();
        tagRules.withTagKey("")
            .withTagValue("");
        RuleServiceDto serviceRules = new RuleServiceDto();
        serviceRules.withType(0)
            .withProtocol(6)
            .withSourcePort("0")
            .withDestPort("0");
        RuleAddressDto destinationRules = new RuleAddressDto();
        destinationRules.withType(0)
            .withAddress("2.2.2.2");
        RuleAddressDto sourceRules = new RuleAddressDto();
        sourceRules.withType(0)
            .withAddress("1.1.1.1");
        OrderRuleAclDto sequenceRules = new OrderRuleAclDto();
        sequenceRules.withTop(1);
        List<AddRuleAclDtoRules> listbodyRules = new ArrayList<>();
        listbodyRules.add(
            new AddRuleAclDtoRules()
                .withName("TestRule")
                .withSequence(sequenceRules)
                .withAddressType(AddRuleAclDtoRules.AddressTypeEnum.NUMBER_0)
                .withActionType(0)
                .withStatus(AddRuleAclDtoRules.StatusEnum.NUMBER_1)
                .withLongConnectEnable(AddRuleAclDtoRules.LongConnectEnableEnum.NUMBER_0)
                .withDescription("")
                .withDirection(AddRuleAclDtoRules.DirectionEnum.NUMBER_0)
                .withSource(sourceRules)
                .withDestination(destinationRules)
                .withService(serviceRules)
                .withTag(tagRules)
        );
        body.withRules(listbodyRules);
        body.withType(AddRuleAclDto.TypeEnum.NUMBER_0);
        body.withObjectId("ae42418e-f077-41a0-9d3b-5b2f5ad9102b");
        request.withBody(body);
        try {
            AddAclRuleResponse response = client.addAclRule(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

The following example shows how to add an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddAclRuleRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        tagRules = TagsVO(
            tag_key="",
            tag_value=""
        )
        serviceRules = RuleServiceDto(
            type=0,
            protocol=6,
            source_port="0",
            dest_port="0"
        )
        destinationRules = RuleAddressDto(
            type=0,
            address="2.2.2.2"
        )
        sourceRules = RuleAddressDto(
            type=0,
            address="1.1.1.1"
        )
```



```
        sequenceRules = OrderRuleAclDto(
            top=1
        )
        listRulesbody = [
            AddRuleAclDtoRules(
                name="TestRule",
                sequence=sequenceRules,
                address_type=0,
                action_type=0,
                status=1,
                long_connect_enable=0,
                description="",
                direction=0,
                source=sourceRules,
                destination=destinationRules,
                service=serviceRules,
                tag=tagRules
            )
        ]
        request.body = AddRuleAclDto(
            rules=listRulesbody,
            type=0,
            object_id="ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
        )
        response = client.add_acl_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

The following example shows how to add an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```



```
        Build())

    request := &model.AddAclRuleRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    tagKeyTag:= ""
    tagValueTag:= ""
    tagRules := &model.TagsVo{
        TagKey: &tagKeyTag,
        TagValue: &tagValueTag,
    }
    protocolService:= int32(6)
    sourcePortService:= "0"
    destPortService:= "0"
    serviceRules := &model.RuleServiceDto{
        Type: int32(0),
        Protocol: &protocolService,
        SourcePort: &sourcePortService,
        DestPort: &destPortService,
    }
    addressDestination:= "2.2.2.2"
    destinationRules := &model.RuleAddressDto{
        Type: int32(0),
        Address: &addressDestination,
    }
    addressSource:= "1.1.1.1"
    sourceRules := &model.RuleAddressDto{
        Type: int32(0),
        Address: &addressSource,
    }
    topSequence:= int32(1)
    sequenceRules := &model.OrderRuleAclDto{
        Top: &topSequence,
    }
    descriptionRules:= ""
    directionRules:= model.GetAddRuleAclDtoRulesDirectionEnum().E_0
    var listRulesbody = []model.AddRuleAclDtoRules{
        {
            Name: "TestRule",
            Sequence: sequenceRules,
            AddressType: model.GetAddRuleAclDtoRulesAddressTypeEnum().E_0,
            ActionType: int32(0),
            Status: model.GetAddRuleAclDtoRulesStatusEnum().E_1,
            LongConnectEnable: model.GetAddRuleAclDtoRulesLongConnectEnableEnum().E_0,
            Description: &descriptionRules,
            Direction: &directionRules,
            Source: sourceRules,
            Destination: destinationRules,
            Service: serviceRules,
            Tag: tagRules,
        },
    }
    request.Body = &model.AddRuleAclDto{
        Rules: listRulesbody,
        Type: model.GetAddRuleAclDtoTypeEnum().E_0,
        ObjectId: "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    }
    response, err := client.AddAclRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for adding an ACL
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.2 Batch Delete Acl Rules

Function

Batch Delete Acl Rules

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/acl-rule

Table 4-107 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-108 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-109 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-110 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
rule_ids	Yes	Array of strings	rule ids

Response Parameters

Status code: 200

Table 4-111 Response body parameters

Parameter	Type	Description
data	**BatchDeleteAclRulesResponseData** object	Batch delete acl rules response data

Table 4-112 BatchDeleteAclRulesResponseData

Parameter	Type	Description
responseDatas	Array of **BatchDeleteRuleInfo** objects	batch delete acl rules response data

Table 4-113 BatchDeleteRuleInfo

Parameter	Type	Description
name	String	rule name
id	String	rule id

Example Requests

Delete the rule with the object id ae42418e-f077-41a0-9d3b-5b2f5ad9102b under the project id 9d80d070b6d44942af73c9c3d38e0429, the rule id is 0475c516-0e41-4caf-990b-0c504eebd73f and 8 662868e-fe7e-4dfc-bfb1-ca4d73081ca6

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rule

{
  "rule_ids" : [ "0475c516-0e41-4caf-990b-0c504eebd73f", "8662868e-fe7e-4dfc-bfb1-ca4d73081ca6" ],
  "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
}
```

Example Responses

Status code: 200

Batch Delete Acl Rules Response Body

```
{
  "data" : {
    "responseDatas" : [ {
      "name" : "test",
      "id" : "0475c516-0e41-4caf-990b-0c504eebd73f"
    }, {
      "name" : "test2",
      "id" : "8662868e-fe7e-4dfc-bfb1-ca4d73081ca6"
    } ]
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete the rule with the object id ae42418e-f077-41a0-9d3b-5b2f5ad9102b under the project id 9d80d070b6d44942af73c9c3d38e0429, the rule id is 0475c516-0e41-4caf-990b-0c504eebd73f and 8 662868e-fe7e-4dfc-bfb1-ca4d73081ca6

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
```



```
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class BatchDeleteAclRulesSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchDeleteAclRulesRequest request = new BatchDeleteAclRulesRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        DeleteRuleAclDto body = new DeleteRuleAclDto();
        List<String> listbodyRuleIds = new ArrayList<>();
        listbodyRuleIds.add("0475c516-0e41-4caf-990b-0c504eebd73f");
        listbodyRuleIds.add("8662868e-fe7e-4dfc-bfb1-ca4d73081ca6");
        body.withRuleIds(listbodyRuleIds);
        body.withObjectId("ae42418e-f077-41a0-9d3b-5b2f5ad9102b");
        request.withBody(body);
        try {
            BatchDeleteAclRulesResponse response = client.batchDeleteAclRules(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

Delete the rule with the object id ae42418e-f077-41a0-9d3b-5b2f5ad9102b under the project id 9d80d070b6d44942af73c9c3d38e0429, the rule id is 0475c516-0e41-4caf-990b-0c504eebd73f and 8 662868e-fe7e-4dfc-bfb1-ca4d73081ca6

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchDeleteAclRulesRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listRuleIdsbody = [
            "0475c516-0e41-4caf-990b-0c504eebd73f",
            "8662868e-fe7e-4dfc-bfb1-ca4d73081ca6"
        ]
        request.body = DeleteRuleAclDto(
            rule_ids=listRuleIdsbody,
            object_id="ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
        )
        response = client.batch_delete_acl_rules(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

Delete the rule with the object id ae42418e-f077-41a0-9d3b-5b2f5ad9102b under the project id 9d80d070b6d44942af73c9c3d38e0429, the rule id is 0475c516-0e41-4caf-990b-0c504eebd73f and 8 662868e-fe7e-4dfc-bfb1-ca4d73081ca6

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```



```
        Build())

    request := &model.BatchDeleteAclRulesRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    var listRuleIdsbody = []string{
        "0475c516-0e41-4caf-990b-0c504eebd73f",
        "8662868e-fe7e-4dfc-bfb1-ca4d73081ca6",
    }
    request.Body = &model.DeleteRuleAclDto{
        RuleIds: listRuleIdsbody,
        ObjectId: "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    }
    response, err := client.BatchDeleteAclRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Batch Delete Acl Rules Response Body

Error Codes

See **Error Codes**.

4.3.3 Updating an ACL Rule

Function

This API is used to update an ACL rule.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/acl-rule/{acl_rule_id}

Table 4-114 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
acl_rule_id	Yes	String	Rule ID

Table 4-115 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-116 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-117 Request body parameters

Parameter	Mandatory	Type	Description
address_type	No	Integer	Address type. The value can be 0 (IPv4) or 1 (IPv6). Enumeration values: • **0** • **1**
name	No	String	Rule name
sequence	No	**OrderRuleAclDto** object	UpdateRuleAclDto
direction	No	Integer	Direction: 0 means outside to inside, 1 means inside to outside, direction value is required when rule type is internet or nat. Enumeration values: • **0** • **1**
action_type	No	Integer	Action. 0: allow; 1: deny Enumeration values: • **0** • **1**
status	No	Integer	Rule delivery status. 0: disabled; 1: enabled.
applications	No	Array of strings	applications
applicationsJsonString	No	String	applications json string
description	No	String	Description

Parameter	Mandatory	Type	Description
long_connect_time_hour	No	Long	Persistent connection duration (hour)
long_connect_time_minute	No	Long	Persistent connection duration (hour)
long_connect_time_second	No	Long	Persistent connection duration (minute)
long_connect_time	No	Long	Persistent connection duration
long_connect_enable	No	Integer	Whether to support persistent connections. 0: not supported; 1: supported. Enumeration values: • **0** • **1**
profile	No	**RuleProfileDto** object	domain url info
source	No	**RuleAddressDto** object	rule address dto
destination	No	**RuleAddressDto** object	rule address dto
service	No	**RuleServiceDto** object	rule service dto
type	No	Integer	Rule type. The value can be 0 (Internet rule), 1 (VPC rule), or 2 (NAT rule). Enumeration values: • **0** • **1** • **2**
tag	No	**TagsVO** object	tag

Table 4-118 OrderRuleAclDto

Parameter	Mandatory	Type	Description
dest_rule_id	No	String	ID of the rule that the added rule will follow. This parameter cannot be left blank if the rule is not pinned on top, and is empty when the added rule is pinned on top.
top	No	Integer	Whether to pin on top. The options are as follows: 0: no; 1: yes.
bottom	No	Integer	Whether to pin on bottom. The options are as follows: 0: no; 1: yes.

Table 4-119 RuleProfileDto

Parameter	Mandatory	Type	Description
url	No	String	doamin url

Table 4-120 RuleAddressDto

Parameter	Mandatory	Type	Description
type	Yes	Integer	Source type. 0: manual input; 1: associated IP address group; 2: domain name; 3: region; 4: domain set 5: multi object, 6: domain set dns, 7: domain url profile
address_type	No	Integer	Source type. 0: IPv4; 1: IPv6
address	No	String	Source IP address. The value cannot be empty for the manual type, and cannot be empty for the automatic or domain type.
address_set_id	No	String	ID of the associated IP address group. The value cannot be empty for the automatic type or for the manual or domain type.
address_set_name	No	String	IP address group name

Parameter	Mandatory	Type	Description
domain_address_name	No	String	Name of the domain name address. This parameter cannot be left empty for the domain name type, and is empty for the manual or automatic type.
region_list_json	No	String	JSON value of the rule region list.
region_list	No	Array of **IpRegionDto** objects	Region list of a rule
domain_set_id	No	String	domain set id
domain_set_name	No	String	domain set name
ip_address	No	Array of strings	IP address list
address_group	No	Array of strings	address group
address_group_names	No	Array of **AddressGroupVO** objects	Address set list
address_set_type	No	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.
predefined_group	No	Array of strings	predefined group

Table 4-121 IpRegionDto

Parameter	Mandatory	Type	Description
region_id	No	String	region id
description_cn	No	String	cn description
description_en	No	String	en description

Parameter	Mandatory	Type	Description
region_type	No	Integer	Region type, 0 means country, 1 means province, 2 means continent

Table 4-122 RuleServiceDto

Parameter	Mandatory	Type	Description
type	Yes	Integer	Service input type. The value 0 indicates manual input, and the value 1 indicates automatic input.
protocol	No	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
protocols	No	Array of integers	Protocols
source_port	No	String	Source port
dest_port	No	String	Destination port
service_set_id	No	String	Service group ID. This parameter is left blank for the manual type and cannot be left blank for the automatic type.
service_set_name	No	String	Service group name
custom_service	No	Array of **ServiceItem** objects	custom service
predefined_group	No	Array of strings	predefined group
service_group	No	Array of strings	Service group list
service_group_names	No	Array of **AddressGroupVO** objects	Service group name list

Parameter	Mandatory	Type	Description
service_set_type	No	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-123 ServiceItem

Parameter	Mandatory	Type	Description
protocol	No	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
source_port	No	String	source port
dest_port	No	String	destination port
description	No	String	description
name	No	String	name

Table 4-124 AddressGroupVO

Parameter	Mandatory	Type	Description
set_id	No	String	set id
name	No	String	name
protocols	No	Array of integers	Protocols
service_set_type	No	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-125 TagsVO

Parameter	Mandatory	Type	Description
tag_id	No	String	tag id
tag_key	No	String	tag key
tag_value	No	String	tag value

Response Parameters

Status code: 200

Table 4-126 Response body parameters

Parameter	Type	Description
data	**RuleId** object	Rule ID

Table 4-127 RuleId

Parameter	Type	Description
id	String	id
name	String	name

Status code: 400

Table 4-128 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

The following example shows how to update an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0,

and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rule/ceaa0407-b9c8-4dfd-9eca-b6ead2dfd031

{
  "name" : "TestRule",
  "status" : 1,
  "action_type" : 0,
  "description" : "",
  "source" : {
    "type" : 0,
    "address" : "1.1.1.1"
  },
  "destination" : {
    "type" : 0,
    "address" : "2.2.2.2"
  },
  "service" : {
    "type" : 0,
    "protocol" : 6,
    "source_port" : "0",
    "dest_port" : "0"
  },
  "type" : 0,
  "address_type" : 0,
  "tag" : {
    "tag_key" : "",
    "tag_value" : ""
  },
  "long_connect_enable" : 0,
  "direction" : 0
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "ceaa0407-b9c8-4dfd-9eca-b6ead2dfd031"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

The following example shows how to update an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0,

and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateAclRuleSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAclRuleRequest request = new UpdateAclRuleRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        UpdateRuleAclDto body = new UpdateRuleAclDto();
        TagsVO tagbody = new TagsVO();
        tagbody.withTagKey("")
            .withTagValue("");
        RuleServiceDto servicebody = new RuleServiceDto();
        servicebody.withType(0)
            .withProtocol(6)
            .withSourcePort("0")
            .withDestPort("0");
        RuleAddressDto destinationbody = new RuleAddressDto();
        destinationbody.withType(0)
            .withAddress("2.2.2.2");
        RuleAddressDto sourcebody = new RuleAddressDto();
        sourcebody.withType(0)
            .withAddress("1.1.1.1");
        body.withTag(tagbody);
        body.withType(UpdateRuleAclDto.TypeEnum.NUMBER_0);
        body.withService(servicebody);
        body.withDestination(destinationbody);
        body.withSource(sourcebody);
        body.withLongConnectEnable(UpdateRuleAclDto.LongConnectEnableEnum.NUMBER_0);
        body.withDescription("");
        body.withStatus(1);
        body.withActionType(UpdateRuleAclDto.ActionTypeEnum.NUMBER_0);
        body.withDirection(UpdateRuleAclDto.DirectionEnum.NUMBER_0);
        body.withName("TestRule");
        body.withAddressType(UpdateRuleAclDto.AddressTypeEnum.NUMBER_0);
        request.withBody(body);
        try {
            UpdateAclRuleResponse response = client.updateAclRule(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

The following example shows how to update an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAclRuleRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        tagbody = TagsVO(
            tag_key="",
            tag_value=""
        )
        servicebody = RuleServiceDto(
            type=0,
            protocol=6,
            source_port="0",
            dest_port="0"
        )
        destinationbody = RuleAddressDto(
            type=0,
            address="2.2.2.2"
        )
        sourcebody = RuleAddressDto(
            type=0,
            address="1.1.1.1"
        )
        request.body = UpdateRuleAclDto(
            tag=tagbody,
```



```
            type=0,
            service=servicebody,
            destination=destinationbody,
            source=sourcebody,
            long_connect_enable=0,
            description="",
            status=1,
            action_type=0,
            direction=0,
            name="TestRule",
            address_type=0
        )
        response = client.update_acl_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

The following example shows how to update an IPv4 inbound rule. The rule name is TestRule, the source is the IP address 1.1.1.1, the destination is the IP address 2.2.2.2, the service type is service, the protocol type is TCP, the source port is 0, and the destination port is 0. Persistent connections are not supported. The action is to allow. The status is enabled.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAclRuleRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    tagKeyTag:= ""
    tagValueTag:= ""
    tagbody := &model.TagsVo{
        TagKey: &tagKeyTag,
        TagValue: &tagValueTag,
```



```
    }
    protocolService:= int32(6)
    sourcePortService:= "0"
    destPortService:= "0"
    servicebody := &model.RuleServiceDto{
        Type: int32(0),
        Protocol: &protocolService,
        SourcePort: &sourcePortService,
        DestPort: &destPortService,
    }
    addressDestination:= "2.2.2.2"
    destinationbody := &model.RuleAddressDto{
        Type: int32(0),
        Address: &addressDestination,
    }
    addressSource:= "1.1.1.1"
    sourcebody := &model.RuleAddressDto{
        Type: int32(0),
        Address: &addressSource,
    }
    typeUpdateRuleAclDto:= model.GetUpdateRuleAclDtoTypeEnum().E_0
    longConnectEnableUpdateRuleAclDto:= model.GetUpdateRuleAclDtoLongConnectEnableEnum().E_0
    descriptionUpdateRuleAclDto:= ""
    statusUpdateRuleAclDto:= int32(1)
    actionTypeUpdateRuleAclDto:= model.GetUpdateRuleAclDtoActionTypeEnum().E_0
    directionUpdateRuleAclDto:= model.GetUpdateRuleAclDtoDirectionEnum().E_0
    nameUpdateRuleAclDto:= "TestRule"
    addressTypeUpdateRuleAclDto:= model.GetUpdateRuleAclDtoAddressTypeEnum().E_0
    request.Body = &model.UpdateRuleAclDto{
        Tag: tagbody,
        Type: &typeUpdateRuleAclDto,
        Service: servicebody,
        Destination: destinationbody,
        Source: sourcebody,
        LongConnectEnable: &longConnectEnableUpdateRuleAclDto,
        Description: &descriptionUpdateRuleAclDto,
        Status: &statusUpdateRuleAclDto,
        ActionType: &actionTypeUpdateRuleAclDto,
        Direction: &directionUpdateRuleAclDto,
        Name: &nameUpdateRuleAclDto,
        AddressType: &addressTypeUpdateRuleAclDto,
    }
    response, err := client.UpdateAclRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.4 Updating Rule Actions in Batches

Function

This API is used to update rule actions in batches.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/acl-rule/action

Table 4-129 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-130 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-131 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-132 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
action	Yes	String	action
rule_ids	Yes	Array of strings	rule ids

Response Parameters

Status code: 200

Table 4-133 Response body parameters

Parameter	Type	Description
data	Array of strings	batch update acl rule ids

Example Requests

Update the statuses of rules 4e12d889-c1d3-491b-8470-3d1b3dadc1fd and f798a6a8-c4c5-42b4-838c-c922c9908cb4 of firewall 546af3f8-88e9-47f2-a205-2346d7090925 in project 14181c1245cf4fd786824efe1e2b9388 to enabled.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/acl-rule/action?
fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default

{
  "action" : "enable",
  "rule_ids" : [ "4e12d889-c1d3-491b-8470-3d1b3dadc1fd", "f798a6a8-c4c5-42b4-838c-c922c9908cb4" ],
  "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
}
```

Example Responses

Status code: 200

Batch Update Acl Rule Response

```
{
  "data" : [ "4e12d889-c1d3-491b-8470-3d1b3dadc1fd", "f798a6a8-c4c5-42b4-838c-c922c9908cb4" ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Update the statuses of rules 4e12d889-c1d3-491b-8470-3d1b3dadc1fd and f798a6a8-c4c5-42b4-838c-c922c9908cb4 of firewall 546af3f8-88e9-47f2-a205-2346d7090925 in project 14181c1245cf4fd786824efe1e2b9388 to enabled.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class BatchUpdateAclRuleActionsSolution {

    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);
```



```
        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchUpdateAclRuleActionsRequest request = new BatchUpdateAclRuleActionsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        UpdateSecurityPolciesActionDto body = new UpdateSecurityPolciesActionDto();
        List<String> listbodyRuleIds = new ArrayList<>();
        listbodyRuleIds.add("4e12d889-c1d3-491b-8470-3d1b3dadc1fd");
        listbodyRuleIds.add("f798a6a8-c4c5-42b4-838c-c922c9908cb4");
        body.withRuleIds(listbodyRuleIds);
        body.withAction("enable");
        body.withObjectId("ae42418e-f077-41a0-9d3b-5b2f5ad9102b");
        request.withBody(body);
        try {
            BatchUpdateAclRuleActionsResponse response = client.batchUpdateAclRuleActions(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

Update the statuses of rules 4e12d889-c1d3-491b-8470-3d1b3dadc1fd and f798a6a8-c4c5-42b4-838c-c922c9908cb4 of firewall 546af3f8-88e9-47f2-a205-2346d7090925 in project 14181c1245cf4fd786824efe1e2b9388 to enabled.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchUpdateAclRuleActionsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        listRuleIdsbody = [
            "4e12d889-c1d3-491b-8470-3d1b3dadc1fd",
            "f798a6a8-c4c5-42b4-838c-c922c9908cb4"
        ]
        request.body = UpdateSecurityPolciesActionDto(
```



```
            rule_ids=listRuleIdsbody,
            action="enable",
            object_id="ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
        )
        response = client.batch_update_acl_rule_actions(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

Update the statuses of rules 4e12d889-c1d3-491b-8470-3d1b3dadc1fd and f798a6a8-c4c5-42b4-838c-c922c9908cb4 of firewall 546af3f8-88e9-47f2-a205-2346d7090925 in project 14181c1245cf4fd786824efe1e2b9388 to enabled.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchUpdateAclRuleActionsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    var listRuleIdsbody = []string{
        "4e12d889-c1d3-491b-8470-3d1b3dadc1fd",
        "f798a6a8-c4c5-42b4-838c-c922c9908cb4",
    }
    request.Body = &model.UpdateSecurityPolciesActionDto{
        RuleIds: listRuleIdsbody,
        Action: "enable",
        ObjectId: "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    }
    response, err := client.BatchUpdateAclRuleActions(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Batch Update Acl Rule Response

Error Codes

See **Error Codes**.

4.3.5 List Acl Rule Tags

Function

This API is used to list acl rule tags.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/cfw-acl/tags

Table 4-134 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-135 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024

Request Parameters

Table 4-136 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-137 Response body parameters

Parameter	Type	Description
data	**HttpGetAclTagResponseData** object	

Table 4-138 HttpGetAclTagResponseData

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	total
records	Array of **TagsVO** objects	tag vos

Table 4-139 TagsVO

Parameter	Type	Description
tag_id	String	tag id
tag_key	String	tag key
tag_value	String	tag value

Example Requests

Query the existing ACL tags of the firewall whose ID is 546af3f8-88e9-47f2-a205-2346d7090925 in the project whose ID is 14181c1245cf4fd786824efe1e2b9388.

```
https://{Endpoint}/v2/14181c1245cf4fd786824efe1e2b9388/cfw-acl/tags?
limit=1000&offset=0&fw_instance_id=546af3f8-88e9-47f2-
a205-2346d7090925&enterprise_project_id=default
```

Example Responses

Status code: 200

```
{
  "data" : {
    "limit" : 1000,
    "offset" : 0,
    "records" : [ {
      "tag_id" : "98fdf013-e7ad-4581-9c71-6de04c76a18f",
      "tag_key" : "1",
      "tag_value" : "1"
    }, {
      "tag_id" : "36e6fbfe-7fcd-48be-872b-4f6074e1e4e8",
      "tag_key" : "1",
      "tag_value" : "2"
    }, {
      "tag_id" : "0bf41046-6587-42f2-8399-a6864022b504",
      "tag_key" : "test",
      "tag_value" : "test"
    } ],
    "total" : 3
  }
}
```


SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListRuleAclTagsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListRuleAclTagsRequest request = new ListRuleAclTagsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        try {
            ListRuleAclTagsResponse response = client.listRuleAclTags(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListRuleAclTagsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.offset = <offset>
        request.limit = <limit>
        response = client.list_rule_acl_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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListRuleAclTagsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.FwInstanceId = "<fw_instance_id>"
    request.Offset = int32(<offset>)
    request.Limit = int32(<limit>)
    response, err := client.ListRuleAclTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	

Error Codes

See **Error Codes**.

4.3.6 Obtaining the Rule Hit Count

Function

This API is used to obtain the rule hit count.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/acl-rule/count

Table 4-140 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-141 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-142 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-143 Request body parameters

Parameter	Mandatory	Type	Description
rule_ids	Yes	Array of strings	Rule ID list

Response Parameters

Status code: 200

Table 4-144 Response body parameters

Parameter	Type	Description
data	**RuleHitCountRecords** object	Rule hit count

Table 4-145 RuleHitCountRecords

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
total	Integer	Total
records	Array of **RuleHitCountObject** objects	Rule hit count list

Table 4-146 RuleHitCountObject

Parameter	Type	Description
rule_id	String	Rule ID
rule_hit_count	Integer	Rule Hit Count

Example Requests

Query the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
https://{Endpoint}/v1/0b2179bbe180d3762fb0c01a2d5725c7/acl-rule/count

{
  "rule_ids" : [ "59ff6bd9-0a76-41ec-9650-380086069965" ]
}
```

Example Responses

Status code: 200

Response to the request for obtaining the number of rule hits

```
{
  "data" : {
    "limit" : 1,
    "offset" : 1,
    "records" : [ {
      "rule_hit_count" : 0,
      "rule_id" : "59ff6bd9-0a76-41ec-9650-380086069965"
    } ],
    "total" : 1
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class ListAclRuleHitCountSolution {

    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);

    CfwClient client = CfwClient.newBuilder()
            .withCredential(auth)
            .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
            .build();
    ListAclRuleHitCountRequest request = new ListAclRuleHitCountRequest();
    request.withEnterpriseProjectId("<enterprise_project_id>");
    request.withFwInstanceId("<fw_instance_id>");
    ListRuleHitCountDto body = new ListRuleHitCountDto();
    List<String> listbodyRuleIds = new ArrayList<>();
    listbodyRuleIds.add("59ff6bd9-0a76-41ec-9650-380086069965");
    body.withRuleIds(listbodyRuleIds);
    request.withBody(body);
    try {
        ListAclRuleHitCountResponse response = client.listAclRuleHitCount(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

Query the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAclRuleHitCountRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listRuleIdsbody = [
            "59ff6bd9-0a76-41ec-9650-380086069965"
        ]
        request.body = ListRuleHitCountDto(
            rule_ids=listRuleIdsbody
        )
```



```
        response = client.list_acl_rule_hit_count(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

Query the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAclRuleHitCountRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    var listRuleIdsbody = []string{
        "59ff6bd9-0a76-41ec-9650-380086069965",
    }
    request.Body = &model.ListRuleHitCountDto{
        RuleIds: listRuleIdsbody,
    }
    response, err := client.ListAclRuleHitCount(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for obtaining the number of rule hits
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.7 Deleting the Rule Hit Count

Function

This API is used to delete the rule hit count.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/acl-rule/count

Table 4-147 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project id

Table 4-148 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-149 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-150 Request body parameters

Parameter	Mandatory	Type	Description
rule_ids	Yes	Array of strings	Rule ID list

Response Parameters

Status code: 400

Table 4-151 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Clear the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
https://{Endpoint}/v1/0b2179bbe180d3762fb0c01a2d5725c7/acl-rule/count

{
  "rule_ids" : [ "59ff6bd9-0a76-41ec-9650-380086069965" ]
}
```

Example Responses

Status code: 200

OK

```
{ }
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00400006",
  "error_msg" : "clear rule hit count param error."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Clear the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
```



```
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class DeleteAclRuleHitCountSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteAclRuleHitCountRequest request = new DeleteAclRuleHitCountRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        ClearAccessLogRuleHitCountsDto body = new ClearAccessLogRuleHitCountsDto();
        List<String> listbodyRuleIds = new ArrayList<>();
        listbodyRuleIds.add("59ff6bd9-0a76-41ec-9650-380086069965");
        body.withRuleIds(listbodyRuleIds);
        request.withBody(body);
        try {
            DeleteAclRuleHitCountResponse response = client.deleteAclRuleHitCount(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

Clear the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(CfwRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = DeleteAclRuleHitCountRequest()
    request.enterprise_project_id = "<enterprise_project_id>"
    request.fw_instance_id = "<fw_instance_id>"
    listRuleIdsbody = [
        "59ff6bd9-0a76-41ec-9650-380086069965"
    ]
    request.body = ClearAccessLogRuleHitCountsDto(
        rule_ids=listRuleIdsbody
    )
    response = client.delete_acl_rule_hit_count(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

Clear the hits of ACL rule 59ff6bd9-0a76-41ec-9650-380086069965 in the project whose ID is 0b2179bbe180d3762fb0c01a2d5725c7.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteAclRuleHitCountRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    var listRuleIdsbody = []string{
        "59ff6bd9-0a76-41ec-9650-380086069965",
    }
```



```
    request.Body = &model.ClearAccessLogRuleHitCountsDto{
        RuleIds: listRuleIdsbody,
    }
    response, err := client.DeleteAclRuleHitCount(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.8 Delete Acl Rule

Function

This API is used to delete an ACL rule group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/acl-rule/{acl_rule_id}

Table 4-152 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
acl_rule_id	Yes	String	Rule ID

Table 4-153 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-154 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-155 Response body parameters

Parameter	Type	Description
data	**RuleId** object	

Table 4-156 RuleId

Parameter	Type	Description
id	String	id
name	String	name

Status code: 400

Table 4-157 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Delete the rule whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and rule ID is ceaa0407-b9c8-4dfd-9eca-b6ead2dfd031.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rule/ceaa0407-b9c8-4dfd-9eca-b6ead2dfd031
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "ceaa0407-b9c8-4dfd-9eca-b6ead2dfd031",
    "name" : "name"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00900016",
  "error_msg" : "The import task is in progress. Please operate after the task is completed"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteAclRuleSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
```



```
                .build();
        DeleteAclRuleRequest request = new DeleteAclRuleRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteAclRuleResponse response = client.deleteAclRule(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteAclRuleRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_acl_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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteAclRuleRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.DeleteAclRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.9 Querying a Protection Rule

Function

This API is used to query a protection rule.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/acl-rules

Table 4-158 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-159 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
type	No	Integer	Specifies the rule type. The value can be 0 (Internet rule), 1 (VPC rule), or 2 (NAT rule). Enumeration values: • **0** • **1** • **2**

Parameter	Mandatory	Type	Description
protocol	No	Integer	Protocol type. The value is 6 for TCP, 17 for UDP, 1 for ICMP, 58 for ICMPv6, and -1 for any protocol. Enumeration values: • **6** • **17** • **1** • **58**
ip	No	String	IP address
name	No	String	Name
direction	No	Integer	Direction. 0: inbound; 1: outbound
status	No	Integer	Indicates the rule delivery status. 0: disabled; 1: enabled. Enumeration values: • **0** • **1**
action_type	No	Integer	Action. 0: allow; 1: deny Enumeration values: • **0** • **1**
address_type	No	Integer	Address type. The value can be 0 (IPv4), 1 (IPv6), or 2 (domain). Enumeration values: • **0** • **1** • **2**
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
tags_id	No	String	tags id
source	No	String	source address
destination	No	String	destination address
service	No	String	service port
application	No	String	application

Request Parameters

Table 4-160 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-161 Response body parameters

Parameter	Type	Description
data	**data** object	data

Table 4-162 data

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total number of queried records
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
records	Array of **records** objects	records

Table 4-163 records

Parameter	Type	Description
rule_id	String	Rule ID
address_type	Integer	Address type. The value can be 0 (IPv4) or 1 (IPv6).
name	String	Rule name
sequence	**OrderRuleAclDto** object	UpdateRuleAclDto

Parameter	Type	Description
direction	Integer	Direction: 0 means outside to inside, 1 means inside to outside, direction value is required when rule type is internet or nat. Enumeration values: • **0** • **1end_time**
action_type	Integer	Action. 0: allow; 1: deny
status	Integer	Rule delivery status. 0: disabled; 1: enabled.
description	String	Description
long_connect_time_hour	Long	Persistent connection duration (hour)
long_connect_time_minute	Long	Persistent connection duration (hour)
long_connect_time_second	Long	Persistent connection duration (hour)
long_connect_time	Long	Persistent connection duration
long_connect_enable	Integer	Persistent connection support
source	**RuleAddressDto** object	Source address transmission object
destination	**RuleAddressDto** object	destination
service	**RuleServiceDto** object	service
type	Integer	Rule type. The value can be 0 (Internet rule), 1 (VPC rule), or 2 (NAT rule). Enumeration values: • **0** • **1** • **2**
created_date	String	Created time
last_open_time	String	Last open time
tag	**TagsVO** object	tag

Table 4-164 OrderRuleAclDto

Parameter	Type	Description
dest_rule_id	String	ID of the rule that the added rule will follow. This parameter cannot be left blank if the rule is not pinned on top, and is empty when the added rule is pinned on top.
top	Integer	Whether to pin on top. The options are as follows: 0: no; 1: yes.
bottom	Integer	Whether to pin on bottom. The options are as follows: 0: no; 1: yes.

Table 4-165 RuleAddressDto

Parameter	Type	Description
type	Integer	Source type. 0: manual input; 1: associated IP address group; 2: domain name; 3: region; 4: domain set 5: multi object, 6: domain set dns, 7: domain url profile
address_type	Integer	Source type. 0: IPv4; 1: IPv6
address	String	Source IP address. The value cannot be empty for the manual type, and cannot be empty for the automatic or domain type.
address_set_id	String	ID of the associated IP address group. The value cannot be empty for the automatic type or for the manual or domain type.
address_set_name	String	IP address group name
domain_address_name	String	Name of the domain name address. This parameter cannot be left empty for the domain name type, and is empty for the manual or automatic type.
region_list_json	String	JSON value of the rule region list.
region_list	Array of **IpRegionDto** objects	Region list of a rule
domain_set_id	String	domain set id
domain_set_name	String	domain set name

Parameter	Type	Description
ip_address	Array of strings	IP address list
address_group	Array of strings	address group
address_group_names	Array of **AddressGroupVO** objects	Address set list
address_set_type	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.
predefined_group	Array of strings	predefined group

Table 4-166 IpRegionDto

Parameter	Type	Description
region_id	String	region id
description_cn	String	cn description
description_en	String	en description
region_type	Integer	Region type, 0 means country, 1 means province, 2 means continent

Table 4-167 RuleServiceDto

Parameter	Type	Description
type	Integer	Service input type. The value 0 indicates manual input, and the value 1 indicates automatic input.
protocol	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
protocols	Array of integers	Protocols

Parameter	Type	Description
source_port	String	Source port
dest_port	String	Destination port
service_set_id	String	Service group ID. This parameter is left blank for the manual type and cannot be left blank for the automatic type.
service_set_name	String	Service group name
custom_service	Array of **ServiceItem** objects	custom service
predefined_group	Array of strings	predefined group
service_group	Array of strings	Service group list
service_group_names	Array of **AddressGroupVO** objects	Service group name list
service_set_type	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-168 ServiceItem

Parameter	Type	Description
protocol	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
source_port	String	source port
dest_port	String	destination port
description	String	description
name	String	name

Table 4-169 AddressGroupVO

Parameter	Type	Description
set_id	String	set id
name	String	name
protocols	Array of integers	Protocols
service_set_type	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Table 4-170 TagsVO

Parameter	Type	Description
tag_id	String	tag id
tag_key	String	tag key
tag_value	String	tag value

Status code: 400

Table 4-171 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the data whose project ID is 9d80d070b6d44942af73c9c3d38e0429, project ID is e12bd2cd-ebfc-4af7-ad6f-ebe6da398029, and size is 10.

```
https://{Endpoint}/cfw/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rules?object_id=e12bd2cd-ebfc-4af7-ad6f-ebe6da398029&limit=10&offset=0
```


Example Responses

Status code: 200

OK


```
{
  "data" : {
    "limit" : 10,
    "object_id" : "cfebd347-b655-4b84-b938-3c54317599b2",
    "offset" : 0,
    "records" : [ {
      "action_type" : 0,
      "address_type" : 0,
      "destination" : {
        "address" : "0.0.0.0/0",
        "address_type" : 0,
        "type" : 0
      },
      "direction" : 1,
      "long_connect_enable" : 0,
      "created_date" : "2024-02-27 04:01:17",
      "last_open_time" : "2024-02-27 04:01:17",
      "description" : "description",
      "name" : "eip_ipv4_n_w_allow",
      "rule_id" : "ffe9af47-d893-483b-86e3-ee5242e8cb15",
      "service" : {
        "dest_port" : "0",
        "protocol" : -1,
        "source_port" : "0",
        "type" : 0
      },
      "source" : {
        "address_set_id" : "48bfb09b-6f3a-4371-8ddb-05d5d7148bcc",
        "address_set_name" : "ip_group",
        "address_type" : 0,
        "type" : 1
      },
      "status" : 1,
      "type" : "0"
    } ],
    "total" : 1
  }
}
```


Status code: 400

Bad Request


```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```


SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListAclRulesSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAclRulesRequest request = new ListAclRulesRequest();
        request.withObjectId("<object_id>");
        request.withType(ListAclRulesRequest.TypeEnum.NUMBER_<type>);
        request.withProtocol(ListAclRulesRequest.ProtocolEnum.NUMBER_<protocol>);
        request.withIp("<ip>");
        request.withName("<name>");
        request.withDirection(<direction>);
        request.withStatus(ListAclRulesRequest.StatusEnum.NUMBER_<status>);
        request.withActionType(ListAclRulesRequest.ActionTypeEnum.NUMBER_<action_type>);
        request.withAddressType(ListAclRulesRequest.AddressTypeEnum.NUMBER_<address_type>);
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withTagsId("<tags_id>");
        request.withSource("<source>");
        request.withDestination("<destination>");
        request.withService("<service>");
        try {
            ListAclRulesResponse response = client.listAclRules(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAclRulesRequest()
        request.object_id = "<object_id>"
        request.type = <type>
        request.protocol = <protocol>
        request.ip = "<ip>"
        request.name = "<name>"
        request.direction = <direction>
        request.status = <status>
        request.action_type = <action_type>
        request.address_type = <address_type>
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.tags_id = "<tags_id>"
        request.source = "<source>"
        request.destination = "<destination>"
        request.service = "<service>"
        response = client.list_acl_rules(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
```



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

    request := &model.ListAclRulesRequest{}
    request.ObjectId = "<object_id>"
    typeRequest:= model.GetListAclRulesRequestTypeEnum().<TYPE>
    request.Type = &typeRequest
    protocolRequest:= model.GetListAclRulesRequestProtocolEnum().<PROTOCOL>
    request.Protocol = &protocolRequest
    ipRequest:= "<ip>"
    request.Ip = &ipRequest
    nameRequest:= "<name>"
    request.Name = &nameRequest
    directionRequest:= int32(<direction>)
    request.Direction = &directionRequest
    statusRequest:= model.GetListAclRulesRequestStatusEnum().<STATUS>
    request.Status = &statusRequest
    actionTypeRequest:= model.GetListAclRulesRequestActionTypeEnum().<ACTION_TYPE>
    request.ActionType = &actionTypeRequest
    addressTypeRequest:= model.GetListAclRulesRequestAddressTypeEnum().<ADDRESS_TYPE>
    request.AddressType = &addressTypeRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    tagsIdRequest:= "<tags_id>"
    request.TagsId = &tagsIdRequest
    sourceRequest:= "<source>"
    request.Source = &sourceRequest
    destinationRequest:= "<destination>"
    request.Destination = &destinationRequest
    serviceRequest:= "<service>"
    request.Service = &serviceRequest
    response, err := client.ListAclRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

Error Codes

See **Error Codes**.

4.3.10 Setting the Priority of an ACL Protection Rule

Function

This API is used to set the priority of an ACL protection rule.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/acl-rule/order/{acl_rule_id}

Table 4-172 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
acl_rule_id	Yes	String	Rule ID

Table 4-173 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-174 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-175 Request body parameters

Parameter	Mandatory	Type	Description
dest_rule_id	No	String	ID of the rule that the added rule will follow. This parameter cannot be left blank if the rule is not pinned on top, and is empty when the added rule is pinned on top.

Parameter	Mandatory	Type	Description
top	No	Integer	Whether to pin on top. The options are as follows: 0: no; 1: yes.
bottom	No	Integer	Whether to pin on bottom. The options are as follows: 0: no; 1: yes.

Response Parameters

Status code: 200

Table 4-176 Response body parameters

Parameter	Type	Description
data	**RuleId** object	Rule ID list

Table 4-177 RuleId

Parameter	Type	Description
id	String	id
name	String	name

Status code: 400

Table 4-178 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Set the rule with the rule id of ffe9af47-d893-483b-86e3-ee5242e8cb15 in the project id9d80d070b6d44942af73c9c3d38e0429 under the rule with the id of 69c32dc5-f801-4294-98ee-978b51f97d35

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/acl-rule/order/ffe9af47-d893-483b-86e3-ee5242e8cb15

{
  "top" : 0,
  "dest_rule_id" : "69c32dc5-f801-4294-98ee-978b51f97d35"
}
```

Example Responses

Status code: 200

Rule sorting response

```
{
  "data" : {
    "id" : "ffe9af47-d893-483b-86e3-ee5242e8cb15"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Set the rule with the rule id of ffe9af47-d893-483b-86e3-ee5242e8cb15 in the project id9d80d070b6d44942af73c9c3d38e0429 under the rule with the id of 69c32dc5-f801-4294-98ee-978b51f97d35

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateAclRuleOrderSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAclRuleOrderRequest request = new UpdateAclRuleOrderRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        OrderRuleAclDto body = new OrderRuleAclDto();
        body.withTop(0);
        body.withDestRuleId("69c32dc5-f801-4294-98ee-978b51f97d35");
        request.withBody(body);
        try {
            UpdateAclRuleOrderResponse response = client.updateAclRuleOrder(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

Set the rule with the rule id of ffe9af47-d893-483b-86e3-ee5242e8cb15 in the project id9d80d070b6d44942af73c9c3d38e0429 under the rule with the id of 69c32dc5-f801-4294-98ee-978b51f97d35

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAclRuleOrderRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
```



```
        request.fw_instance_id = "<fw_instance_id>"
        request.body = OrderRuleAclDto(
            top=0,
            dest_rule_id="69c32dc5-f801-4294-98ee-978b51f97d35"
        )
        response = client.update_acl_rule_order(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

Set the rule with the rule id of ffe9af47-d893-483b-86e3-ee5242e8cb15 in the project id9d80d070b6d44942af73c9c3d38e0429 under the rule with the id of 69c32dc5-f801-4294-98ee-978b51f97d35

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAclRuleOrderRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    topOrderRuleAclDto:= int32(0)
    destRuleIdOrderRuleAclDto:= "69c32dc5-f801-4294-98ee-978b51f97d35"
    request.Body = &model.OrderRuleAclDto{
        Top: &topOrderRuleAclDto,
        DestRuleId: &destRuleIdOrderRuleAclDto,
    }
    response, err := client.UpdateAclRuleOrder(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Rule sorting response
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.4 Blacklist and Whitelist Management

4.4.1 Creating a Blacklist or Whitelist Rule

Function

This API is used for creating a blacklist or whitelist rule.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/black-white-list

Table 4-179 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-180 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-181 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-182 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
list_type	Yes	Integer	Blacklist/Whitelist type. The options are 4 (blacklist) and 5 (whitelist).
direction	Yes	Integer	Indicates the address direction. 0: source address 1: destination address
address_type	Yes	Integer	IP address type. 0: ipv4; 1: ipv6; 2: domain
address	Yes	String	Address type
protocol	Yes	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
port	Yes	String	Destination port
description	No	String	description

Response Parameters

Status code: 200

Table 4-183 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Response to the request for adding a blacklist or whitelist

Table 4-184 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-185 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Add an IPv4 TCP whitelist to object cfebd347-b655-4b84-b938-3c54317599b2 of project 9d80d070b6d44942af73c9c3d38e0429. Direction: source address; IP address: 1.1.1.1; protocol type: TCP; port number: 1

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/black-white-list

{
  "object_id" : "cfebd347-b655-4b84-b938-3c54317599b2",
  "list_type" : 5,
  "direction" : 0,
  "address" : "1.1.1.1",
  "protocol" : 6,
  "port" : "1",
  "address_type" : 0
}
```

Example Responses

Status code: 200

Response to the request for adding a blacklist or whitelist

```
{
  "data" : {
    "id" : "2eee3fe8-0b9b-49ac-8e7f-eaafa321e99a",
    "name" : "test"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add an IPv4 TCP whitelist to object cfebd347-b655-4b84-b938-3c54317599b2 of project 9d80d070b6d44942af73c9c3d38e0429. Direction: source address; IP address: 1.1.1.1; protocol type: TCP; port number: 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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class AddBlackWhiteListSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddBlackWhiteListRequest request = new AddBlackWhiteListRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddBlackWhiteListDto body = new AddBlackWhiteListDto();
        body.withPort("1");
        body.withProtocol(6);
        body.withAddress("1.1.1.1");
        body.withAddressType(0);
```



```
        body.withDirection(0);
        body.withListType(5);
        body.withObjectId("cfebd347-b655-4b84-b938-3c54317599b2");
        request.withBody(body);
        try {
            AddBlackWhiteListResponse response = client.addBlackWhiteList(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

Add an IPv4 TCP whitelist to object cfebd347-b655-4b84-b938-3c54317599b2 of project 9d80d070b6d44942af73c9c3d38e0429. Direction: source address; IP address: 1.1.1.1; protocol type: TCP; port number: 1

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddBlackWhiteListRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = AddBlackWhiteListDto(
            port="1",
            protocol=6,
            address="1.1.1.1",
            address_type=0,
            direction=0,
            list_type=5,
            object_id="cfebd347-b655-4b84-b938-3c54317599b2"
        )
        response = client.add_black_white_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

Add an IPv4 TCP whitelist to object cfebd347-b655-4b84-b938-3c54317599b2 of project 9d80d070b6d44942af73c9c3d38e0429. Direction: source address; IP address: 1.1.1.1; protocol type: TCP; port number: 1

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddBlackWhiteListRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    request.Body = &model.AddBlackWhiteListDto{
        Port: "1",
        Protocol: int32(6),
        Address: "1.1.1.1",
        AddressType: int32(0),
        Direction: int32(0),
        ListType: int32(5),
        ObjectId: "cfebd347-b655-4b84-b938-3c54317599b2",
    }
    response, err := client.AddBlackWhiteList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for adding a blacklist or whitelist
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.4.2 Updating the Blacklist or Whitelist

Function

This API is used to update the blacklist or whitelist.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/black-white-list/{list_id}

Table 4-186 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
list_id	Yes	String	Blacklist/Whitelist ID

Table 4-187 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-188 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-189 Request body parameters

Parameter	Mandatory	Type	Description
direction	No	Integer	Indicates the address direction. 0: source address 1: destination address
address_type	No	Integer	Address type. 0: ipv4; 1: ipv6; 2: domain

Parameter	Mandatory	Type	Description
address	No	String	IP address
protocol	No	Integer	Protocol type. The value is 6 for TCP, 17 for UDP, 1 for ICMP, 58 for ICMPv6, and -1 for any protocol.
port	No	String	Port
list_type	No	Integer	Blacklist/Whitelist type. The options are 4 (blacklist) and 5 (whitelist). Enumeration values: • **4** • **5**
object_id	No	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
description	No	String	description

Response Parameters

Status code: 200

Table 4-190 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Response to the request for updating a blacklist or whitelist

Table 4-191 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-192 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Update the whitelist with the project id 9d80d070b6d44942af73c9c3d38e0429 and the protected object id as cfebd347-b655-4b84-b938-3c54317599b2. The direction is the source address, the address is 1.1.1.1, the protocol type is tcp, and the port is 1 ipv4 tcp

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/black-white-list/
9d80d070b6d44942af73c9c3d38e042b

{
  "object_id" : "cfebd347-b655-4b84-b938-3c54317599b2",
  "list_type" : 5,
  "direction" : 0,
  "address" : "1.1.1.1",
  "protocol" : 6,
  "port" : "1",
  "address_type" : 0
}
```

Example Responses

Status code: 200

Blacklist/Whitelist update response

```
{
  "data" : {
    "id" : "2eee3fe8-0b9b-49ac-8e7f-eaafa321e99a",
    "name" : "test"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Update the whitelist with the project id 9d80d070b6d44942af73c9c3d38e0429 and the protected object id as cfebd347-b655-4b84-b938-3c54317599b2. The direction is the source address, the address is 1.1.1.1, the protocol type is tcp, and the port is 1 ipv4 tcp

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateBlackWhiteListSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateBlackWhiteListRequest request = new UpdateBlackWhiteListRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        UpdateBlackWhiteListDto body = new UpdateBlackWhiteListDto();
        body.withObjectId("cfebd347-b655-4b84-b938-3c54317599b2");
        body.withListType(UpdateBlackWhiteListDto.ListTypeEnum.NUMBER_5);
        body.withPort("1");
        body.withProtocol(6);
        body.withAddress("1.1.1.1");
        body.withAddressType(0);
        body.withDirection(0);
        request.withBody(body);
        try {
            UpdateBlackWhiteListResponse response = client.updateBlackWhiteList(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

Update the whitelist with the project id 9d80d070b6d44942af73c9c3d38e0429 and the protected object id as cfebd347-b655-4b84-b938-3c54317599b2. The direction is the source address, the address is 1.1.1.1, the protocol type is tcp, and the port is 1 ipv4 tcp

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateBlackWhiteListRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = UpdateBlackWhiteListDto(
            object_id="cfebd347-b655-4b84-b938-3c54317599b2",
            list_type=5,
            port="1",
            protocol=6,
            address="1.1.1.1",
            address_type=0,
            direction=0
        )
        response = client.update_black_white_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

Update the whitelist with the project id 9d80d070b6d44942af73c9c3d38e0429 and the protected object id as cfebd347-b655-4b84-b938-3c54317599b2. The direction is the source address, the address is 1.1.1.1, the protocol type is tcp, and the port is 1 ipv4 tcp

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateBlackWhiteListRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    objectIdUpdateBlackWhiteListDto:= "cfebd347-b655-4b84-b938-3c54317599b2"
    listTypeUpdateBlackWhiteListDto:= model.GetUpdateBlackWhiteListDtoListTypeEnum().E_5
    portUpdateBlackWhiteListDto:= "1"
    protocolUpdateBlackWhiteListDto:= int32(6)
    addressUpdateBlackWhiteListDto:= "1.1.1.1"
    addressTypeUpdateBlackWhiteListDto:= int32(0)
    directionUpdateBlackWhiteListDto:= int32(0)
    request.Body = &model.UpdateBlackWhiteListDto{
        ObjectId: &objectIdUpdateBlackWhiteListDto,
        ListType: &listTypeUpdateBlackWhiteListDto,
        Port: &portUpdateBlackWhiteListDto,
        Protocol: &protocolUpdateBlackWhiteListDto,
        Address: &addressUpdateBlackWhiteListDto,
        AddressType: &addressTypeUpdateBlackWhiteListDto,
        Direction: &directionUpdateBlackWhiteListDto,
    }
    response, err := client.UpdateBlackWhiteList(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Blacklist/Whitelist update response
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.4.3 Deleting a Blacklist or Whitelist Rule

Function

This API is used to delete a blacklist or whitelist rule.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/black-white-list/{list_id}

Table 4-193 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
list_id	Yes	String	Blacklist/Whitelist ID

Table 4-194 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-195 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-196 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Response to the request for deleting a blacklist or whitelist

Table 4-197 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-198 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Delete the black and white list with the project id 9d80d070b6d44942af73c9c3d38e0429 and the black and white list with the id 2eee3fe8-0b9b-49ac-8e7f-eaafa321e99a

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/black-white-list/2eee3fe8-0b9b-49ac-8e7f-eaafa321e99a
```

Example Responses

Status code: 200

Blacklist/Whitelist deletion response

```
{
  "data" : {
    "id" : "2eee3fe8-0b9b-49ac-8e7f-eaafa321e99a"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteBlackWhiteListSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteBlackWhiteListRequest request = new DeleteBlackWhiteListRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteBlackWhiteListResponse response = client.deleteBlackWhiteList(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteBlackWhiteListRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_black_white_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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteBlackWhiteListRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Blacklist/Whitelist deletion response
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.4.4 Querying a Blacklist or Whitelist

Function

This API is used to query a blacklist or whitelist.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/black-white-lists

Table 4-199 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-200 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
list_type	Yes	Integer	Blacklist/Whitelist type. The options are 4 (blacklist) and 5 (whitelist). Enumeration values: • **4** • **5**
address_type	No	Integer	Specifies the IP address type. The value can be 0 (IPv4), 1 (IPv6), or 2 (domain). Enumeration values: • **0** • **1** • **2**
address	No	String	IP address
port	No	String	Port
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-201 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-202 Response body parameters

Parameter	Type	Description
data	**data** object	Return value for querying the blacklist or whitelist

Table 4-203 data

Parameter	Type	Description
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total number of queried records
records	Array of **records** objects	Blacklist and whitelist records

Table 4-204 records

Parameter	Type	Description
list_id	String	Blacklist/Whitelist ID
direction	Integer	Direction of a black or white address. 0: source address; 1: destination address.
address_type	Integer	IP address type. 0: ipv4; 1: ipv6; 2: domain
address	String	IP address

Parameter	Type	Description
protocol	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
port	String	Port
description	String	description

Status code: 400

Table 4-205 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query five whitelist records on the first page of object cfebd347-b655-4b84-b938-3c54317599b2 in project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/black-white-lists?object_id=cfebd347-b655-4b84-b938-3c54317599b2&limit=10&offset=0&list_type=5
```

Example Responses

Status code: 200

Return value of a blacklist or whitelist query

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "address" : "1.1.1.1",
      "address_type" : 0,
      "description" : "",
      "direction" : 0,
      "list_id" : "1310d401-daf5-44f2-8276-f79e1643984d",
      "protocol" : 6
    } ],
    "total" : 1
```

```
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListBlackWhiteListsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListBlackWhiteListsRequest request = new ListBlackWhiteListsRequest();
        request.withObjectId("<object_id>");
        request.withListType(ListBlackWhiteListsRequest.ListTypeEnum.NUMBER_<list_type>);
        request.withAddressType(ListBlackWhiteListsRequest.AddressTypeEnum.NUMBER_<address_type>);
        request.withAddress("<address>");
        request.withPort("<port>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListBlackWhiteListsResponse response = client.listBlackWhiteLists(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListBlackWhiteListsRequest()
        request.object_id = "<object_id>"
        request.list_type = <list_type>
        request.address_type = <address_type>
        request.address = "<address>"
        request.port = "<port>"
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_black_white_lists(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListBlackWhiteListsRequest{}
    request.ObjectId = "<object_id>"
    request.ListType = model.GetListBlackWhiteListsRequestListTypeEnum().<LIST_TYPE>
    addressTypeRequest:= model.GetListBlackWhiteListsRequestAddressTypeEnum().<ADDRESS_TYPE>
    request.AddressType = &addressTypeRequest
    addressRequest:= "<address>"
    request.Address = &addressRequest
    portRequest:= "<port>"
    request.Port = &portRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListBlackWhiteLists(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of a blacklist or whitelist query
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5 Address Set Management

4.5.1 Adding an Address Set Member

Function

This API is used to add an address group member.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/address-items

Table 4-206 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-207 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-208 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-209 Request body parameters

Parameter	Mandatory	Type	Description
set_id	No	String	ID of the IP address group
address_items	No	Array of **address_items** objects	Address group member information

Table 4-210 address_items

Parameter	Mandatory	Type	Description
name	Yes	String	Address name
address_type	No	Integer	Address type. The value can be 0 (IPv4) or 1 (IPv6).
address	No	String	IP address information of the address group
description	No	String	Address group member description

Response Parameters

Status code: 200

Table 4-211 Response body parameters

Parameter	Type	Description
data	**AddressItems** object	Data returned after an address group member is added

Table 4-212 AddressItems

Parameter	Type	Description
items	Array of **IdObject** objects	List of address group member IDs
covered_ip	Array of **CoveredIPVO** objects	covered ip list

Table 4-213 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Table 4-214 CoveredIPVO

Parameter	Type	Description
ip	String	ip address
covered_Ip	String	covered ip

Status code: 400

Table 4-215 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Add an address group member whose IP address is 2.2.2.2 and name is ceshi to the group whose set_id is 8773c082-2a6c-4529-939a-edc28ef1a67c in project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-items

{
  "set_id" : "8773c082-2a6c-4529-939a-edc28ef1a67c",
  "address_items" : [ {
    "description" : "",
    "name" : "ceshi",
    "address" : "2.2.2.2"
  } ]
}
```

Example Responses

Status code: 200

Return value for adding an address group member

```
{
  "data" : {
    "covered_ip" : [ ],
    "items" : [ {
      "id" : "65cb47fc-e666-4af4-8c2c-1fbd2f4b1eae"
    } ]
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200001",
  "error_msg" : "empty param"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add an address group member whose IP address is 2.2.2.2 and name is ceshi to the group whose set_id is 8773c082-2a6c-4529-939a-edc28ef1a67c in project 9d80d070b6d44942af73c9c3d38e0429.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class AddAddressItemSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddAddressItemRequest request = new AddAddressItemRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddAddressItemsInfoDto body = new AddAddressItemsInfoDto();
        List<AddAddressItemsInfoDtoAddressItems> listbodyAddressItems = new ArrayList<>();
        listbodyAddressItems.add(
            new AddAddressItemsInfoDtoAddressItems()
                .withName("ceshi")
                .withAddress("2.2.2.2")
                .withDescription("")
        );
        body.withAddressItems(listbodyAddressItems);
        body.withSetId("8773c082-2a6c-4529-939a-edc28ef1a67c");
        request.withBody(body);
        try {
            AddAddressItemResponse response = client.addAddressItem(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

Add an address group member whose IP address is 2.2.2.2 and name is ceshi to the group whose set_id is 8773c082-2a6c-4529-939a-edc28ef1a67c in project 9d80d070b6d44942af73c9c3d38e0429.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddAddressItemRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listAddressItemsbody = [
            AddAddressItemsInfoDtoAddressItems(
                name="ceshi",
                address="2.2.2.2",
                description=""
            )
        ]
        request.body = AddAddressItemsInfoDto(
            address_items=listAddressItemsbody,
            set_id="8773c082-2a6c-4529-939a-edc28ef1a67c"
        )
        response = client.add_address_item(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

Add an address group member whose IP address is 2.2.2.2 and name is ceshi to the group whose set_id is 8773c082-2a6c-4529-939a-edc28ef1a67c in project 9d80d070b6d44942af73c9c3d38e0429.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddAddressItemRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    addressAddressItems:= "2.2.2.2"
    descriptionAddressItems:= ""
    var listAddressItemsbody = []model.AddAddressItemsInfoDtoAddressItems{
        {
            Name: "ceshi",
            Address: &addressAddressItems,
            Description: &descriptionAddressItems,
        },
    }
    setIdAddAddressItemsInfoDto:= "8773c082-2a6c-4529-939a-edc28ef1a67c"
    request.Body = &model.AddAddressItemsInfoDto{
        AddressItems: &listAddressItemsbody,
        SetId: &setIdAddAddressItemsInfoDto,
    }
    response, err := client.AddAddressItem(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value for adding an address group member
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.2 Batch Delete Address Items

Function

Batch Delete Address Items

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/address-items

Table 4-216 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-217 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-218 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-219 Request body parameters

Parameter	Mandatory	Type	Description
set_id	Yes	String	set id
address_item_ids	Yes	Array of strings	address item ids

Response Parameters

Status code: 200

Table 4-220 Response body parameters

Parameter	Type	Description
data	Array of strings	batch delete address item response

Example Requests

Delete address set member whose ID is d072ad2e-033c-40a9-b0b5-751f9c2943a6 from address set e4884376-7efb-40e7-b98b-13668d6f8b85 for project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-items?
fw_instance_id=7a004e79-0b8b-4679-ab20-267f3946e8ba&enterprise_project_id=default

{
  "set_id" : "e4884376-7efb-40e7-b98b-13668d6f8b85",
  "address_item_ids" : [ "d072ad2e-033c-40a9-b0b5-751f9c2943a6" ]
}
```

Example Responses

Status code: 200

```
{
  "data" : [ "d072ad2e-033c-40a9-b0b5-751f9c2943a6" ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete address set member whose ID is d072ad2e-033c-40a9-b0b5-751f9c2943a6 from address set e4884376-7efb-40e7-b98b-13668d6f8b85 for project 9d80d070b6d44942af73c9c3d38e0429.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class BatchDeleteAddressItemsSolution {
```



```
    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchDeleteAddressItemsRequest request = new BatchDeleteAddressItemsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        DeleteAddressItemsInfoDto body = new DeleteAddressItemsInfoDto();
        List<String> listbodyAddressItemIds = new ArrayList<>();
        listbodyAddressItemIds.add("d072ad2e-033c-40a9-b0b5-751f9c2943a6");
        body.withAddressItemIds(listbodyAddressItemIds);
        body.withSetId("e4884376-7efb-40e7-b98b-13668d6f8b85");
        request.withBody(body);
        try {
            BatchDeleteAddressItemsResponse response = client.batchDeleteAddressItems(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

Delete address set member whose ID is d072ad2e-033c-40a9-b0b5-751f9c2943a6 from address set e4884376-7efb-40e7-b98b-13668d6f8b85 for project 9d80d070b6d44942af73c9c3d38e0429.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
```



```
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchDeleteAddressItemsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listAddressItemIdsbody = [
            "d072ad2e-033c-40a9-b0b5-751f9c2943a6"
        ]
        request.body = DeleteAddressItemsInfoDto(
            address_item_ids=listAddressItemIdsbody,
            set_id="e4884376-7efb-40e7-b98b-13668d6f8b85"
        )
        response = client.batch_delete_address_items(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

Delete address set member whose ID is d072ad2e-033c-40a9-b0b5-751f9c2943a6 from address set e4884376-7efb-40e7-b98b-13668d6f8b85 for project 9d80d070b6d44942af73c9c3d38e0429.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchDeleteAddressItemsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    var listAddressItemIdsbody = []string{
        "d072ad2e-033c-40a9-b0b5-751f9c2943a6",
    }
    request.Body = &model.DeleteAddressItemsInfoDto{
```



```
        AddressItemIds: listAddressItemIdsbody,
        SetId: "e4884376-7efb-40e7-b98b-13668d6f8b85",
    }
    response, err := client.BatchDeleteAddressItems(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	

Error Codes

See **Error Codes**.

4.5.3 Deleting an Address Set Member

Function

This API is used to delete a member from an address group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/address-items/{item_id}

Table 4-221 Path Parameters

Parameter	Mandatory	Type	Description
item_id	Yes	String	ID of an address group member
project_id	Yes	String	Project ID

Table 4-222 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-223 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-224 Response body parameters

Parameter	Type	Description
data	**IdObject** object	delete address item response

Table 4-225 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-226 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Delete the address group member whose ID is 65cb47fc-e666-4af4-8c2c-1fbd2f4b1eae from the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-items/65cb47fc-e666-4af4-8c2c-1fbd2f4b1eae
```

Example Responses

Status code: 200

Return value for deleting an address group member

```
{
  "data" : {
    "id" : "65cb47fc-e666-4af4-8c2c-1fbd2f4b1eae",
    "name" : "test"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "Incorrect instance status."
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteAddressItemSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteAddressItemRequest request = new DeleteAddressItemRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteAddressItemResponse response = client.deleteAddressItem(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteAddressItemRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_address_item(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```



```
    request := &model.DeleteAddressItemRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.DeleteAddressItem(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value for deleting an address group member
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.4 Querying Address Set Members

Function

This API is used to query address group members.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/address-items

Table 4-227 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-228 Query Parameters

Parameter	Mandatory	Type	Description
set_id	Yes	String	ID of the IP address group
key_word	No	String	Keyword
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
address	No	String	IP address
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_address_set_type	No	Integer	Query address set type0 means custom define address set1 means predefined address set

Request Parameters

Table 4-229 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-230 Response body parameters

Parameter	Type	Description
data	**data** object	Response for address group member query

Table 4-231 data

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total
set_id	String	ID of the IP address group
records	Array of **records** objects	Member information

Table 4-232 records

Parameter	Type	Description
item_id	String	ID of an address group member
name	String	Name of an address group member
description	String	Description
address_type	Integer	Address group type. The value can be 0 (IPv4) or 1 (IPv6).
address	String	Address group

Status code: 400

Table 4-233 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**

Parameter	Type	Description
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query members in address group 8773c082-2a6c-4529-939a-edc28ef1a67c of project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-items?
set_id=8773c082-2a6c-4529-939a-edc28ef1a67c&limit=10&offset=0
```

Example Responses

Status code: 200

Return value for querying address group members

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "address" : "1.1.1.1",
      "address_type" : 0,
      "description" : "",
      "item_id" : "294fab71-34bf-4858-a380-8f7530e1c816"
    } ],
    "set_id" : "8773c082-2a6c-4529-939a-edc28ef1a67c",
    "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;
```



```
public class ListAddressItemsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAddressItemsRequest request = new ListAddressItemsRequest();
        request.withSetId("<set_id>");
        request.withKeyWord("<key_word>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withAddress("<address>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListAddressItemsResponse response = client.listAddressItems(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
```



```
        .build()

    try:
        request = ListAddressItemsRequest()
        request.set_id = "<set_id>"
        request.key_word = "<key_word>"
        request.limit = <limit>
        request.offset = <offset>
        request.address = "<address>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_address_items(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAddressItemsRequest{}
    request.SetId = "<set_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    addressRequest:= "<address>"
    request.Address = &addressRequest
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListAddressItems(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```



```
  }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value for querying address group members
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.5 Adding an Address Set

Function

This API is used to add an address group.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/address-set

Table 4-234 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-235 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-236 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-237 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
name	Yes	String	IP address group name
description	No	String	Address group description
address_type	No	Integer	Address type. The value can be 0 (IPv4) or 1 (IPv6). Enumeration values: • **0** • **1**

Response Parameters

Status code: 200

Table 4-238 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Data returned after an address group is added

Table 4-239 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-240 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Add an IPv4 address group whose project ID is 14181c1245cf4fd786824efe1e2b9388, protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48, and name is ceshi.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/address-set

{
  "object_id" : "1530de8a-522d-4771-9067-9fa4e2f53b48",
  "name" : "ceshi",
  "description" : "",
  "address_type" : 0
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "9dffcd62-23bf-4456-83fa-80fa0fee47db"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00900020",
  "error_msg" : "Address groups exceed the maximum limit"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add an IPv4 address group whose project ID is 14181c1245cf4fd786824efe1e2b9388, protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48, and name is ceshi.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class AddAddressSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddAddressSetRequest request = new AddAddressSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddAddressSetDto body = new AddAddressSetDto();
        body.withAddressType(AddAddressSetDto.AddressTypeEnum.NUMBER_0);
        body.withDescription("");
        body.withName("ceshi");
        body.withObjectId("1530de8a-522d-4771-9067-9fa4e2f53b48");
        request.withBody(body);
        try {
            AddAddressSetResponse response = client.addAddressSet(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

Add an IPv4 address group whose project ID is 14181c1245cf4fd786824efe1e2b9388, protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48, and name is ceshi.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddAddressSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = AddAddressSetDto(
            address_type=0,
            description="",
            name="ceshi",
            object_id="1530de8a-522d-4771-9067-9fa4e2f53b48"
        )
        response = client.add_address_set(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

Add an IPv4 address group whose project ID is 14181c1245cf4fd786824efe1e2b9388, protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48, and name is ceshi.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddAddressSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    addressTypeAddAddressSetDto:= model.GetAddAddressSetDtoAddressTypeEnum().E_0
    descriptionAddAddressSetDto:= ""
    request.Body = &model.AddAddressSetDto{
        AddressType: &addressTypeAddAddressSetDto,
        Description: &descriptionAddAddressSetDto,
        Name: "ceshi",
        ObjectId: "1530de8a-522d-4771-9067-9fa4e2f53b48",
    }
    response, err := client.AddAddressSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.6 Querying IP Address Sets

Function

Querying IP Address Sets

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/address-sets

Table 4-241 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-242 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
key_word	No	String	Keyword
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.

Parameter	Mandatory	Type	Description
address	No	String	IP address
address_type	No	Integer	Specifies the address type. The value can be 0 (IPv4) or 1 (IPv6). Enumeration values: • **0** • **1**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_address_set_type	No	Integer	Query address set type, 0 indicates a custom address set and 1 indicates a predefined address set

Request Parameters

Table 4-243 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-244 Response body parameters

Parameter	Type	Description
data	**data** object	Data returned for the address group list query

Table 4-245 data

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total
records	Array of **records** objects	IP address set list

Table 4-246 records

Parameter	Type	Description
set_id	String	ID of the IP address group
ref_count	Integer	Reference count
description	String	Description

Parameter	Type	Description
name	String	IP address group name
address_type	Integer	Address type. The value can be 0 (IPv4) or 1 (IPv6).
object_id	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
address_set_type	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.

Status code: 400

Table 4-247 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

This API is used to query the IP address group information on the first page of project 8a41d6a5-f215-428a-a76c-dc923b5d599a. The protected object ID is 5c69cf330cda42369cbd726ee1bc5e76.

```
https://{Endpoint}/v1/5c69cf330cda42369cbd726ee1bc5e76/address-sets?object_id=8a41d6a5-f215-428a-a76c-dc923b5d599a&limit=10&offset=0
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "address_set_type" : 0,
      "object_id" : "cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16",
      "address_type" : 0,
      "description" : "",
      "name" : "test",
      "ref_count" : 0,
      "set_id" : "50da1eff-e58d-4380-b899-a78f94137d3b"
    } ],
    "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListAddressSetsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAddressSetsRequest request = new ListAddressSetsRequest();
        request.withObjectId("<object_id>");
        request.withKeyWord("<key_word>");
```



```
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withAddress("<address>");
        request.withAddressType(ListAddressSetsRequest.AddressTypeEnum.NUMBER_<address_type>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withQueryAddressSetType(<query_address_set_type>);
        try {
            ListAddressSetsResponse response = client.listAddressSets(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAddressSetsRequest()
        request.object_id = "<object_id>"
        request.key_word = "<key_word>"
        request.limit = <limit>
        request.offset = <offset>
        request.address = "<address>"
        request.address_type = <address_type>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.query_address_set_type = <query_address_set_type>
        response = client.list_address_sets(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAddressSetsRequest{}
    request.ObjectId = "<object_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    addressRequest:= "<address>"
    request.Address = &addressRequest
    addressTypeRequest:= model.GetListAddressSetsRequestAddressTypeEnum().<ADDRESS_TYPE>
    request.AddressType = &addressTypeRequest
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    queryAddressSetTypeRequest:= int32(<query_address_set_type>)
    request.QueryAddressSetType = &queryAddressSetTypeRequest
    response, err := client.ListAddressSets(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.7 Querying Address Set Details

Function

This API is used to query details about an address group.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/address-sets/{set_id}

Table 4-248 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	ID of the IP address group

Table 4-249 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_address_set_type	No	Integer	Query address set type, 0 indicates a custom address set and 1 indicates a predefined address set
address_set_type	No	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.

Request Parameters

Table 4-250 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-251 Response body parameters

Parameter	Type	Description
data	**data** object	Query address group details.

Table 4-252 data

Parameter	Type	Description
id	String	ID of the IP address group
name	String	IP address group name
description	String	Address group description
address_set_type	Integer	Address set type, 0 indicates a custom define address set, 1 indicates a WAF return-to-source IP address set, 2 indicates a DDoS return-to-source IP address set, and 3 indicates a NAT64 translation address set.
address_type	Integer	Specifies the address type. The value can be 0 (IPv4) or 1 (IPv6). Enumeration values: • **0** • **1**

Status code: 400

Table 4-253 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query details about address group cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 in project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-sets/
cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "address_set_type" : 0,
    "address_type" : 0,
    "description" : "",
    "id" : "cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16",
    "name" : "ABC"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListAddressSetDetailSolution {

    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);
```



```
        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAddressSetDetailRequest request = new ListAddressSetDetailRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withQueryAddressSetType(<query_address_set_type>);
        try {
            ListAddressSetDetailResponse response = client.listAddressSetDetail(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAddressSetDetailRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.query_address_set_type = <query_address_set_type>
        response = client.list_address_set_detail(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAddressSetDetailRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    queryAddressSetTypeRequest:= int32(<query_address_set_type>)
    request.QueryAddressSetType = &queryAddressSetTypeRequest
    response, err := client.ListAddressSetDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.8 Updating Address Set Information

Function

This API is used to update address group information.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/address-sets/{set_id}

Table 4-254 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	ID of the IP address group

Table 4-255 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-256 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-257 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	IP address group name
description	No	String	Address group description

Parameter	Mandatory	Type	Description
address_type	No	Integer	Address type. The value can be 0 (IPv4), 1 (IPv6), or 2 (domain). Enumeration values: • **0** • **1** • **2**

Response Parameters

Status code: 200

Table 4-258 Response body parameters

Parameter	Type	Description
data	**UpdateAddressSetResponseData** object	Data returned after an address group is updated

Table 4-259 UpdateAddressSetResponseData

Parameter	Type	Description
id	String	Id

Status code: 400

Table 4-260 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

In the project 9d80d070b6d44942af73c9c3d38e0429, change the name of the address set whose ID is cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 to ABCD. Change its address set type to IPV4.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-sets/
cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16

{
  "name" : "ABCD",
  "description" : "",
  "address_type" : 0
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

In the project 9d80d070b6d44942af73c9c3d38e0429, change the name of the address set whose ID is cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 to ABCD. Change its address set type to IPV4.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateAddressSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAddressSetRequest request = new UpdateAddressSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        UpdateAddressSetDto body = new UpdateAddressSetDto();
        body.withAddressType(UpdateAddressSetDto.AddressTypeEnum.NUMBER_0);
        body.withDescription("");
        body.withName("ABCD");
        request.withBody(body);
        try {
            UpdateAddressSetResponse response = client.updateAddressSet(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

In the project 9d80d070b6d44942af73c9c3d38e0429, change the name of the address set whose ID is cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 to ABCD. Change its address set type to IPV4.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```



```
    request = UpdateAddressSetRequest()
    request.enterprise_project_id = "<enterprise_project_id>"
    request.fw_instance_id = "<fw_instance_id>"
    request.body = UpdateAddressSetDto(
        address_type=0,
        description="",
        name="ABCD"
    )
    response = client.update_address_set(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

In the project 9d80d070b6d44942af73c9c3d38e0429, change the name of the address set whose ID is cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 to ABCD. Change its address set type to IPV4.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAddressSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    addressTypeUpdateAddressSetDto:= model.GetUpdateAddressSetDtoAddressTypeEnum().E_0
    descriptionUpdateAddressSetDto:= ""
    nameUpdateAddressSetDto:= "ABCD"
    request.Body = &model.UpdateAddressSetDto{
        AddressType: &addressTypeUpdateAddressSetDto,
        Description: &descriptionUpdateAddressSetDto,
        Name: &nameUpdateAddressSetDto,
    }
    response, err := client.UpdateAddressSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.5.9 Deleting an Address Set

Function

This API is used to delete an address group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/address-sets/{set_id}

Table 4-261 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	ID of the IP address group

Table 4-262 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-263 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-264 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Data returned after an address group is deleted

Table 4-265 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-266 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Delete address set cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16 from project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/address-sets/
cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "cf18f0b1-0ce7-4eb8-83b6-4b33c8448e16",
    "name" : "test"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200004",
  "error_msg" : "can not delete for used"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteAddressSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteAddressSetRequest request = new DeleteAddressSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteAddressSetResponse response = client.deleteAddressSet(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteAddressSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_address_set(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteAddressSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6 Service Set Management

4.6.1 Creating a Service Member

Function

This API is used to add group members in batches.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/service-items

Table 4-267 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-268 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-269 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-270 Request body parameters

Parameter	Mandatory	Type	Description
set_id	Yes	String	Service group ID
service_items	Yes	Array of **service_items** objects	Add a member to a service group.

Table 4-271 service_items

Parameter	Mandatory	Type	Description
item_id	No	String	Service member ID
protocol	Yes	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
source_port	Yes	String	Source port
dest_port	Yes	String	Destination port
name	No	String	Service member name
description	No	String	Service member description

Response Parameters

Status code: 200

Table 4-272 Response body parameters

Parameter	Type	Description
data	**ServiceItemIds** object	Data returned when a service group member is created

Table 4-273 ServiceItemIds

Parameter	Type	Description
items	Array of **IdObject** objects	Service group member ID list

Table 4-274 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-275 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Add a service group member named ceshi to the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-items

{
  "set_id" : "7cdebed3-af07-494e-a3c2-b88bb8d58b57",
  "service_items" : [ {
    "description" : "Add a member to a service group",
    "name" : "ceshi",
    "dest_port" : "1",
    "source_port" : "1",
    "protocol" : 6
  } ]
}
```

Example Responses

Status code: 200

Return value for adding a service group member

```
{
  "data" : {
    "items" : [ {
      "id" : "cc41c4af-86e8-4ed2-80ad-87d399aeaed0"
    } ]
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200001",
  "error_msg" : "empty param"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add a service group member named ceshi to the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class AddServiceItemsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddServiceItemsRequest request = new AddServiceItemsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddServiceItemsUsingPOSTRequestBody body = new AddServiceItemsUsingPOSTRequestBody();
        List<AddServiceItemsUsingPOSTRequestBodyServiceItems> listbodyServiceItems = new ArrayList<>();
        listbodyServiceItems.add(
```



```
            new AddServiceItemsUsingPOSTRequestBodyServiceItems()
                .withProtocol(6)
                .withSourcePort("1")
                .withDestPort("1")
                .withName("ceshi")
                .withDescription("Add a member to a service group")
        );
        body.withServiceItems(listbodyServiceItems);
        body.withSetId("7cdebed3-af07-494e-a3c2-b88bb8d58b57");
        request.withBody(body);
        try {
            AddServiceItemsResponse response = client.addServiceItems(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

Add a service group member named ceshi to the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddServiceItemsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listServiceItemsbody = [
            AddServiceItemsUsingPOSTRequestBodyServiceItems(
                protocol=6,
                source_port="1",
                dest_port="1",
                name="ceshi",
                description="Add a member to a service group"
            )
        ]
        request.body = AddServiceItemsUsingPOSTRequestBody(
```



```
            service_items=listServiceItemsbody,
            set_id="7cdebed3-af07-494e-a3c2-b88bb8d58b57"
        )
        response = client.add_service_items(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

Add a service group member named ceshi to the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddServiceItemsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    nameServiceItems:= "ceshi"
    descriptionServiceItems:= "Add a member to a service group"
    var listServiceItemsbody = []model.AddServiceItemsUsingPostRequestBodyServiceItems{
        {
            Protocol: int32(6),
            SourcePort: "1",
            DestPort: "1",
            Name: &nameServiceItems,
            Description: &descriptionServiceItems,
        },
    }
    request.Body = &model.AddServiceItemsUsingPostRequestBody{
        ServiceItems: listServiceItemsbody,
        SetId: "7cdebed3-af07-494e-a3c2-b88bb8d58b57",
    }
    response, err := client.AddServiceItems(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value for adding a service group member
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.2 Batch Delete Service Items

Function

This API is used to batch delete service items.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/service-items

Table 4-276 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-277 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-278 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-279 Request body parameters

Parameter	Mandatory	Type	Description
set_id	Yes	String	set id

Parameter	Mandatory	Type	Description
service_item_ids	Yes	Array of strings	service item ids

Response Parameters

Status code: 200

Table 4-280 Response body parameters

Parameter	Type	Description
data	Array of strings	batch delete service items

Example Requests

Delete the service item f837f7ae-22c9-449d-a99c-4be24533e243 under the service set 688faf62-20fc-4ca6-b9f9-6fbc518df5ae with project id 9d80d070b6d44942af73c9c3d38e0429

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-items?
fw_instance_id=7a004e79-0b8b-4679-ab20-267f3946e8ba&enterprise_project_id=default

{
  "set_id" : "688faf62-20fc-4ca6-b9f9-6fbc518df5ae",
  "service_item_ids" : [ "f837f7ae-22c9-449d-a99c-4be24533e243" ]
}
```

Example Responses

Status code: 200

Batch Delete Service Item Response

```
{
  "data" : [ "f837f7ae-22c9-449d-a99c-4be24533e243" ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete the service item f837f7ae-22c9-449d-a99c-4be24533e243 under the service set 688faf62-20fc-4ca6-b9f9-6fbc518df5ae with project id 9d80d070b6d44942af73c9c3d38e0429

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class BatchDeleteServiceItemsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchDeleteServiceItemsRequest request = new BatchDeleteServiceItemsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        DeleteServiceItemDto body = new DeleteServiceItemDto();
        List<String> listbodyServiceItemIds = new ArrayList<>();
        listbodyServiceItemIds.add("f837f7ae-22c9-449d-a99c-4be24533e243");
        body.withServiceItemIds(listbodyServiceItemIds);
        body.withSetId("688faf62-20fc-4ca6-b9f9-6fbc518df5ae");
        request.withBody(body);
        try {
            BatchDeleteServiceItemsResponse response = client.batchDeleteServiceItems(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

Delete the service item f837f7ae-22c9-449d-a99c-4be24533e243 under the service set 688faf62-20fc-4ca6-b9f9-6fbc518df5ae with project id 9d80d070b6d44942af73c9c3d38e0429

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchDeleteServiceItemsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listServiceItemIdsbody = [
            "f837f7ae-22c9-449d-a99c-4be24533e243"
        ]
        request.body = DeleteServiceItemDto(
            service_item_ids=listServiceItemIdsbody,
            set_id="688faf62-20fc-4ca6-b9f9-6fbc518df5ae"
        )
        response = client.batch_delete_service_items(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

Delete the service item f837f7ae-22c9-449d-a99c-4be24533e243 under the service set 688faf62-20fc-4ca6-b9f9-6fbc518df5ae with project id 9d80d070b6d44942af73c9c3d38e0429

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.BatchDeleteServiceItemsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    var listServiceItemIdsbody = []string{
        "f837f7ae-22c9-449d-a99c-4be24533e243",
    }
    request.Body = &model.DeleteServiceItemDto{
        ServiceItemIds: listServiceItemIdsbody,
        SetId: "688faf62-20fc-4ca6-b9f9-6fbc518df5ae",
    }
    response, err := client.BatchDeleteServiceItems(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Batch Delete Service Item Response

Error Codes

See **Error Codes**.

4.6.3 Obtaining the Service Set List

Function

This API is used to obtain the service group list.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/service-sets

Table 4-281 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-282 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
key_word	No	String	Keyword
limit	Yes	Integer	Number of queries on each page, in the range 1-1024 Minimum: **1** Maximum: **1024**
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**. Minimum: **0**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_service_set_type	No	Integer	Query service set type, 0 means custom define service set1 means predefine service set.

Request Parameters

Table 4-283 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-284 Response body parameters

Parameter	Type	Description
data	**ServiceSetRecords** object	QueryServiceSetResponse

Table 4-285 ServiceSetRecords

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total number of records queried
records	Array of **ServiceSet** objects	Service group list

Table 4-286 ServiceSet

Parameter	Type	Description
set_id	String	Service group ID
name	String	Name
description	String	Description
service_set_type	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases
ref_count	Integer	Reference count
status	String	Status
project_id	String	Project ID
protocols	Array of integers	Protocols

Status code: 400

Table 4-287 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the service group list on the first page of protected object a37bb4eb-c49e-4e88-bf77-944a75b0ce8a in project 2349ba469daf4b7daf268bb0261d18b0.

```
https://{Endpoint}/v1/2349ba469daf4b7daf268bb0261d18b0/service-sets?object_id=a37bb4eb-c49e-4e88-bf77-944a75b0ce8a&limit=10&offset=0
```

Example Responses

Status code: 200

Response to the request for querying service group information

```
{
  "data" : {
    "limit" : 50,
    "offset" : 0,
    "records" : [ {
      "name" : "test",
      "project_id" : "2349ba469daf4b7daf268bb0261d18b0",
      "protocols" : [ 6 ],
      "ref_count" : 2,
      "service_set_type" : 0,
      "set_id" : "6f475bad-5d33-45d1-98f8-c79f2f308d5a"
    } ],
    "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListServiceSetsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListServiceSetsRequest request = new ListServiceSetsRequest();
        request.withObjectId("<object_id>");
        request.withKeyWord("<key_word>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListServiceSetsResponse response = client.listServiceSets(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListServiceSetsRequest()
        request.object_id = "<object_id>"
        request.key_word = "<key_word>"
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_service_sets(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListServiceSetsRequest{}
    request.ObjectId = "<object_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListServiceSets(request)
    if err == nil {
```



```
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for querying service group information
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.4 Creating a Service Set

Function

This API is used to create a service group.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/service-set

Table 4-288 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-289 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-290 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-291 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
name	Yes	String	Service group name Minimum: **1** Maximum: **255**
description	No	String	Service group description Minimum: **1** Maximum: **255**

Response Parameters

Status code: 200

Table 4-292 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Data returned when a service group is created

Table 4-293 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-294 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Add a service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429, protected object is cfebd347-b655-4b84-b938-3c54317599b2, and name is ceshi.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-set

{
  "object_id" : "cfebd347-b655-4b84-b938-3c54317599b2",
  "name" : "ceshi",
  "description" : ""
}
```

Example Responses

Status code: 200

Return value of creating a service group

```
{
  "data" : {
    "id" : "221cfdca-3abf-4c30-ab0d-516a03c70866"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200024",
  "error_msg" : "Exceeded maximum quantity limit"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add a service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429, protected object is cfebd347-b655-4b84-b938-3c54317599b2, and name is ceshi.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class AddServiceSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddServiceSetRequest request = new AddServiceSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddServiceSetUsingPOSTRequestBody body = new AddServiceSetUsingPOSTRequestBody();
        body.withDescription("");
        body.withName("ceshi");
        body.withObjectId("cfebd347-b655-4b84-b938-3c54317599b2");
        request.withBody(body);
        try {
            AddServiceSetResponse response = client.addServiceSet(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

Add a service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429, protected object is cfebd347-b655-4b84-b938-3c54317599b2, and name is ceshi.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddServiceSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = AddServiceSetUsingPOSTRequestBody(
            description="",
            name="ceshi",
            object_id="cfebd347-b655-4b84-b938-3c54317599b2"
        )
        response = client.add_service_set(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

Add a service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429, protected object is cfebd347-b655-4b84-b938-3c54317599b2, and name is ceshi.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddServiceSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
```



```
    descriptionAddServiceSetUsingPostRequestBody:= ""
    request.Body = &model.AddServiceSetUsingPostRequestBody{
        Description: &descriptionAddServiceSetUsingPostRequestBody,
        Name: "ceshi",
        ObjectId: "cfebd347-b655-4b84-b938-3c54317599b2",
    }
    response, err := client.AddServiceSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of creating a service group
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.5 Querying Service Set Details

Function

This API is used to query the details about a service group.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/service-sets/{set_id}

Table 4-295 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	Service group ID

Table 4-296 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_service_set_type	No	Integer	Query service set type, 0 means custom define service set1 means predefine service set.

Request Parameters

Table 4-297 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-298 Response body parameters

Parameter	Type	Description
data	**ServiceSetDetailResponseDto** object	service set detail response

Table 4-299 ServiceSetDetailResponseDto

Parameter	Type	Description
id	String	Service group ID
name	String	Service group name Minimum: **1** Maximum: **255**
description	String	Service group description Minimum: **1** Maximum: **255**
service_set_type	Integer	Service set type, 0 indicates a custom service set, 1 indicates a predefined service set, 2 indicates commonly used remote login and PING, 3 indicates commonly used databases

Status code: 400

Table 4-300 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query details about the service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and service group ID is 221cfdca-3abf-4c30-ab0d-516a03c70866.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-sets/221cfdca-3abf-4c30-ab0d-516a03c70866
```

Example Responses

Status code: 200

Response to the request for querying details about a service group member

```
{
  "data" : {
    "service_set_type" : 0,
    "id" : "221cfdca-3abf-4c30-ab0d-516a03c70866",
    "name" : "ceshi2"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
```



```
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListServiceSetDetailSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListServiceSetDetailRequest request = new ListServiceSetDetailRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListServiceSetDetailResponse response = client.listServiceSetDetail(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```



```
        request = ListServiceSetDetailRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_service_set_detail(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListServiceSetDetailRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListServiceSetDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for querying details about a service group member
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.6 Modifying a Service Set

Function

This API is used to update a service group.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/service-sets/{set_id}

Table 4-301 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	Service group ID

Table 4-302 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-303 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-304 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Service group name Minimum: **1** Maximum: **255**
description	No	String	Service group description Minimum: **1** Maximum: **255**

Response Parameters

Status code: 200

Table 4-305 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Data returned when a service group is updated

Table 4-306 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-307 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Change the name and description of service group 221cfdca-3abf-4c30-ab0d-516a03c70866 of project 9d80d070b6d44942af73c9c3d38e0429 to ceshi2.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-sets/221cfdca-3abf-4c30-ab0d-516a03c70866

{
  "name" : "ceshi2",
  "description" : "Description"
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "221cfdca-3abf-4c30-ab0d-516a03c70866"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200005",
  "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Change the name and description of service group 221cfdca-3abf-4c30-ab0d-516a03c70866 of project 9d80d070b6d44942af73c9c3d38e0429 to ceshi2.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateServiceSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateServiceSetRequest request = new UpdateServiceSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        UpdateServiceSetUsingPUTRequestBody body = new UpdateServiceSetUsingPUTRequestBody();
        body.withDescription("Description");
        body.withName("ceshi2");
        request.withBody(body);
        try {
            UpdateServiceSetResponse response = client.updateServiceSet(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

Change the name and description of service group 221cfdca-3abf-4c30-ab0d-516a03c70866 of project 9d80d070b6d44942af73c9c3d38e0429 to ceshi2.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateServiceSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = UpdateServiceSetUsingPUTRequestBody(
            description="Description",
            name="ceshi2"
        )
```



```
        response = client.update_service_set(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

Change the name and description of service group 221cfdca-3abf-4c30-ab0d-516a03c70866 of project 9d80d070b6d44942af73c9c3d38e0429 to ceshi2.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateServiceSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    descriptionUpdateServiceSetUsingPutRequestBody:= "Description"
    nameUpdateServiceSetUsingPutRequestBody:= "ceshi2"
    request.Body = &model.UpdateServiceSetUsingPutRequestBody{
        Description: &descriptionUpdateServiceSetUsingPutRequestBody,
        Name: &nameUpdateServiceSetUsingPutRequestBody,
    }
    response, err := client.UpdateServiceSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.7 Deleting a Service Set

Function

This API is used to delete a service group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/service-sets/{set_id}

Table 4-308 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	Indicates the service set ID.

Table 4-309 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-310 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-311 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Data returned after a service group is deleted

Table 4-312 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-313 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Delete the service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and service group ID is 221cfdca-3abf-4c30-ab0d-516a03c70866.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-sets/221cfdca-3abf-4c30-ab0d-516a03c70866
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "221cfdca-3abf-4c30-ab0d-516a03c70866",
    "name" : "test"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00200004",
  "error_msg" : "can not delete for used"
}
```


SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteServiceSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteServiceSetRequest request = new DeleteServiceSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteServiceSetResponse response = client.deleteServiceSet(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteServiceSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_service_set(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteServiceSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.DeleteServiceSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```



```
  }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.8 Querying the Service Set Member List

Function

This API is used to query service group members.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/service-items

Table 4-314 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-315 Query Parameters

Parameter	Mandatory	Type	Description
set_id	Yes	String	Service group ID
key_word	No	String	Query field
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
query_service_set_type	No	Integer	Query service set type, 0 means custom define service set1 means predefine service set.

Request Parameters

Table 4-316 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-317 Response body parameters

Parameter	Type	Description
data	**data** object	Service group member list

Table 4-318 data

Parameter	Type	Description
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Integer	Number of records displayed on each page, in the range 1-1024
total	Integer	Total number of records
set_id	String	service set id
records	Array of **records** objects	Record

Table 4-319 records

Parameter	Type	Description
item_id	String	Service member ID

Parameter	Type	Description
protocol	Integer	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
source_port	String	Source port
dest_port	String	Destination port
name	String	Service member name
description	String	Service member description

Status code: 400

Table 4-320 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the member list of the service group whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and service group ID is 7cdebed3-af07-494e-a3c2-b88bb8d58b57.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-items?set_id=7cdebed3-af07-494e-a3c2-b88bb8d58b57&limit=10&offset=0
```

Example Responses

Status code: 200

Return value of the service group member list

```
{
  "data" : {
    "limit" : 10,
    "offset" : 0,
    "records" : [ {
      "dest_port" : "0",
      "item_id" : "805b711d-c558-41e3-aab1-a4b8c3f1f90b",
      "description" : "",
```



```
    "protocol" : 1,
    "source_port" : "0"
  } ],
  "set_id" : "7cdebed3-af07-494e-a3c2-b88bb8d58b57",
  "total" : 1
 }
}
```

Status code: 400

Bad Request

```
{
 "error_code" : "CFW.00200005",
 "error_msg" : "operation content does not exist"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListServiceItemsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListServiceItemsRequest request = new ListServiceItemsRequest();
        request.withSetId("<set_id>");
        request.withKeyWord("<key_word>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListServiceItemsResponse response = client.listServiceItems(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListServiceItemsRequest()
        request.set_id = "<set_id>"
        request.key_word = "<key_word>"
        request.limit = <limit>
        request.offset = <offset>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_service_items(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListServiceItemsRequest{}
    request.SetId = "<set_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListServiceItems(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of the service group member list
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.6.9 Deleting a Service Member

Function

This API is used to delete a member from a service group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/service-items/{item_id}

Table 4-321 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
item_id	Yes	String	ID of a service group member

Table 4-322 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-323 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-324 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Delete service group member data.

Table 4-325 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-326 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

This API is used to Delete the service group member whose project ID is 9d80d070b6d44942af73c9c3d38e0429 and service group member ID is 6b37ed55-1e21-46a5-a7dc-a59ef418d359.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/service-items/6b37ed55-1e21-46a5-a7dc-a59ef418d359
```

Example Responses

Status code: 200

Response to the request for deleting a service group member.

```
{
  "data" : {
    "id" : "26f562c4-fe11-43d0-9654-f54298d5b12e"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```


SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteServiceItemSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteServiceItemRequest request = new DeleteServiceItemRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteServiceItemResponse response = client.deleteServiceItem(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteServiceItemRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_service_item(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteServiceItemRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.DeleteServiceItem(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```



```
  }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for deleting a service group member.
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.7 Domain Parse and Domain Set Management

4.7.1 Add Domain Set

Function

This API is used to add domain set.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/domain-set

Table 4-327 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-328 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-329 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-330 Request body parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
name	Yes	String	name
description	No	String	description
domain_names	No	Array of **DomainSetInfoDto** objects	domain names
domain_set_type	Yes	Integer	Domain name group type. 0 means Application type and 1 means Network type.

Table 4-331 DomainSetInfoDto

Parameter	Mandatory	Type	Description
domain_name	No	String	domain name
description	No	String	description

Response Parameters

Status code: 200

Table 4-332 Response body parameters

Parameter	Type	Description
data	**DomainSetResponseData** object	Add Domain Set Response Data

Table 4-333 DomainSetResponseData

Parameter	Type	Description
id	String	id
name	String	name

Example Requests

Add a domain set whose project ID is 9d80d070b6d44942af73c9c3d38e0429, firewall ID is 546af3f8-88e9-47f2-a205-2346d7090925, domain set name is test, domain name is www.aaa.com, and protected object ID is fde07429-2e02-45c0-a85f-4f1cacea24d2.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/domain-set?
fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default

{
  "name" : "test",
  "domain_set_type" : 0,
  "description" : "",
  "domain_names" : [ {
    "domain_name" : "www.aaa.com",
    "description" : ""
  } ],
  "fw_instance_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
  "object_id" : "fde07429-2e02-45c0-a85f-4f1cacea24d2"
}
```

Example Responses

Status code: 200

Add Domain Set Response

```
{
  "data" : {
    "id" : "e43db369-a863-45ed-8850-58d6b571b1ab",
    "name" : "test"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add a domain set whose project ID is 9d80d070b6d44942af73c9c3d38e0429, firewall ID is 546af3f8-88e9-47f2-a205-2346d7090925, domain set name is test, domain name is www.aaa.com, and protected object ID is fde07429-2e02-45c0-a85f-4f1cacea24d2.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class AddDomainSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddDomainSetRequest request = new AddDomainSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddDomainSetInfoDto body = new AddDomainSetInfoDto();
        List<DomainSetInfoDto> listbodyDomainNames = new ArrayList<>();
        listbodyDomainNames.add(
            new DomainSetInfoDto()
                .withDomainName("www.aaa.com")
                .withDescription("")
```



```
        );
        body.withDomainSetType(0);
        body.withDomainNames(listbodyDomainNames);
        body.withDescription("");
        body.withName("test");
        body.withObjectId("fde07429-2e02-45c0-a85f-4f1cacea24d2");
        body.withFwInstanceId("546af3f8-88e9-47f2-a205-2346d7090925");
        request.withBody(body);
        try {
            AddDomainSetResponse response = client.addDomainSet(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

Add a domain set whose project ID is 9d80d070b6d44942af73c9c3d38e0429, firewall ID is 546af3f8-88e9-47f2-a205-2346d7090925, domain set name is test, domain name is www.aaa.com, and protected object ID is fde07429-2e02-45c0-a85f-4f1cacea24d2.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddDomainSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listDomainNamesbody = [
            DomainSetInfoDto(
                domain_name="www.aaa.com",
                description=""
            )
        ]
        request.body = AddDomainSetInfoDto(
            domain_set_type=0,
            domain_names=listDomainNamesbody,
```



```
            description="",
            name="test",
            object_id="fde07429-2e02-45c0-a85f-4f1cacea24d2",
            fw_instance_id="546af3f8-88e9-47f2-a205-2346d7090925"
        )
        response = client.add_domain_set(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

Add a domain set whose project ID is 9d80d070b6d44942af73c9c3d38e0429, firewall ID is 546af3f8-88e9-47f2-a205-2346d7090925, domain set name is test, domain name is www.aaa.com, and protected object ID is fde07429-2e02-45c0-a85f-4f1cacea24d2.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddDomainSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    domainNameDomainNames:= "www.aaa.com"
    descriptionDomainNames:= ""
    var listDomainNamesbody = []model.DomainSetInfoDto{
        {
            DomainName: &domainNameDomainNames,
            Description: &descriptionDomainNames,
        },
    }
    descriptionAddDomainSetInfoDto:= ""
    request.Body = &model.AddDomainSetInfoDto{
        DomainSetType: int32(0),
        DomainNames: &listDomainNamesbody,
        Description: &descriptionAddDomainSetInfoDto,
```



```
        Name: "test",
        ObjectId: "fde07429-2e02-45c0-a85f-4f1cacea24d2",
        FwInstanceId: "546af3f8-88e9-47f2-a205-2346d7090925",
    }
    response, err := client.AddDomainSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Add Domain Set Response

Error Codes

See **Error Codes**.

4.7.2 Delete Domain Set

Function

This API is used to delete domain set.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/domain-set/{set_id}

Table 4-334 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID
set_id	Yes	String	set id

Table 4-335 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-336 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-337 Response body parameters

Parameter	Type	Description
data	**DomainSetResponseData** object	delete domain set response

Table 4-338 DomainSetResponseData

Parameter	Type	Description
id	String	id
name	String	name

Example Requests

Delete domain set 89bce6a4-9b59-4d7a-b5f9-cac5ac16d88a from firewall 7a004e79-0b8b-4679-ab20-267f3946e8ba in project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/domain-set/89bce6a4-9b59-4d7a-b5f9-cac5ac16d88a?fw_instance_id=7a004e79-0b8b-4679-ab20-267f3946e8ba&enterprise_project_id=default
```

Example Responses

Status code: 200

Delete Domain Set Response

```
{
  "data" : {
    "id" : "89bce6a4-9b59-4d7a-b5f9-cac5ac16d88a",
    "name" : "test"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class DeleteDomainSetSolution {
```

```
    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteDomainSetRequest request = new DeleteDomainSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            DeleteDomainSetResponse response = client.deleteDomainSet(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.delete_domain_set(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.FwInstanceId = "<fw_instance_id>"
    response, err := client.DeleteDomainSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Delete Domain Set Response

Error Codes

See **Error Codes**.

4.7.3 Update Domain Set

Function

This API is used to update domain set.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/domain-set/{set_id}

Table 4-339 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID
set_id	Yes	String	set id

Table 4-340 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-341 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-342 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name
description	No	String	description
set_id	No	String	domain set id
domain_set_type	No	Integer	domain set type

Response Parameters

Status code: 200

Table 4-343 Response body parameters

Parameter	Type	Description
data	DomainSetResponseData object	update domain set response

Table 4-344 DomainSetResponseData

Parameter	Type	Description
id	String	id
name	String	name

Example Requests

For the firewall 7a004e79-0b8b-4679-ab20-267f3946e8ba in the project 9d80d070b6d44942af73c9c3d38e0429, change the domain set ID to 94da194d-24b2-4f60-919e-cf0bc76c75b3, the domain name to www.aaa.com, and name to test.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/domain-set/94da194d-24b2-4f60-919e-cf0bc76c75b3?fw_instance_id=7a004e79-0b8b-4679-ab20-267f3946e8ba&enterprise_project_id=default

{
  "name" : "test",
  "description" : ""
}
```

Example Responses

Status code: 200

Update Domain Set Response

```
{
  "data" : {
    "id" : "94da194d-24b2-4f60-919e-cf0bc76c75b3",
    "name" : "test"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

For the firewall 7a004e79-0b8b-4679-ab20-267f3946e8ba in the project 9d80d070b6d44942af73c9c3d38e0429, change the domain set ID to 94da194d-24b2-4f60-919e-cf0bc76c75b3, the domain name to www.aaa.com, and name to test.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateDomainSetSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDomainSetRequest request = new UpdateDomainSetRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        UpdateDomainSetInfoDto body = new UpdateDomainSetInfoDto();
        body.withDescription("");
        body.withName("test");
        request.withBody(body);
        try {
            UpdateDomainSetResponse response = client.updateDomainSet(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

For the firewall 7a004e79-0b8b-4679-ab20-267f3946e8ba in the project 9d80d070b6d44942af73c9c3d38e0429, change the domain set ID to

94da194d-24b2-4f60-919e-cf0bc76c75b3, the domain name to www.aaa.com, and name to test.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDomainSetRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = UpdateDomainSetInfoDto(
            description="",
            name="test"
        )
        response = client.update_domain_set(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

For the firewall 7a004e79-0b8b-4679-ab20-267f3946e8ba in the project 9d80d070b6d44942af73c9c3d38e0429, change the domain set ID to 94da194d-24b2-4f60-919e-cf0bc76c75b3, the domain name to www.aaa.com, and name to test.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDomainSetRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    descriptionUpdateDomainSetInfoDto:= ""
    request.Body = &model.UpdateDomainSetInfoDto{
        Description: &descriptionUpdateDomainSetInfoDto,
        Name: "test",
    }
    response, err := client.UpdateDomainSet(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Update Domain Set Response

Error Codes

See **Error Codes**.

4.7.4 list domain sets

Function

list domain sets

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain-sets

Table 4-345 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project ID

Table 4-346 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
key_word	No	String	key
domain_set_type	No	Integer	Domain name group type. 0 means Application type and 1 means Network type.
config_status	No	Integer	config status

Request Parameters

Table 4-347 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-348 Response body parameters

Parameter	Type	Description
data	**ListDomainsetsResponseData** object	list domain set response

Table 4-349 ListDomainsetsResponseData

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
total	Integer	total
records	Array of **DomainSetVo** objects	domain set list

Table 4-350 DomainSetVo

Parameter	Type	Description
set_id	String	set id
name	String	domain set name
description	String	description
ref_count	Integer	reference count
domain_set_type	Integer	domain set type
config_status	Integer	config status
message	String	message
rules	Array of **UseRuleVO** objects	used rule list

Table 4-351 UseRuleVO

Parameter	Type	Description
id	String	rule id
name	String	rule name

Example Requests

Query the domain set list of firewall 546af3f8-88e9-47f2-a205-2346d7090925 in project 9d80d070b6d44942af73c9c3d38e0429. The protected object ID is ae42418e-f077-41a0-9d3b-5b2f5ad9102b.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/domain-sets?
fw_instance_id=546af3f8-88e9-47f2-
a205-2346d7090925&enterprise_project_id=default&limit=50&offset=0&object_id=ae42418e-
f077-41a0-9d3b-5b2f5ad9102b
```

Example Responses

Status code: 200

List Domain Set Response

```
{
  "data" : {
    "limit" : 50,
    "offset" : 0,
    "records" : [ {
      "config_status" : 3,
      "description" : "",
      "domain_set_type" : 0,
      "name" : "ccdd",
      "ref_count" : 0,
      "set_id" : "e43db369-a863-45ed-8850-58d6b571b1ab"
    } ],
    "total" : 1
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListDomainSetsSolution {

    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);
```



```
        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDomainSetsRequest request = new ListDomainSetsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withObjectId("<object_id>");
        request.withKeyWord("<key_word>");
        request.withDomainSetType(<domain_set_type>);
        request.withConfigStatus(<config_status>);
        try {
            ListDomainSetsResponse response = client.listDomainSets(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDomainSetsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.limit = <limit>
        request.offset = <offset>
        request.object_id = "<object_id>"
        request.key_word = "<key_word>"
        request.domain_set_type = <domain_set_type>
        request.config_status = <config_status>
        response = client.list_domain_sets(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDomainSetsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.FwInstanceId = "<fw_instance_id>"
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    request.ObjectId = "<object_id>"
    keyWordRequest:= "<key_word>"
    request.KeyWord = &keyWordRequest
    domainSetTypeRequest:= int32(<domain_set_type>)
    request.DomainSetType = &domainSetTypeRequest
    configStatusRequest:= int32(<config_status>)
    request.ConfigStatus = &configStatusRequest
    response, err := client.ListDomainSets(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	List Domain Set Response

Error Codes

See **Error Codes**.

4.7.5 list domains

Function

list domains

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain-set/domains/{domain_set_id}

Table 4-352 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
domain_set_id	Yes	String	domain set id

Table 4-353 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
offset	Yes	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
domain_name	No	String	domain name
description	No	String	description
set_id	No	String	domain_set_id

Parameter	Mandatory	Type	Description
object_Id	No	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.

Request Parameters

Table 4-354 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-355 Response body parameters

Parameter	Type	Description
data	**ListDomainResponseData** object	list domain response data

Table 4-356 ListDomainResponseData

Parameter	Type	Description
limit	Integer	Number of records displayed on each page, in the range 1-1024
offset	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
project_id	String	Project ID
records	Array of **DomainInfo** objects	domain info list
set_id	String	domain set id
total	Integer	total

Table 4-357 DomainInfo

Parameter	Type	Description
domain_address_id	String	domain address id
domain_name	String	domain name
description	String	description
dns_ips	Array of strings	dns ips

Example Requests

Query the list of domain names under project id 14181c1245cf4fd786824efe1e2b9388, domain set id 78719348-6d79-477e-acec-676a29842ab2, and the firewall instance id 546af3f8-88e9-47f2-a205-2346d7090925.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/domain-set/domains/78719348-6d79-477e-acec-676a29842ab2?fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default&limit=200&offset=0
```

Example Responses

Status code: 200

list domain response

```
{
  "data" : {
    "limit" : 200,
```

```
  "offset" : 0,
  "project_id" : "14181c1245cf4fd786824efe1e2b9388",
  "records" : [ {
    "description" : "",
    "domain_address_id" : "6718279e-9761-4623-a48d-b16957b19e1b",
    "domain_name" : "www.test.com"
  } ],
  "set_id" : "78719348-6d79-477e-acec-676a29842ab2",
  "total" : 1
 }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListDomainsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDomainsRequest request = new ListDomainsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withDomainName("<domain_name>");
        request.withDescription("<description>");
        request.withSetId("<set_id>");
        request.withObjectId("<object_Id>");
        try {
            ListDomainsResponse response = client.listDomains(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDomainsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.limit = <limit>
        request.offset = <offset>
        request.domain_name = "<domain_name>"
        request.description = "<description>"
        request.set_id = "<set_id>"
        request.object_id = "<object_Id>"
        response = client.list_domains(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDomainsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.FwInstanceId = "<fw_instance_id>"
    request.Limit = int32(<limit>)
    request.Offset = int32(<offset>)
    domainNameRequest:= "<domain_name>"
    request.DomainName = &domainNameRequest
    descriptionRequest:= "<description>"
    request.Description = &descriptionRequest
    setIdRequest:= "<set_id>"
    request.SetId = &setIdRequest
    objectIdRequest:= "<object_Id>"
    request.ObjectId = &objectIdRequest
    response, err := client.ListDomains(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	list domain response

Error Codes

See **Error Codes**.

4.7.6 add domains

Function

add domains

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/domain-set/domains/{set_id}

Table 4-358 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	Domain Set ID

Table 4-359 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-360 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-361 Request body parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
domain_names	Yes	Array of **DomainSetInfoDto** objects	domain names

Table 4-362 DomainSetInfoDto

Parameter	Mandatory	Type	Description
domain_name	No	String	domain name
description	No	String	description

Response Parameters

Status code: 200

Table 4-363 Response body parameters

Parameter	Type	Description
data	**DomainSetResponseData** object	add domains response data

Table 4-364 DomainSetResponseData

Parameter	Type	Description
id	String	id

Parameter	Type	Description
name	String	name

Example Requests

Add domain names to the domain set under the project where project id is 14181c1245cf4fd786824efe1e2b9388, the firewall instance id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad9102b, The domain set id is 78719348-6d79-477e-acec-676a29842ab2, and the domain names are www.bnm.com and www.vbc.com

```
https://{Endpoint}v1/14181c1245cf4fd786824efe1e2b9388/domain-set/domains/78719348-6d79-477e-acec-676a29842ab2?fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default

{
  "domain_names" : [ {
    "description" : "",
    "domain_name" : "www.bnm.com"
  }, {
    "description" : "",
    "domain_name" : "www.vbc.com"
  } ],
  "fw_instance_id" : "546af3f8-88e9-47f2-a205-2346d7090925",
  "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
}
```

Example Responses

Status code: 200

add domains response

```
{
  "data" : {
    "id" : "78719348-6d79-477e-acec-676a29842ab2",
    "name" : "test26"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add domain names to the domain set under the project where project id is 14181c1245cf4fd786824efe1e2b9388, the firewall instance id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad9102b, The domain set id is 78719348-6d79-477e-acec-676a29842ab2, and the domain names are www.bnm.com and www.vbc.com

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class AddDomainsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddDomainsRequest request = new AddDomainsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        AddDomainListDto body = new AddDomainListDto();
        List<DomainSetInfoDto> listbodyDomainNames = new ArrayList<>();
        listbodyDomainNames.add(
            new DomainSetInfoDto()
                .withDomainName("www.bnm.com")
                .withDescription("")
        );
        listbodyDomainNames.add(
            new DomainSetInfoDto()
                .withDomainName("www.vbc.com")
                .withDescription("")
        );
        body.withDomainNames(listbodyDomainNames);
        body.withObjectId("ae42418e-f077-41a0-9d3b-5b2f5ad9102b");
        body.withFwInstanceId("546af3f8-88e9-47f2-a205-2346d7090925");
        request.withBody(body);
        try {
            AddDomainsResponse response = client.addDomains(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

Add domain names to the domain set under the project where project id is 14181c1245cf4fd786824efe1e2b9388, the firewall instance id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-

f077-41a0-9d3b-5b2f5ad9102b, The domain set id is 78719348-6d79-477e-acec-676a29842ab2, and the domain names are www.bnm.com and www.vbc.com

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddDomainsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        listDomainNamesbody = [
            DomainSetInfoDto(
                domain_name="www.bnm.com",
                description=""
            ),
            DomainSetInfoDto(
                domain_name="www.vbc.com",
                description=""
            )
        ]
        request.body = AddDomainListDto(
            domain_names=listDomainNamesbody,
            object_id="ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
            fw_instance_id="546af3f8-88e9-47f2-a205-2346d7090925"
        )
        response = client.add_domains(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

Add domain names to the domain set under the project where project id is 14181c1245cf4fd786824efe1e2b9388, the firewall instance id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad9102b, The domain set id is 78719348-6d79-477e-acec-676a29842ab2, and the domain names are www.bnm.com and www.vbc.com

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
```



```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddDomainsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    domainNameDomainNames:= "www.bnm.com"
    descriptionDomainNames:= ""
    domainNameDomainNames1:= "www.vbc.com"
    descriptionDomainNames1:= ""
    var listDomainNamesbody = []model.DomainSetInfoDto{
        {
            DomainName: &domainNameDomainNames,
            Description: &descriptionDomainNames,
        },
        {
            DomainName: &domainNameDomainNames1,
            Description: &descriptionDomainNames1,
        },
    }
    request.Body = &model.AddDomainListDto{
        DomainNames: listDomainNamesbody,
        ObjectId: "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
        FwInstanceId: "546af3f8-88e9-47f2-a205-2346d7090925",
    }
    response, err := client.AddDomains(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	add domains response

Error Codes

See **Error Codes**.

4.7.7 delete domains

Function

delete domains

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1/{project_id}/domain-set/domains/{set_id}

Table 4-365 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
set_id	Yes	String	Domain Set ID

Table 4-366 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-367 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-368 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
domain_address_ids	Yes	Array of strings	domain address ids

Response Parameters

Status code: 200

Table 4-369 Response body parameters

Parameter	Type	Description
data	**DomainSetResponseData** object	delete domains response data

Table 4-370 DomainSetResponseData

Parameter	Type	Description
id	String	id
name	String	name

Example Requests

For the project whose project id is 14181c1245cf4fd786824efe1e2b9388, delete the domain names under the firewall whose firewall id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad910 2b, the domain set id is 78719348-6d79- 477e-acec-676a29842ab2, and the domain names are "b9c23ad8-16d2-4f14-894f-29250c5d27e5", "c36f9462-467b-4303-9734-f9abc38ddb95".

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/domain-set/domains/78719348-6d79-477e-acec-676a29842ab2?fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default

{
  "domain_address_ids" : [ "b9c23ad8-16d2-4f14-894f-29250c5d27e5", "c36f9462-467b-4303-9734-f9abc38ddb95" ],
  "object_id" : "ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
}
```

Example Responses

Status code: 200

delete domains response

```
{
  "data" : {
    "id" : "78719348-6d79-477e-acec-676a29842ab2",
    "name" : "test26"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

For the project whose project id is 14181c1245cf4fd786824efe1e2b9388, delete the domain names under the firewall whose firewall id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad910 2b, the domain set id is 78719348-6d79- 477e-acec-676a29842ab2, and the domain names are "b9c23ad8-16d2-4f14-894f-29250c5d27e5", "c36f9462-467b-4303-9734-f9abc38ddb95".

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class DeleteDomainsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteDomainsRequest request = new DeleteDomainsRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        DeleteDomainDto body = new DeleteDomainDto();
        List<String> listbodyDomainAddressIds = new ArrayList<>();
        listbodyDomainAddressIds.add("b9c23ad8-16d2-4f14-894f-29250c5d27e5");
        listbodyDomainAddressIds.add("c36f9462-467b-4303-9734-f9abc38ddb95");
        body.withDomainAddressIds(listbodyDomainAddressIds);
        body.withObjectId("ae42418e-f077-41a0-9d3b-5b2f5ad9102b");
        request.withBody(body);
        try {
            DeleteDomainsResponse response = client.deleteDomains(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

For the project whose project id is 14181c1245cf4fd786824efe1e2b9388, delete the domain names under the firewall whose firewall id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad910 2b, the domain set id is 78719348-6d79- 477e-acec-676a29842ab2, and the domain names are "b9c23ad8-16d2-4f14-894f-29250c5d27e5", "c36f9462-467b-4303-9734-f9abc38ddb95".

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



```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteDomainsRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        listDomainAddressIdsbody = [
            "b9c23ad8-16d2-4f14-894f-29250c5d27e5",
            "c36f9462-467b-4303-9734-f9abc38ddb95"
        ]
        request.body = DeleteDomainDto(
            domain_address_ids=listDomainAddressIdsbody,
            object_id="ae42418e-f077-41a0-9d3b-5b2f5ad9102b"
        )
        response = client.delete_domains(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

For the project whose project id is 14181c1245cf4fd786824efe1e2b9388, delete the domain names under the firewall whose firewall id is 546af3f8-88e9-47f2-a205-2346d7090925, the protected object id is ae42418e-f077-41a0-9d3b-5b2f5ad910 2b, the domain set id is 78719348-6d79- 477e-acec-676a29842ab2, and the domain names are "b9c23ad8-16d2-4f14-894f-29250c5d27e5", "c36f9462-467b-4303-9734-f9abc38ddb95".

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteDomainsRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    var listDomainAddressIdsbody = []string{
        "b9c23ad8-16d2-4f14-894f-29250c5d27e5",
        "c36f9462-467b-4303-9734-f9abc38ddb95",
    }
    request.Body = &model.DeleteDomainDto{
        DomainAddressIds: listDomainAddressIdsbody,
        ObjectId: "ae42418e-f077-41a0-9d3b-5b2f5ad9102b",
    }
    response, err := client.DeleteDomains(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	delete domains response

Error Codes

See **Error Codes**.

4.7.8 Querying the DNS Server List

Function

This API is used to query the DNS server list.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/dns/servers

Table 4-371 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-372 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records displayed on each page, in the range 1-1024
offset	No	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-373 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-374 Response body parameters

Parameter	Type	Description
data	Array of **DnsServersResponseDTO** objects	dns server list
total	Integer	dns server total

Table 4-375 DnsServersResponseDTO

Parameter	Type	Description
id	Integer	id
is_applied	Integer	Indicates whether to apply. 0: no; 1: yes
is_customized	Integer	Indicates whether the DNS server is user-defined. 0: no; 1: yes
server_ip	String	DNS server IP address
health_check_domain_name	String	health check domain name

Example Requests

Obtain the DNS server list of the project whose ID is 2349ba469daf4b7daf268bb0261d18b0.

```
https://console.ulanqab.huawei.com/cfw/v1/2349ba469daf4b7daf268bb0261d18b0/dns/servers
```

Example Responses

Status code: 200

Response to the request for obtaining DNS servers

```
{
  "data" : {
    "data" : [ {
      "health_check_domain_name" : "sslstatic.xiaoyusan.com",
      "id" : 20165,
      "is_applied" : 0,
      "is_customized" : 1,
      "server_ip" : "0.0.0.0"
    }, {
      "health_check_domain_name" : "sslstatic.xiaoyusan.com",
      "id" : 14190,
      "is_applied" : 1,
      "is_customized" : 0,
      "server_ip" : "100.79.1.240"
    } ]
  },
  "total" : 2
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListDnsServersSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDnsServersRequest request = new ListDnsServersRequest();
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withFwInstanceId("<fw_instance_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
```



```
        try {
            ListDnsServersResponse response = client.listDnsServers(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDnsServersRequest()
        request.limit = <limit>
        request.offset = <offset>
        request.fw_instance_id = "<fw_instance_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        response = client.list_dns_servers(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDnsServersRequest{}
    limitRequest:= int32(<limit>)
    request.Limit = &limitRequest
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    response, err := client.ListDnsServers(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for obtaining DNS servers
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.7.9 Updating the DNS Server List

Function

This API is used to update the DNS server list.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/dns/servers

Table 4-376 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-377 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-378 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-379 Request body parameters

Parameter	Mandatory	Type	Description
dns_server	No	Array of **dns_server** objects	DNS server
health_check_domain_name	No	String	Health check domain name

Table 4-380 dns_server

Parameter	Mandatory	Type	Description
server_ip	No	String	DNS server IP address
is_customized	No	Integer	Indicates whether the DNS server is user-defined. 0: no; 1: yes
is_applied	No	Integer	Indicates whether to apply. 0: no; 1: yes

Response Parameters

Status code: 200

Table 4-381 Response body parameters

Parameter	Type	Description
data	Array of strings	Domain name server list

Status code: 400

Table 4-382 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Update the settings of the DNS resolver whose project ID is 2349ba469daf4b7daf268bb0261d18b0. Set server 8.8.8.8 to the default server and put it in use. Set server IP address 192.168.0.2 to a user-defined server and do not put it in use.

```
https://{Endpoint}/v1/2349ba469daf4b7daf268bb0261d18b0/dns/servers

{
  "dns_server" : [ {
    "server_ip" : "8.8.8.8",
    "is_customized" : 0,
    "is_applied" : 1
  }, {
    "server_ip" : "192.168.0.2",
    "is_customized" : 1,
    "is_applied" : 0
  } ]
}
```

Example Responses

Status code: 200

Response to the request for updating the DNS server list

```
{
  "data" : [ "100.95.150.83", "114.114.114.114", "223.5.5.5", "223.6.6.6", "119.29.29.29", "8.8.8.8",
"100.79.1.250", "100.79.1.240" ]
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.01000001",
  "error_msg" : "Duplicate DNS server IP address"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Update the settings of the DNS resolver whose project ID is 2349ba469daf4b7daf268bb0261d18b0. Set server 8.8.8.8 to the default server and put it in use. Set server IP address 192.168.0.2 to a user-defined server and do not put it in use.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;

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

public class UpdateDnsServersSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDnsServersRequest request = new UpdateDnsServersRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        UpdateDnsServersRequestBody body = new UpdateDnsServersRequestBody();
        List<UpdateDnsServersRequestBodyDnsServer> listbodyDnsServer = new ArrayList<>();
        listbodyDnsServer.add(
            new UpdateDnsServersRequestBodyDnsServer()
                .withServerIp("8.8.8.8")
                .withIsCustomized(0)
                .withIsApplied(1)
        );
        listbodyDnsServer.add(
            new UpdateDnsServersRequestBodyDnsServer()
                .withServerIp("192.168.0.2")
                .withIsCustomized(1)
```



```
                .withIsApplied(0)
        );
        body.withDnsServer(listbodyDnsServer);
        request.withBody(body);
        try {
            UpdateDnsServersResponse response = client.updateDnsServers(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

Update the settings of the DNS resolver whose project ID is 2349ba469daf4b7daf268bb0261d18b0. Set server 8.8.8.8 to the default server and put it in use. Set server IP address 192.168.0.2 to a user-defined server and do not put it in use.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateDnsServersRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        listDnsServerbody = [
            UpdateDnsServersRequestBodyDnsServer(
                server_ip="8.8.8.8",
                is_customized=0,
                is_applied=1
            ),
            UpdateDnsServersRequestBodyDnsServer(
                server_ip="192.168.0.2",
                is_customized=1,
                is_applied=0
            )
        ]
        request.body = UpdateDnsServersRequestBody(
```



```
        dns_server=listDnsServerbody
    )
    response = client.update_dns_servers(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

Update the settings of the DNS resolver whose project ID is 2349ba469daf4b7daf268bb0261d18b0. Set server 8.8.8.8 to the default server and put it in use. Set server IP address 192.168.0.2 to a user-defined server and do not put it in use.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDnsServersRequest{}
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    serverIpDnsServer:= "8.8.8.8"
    isCustomizedDnsServer:= int32(0)
    isAppliedDnsServer:= int32(1)
    serverIpDnsServer1:= "192.168.0.2"
    isCustomizedDnsServer1:= int32(1)
    isAppliedDnsServer1:= int32(0)
    var listDnsServerbody = []model.UpdateDnsServersRequestBodyDnsServer{
        {
            ServerIp: &serverIpDnsServer,
            IsCustomized: &isCustomizedDnsServer,
            IsApplied: &isAppliedDnsServer,
        },
        {
            ServerIp: &serverIpDnsServer1,
            IsCustomized: &isCustomizedDnsServer1,
            IsApplied: &isAppliedDnsServer1,
```



```
        },
    }
    request.Body = &model.UpdateDnsServersRequestBody{
        DnsServer: &listDnsServerbody,
    }
    response, err := client.UpdateDnsServers(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for updating the DNS server list
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.7.10 Querying the IP Address for Domain Name Resolution

Function

This API is used to test the validity of a domain name.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/domain/parse/{domain_name}

Table 4-383 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
domain_name	Yes	String	Domain name

Table 4-384 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
address_type	No	String	Specifies the address type. The value can be 0 (IPv4) or 1 (IPv6).

Request Parameters

Table 4-385 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-386 Response body parameters

Parameter	Type	Description
data	Array of strings	Domain name ID list

Status code: 400

Table 4-387 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Check whether the ceshi.com domain name in the project whose ID is 5c69cf330cda42369cbd726ee1bc5e76 is valid.

```
https://{Endpoint}/v1/5c69cf330cda42369cbd726ee1bc5e76/domain/parse/ceshi.com
```

Example Responses

Status code: 200

Return value of a domain name validity query

```
{
  "data" : [ "192.168.88.85", "192.168.88.50", "192.168.88.22", "192.168.88.87", "192.168.88.86",
"192.168.5.1", "192.168.88.88", "192.168.88.90", "192.168.88.83", "192.168.88.84" ]
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00109004",
  "error_msg" : "http to external service error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListDomainParseDetailSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListDomainParseDetailRequest request = new ListDomainParseDetailRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        request.withAddressType("<address_type>");
        try {
            ListDomainParseDetailResponse response = client.listDomainParseDetail(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListDomainParseDetailRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.address_type = "<address_type>"
        response = client.list_domain_parse_detail(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListDomainParseDetailRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    addressTypeRequest:= "<address_type>"
    request.AddressType = &addressTypeRequest
    response, err := client.ListDomainParseDetail(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Return value of a domain name validity query
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.8 IPS Management

4.8.1 Querying the IPS Switch Status

Function

This API is used to query the IPS switch status.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/ips/switch

Table 4-388 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project_id

Table 4-389 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-390 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-391 Response body parameters

Parameter	Type	Description
data	**IpsSwitchResponseDTO** object	ips switch response

Table 4-392 IpsSwitchResponseDTO

Parameter	Type	Description
id	String	Ips switch id
basic_defense_status	Integer	Basic defense status
virtual_patches_status	Integer	Virtual patch status

Example Requests

Query the patch status of the current user based on the received user ID 14181c1245cf4fd786824efe1e2b9388 and load the virtual patch on the intrusion prevention page.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/ips/switch?fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default&object_id=cfebd347-b655-4b84-b938-3c54317599b2
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "basic_defense_status" : 1,
    "id" : "cefe80aa-83e4-4308-99aa-f9b6c816de00",
    "virtual_patches_status" : 0
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListIpsSwitchStatusSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListIpsSwitchStatusRequest request = new ListIpsSwitchStatusRequest();
        request.withObjectId("<object_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListIpsSwitchStatusResponse response = client.listIpsSwitchStatus(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListIpsSwitchStatusRequest()
        request.object_id = "<object_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_ips_switch_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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListIpsSwitchStatusRequest{}
    request.ObjectId = "<object_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListIpsSwitchStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.8.2 Enabling or Disabling IPS

Function

This API is used to enable or disable the feature.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/ips/switch

Table 4-393 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	project_id

Table 4-394 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Parameter	Mandatory	Type	Description
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-395 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.
X-Language	No	String	Language header, the default is zh-cn, if you need to use English, please select en-us.

Table 4-396 Request body parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
ips_type	Yes	Integer	Patch type. Only virtual patch is supported. The value is 2. Enumeration values: • **1** • **2**
status	Yes	Integer	IPS switch status

Response Parameters

Status code: 200

Table 4-397 Response body parameters

Parameter	Type	Description
trace_id	String	trace_id
data	**data** object	object

Table 4-398 data

Parameter	Type	Description
id	String	Protected object ID

Example Requests

Enable or disable the basic patch and virtual patch of the engine on the user portal. The following example shows how to enable the virtual patch function for

project 14181c1245cf4fd786824efe1e2b9388 whose protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48.

```
https://{Endpoint}/v1/14181c1245cf4fd786824efe1e2b9388/ips/switch?fw_instance_id=546af3f8-88e9-47f2-a205-2346d7090925&enterprise_project_id=default

{
  "ips_type" : 1,
  "object_id" : "1530de8a-522d-4771-9067-9fa4e2f53b48",
  "status" : 1
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "1530de8a-522d-4771-9067-9fa4e2f53b48"
  },
  "trace_id" : "358144a9885ff55100aa63cb0d0e1039"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Enable or disable the basic patch and virtual patch of the engine on the user portal. The following example shows how to enable the virtual patch function for project 14181c1245cf4fd786824efe1e2b9388 whose protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ChangeIpsSwitchStatusSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
```



```
            .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
            .build();
        ChangeIpsSwitchStatusRequest request = new ChangeIpsSwitchStatusRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        IpsSwitchDTO body = new IpsSwitchDTO();
        body.withStatus(1);
        body.withIpsType(IpsSwitchDTO.IpsTypeEnum.NUMBER_1);
        body.withObjectId("1530de8a-522d-4771-9067-9fa4e2f53b48");
        request.withBody(body);
        try {
            ChangeIpsSwitchStatusResponse response = client.changeIpsSwitchStatus(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

Enable or disable the basic patch and virtual patch of the engine on the user portal. The following example shows how to enable the virtual patch function for project 14181c1245cf4fd786824efe1e2b9388 whose protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeIpsSwitchStatusRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = IpsSwitchDTO(
            status=1,
            ips_type=1,
            object_id="1530de8a-522d-4771-9067-9fa4e2f53b48"
        )
        response = client.change_ips_switch_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

Enable or disable the basic patch and virtual patch of the engine on the user portal. The following example shows how to enable the virtual patch function for project 14181c1245cf4fd786824efe1e2b9388 whose protected object ID is 1530de8a-522d-4771-9067-9fa4e2f53b48.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeIpsSwitchStatusRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    request.Body = &model.IpsSwitchDto{
        Status: int32(1),
        IpsType: model.GetIpsSwitchDtoIpsTypeEnum().E_1,
        ObjectId: "1530de8a-522d-4771-9067-9fa4e2f53b48",
    }
    response, err := client.ChangeIpsSwitchStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.8.3 Querying the Protection Mode

Function

This API is used to query the protection mode.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/ips/protect

Table 4-399 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-400 Query Parameters

Parameter	Mandatory	Type	Description
object_id	Yes	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-401 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-402 Response body parameters

Parameter	Type	Description
data	**IpsProtectModeObject** object	IpsProtectModeObject

Table 4-403 IpsProtectModeObject

Parameter	Type	Description
id	String	ips protect mode id
mode	Integer	IPS protection mode. 0: observation mode; 1: strict mode; 2: medium mode; 3: loose mode

Status code: 400

Table 4-404 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the IPS protection mode of the project whose ID is 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/ips/protect?
fw_instance_id=546af3f8-88e9-47f2-
a205-2346d7090925&enterprise_project_id=default&object_id=cfebd347-b655-4b84-b938-3c54317599b2
```

Example Responses

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListIpsProtectModeSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListIpsProtectModeRequest request = new ListIpsProtectModeRequest();
        request.withObjectId("<object_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        try {
            ListIpsProtectModeResponse response = client.listIpsProtectMode(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListIpsProtectModeRequest()
        request.object_id = "<object_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        response = client.list_ips_protect_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

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListIpsProtectModeRequest{}
    request.ObjectId = "<object_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    response, err := client.ListIpsProtectMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.8.4 Switching the Protection Mode

Function

This API is used to switch the protection mode.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/ips/protect

Table 4-405 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-406 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
fw_instance_id	No	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Request Parameters

Table 4-407 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-408 Request body parameters

Parameter	Mandatory	Type	Description
object_id	No	String	Protected object ID, which is used to distinguish Internet border protection from VPC border protection after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. Note that the value 0 indicates the ID of a protected object on the Internet border, and the value 1 indicates the ID of a protected object on the VPC border. For details, see the API Explorer and Help Center FAQ.
mode	No	Integer	IPS protection mode. 0: observation mode; 1: strict mode; 2: medium mode; 3: loose mode

Response Parameters

Status code: 200

Table 4-409 Response body parameters

Parameter	Type	Description
data	**IdObject** object	Update the IPS protection mode

Table 4-410 IdObject

Parameter	Type	Description
id	String	ID
name	String	name

Status code: 400

Table 4-411 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Deliver the strict protection mode to object cfebd347-b655-4b84-b938-3c54317599b2 in project 9d80d070b6d44942af73c9c3d38e0429.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/ips/protect

{
  "object_id" : "cfebd347-b655-4b84-b938-3c54317599b2",
  "mode" : 1
}
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "id" : "cfebd347-b655-4b84-b938-3c54317599b2"
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.0020016",
  "error_msg" : "instance status error"
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

Deliver the strict protection mode to object cfebd347-b655-4b84-b938-3c54317599b2 in project 9d80d070b6d44942af73c9c3d38e0429.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ChangeIpsProtectModeSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ChangeIpsProtectModeRequest request = new ChangeIpsProtectModeRequest();
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withFwInstanceId("<fw_instance_id>");
        IpsProtectDTO body = new IpsProtectDTO();
        body.withMode(1);
        body.withObjectId("cfebd347-b655-4b84-b938-3c54317599b2");
        request.withBody(body);
        try {
            ChangeIpsProtectModeResponse response = client.changeIpsProtectMode(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

Deliver the strict protection mode to object cfebd347-b655-4b84-b938-3c54317599b2 in project 9d80d070b6d44942af73c9c3d38e0429.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ChangeIpsProtectModeRequest()
        request.enterprise_project_id = "<enterprise_project_id>"
        request.fw_instance_id = "<fw_instance_id>"
        request.body = IpsProtectDTO(
            mode=1,
            object_id="cfebd347-b655-4b84-b938-3c54317599b2"
        )
        response = client.change_ips_protect_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

Deliver the strict protection mode to object cfebd347-b655-4b84-b938-3c54317599b2 in project 9d80d070b6d44942af73c9c3d38e0429.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ChangeIpsProtectModeRequest{}
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    fwInstanceIdRequest:= "<fw_instance_id>"
    request.FwInstanceId = &fwInstanceIdRequest
    modeIpsProtectDto:= int32(1)
    objectIdIpsProtectDto:= "cfebd347-b655-4b84-b938-3c54317599b2"
    request.Body = &model.IpsProtectDto{
        Mode: &modeIpsProtectDto,
        ObjectId: &objectIdIpsProtectDto,
    }
    response, err := client.ChangeIpsProtectMode(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.9 Log Management

4.9.1 List Log Config

Function

This API is used to list log config.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/cfw/logs/configuration

Table 4-412 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-413 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-414 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-415 Response body parameters

Parameter	Type	Description
data	**LogConfigDto** object	Log Config Response

Table 4-416 LogConfigDto

Parameter	Type	Description
fw_instance_id	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
lts_enable	Integer	whether to enable LTS
lts_log_group_id	String	Lts log group id
lts_attack_log_stream_id	String	Lts attack log stream id
lts_attack_log_stream_enable	Integer	whether to enable attack log streaming
lts_access_log_stream_id	String	Lts access log stream id
lts_access_log_stream_enable	Integer	whether to enable access log streaming
lts_flow_log_stream_id	String	Lts flow log stream id
lts_flow_log_stream_enable	Integer	whether to enable flow log streaming

Example Requests

Query the log configuration of whose firewall instance id is 4e113415-7811-4bb3-bf5e-eb835953f7d4 and project id is 408972e72dcd4c1a9b033e955802a36b.

```
https://{Endpoint}/v1/408972e72dcd4c1a9b033e955802a36b/cfw/logs/configuration?
fw_instance_id=4e113415-7811-4bb3-bf5e-eb835953f7d4&enterprise_project_id=default
```

Example Responses

Status code: 200

List Log Config Response

```
{
  "data" : {
    "fw_instance_id" : "4df2bcd1-6299-4fba-8e71-8d50ea807090",
    "lts_access_log_stream_enable" : 0,
    "lts_attack_log_stream_enable" : 0,
    "lts_enable" : 0,
    "lts_flow_log_stream_enable" : 0,
    "lts_log_group_id" : "d783ce42-7f56-4c2d-9a96-b1043d016f5a"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListLogConfigSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogConfigRequest request = new ListLogConfigRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        try {
            ListLogConfigResponse response = client.listLogConfig(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogConfigRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        response = client.list_log_config(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.ListLogConfigRequest{}
    request.FwInstanceId = "<fw_instance_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    response, err := client.ListLogConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	List Log Config Response

Error Codes

See **Error Codes**.

4.9.2 Add Log Config

Function

This API is used to add log config.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1/{project_id}/cfw/logs/configuration

Table 4-417 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-418 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-419 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-420 Request body parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
lts_enable	Yes	Integer	whether to enable LTS
lts_log_group_id	Yes	String	Lts log group id
lts_attack_log_stream_id	No	String	Lts attack log stream id
lts_attack_log_stream_enable	Yes	Integer	whether to enable attack log streaming
lts_access_log_stream_id	No	String	Lts access log stream id
lts_access_log_stream_enable	Yes	Integer	whether to enable access log streaming
lts_flow_log_stream_id	No	String	Lts flow log stream id
lts_flow_log_stream_enable	Yes	Integer	whether to enable flow log streaming

Response Parameters

Status code: 200

Table 4-421 Response body parameters

Parameter	Type	Description
data	String	Add Log Config Response Body

Example Requests

Add a log flow configuration to the firewall whose firewall instance id is 4d6c860a-0338-49e8-ac64-fcaeb4182ba5 and project id is 408972e72dcd4c1a9b033e955802a36b with LTS group ID 20282428-a8f9-4e75-8246-165e64cf8ba8, and the access control log flow is disabled, the traffic log flow is disabled, the attack log flow is disabled, and the LTS is disabled.

```
https://{Endpoint}/v1/408972e72dcd4c1a9b033e955802a36b/cfw/logs/configuration?
fw_instance_id=4d6c860a-0338-49e8-ac64-fcaeb4182ba5&enterprise_project_id=default

{
  "fw_instance_id" : "4d6c860a-0338-49e8-ac64-fcaeb4182ba5",
  "lts_enable" : 0,
  "lts_log_group_id" : "20282428-a8f9-4e75-8246-165e64cf8ba8",
  "lts_attack_log_stream_enable" : 0,
  "lts_access_log_stream_enable" : 0,
  "lts_flow_log_stream_enable" : 0
}
```

Example Responses

Status code: 200

Add Log Config Response

```
{
  "data" : "4d6c860a-0338-49e8-ac64-fcaeb4182ba5"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add a log flow configuration to the firewall whose firewall instance id is 4d6c860a-0338-49e8-ac64-fcaeb4182ba5 and project id is 408972e72dcd4c1a9b033e955802a36b with LTS group ID 20282428-a8f9-4e75-8246-165e64cf8ba8, and the access control log flow is disabled, the traffic log flow is disabled, the attack log flow is disabled, and the LTS is disabled.

```
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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class AddLogConfigSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        AddLogConfigRequest request = new AddLogConfigRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        LogConfigDto body = new LogConfigDto();
        body.withLtsFlowLogStreamEnable(0);
        body.withLtsAccessLogStreamEnable(0);
        body.withLtsAttackLogStreamEnable(0);
        body.withLtsLogGroupId("20282428-a8f9-4e75-8246-165e64cf8ba8");
        body.withLtsEnable(0);
        body.withFwInstanceId("4d6c860a-0338-49e8-ac64-fcaeb4182ba5");
        request.withBody(body);
        try {
            AddLogConfigResponse response = client.addLogConfig(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

Add a log flow configuration to the firewall whose firewall instance id is 4d6c860a-0338-49e8-ac64-fcaeb4182ba5 and project id is 408972e72dcd4c1a9b033e955802a36b with LTS group ID 20282428-a8f9-4e75-8246-165e64cf8ba8, and the access control log flow is disabled, the traffic log flow is disabled, the attack log flow is disabled, and the LTS is disabled.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = AddLogConfigRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.body = LogConfigDto(
            lts_flow_log_stream_enable=0,
            lts_access_log_stream_enable=0,
            lts_attack_log_stream_enable=0,
            lts_log_group_id="20282428-a8f9-4e75-8246-165e64cf8ba8",
            lts_enable=0,
            fw_instance_id="4d6c860a-0338-49e8-ac64-fcaeb4182ba5"
        )
        response = client.add_log_config(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

Add a log flow configuration to the firewall whose firewall instance id is 4d6c860a-0338-49e8-ac64-fcaeb4182ba5 and project id is 408972e72dcd4c1a9b033e955802a36b with LTS group ID 20282428-a8f9-4e75-8246-165e64cf8ba8, and the access control log flow is disabled, the traffic log flow is disabled, the attack log flow is disabled, and the LTS is disabled.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.AddLogConfigRequest{}
    request.FwInstanceId = "<fw_instance_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.Body = &model.LogConfigDto{
        LtsFlowLogStreamEnable: int32(0),
        LtsAccessLogStreamEnable: int32(0),
        LtsAttackLogStreamEnable: int32(0),
        LtsLogGroupId: "20282428-a8f9-4e75-8246-165e64cf8ba8",
        LtsEnable: int32(0),
        FwInstanceId: "4d6c860a-0338-49e8-ac64-fcaeb4182ba5",
    }
    response, err := client.AddLogConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Add Log Config Response

Error Codes

See **Error Codes**.

4.9.3 Update Log Config

Function

This API is used to update log config.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/cfw/logs/configuration

Table 4-422 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-423 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.

Request Parameters

Table 4-424 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Table 4-425 Request body parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.By default, if fw_instance_Id is not specified, information about the first firewall under the account is returned. If fw_instance_Id is specified, information about the firewall with this fw_instance_Id is returned.If object_Id is specified, information about the firewall with this object_Id is returned by default. If both fw_instance_Id and object_Id are specified, the specified object_Id must belong to the specified firewall.
lts_enable	Yes	Integer	whether to enable LTS
lts_log_group_id	Yes	String	Lts log group id
lts_attack_log_stream_id	No	String	Lts attack log stream id
lts_attack_log_stream_enable	Yes	Integer	whether to enable attack log streaming
lts_access_log_stream_id	No	String	Lts access log stream id
lts_access_log_stream_enable	Yes	Integer	whether to enable access log streaming
lts_flow_log_stream_id	No	String	Lts flow log stream id
lts_flow_log_stream_enable	Yes	Integer	whether to enable flow log streaming

Response Parameters

Status code: 200

Table 4-426 Response body parameters

Parameter	Type	Description
data	String	Log Config Id

Example Requests

Update the log configuration of the firewall whose firewall instance id is 22c4a5db-504c-471f-8187-5192bc11de0b and project id is 408972e72dcd4c1a9b033e955802a36b, set LTS logs to disabled, and set flow logs, access control logs, and attack logs to disabled.

```
https://{Endpoint}/v1/408972e72dcd4c1a9b033e955802a36b/cfw/logs/configuration?
fw_instance_id=22c4a5db-504c-471f-8187-5192bc11de0b&enterprise_project_id=default

{
  "fw_instance_id" : "22c4a5db-504c-471f-8187-5192bc11de0b",
  "lts_enable" : 0,
  "lts_log_group_id" : "20282428-a8f9-4e75-8246-165e64cf8ba8",
  "lts_attack_log_stream_enable" : 0,
  "lts_access_log_stream_enable" : 0,
  "lts_flow_log_stream_enable" : 0
}
```

Example Responses

Status code: 200

Update Log Config Response

```
{
  "data" : "4e113415-7811-4bb3-bf5e-eb835953f7d4"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Update the log configuration of the firewall whose firewall instance id is 22c4a5db-504c-471f-8187-5192bc11de0b and project id is 408972e72dcd4c1a9b033e955802a36b, set LTS logs to disabled, and set flow logs, access control logs, and attack logs to disabled.

```
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.cfw.v1.region.CfwRegion;
```



```
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class UpdateLogConfigSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateLogConfigRequest request = new UpdateLogConfigRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        LogConfigDto body = new LogConfigDto();
        body.withLtsFlowLogStreamEnable(0);
        body.withLtsAccessLogStreamEnable(0);
        body.withLtsAttackLogStreamEnable(0);
        body.withLtsLogGroupId("20282428-a8f9-4e75-8246-165e64cf8ba8");
        body.withLtsEnable(0);
        body.withFwInstanceId("22c4a5db-504c-471f-8187-5192bc11de0b");
        request.withBody(body);
        try {
            UpdateLogConfigResponse response = client.updateLogConfig(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

Update the log configuration of the firewall whose firewall instance id is 22c4a5db-504c-471f-8187-5192bc11de0b and project id is 408972e72dcd4c1a9b033e955802a36b, set LTS logs to disabled, and set flow logs, access control logs, and attack logs to disabled.

```
# coding: utf-8

from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateLogConfigRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.body = LogConfigDto(
            lts_flow_log_stream_enable=0,
            lts_access_log_stream_enable=0,
            lts_attack_log_stream_enable=0,
            lts_log_group_id="20282428-a8f9-4e75-8246-165e64cf8ba8",
            lts_enable=0,
            fw_instance_id="22c4a5db-504c-471f-8187-5192bc11de0b"
        )
        response = client.update_log_config(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

Update the log configuration of the firewall whose firewall instance id is 22c4a5db-504c-471f-8187-5192bc11de0b and project id is 408972e72dcd4c1a9b033e955802a36b, set LTS logs to disabled, and set flow logs, access control logs, and attack logs to disabled.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```



```
        Build())

    request := &model.UpdateLogConfigRequest{}
    request.FwInstanceId = "<fw_instance_id>"
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    request.Body = &model.LogConfigDto{
        LtsFlowLogStreamEnable: int32(0),
        LtsAccessLogStreamEnable: int32(0),
        LtsAttackLogStreamEnable: int32(0),
        LtsLogGroupId: "20282428-a8f9-4e75-8246-165e64cf8ba8",
        LtsEnable: int32(0),
        FwInstanceId: "22c4a5db-504c-471f-8187-5192bc11de0b",
    }
    response, err := client.UpdateLogConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Update Log Config Response

Error Codes

See **Error Codes**.

4.9.4 Querying Flow Logs

Function

This API is used to query flow logs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/cfw/logs/flow

Table 4-427 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-428 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.
direction	No	String	Direction
log_type	No	String	Log type Enumeration values: • **internet** • **vpc** • **nat**
start_time	Yes	Long	Start time
end_time	Yes	Long	End time
src_ip	No	String	Source IP address
src_port	No	Integer	Source port Minimum: **0** Maximum: **65535**
dst_ip	No	String	Destination IP address
dst_port	No	Integer	Destination port Minimum: **0** Maximum: **65535**

Parameter	Mandatory	Type	Description
protocol	No	String	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added. Enumeration values: • **6** • **17** • **1** • **58**
app	No	String	Application protocol
log_id	No	String	Document ID. The value is null for the first page and not null for the rest of the pages.
next_date	No	Long	Date. The value is null for the first page and not null for the rest of the pages.
offset	No	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024 Minimum: **1** Maximum: **1024**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
dst_host	No	String	destination host
src_region_name	No	String	source region name
dst_region_name	No	String	dst region name

Request Parameters

Table 4-429 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-430 Response body parameters

Parameter	Type	Description
data	**data** object	Value returned for flow log query

Table 4-431 data

Parameter	Type	Description
total	Integer	Returned quantity
limit	Integer	Number of records displayed on each page, in the range 1-1024
records	Array of **records** objects	Record

Table 4-432 records

Parameter	Type	Description
bytes	Double	Byte
direction	String	Direction, which can be inbound or outbound Enumeration values: • **out2in** • **in2out**
packets	Integer	Packet

Parameter	Type	Description
start_time	Long	Start time
end_time	Long	End time
log_id	String	Document ID
src_ip	String	Source IP address
src_port	Integer	Source port
dst_ip	String	Destination IP address
app	String	Application protocol
dst_port	Integer	Destination port
protocol	String	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
dst_host	String	destination host
dst_region_id	String	destination region id
dst_region_name	String	destination region name
src_region_id	String	source region id
src_region_name	String	source region name

Status code: 400

Table 4-433 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the flow logs on the first page of the firewall with the ID 2af58b7c-893c-4453-a984-bdd9b1bd6318 in the project

9d80d070b6d44942af73c9c3d38e0429. The query time range is 1663555012000 to 1664159798000.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/cfw/logs/flow?
fw_instance_id=2af58b7c-893c-4453-a984-
bdd9b1bd6318&start_time=1663555012000&end_time=1664159798000&limit=10
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "limit" : 10,
    "records" : [ {
      "app" : "SSH",
      "bytes" : 34.5,
      "direction" : "out2in",
      "dst_ip" : "100.95.148.49",
      "dst_port" : 22,
      "end_time" : 1664155493000,
      "log_id" : "76354",
      "packets" : 25,
      "protocol" : "TCP",
      "src_ip" : "100.93.27.17",
      "src_port" : 49634,
      "start_time" : 1664155428000
    } ],
    "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00500002",
  "error_msg" : "time range error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListFlowLogsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListFlowLogsRequest request = new ListFlowLogsRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withDirection("<direction>");
        request.withLogType(ListFlowLogsRequest.LogTypeEnum.fromValue("<log_type>"));
        request.withStartTime(<start_time>L);
        request.withEndTime(<end_time>L);
        request.withSrcIp("<src_ip>");
        request.withSrcPort(<src_port>);
        request.withDstIp("<dst_ip>");
        request.withDstPort(<dst_port>);
        request.withProtocol(ListFlowLogsRequest.ProtocolEnum.fromValue("<protocol>"));
        request.withApp("<app>");
        request.withLogId("<log_id>");
        request.withNextDate(<next_date>L);
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withDstHost("<dst_host>");
        try {
            ListFlowLogsResponse response = client.listFlowLogs(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListFlowLogsRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.direction = "<direction>"
        request.log_type = "<log_type>"
        request.start_time = <start_time>
        request.end_time = <end_time>
        request.src_ip = "<src_ip>"
        request.src_port = <src_port>
        request.dst_ip = "<dst_ip>"
        request.dst_port = <dst_port>
        request.protocol = "<protocol>"
        request.app = "<app>"
        request.log_id = "<log_id>"
        request.next_date = <next_date>
        request.offset = <offset>
        request.limit = <limit>
        request.enterprise_project_id = "<enterprise_project_id>"
        request.dst_host = "<dst_host>"
        response = client.list_flow_logs(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListFlowLogsRequest{}
    request.FwInstanceId = "<fw_instance_id>"
    directionRequest:= "<direction>"
    request.Direction = &directionRequest
    logTypeRequest:= model.GetListFlowLogsRequestLogTypeEnum().<LOG_TYPE>
```



```
    request.LogType = &logTypeRequest
    request.StartTime = int64(<start_time>)
    request.EndTime = int64(<end_time>)
    srcIpRequest:= "<src_ip>"
    request.SrcIp = &srcIpRequest
    srcPortRequest:= int32(<src_port>)
    request.SrcPort = &srcPortRequest
    dstIpRequest:= "<dst_ip>"
    request.DstIp = &dstIpRequest
    dstPortRequest:= int32(<dst_port>)
    request.DstPort = &dstPortRequest
    protocolRequest:= model.GetListFlowLogsRequestProtocolEnum().<PROTOCOL>
    request.Protocol = &protocolRequest
    appRequest:= "<app>"
    request.App = &appRequest
    logIdRequest:= "<log_id>"
    request.LogId = &logIdRequest
    nextDateRequest:= int64(<next_date>)
    request.NextDate = &nextDateRequest
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    request.Limit = int32(<limit>)
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    dstHostRequest:= "<dst_host>"
    request.DstHost = &dstHostRequest
    response, err := client.ListFlowLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.9.5 Querying Access Control Logs

Function

This API is used to query access control logs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/cfw/logs/access-control

Table 4-434 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-435 Query Parameters

Parameter	Mandatory	Type	Description
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.
rule_id	No	String	Rule ID
start_time	Yes	Long	Start time
end_time	Yes	Long	End time
src_ip	No	String	Source IP address
src_port	No	Integer	Source port
dst_ip	No	String	Destination IP address
dst_port	No	Integer	Destination port
protocol	No	String	Protocol
app	No	String	Application protocol
log_id	No	String	Document ID. The value is null for the first page and not null for the rest of the pages.

Parameter	Mandatory	Type	Description
next_date	No	Integer	Date. The value is null for the first page and not null for the rest of the pages.
offset	No	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
log_type	No	String	Log type Enumeration values: • **internet** • **nat** • **vpc**
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
dst_host	No	String	destination host
rule_name	No	String	rule name
action	No	String	Action. 0: allow; 1: deny
src_region_name	No	String	source region name
dst_region_name	No	String	destination region name

Request Parameters

Table 4-436 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-437 Response body parameters

Parameter	Type	Description
data	**data** object	Data returned for querying access control logs

Table 4-438 data

Parameter	Type	Description
total	Integer	Returned quantity
limit	Integer	Number of records displayed on each page, in the range 1-1024
records	Array of **records** objects	Record

Table 4-439 records

Parameter	Type	Description
action	String	Action. 0: allow; 1: deny
rule_name	String	Rule name
rule_id	String	Rule ID
hit_time	Long	Hit time
src_region_id	String	source region id
src_region_name	String	source region name
dst_region_id	String	destination region id
dst_region_name	String	destination region name
log_id	String	Document ID
src_ip	String	Source IP address
src_port	Integer	Source port
dst_ip	String	Destination IP address
dst_port	Integer	Destination port

Parameter	Type	Description
protocol	String	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added.
app	String	Application protocol
dst_host	String	destination host

Status code: 400

Table 4-440 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query the records whose initial position is 0 on the first page of the firewall with the ID 2af58b7c-893c-4453-a984-bdd9b1bd6318 in the project 9d80d070b6d44942af73c9c3d38e0429. The query time range is 1664159069544 to 1664162669544.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/cfw/logs/access-control?
fw_instance_id=2af58b7c-893c-4453-a984-
bdd9b1bd6318&start_time=1664159069544&end_time=1664162669544&limit=10
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
    "limit" : 10,
    "records" : [ {
      "action" : "deny",
      "app" : "PING",
      "dst_ip" : "100.85.216.211",
      "dst_port" : 59,
      "hit_time" : 1664164255000,
      "log_id" : "46032",
```

```
    "protocol" : "ICMP: ECHO_REQUEST",
    "rule_id" : "c755be1c-4b92-4ae7-a15e-c2d02b152538",
    "rule_name" : "eip_ipv4_w_n_default_deny",
    "src_ip" : "100.95.148.49",
    "src_port" : 24954
   } ],
   "total" : 1
  }
}
```

Status code: 400

Bad Request

```
{
  "error_code" : "CFW.00500002",
  "error_msg" : "time range error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListAccessControlLogsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAccessControlLogsRequest request = new ListAccessControlLogsRequest();
        request.withFwInstanceId("<fw_instance_id>");
        request.withRuleId("<rule_id>");
        request.withStartTime(<start_time>L);
        request.withEndTime(<end_time>L);
        request.withSrcIp("<src_ip>");
        request.withSrcPort(<src_port>);
        request.withDstIp("<dst_ip>");
        request.withDstPort(<dst_port>);
        request.withProtocol("<protocol>");
        request.withApp("<app>");
        request.withLogId("<log_id>");
```



```
        request.withNextDate(<next_date>);
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        request.withLogType(ListAccessControlLogsRequest.LogTypeEnum.fromValue("<log_type>"));
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withDstHost("<dst_host>");
        request.withRuleName("<rule_name>");
        request.withAction("<action>");
        try {
            ListAccessControlLogsResponse response = client.listAccessControlLogs(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAccessControlLogsRequest()
        request.fw_instance_id = "<fw_instance_id>"
        request.rule_id = "<rule_id>"
        request.start_time = <start_time>
        request.end_time = <end_time>
        request.src_ip = "<src_ip>"
        request.src_port = <src_port>
        request.dst_ip = "<dst_ip>"
        request.dst_port = <dst_port>
        request.protocol = "<protocol>"
        request.app = "<app>"
        request.log_id = "<log_id>"
        request.next_date = <next_date>
        request.offset = <offset>
        request.limit = <limit>
        request.log_type = "<log_type>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.dst_host = "<dst_host>"
```



```
        request.rule_name = "<rule_name>"
        request.action = "<action>"
        response = client.list_access_control_logs(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAccessControlLogsRequest{}
    request.FwInstanceId = "<fw_instance_id>"
    ruleIdRequest:= "<rule_id>"
    request.RuleId = &ruleIdRequest
    request.StartTime = int64(<start_time>)
    request.EndTime = int64(<end_time>)
    srcIpRequest:= "<src_ip>"
    request.SrcIp = &srcIpRequest
    srcPortRequest:= int32(<src_port>)
    request.SrcPort = &srcPortRequest
    dstIpRequest:= "<dst_ip>"
    request.DstIp = &dstIpRequest
    dstPortRequest:= int32(<dst_port>)
    request.DstPort = &dstPortRequest
    protocolRequest:= "<protocol>"
    request.Protocol = &protocolRequest
    appRequest:= "<app>"
    request.App = &appRequest
    logIdRequest:= "<log_id>"
    request.LogId = &logIdRequest
    nextDateRequest:= int32(<next_date>)
    request.NextDate = &nextDateRequest
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    request.Limit = int32(<limit>)
    logTypeRequest:= model.GetListAccessControlLogsRequestLogTypeEnum().<LOG_TYPE>
    request.LogType = &logTypeRequest
```



```
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    dstHostRequest:= "<dst_host>"
    request.DstHost = &dstHostRequest
    ruleNameRequest:= "<rule_name>"
    request.RuleName = &ruleNameRequest
    actionRequest:= "<action>"
    request.Action = &actionRequest
    response, err := client.ListAccessControlLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

4.9.6 Querying Attack Logs

Function

This API is used to query attack logs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/cfw/logs/attack

Table 4-441 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-442 Query Parameters

Parameter	Mandatory	Type	Description
start_time	Yes	Long	Start time
end_time	Yes	Long	End time
src_ip	No	String	Source IP address
src_port	No	Integer	Source port number Minimum: **0** Maximum: **65535**
dst_ip	No	String	Destination IP address
dst_port	No	Integer	Destination port number Minimum: **0** Maximum: **65535**
protocol	No	String	Protocol type. The value 6 indicates TCP, 17 indicates UDP, 1 indicates ICMP, 58 indicates ICMPv6, and -1 indicates any protocol. Regarding the addition type, a null value indicates it is automatically added. Enumeration values: • **6** • **17** • **1** • **58**
app	No	String	Application protocol
log_id	No	String	Log ID. The value is null for the first page and not null for the rest of the pages.
next_date	No	Long	Next date. The value is null for the first page and not null for the rest of the pages.

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset, which specifies the start position of the record to be returned. The value must be a number no less than 0. The default value is **0**.
limit	Yes	Integer	Number of records displayed on each page, in the range 1-1024
fw_instance_id	Yes	String	Firewall instance ID, which is automatically generated after a CFW instance is created. You can obtain the ID by calling the API used for querying a firewall instance. For details, see the API Explorer and Help Center FAQ.
action	No	String	Action. 0: allow; 1: deny Enumeration values: • **0** • **1**
direction	No	String	Direction. 0: inbound; 1: outbound Enumeration values: • **0** • **1**
attack_type	No	String	Intrusion event type
attack_rule	No	String	Intrusion event rule
level	No	String	Threat level
source	No	String	Source
enterprise_project_id	No	String	Enterprise project id, the id generated by the enterprise project after the user supports the enterprise project.
dst_host	No	String	destination host
log_type	No	String	log_type Enumeration values: • **internet** • **nat** • **vpc**

Parameter	Mandatory	Type	Description
attack_rule_id	No	String	attack rule id
src_region_name	No	String	source region name
dst_region_name	No	String	destination region name

Request Parameters

Table 4-443 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is a token.

Response Parameters

Status code: 200

Table 4-444 Response body parameters

Parameter	Type	Description
data	**data** object	Return value of attack log query

Table 4-445 data

Parameter	Type	Description
total	Integer	Returned quantity
limit	Integer	Number of records displayed on each page, in the range 1-1024
records	Array of **records** objects	Record

Table 4-446 records

Parameter	Type	Description
direction	String	Direction, which can be inbound or outbound Enumeration values: • **out2in** • **in2out**
action	String	Action
event_time	Long	Event time
attack_type	String	Attack type
attack_rule	String	Attack rule
level	String	Threat level
source	String	Source
packet_length	Long	Packet length
attack_rule_id	String	Attack rule ID
hit_time	Integer	Hit time
log_id	String	Log ID
src_ip	String	Source IP address
src_port	Integer	Source port Minimum: **0** Maximum: **65535**
dst_ip	String	Destination IP address
dst_port	Integer	Destination port Minimum: **0** Maximum: **65535**
protocol	String	Protocol
packet	String	Attack log packet
app	String	Application protocol
packetMessages	Array of **PacketMessage** objects	packet message
dst_host	String	destination host
src_region_id	String	source region id
src_region_name	String	source region name

Parameter	Type	Description
dst_region_id	String	destination region id
dst_region_name	String	destination region name

Table 4-447 PacketMessage

Parameter	Type	Description
hex_index	String	hex index
hexs	Array of strings	hexs
utf8_String	String	utf8 string

Status code: 400

Table 4-448 Response body parameters

Parameter	Type	Description
error_code	String	Error code Minimum: **8** Maximum: **36**
error_msg	String	Description Minimum: **2** Maximum: **512**

Example Requests

Query 10 records on the first page of the firewall with the ID 2af58b7c-893c-4453-a984-bdd9b1bd6318 in the project 9d80d070b6d44942af73c9c3d38e0429. The query time range is 1663567058000 to 1664171765000.

```
https://{Endpoint}/v1/9d80d070b6d44942af73c9c3d38e0429/cfw/logs/attack?
fw_instance_id=2af58b7c-893c-4453-a984-
bdd9b1bd6318&start_time=1663567058000&end_time=1664171765000&limit=10
```

Example Responses

Status code: 200

OK

```
{
  "data" : {
```

```
    "limit" : 10,
    "records" : [ {
      "action" : "deny",
      "app" : "HTTP",
      "attack_rule" : "Tool Nmap Web Server Probe Detected",
      "attack_rule_id" : "336154",
      "attack_type" : "Web Attack",
      "direction" : "out2in",
      "dst_ip" : "100.95.148.49",
      "dst_port" : 8080,
      "event_time" : 1664146216000,
      "level" : "MEDIUM",
      "log_id" : "15591",
      "packet" : "+hZUZMhV+hY/AaHMCABFKABpXPNAADAGof1kVe6QZF
+UMcTQH5B0wdaz888+uoAYAOVyNQAAAQEICjrmikVb9JLCR0VUIC9uaWNlJTIwcG9ydHMlMkMvVHJpJTZFaX
R5LnR4dCUyZWJhayBIVFRQLzEuMA0KDQo=",
      "packetMessages" : [ {
        "hex_index" : "00000000",
        "hexs" : [ "fa", "16", "54", "64", "c8", "55", "fa", "16", "3f", "01", "a1", "cc", "08", "00", "45", "28" ],
        "utf8_String" : ".\u0016Td.U.\u0016?.....E("
      }, {
        "hex_index" : "00000010",
        "hexs" : [ "00", "69", "5c", "f3", "40", "00", "30", "06", "a1", "fd", "64", "55", "ee", "90", "64", "5f" ],
        "utf8_String" : ".i\\.@.0...dU.d_"
      }, {
        "hex_index" : "00000020",
        "hexs" : [ "94", "31", "c4", "d0", "1f", "90", "74", "c1", "d6", "b3", "f3", "cf", "3e", "ba", "80", "18" ],
        "utf8_String" : ".1..\u001Ft.t...>..."
      }, {
        "hex_index" : "00000030",
        "hexs" : [ "00", "e5", "72", "35", "00", "00", "01", "01", "08", "0a", "3a", "e6", "8a", "45", "5b", "f4" ],
        "utf8_String" : "..r5.....:.E[."
      }, {
        "hex_index" : "00000040",
        "hexs" : [ "92", "c2", "47", "45", "54", "20", "2f", "6e", "69", "63", "65", "25", "32", "30", "70", "6f" ],
        "utf8_String" : "..GET /nice%20po"
      }, {
        "hex_index" : "00000050",
        "hexs" : [ "72", "74", "73", "25", "32", "43", "2f", "54", "72", "69", "25", "36", "45", "69", "74", "79" ],
        "utf8_String" : "rts%2C/Tri%6Eity"
      }, {
        "hex_index" : "00000060",
        "hexs" : [ "2e", "74", "78", "74", "25", "32", "65", "62", "61", "6b", "20", "48", "54", "54", "50", "2f" ],
        "utf8_String" : ".txt%2ebak HTTP/"
      }, {
        "hex_index" : "00000070",
        "hexs" : [ "31", "2e", "30", "0d", "0a", "0d", "0a" ],
        "utf8_String" : "1.0\r.\r."
      } ],
      "packet_length" : 119,
      "protocol" : "TCP",
      "source" : "0",
      "src_ip" : "100.85.238.144",
      "src_port" : 50384
    } ],
    "total" : 1
  }
}
```


Status code: 400

Bad Request


```
{
  "error_code" : "00500002",
  "error_msg" : "time range error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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.cfw.v1.region.CfwRegion;
import com.huaweicloud.sdk.cfw.v1.*;
import com.huaweicloud.sdk.cfw.v1.model.*;


public class ListAttackLogsSolution {

    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);

        CfwClient client = CfwClient.newBuilder()
                .withCredential(auth)
                .withRegion(CfwRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAttackLogsRequest request = new ListAttackLogsRequest();
        request.withStartTime(<start_time>L);
        request.withEndTime(<end_time>L);
        request.withSrcIp("<src_ip>");
        request.withSrcPort(<src_port>);
        request.withDstIp("<dst_ip>");
        request.withDstPort(<dst_port>);
        request.withProtocol(ListAttackLogsRequest.ProtocolEnum.fromValue("<protocol>"));
        request.withApp("<app>");
        request.withLogId("<log_id>");
        request.withNextDate(<next_date>L);
        request.withOffset(<offset>);
        request.withLimit(<limit>);
        request.withFwInstanceId("<fw_instance_id>");
        request.withAction(ListAttackLogsRequest.ActionEnum.fromValue("<action>"));
        request.withDirection(ListAttackLogsRequest.DirectionEnum.fromValue("<direction>"));
        request.withAttackType("<attack_type>");
        request.withAttackRule("<attack_rule>");
        request.withLevel("<level>");
        request.withSource("<source>");
        request.withEnterpriseProjectId("<enterprise_project_id>");
        request.withDstHost("<dst_host>");
        request.withLogType(ListAttackLogsRequest.LogTypeEnum.fromValue("<log_type>"));
        try {
            ListAttackLogsResponse response = client.listAttackLogs(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 huaweicloudsdkcfw.v1.region.cfw_region import CfwRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkcfw.v1 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 = CfwClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(CfwRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAttackLogsRequest()
        request.start_time = <start_time>
        request.end_time = <end_time>
        request.src_ip = "<src_ip>"
        request.src_port = <src_port>
        request.dst_ip = "<dst_ip>"
        request.dst_port = <dst_port>
        request.protocol = "<protocol>"
        request.app = "<app>"
        request.log_id = "<log_id>"
        request.next_date = <next_date>
        request.offset = <offset>
        request.limit = <limit>
        request.fw_instance_id = "<fw_instance_id>"
        request.action = "<action>"
        request.direction = "<direction>"
        request.attack_type = "<attack_type>"
        request.attack_rule = "<attack_rule>"
        request.level = "<level>"
        request.source = "<source>"
        request.enterprise_project_id = "<enterprise_project_id>"
        request.dst_host = "<dst_host>"
        request.log_type = "<log_type>"
        response = client.list_attack_logs(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"
    cfw "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/cfw/v1/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 := cfw.NewCfwClient(
        cfw.CfwClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAttackLogsRequest{}
    request.StartTime = int64(<start_time>)
    request.EndTime = int64(<end_time>)
    srcIpRequest:= "<src_ip>"
    request.SrcIp = &srcIpRequest
    srcPortRequest:= int32(<src_port>)
    request.SrcPort = &srcPortRequest
    dstIpRequest:= "<dst_ip>"
    request.DstIp = &dstIpRequest
    dstPortRequest:= int32(<dst_port>)
    request.DstPort = &dstPortRequest
    protocolRequest:= model.GetListAttackLogsRequestProtocolEnum().<PROTOCOL>
    request.Protocol = &protocolRequest
    appRequest:= "<app>"
    request.App = &appRequest
    logIdRequest:= "<log_id>"
    request.LogId = &logIdRequest
    nextDateRequest:= int64(<next_date>)
    request.NextDate = &nextDateRequest
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    request.Limit = int32(<limit>)
    request.FwInstanceId = "<fw_instance_id>"
    actionRequest:= model.GetListAttackLogsRequestActionEnum().<ACTION>
    request.Action = &actionRequest
    directionRequest:= model.GetListAttackLogsRequestDirectionEnum().<DIRECTION>
    request.Direction = &directionRequest
    attackTypeRequest:= "<attack_type>"
    request.AttackType = &attackTypeRequest
    attackRuleRequest:= "<attack_rule>"
    request.AttackRule = &attackRuleRequest
    levelRequest:= "<level>"
    request.Level = &levelRequest
    sourceRequest:= "<source>"
    request.Source = &sourceRequest
    enterpriseProjectIdRequest:= "<enterprise_project_id>"
    request.EnterpriseProjectId = &enterpriseProjectIdRequest
    dstHostRequest:= "<dst_host>"
    request.DstHost = &dstHostRequest
    logTypeRequest:= model.GetListAttackLogsRequestLogTypeEnum().<LOG_TYPE>
    request.LogType = &logTypeRequest
```



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

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

Error Codes

See **Error Codes**.

A Appendix

A.1 Status Code

- Normal

Status Code	Description	Description
200	OK	The request is successfully processed.

- Abnormal

Status Code	Description	Description
400	Bad Request	It is a bad request.
401	Unauthorized	You do not have permissions to perform this action.
403	Forbidden	Access is denied.
404	Not Found	The page is not found.
500	Internal Server Error	There is an internal server error.

A.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

Status Code	Error Codes	Error Message	Description	Solution
400	CFW.00109004	http to external service error.	http to external service error.	Try again later or contact technical support.
400	CFW.00200001	empty param	empty param.	contact technical support.
400	can not delete for used.	can not delete for used.	can not delete for used.	contact technical support.
400	CFW.00200005	operation content does not exist.	operation content does not exist.	contact technical support.
400	CFW.00200007	name conflict.	name conflict.	please rename the name.
400	CFW.00200009	A request with the same param already exists.	A request with the same param already exists.	contact technical support.
400	CFW.00200010	Config type error.	Config type error.	contact technical support.
400	CFW.00200011	Not support batch operation.	Not support batch operation.	contact technical support.
400	CFW.00200013	url syntax error.	url syntax error.	contact technical support.
400	CFW.00200020	added acl rules can't exceed 20.	added acl rules can't exceed 20.	Please reduce the number of added acl rules.
400	CFW.00200022	all IP address segments is not allowed in black and white list.	all IP address segments is not allowed in black and white list.	Please specify the black and white list ip address segment.
400	CFW.00200023	PARAM_UPGRADING_TASK_OUT_OF_RANGE	PARAM_UPGRADING_TASK_OUT_OF_RANGE.	contact technical support.
400	CFW.00200024	Exceeded maximum quantity limit.	Exceeded maximum quantity limit.	contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	CFW.00200025	long connection acl rules time out of range.	long connection acl rules time out of range.	Please make sure the long connection rule duration is from one second to a thousand days.
400	CFW.00200026	Long connection acl rules reach limit.	Long connection acl rules reach limit.	Please delete some long connection rules.
400	CFW.00200027	acl address is error.	acl address is error.	Please make sure that the acl rule address conforms to the specification.
400	CFW.00200028	inconsistent address types.	inconsistent address types.	Please make sure the address type is the same.
400	CFW.00200030	address type is error.	address type is error.	contact technical support.
400	CFW.00200032	The engine does not support IPv6.	The engine does not support IPv6.	contact technical support.
400	CFW.00200036	The network segment cannot be changed to a private network segment.	The network segment cannot be changed to a private network segment.	contact technical support.
400	CFW.00200041	address is null.	address is null.	Please add address type parameter.
400	CFW.00200016	instance status error.	instance status error.	contact technical support.
400	CFW.00200110	Can't operate basic defense	Can't operate basic defense	contact technical support.
400	CFW.00300001	Parse command error.	Parse command error.	contact technical support.
400	CFW.00400002	not need to operate.	not need to operate.	contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	CFW.00400004	item already exist.	item already exist.	Please delete some service items.
400	CFW.00400006	clear rule hit count param error.	clear rule hit count param error.	Please check and confirm whether the parameter value is legal.
400	CFW.00400007	ACL_RULE_TYPE_INCONSISTENT.	ACL_RULE_TYPE_INCONSISTENT.	Make sure to add the same rule type.
400	CFW.00400008	protect object doesn't exist.	protect object doesn't exist.	contact technical support.
400	CFW.00400009	The number of wildcard domain name protection rules exceeds the upper limit	The number of wildcard domain name protection rules exceeds the upper limit	Please delete some generic domain name protection rules.
400	CFW.00400010	not supported protocol for long connection.	not supported protocol for long connection.	Please make sure that the rule protocol belongs to TCP, UDP.
400	CFW.00400011	BLACK_WHITE_LIST_REPEAT.	BLACK_WHITE_LIST_REPEAT.	Make sure to add a different black and white list.
400	CFW.00400012	East west protection not existed,private Ip blackWhite list cannot be submitted.	East west protection not existed,private Ip blackWhite list cannot be submitted.	Please add east-west protection.
400	CFW.00400013	The number of blocklists or trustlists exceeds the maximum 2000.	The number of blocklists or trustlists exceeds the maximum 2000.	Please delete some black and white lists.
400	CFW.00500002	time range error.	time range error.	contact technical support.
400	CFW.00500004	time range error.	time range error.	contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	CFW.00600003	HTTP response status code does not match.	HTTP response status code does not match.	contact technical support.
400	CFW.00700001	er not exist error.	er not exist error.	Please check if er exists.
400	CFW.00700002	vpc not exist error.	vpc not exist error.	Please check if vpc exists.
400	CFW.00700003	associated subnet conflict.	associated subnet conflict.	Please make sure that the created subnet does not overlap with the subnet segment under the existing vpc.
400	CFW.00700004	create subnet error.	create subnet error.	contact technical support.
400	CFW.00700007	er attach vpc error.	er attach vpc error.	contact technical support.
400	CFW.00700012	change route error.	change route error.	contact technical support.
400	CFW.00700015	Get VPC quotas error.	Get VPC quotas error.	contact technical support.
400	CFW.00700016	Vpc contain route table quota not enough.	Vpc contain route table quota not enough.	Please delete the existing routing table under vpc.
400	CFW.00800001	An error occurred when querying from etcd.	An error occurred when querying from etcd.	contact technical support.
400	CFW.00800002	An error occurred when deleting from etcd.	An error occurred when deleting from etcd.	contact technical support.
400	CFW.00800003	An error occurred when save to etcd.	An error occurred when save to etcd.	contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	CFW.00900016	The import task is in progress. Please operate after the task is completed.	The import task is in progress. Please operate after the task is completed.	Please wait some time until the import task finishes.
400	CFW.00900020	Address groups exceed the maximum limit	Address groups exceed the maximum limit	Please delete some address groups.
400	CFW.00900030	Global services reach limit.	Global services reach limit.	Please delete some service items.
400	CFW.01100008	Configurations cannot be delivered during cluster capacity expansion.	Configurations cannot be delivered during cluster capacity expansion.	contact technical support.

A.3 Obtaining a Project ID

Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API for **Querying Project Information Based on Specified Criteria**.

The API used to obtain a project ID is GET https://{Endpoint}/v3/projects. **{Endpoint}** is the IAM endpoint and can be obtained from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

In the following example, **id** indicates the project ID.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "xxxxxxxx",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
        }
```

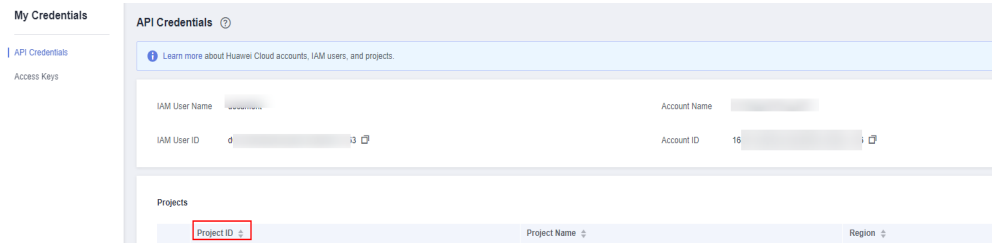
```
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtaining a Project ID from the Console

A project ID is required for some URLs when an API is called. To obtain a project ID, perform the following operations:

1. Log in to the management console.
2. Click the username and choose **My Credentials** from the drop-down list.
3. On the page, view the project ID in the project list.

Figure A-1 Viewing project IDs



B Change History

Release Date	Description
2023-12-15	This issue is the third official release. Added the following APIs: • Creating a firewall • Obtaining the CFW task execution status • Deleting a firewall • Obtaining log configurations • Creating log configurations • Updating log configurations
2023-10-13	This issue is the second official release. Added the following APIs: • Query firewalls. • Update rule actions in batches. • Query rule tags. • All APIs in **Domain Name Resolution and Domain Name Group Management**.
2022-11-30	This issue is the first official release.

