

GaussDB

Getting Started

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1 Buying a GaussDB Instance and Connecting to It Through the DAS Console (Recommended)

Data Admin Service (DAS) enables you to manage instances on a web-based console, simplifying database management and improving working efficiency. You can connect to and manage instances through DAS.


This section describes how to use DAS to connect to a GaussDB instance you have bought on the GaussDB management console. For more methods of connecting to an instance, see [Connecting to a GaussDB Instance](#).

- [Step 1: Buy an Instance](#)
- [Step 2: Log In to a GaussDB Instance Through DAS](#)

Buying an Instance

Step 1 [Log in to the management console](#).

Step 2 Click  in the upper left corner and select a region and project.

Step 3 Click  in the upper left corner of the page and choose **Databases** > **GaussDB**.

Step 4 On the **Instances** page, click **Buy DB Instance**.

Step 5 On the displayed page, set **Billing Mode**, enter **DB Instance Name**, select **Edition Type**, **DB Engine Version**, **DB Instance Type**, and **Deployment Model**, and complete other configurations.

- **Billing Mode:** Pay-per-use
- Region and Project: Retain the default settings.
- **DB Instance Name:** Enter a name that is easy to identify.
- **Edition Type:** Enterprise edition
- **DB Engine Version:** 8.103
- **DB Instance Type:** Primary/Standby
- **Deployment Model:** 1 primary + 2 standby

- **AZ: AZ1**
- **Time Zone:** Retain the default value.

Figure 1-1 Billing mode and basic information

The screenshot displays the configuration page for a GaussDB instance. It includes the following fields and options:

- Billing Mode:** Radio buttons for 'Yearly/Monthly' and 'Pay-per-use' (selected).
- Region:** A dropdown menu.
- Project:** A dropdown menu.
- DB Instance Name:** A text input field.
- Resource:** A button labeled 'Enterprise edition'.
- DB Engine Version:** Radio buttons for '8.103' (selected) and '8.102'.
- DB Instance Type:** Radio buttons for 'Distributed' and 'Primary/Standby' (selected).
- Deployment:** A button labeled '1 primary + 2 standby'.
- AZ:** Three buttons labeled 'AZ1', 'AZ2', and 'AZ3'.
- Time Zone:** A dropdown menu showing '(UTC+08:00) Beijing, Chongqing, Hong K...'.

Below the AZ buttons, a note states: 'Only one or three AZs can be selected.'

Step 6 Configure instance specifications.

- **Instance Specifications: Dedicated(1:4) and 4 vCPUs | 16 GB**
- **Storage Type: Ultra-high I/O**
- **Storage Space: 40 GB**
- **Disk Encryption: Disable**

Figure 1-2 Specifications and storage

The screenshot displays the configuration page for instance specifications and storage. It includes the following fields and options:

- Instance Specifications:** A button labeled 'Dedicated(1:4)'.
- Flavor Name:** A dropdown menu showing '4 vCPUs | 16 GB'.
- DB Instance Specifications:** A text input field showing 'Dedicated(1:4) | 4 vCPUs | 16 GB'.
- Storage Type:** A button labeled 'Ultra-high I/O'.
- Storage Space (GB):** A slider control with a value of 40.
- Disk Encryption:** Radio buttons for 'Disable' (selected) and 'Enable'.

Below the storage space slider, there is a note: 'GaussDB provides free backup storage equal to the amount of your purchased storage space. After the free backup space is used up, charges are applied based on the backup space pricing details.'

Step 7 Retain the default settings for the network information.**Figure 1-3** Network configuration

Relationship among VPCs, subnets, security groups, and DB instances. ⓘ

VPC ⓘ

If you want to create a VPC, go to [the VPC console](#).

Security Group [View Security Group](#) ⓘ

In a security group, rules that authorize connections to DB instances apply to all DB instances associated with the security group.

Ensure that the TCP ports in the inbound rule of the selected security group contain 8000-8100, 20050, 5000-5001, 2379-2380, 6000, 6500.

Security Group Rules

Database Port

Single Floating IP Address ☐

The single floating IP address policy is disabled by default, but you can enable it if you want to create an instance with only one floating IP address. Instances with this policy enabled do not support IPv6.

Step 8 Configure the instance password and enterprise project.

- **Administrator Password:** Set a strong password to improve security.
- **Confirm Password:** Enter the administrator password again.
- **Enterprise Project:** default
- Retain the default values for other parameters.

Figure 1-4 Database configuration

Administrator

Administrator Password ⓘ Keep your password secure. The system cannot retrieve your password.

Confirm Password ⓘ

Parameter Template ⓘ [View Parameter Template](#)

Enterprise Project ⓘ [View Enterprise Projects](#) ⓘ

Tag

[+ Add Tag](#)

You can add 20 more tags.

Step 9 Click **Next**, confirm the instance information, and click **Submit**.**Step 10** Go to the instance list.


If status of the instance becomes **Available**, the instance has been created.

----End

Logging In to a GaussDB Instance Through DAS

Step 1 Log in to the management console.

Step 2 Click  in the upper left corner and select a region and project.

Step 3 Click  in the upper left corner of the page and choose **Databases > GaussDB**.

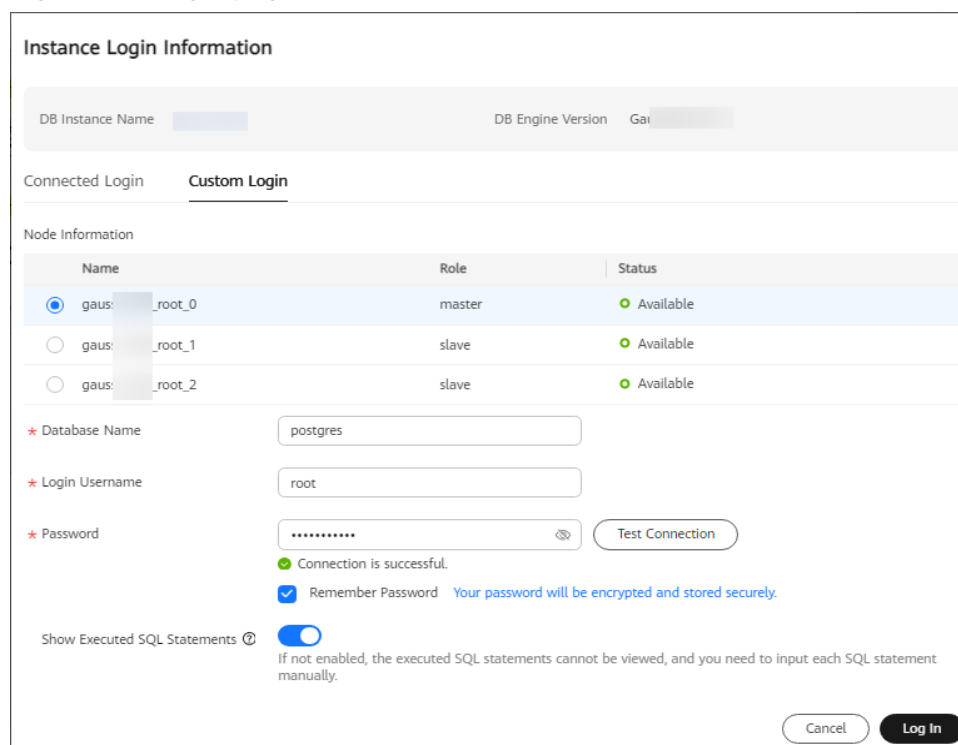
Step 4 On the **Instances** page, locate the DB instance you want to log in to and click **Log In** in the **Operation** column.

Alternatively, click the DB instance name on the **Instances** page. On the displayed **Basic Information** page, click **Log In** in the upper right corner of the page.

Step 5 On the **Custom Login** page, select the node to be logged in to. Enter the correct database username and password, and click **Test Connection**. After the connection test is successful, click **Log In**.

- **Login Username:** root
- **Database Name:** postgres
- **Password:** Enter the password of the **root** user. It is the administrator password you set when you buy an instance.
- **Show Executed SQL Statements:** Enable it.

Figure 1-5 Login page



The screenshot displays the 'Instance Login Information' page in the DAS console. At the top, there are input fields for 'DB Instance Name' and 'DB Engine Version'. Below this, the 'Custom Login' tab is selected. Under the 'Node Information' section, a table lists three nodes: 'gaussdb-root-0' (master, Available), 'gaussdb-root-1' (slave, Available), and 'gaussdb-root-2' (slave, Available). The first node is selected. Below the table, there are input fields for 'Database Name' (postgres), 'Login Username' (root), and 'Password' (masked). A 'Test Connection' button is next to the password field. Below the password field, a green checkmark indicates 'Connection is successful.' and a checkbox for 'Remember Password' is checked. At the bottom, there is a toggle for 'Show Executed SQL Statements' which is enabled. A 'Log In' button is at the bottom right.

Name	Role	Status
gaussdb-root-0	master	Available
gaussdb-root-1	slave	Available
gaussdb-root-2	slave	Available

Database Name: postgres

Login Username: root

Password: [masked] [Test Connection]

Connection is successful.

Remember Password: ☒ Your password will be encrypted and stored securely.

Show Executed SQL Statements: ☒ If not enabled, the executed SQL statements cannot be viewed, and you need to input each SQL statement manually.

[Cancel] [Log In]

----End

Getting Started with SQL

After logging in to an instance, you can create database users, databases, and tables through DAS.

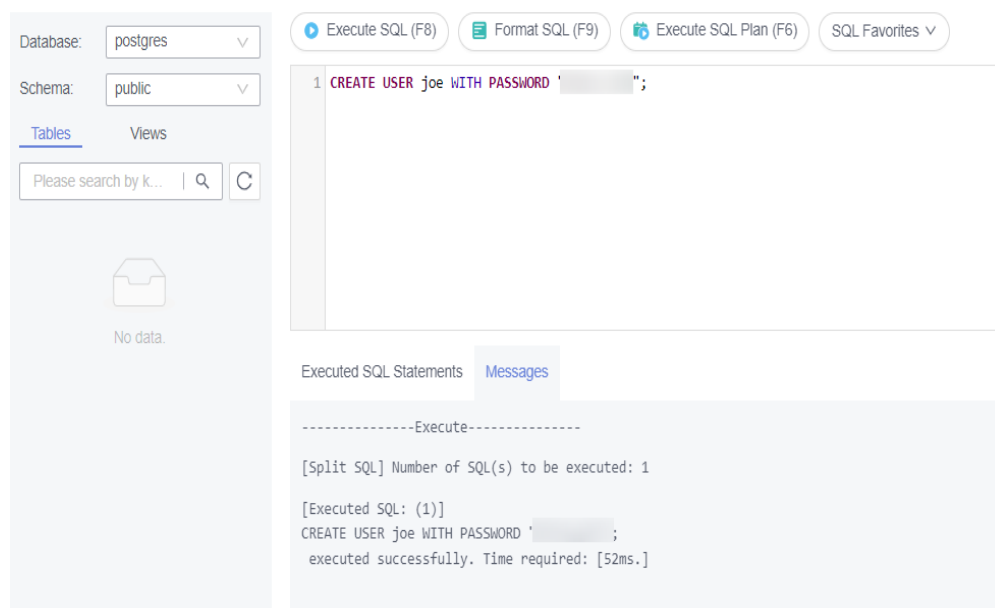
Step 1 Create a database user.

Only administrators that are created during the instance installation can access the initial database by default. You can also create other database users.

CREATE USER *joe* **WITH PASSWORD** "xxxxxxx";

If information similar to the following is displayed, the creation is successful.

Figure 1-6 Creating a database user



In this case, you have created a user named **joe**, and the user password is **xxxxxxx**.

For more information about database users, see [Users and Permissions](#).

Step 2 Create a database.

CREATE DATABASE *db_tpcds*;

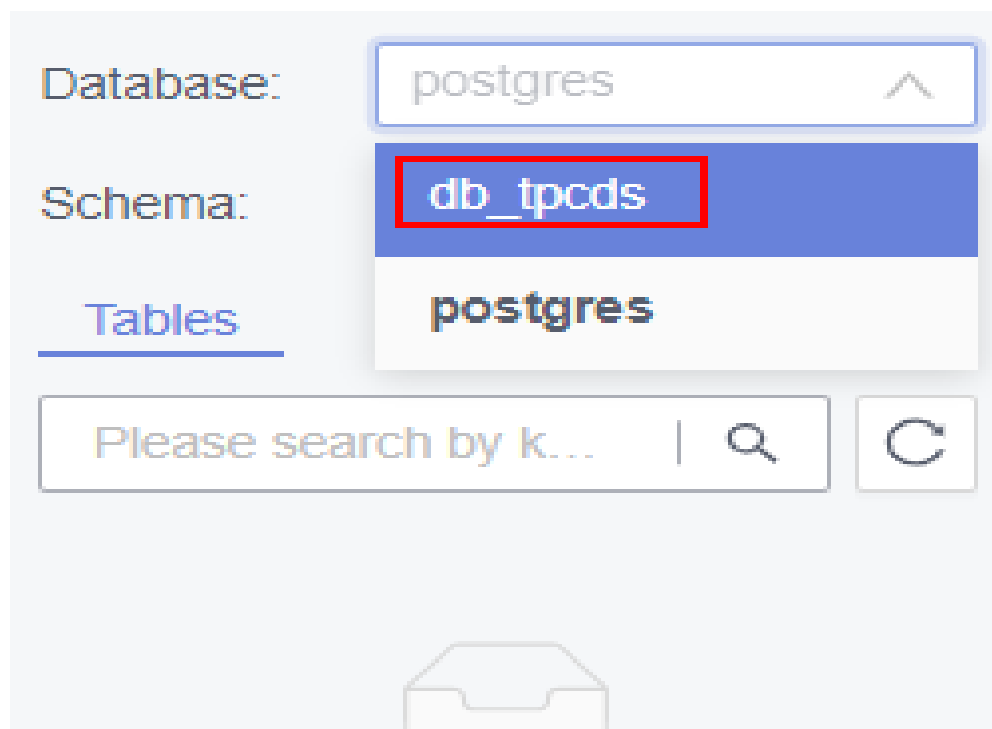
If information similar to the following is displayed, the creation is successful.

Figure 1-7 Creating a database



Switch to the newly created database in the upper left corner.

Figure 1-8 Switching to the new database



Step 3 Create a table.

- Run the following command to create a schema:
CREATE SCHEMA *myschema*;
- Create a table named **mytable** that has only one column. The column name is **firstcol** and the column type is integer.
CREATE TABLE myschema.mytable (*firstcol int*);
- Insert data to the table.
INSERT INTO myschema.mytable values (100);
- View data in the table.
SELECT * FROM myschema.mytable;

Note:

- By default, new database objects, such as the **mytable** table, are created in the *\$user* schema. For more information about schemas, see [Creating and Managing Schemas](#).
- For details about how to create a table, see [Creating and Managing Tables](#).
- In addition to the created tables, a database contains many system catalogs. These system catalogs contain information about instance installation as well as the queries and processes running in GaussDB. You can collect information about the database by querying the system catalogs. For details about querying system catalogs, see [Querying a System Catalog](#).

Step 4 In the **db_tpcds** database, run the following statement as user **root** to grant all permissions of the **db_tpcds** database to user **joe**:

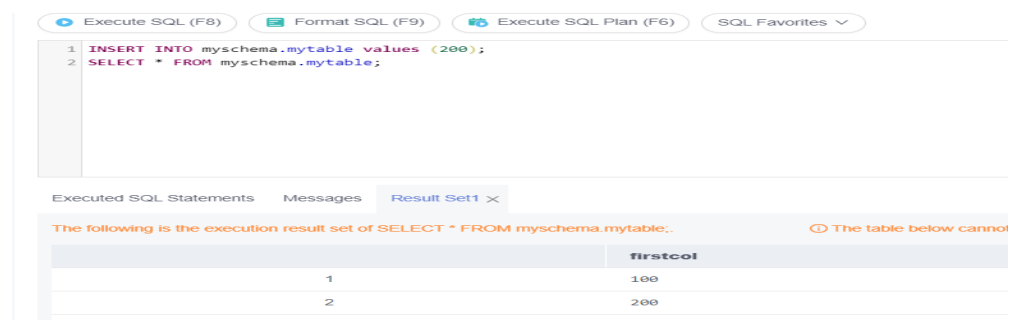
```
GRANT ALL ON DATABASE db_tpcds TO joe;  
GRANT USAGE ON schema myschema TO joe;  
GRANT ALL ON TABLE myschema.mytable TO joe;
```

Step 5 Log in to the **db_tpcds** database as user **joe**.

Step 6 After login, insert data into the table and verify the data.

```
INSERT INTO myschema.mytable values (200);  
SELECT * FROM myschema.mytable;
```

Figure 1-9 Inserting and verifying data



-----End

Follow-up Operations

After logging in to the instance, you can create alarm rules, set automated backup policies, create databases, and migrate data. For details, see:

- [Creating an Alarm Rule](#)
- [Setting an Automated Backup Policy](#)
- [Creating a Database Using SQL](#)
- [Creating a Database Through an API](#)
- [Managing GaussDB Databases Through DAS](#)
- [Migrating Data to GaussDB](#)

2 Buying and Connecting to the GaussDB Instance Using gsql


This section describes how to use the gsql client to connect to a GaussDB instance you have bought on the GaussDB management console. For more methods of connecting to an instance, see [Connecting to a GaussDB Instance](#).

- [Step 1: Buy an Instance](#)
- [Step 2: Buy an ECS](#)
- [Step 3: Obtain the Driver Package](#)
- [Step 4: Connect to the Database](#)
 - [Non-SSL connection](#)
 - [SSL connection](#)

Buying an Instance

Step 1 [Log in to the management console](#).

Step 2 Click  in the upper left corner and select a region and project.

Step 3 Click  in the upper left corner of the page and choose **Databases > GaussDB**.

Step 4 On the **Instances** page, click **Buy DB Instance**.

Step 5 On the displayed page, set **Billing Mode**, enter **DB Instance Name**, select **Edition Type**, **DB Engine Version**, **DB Instance Type**, and **Deployment Model**, and complete other configurations.

- **Billing Mode:** Pay-per-use
- **Region** and **Project:** Retain the default settings.
- **DB Instance Name:** Enter a name that is easy to identify.
- **Edition Type:** Enterprise edition
- **DB Engine Version:** 8.103
- **DB Instance Type:** Primary/Standby
- **Deployment Model:** 1 primary + 2 standby

- **AZ: AZ1**
- **Time Zone:** Retain the default value.

Figure 2-1 Billing mode and basic information

The screenshot displays the configuration interface for a GaussDB instance. It includes the following fields and options:

- Billing Mode:** Two buttons, "Yearly/Monthly" (disabled) and "Pay-per-use" (active).
- Region:** A dropdown menu.
- Project:** A dropdown menu.
- DB Instance Name:** A text input field.
- Resource:** A button labeled "Enterprise edition".
- DB Engine Version:** Two buttons, "8.103" (active) and "8.102".
- DB Instance Type:** Two buttons, "Distributed" (disabled) and "Primary/Standby" (active).
- Deployment:** A button labeled "1 primary + 2 standby".
- AZ:** Three buttons labeled "AZ1", "AZ2", and "AZ3".
- Time Zone:** A dropdown menu showing "(UTC+08:00) Beijing, Chongqing, Hong K...".

Below the AZ buttons, a note states: "Only one or three AZs can be selected."

Step 6 Configure instance specifications.

- **Instance Specifications: Dedicated(1:4) and 4 vCPUs | 16 GB**
- **Storage Type: Ultra-high I/O**
- **Storage Space: 40 GB**
- **Disk Encryption: Disable**

Figure 2-2 Specifications and storage

The screenshot displays the configuration interface for the instance specifications and storage. It includes the following fields and options:

- Instance Specifications:** A button labeled "Dedicated(1:4)".
- Flavor Name:** A dropdown menu showing "4 vCPUs | 16 GB".
- DB Instance Specifications:** A text input field showing "Dedicated(1:4) | 4 vCPUs | 16 GB".
- Storage Type:** A button labeled "Ultra-high I/O".
- Storage Space (GB):** A slider control with a value of 40.
- Disk Encryption:** Two buttons, "Disable" (active) and "Enable".

Below the storage space slider, there is a note: "GaussDB provides free backup storage equal to the amount of your purchased storage space. After the free backup space is used up, charges are applied based on the backup space pricing details." and a warning: "If too little storage is configured, when traffic volume is high, the storage can be used up quickly, and the instance will change to read-only. Select an amount of storage based on how much traffic you expect there to be." and a requirement: "If a small amount of storage is selected, ensure that the checkpoint_segments and wal_keep_segments parameters meet the following requirements: (checkpoint_segments x 2 + wal_keep_segments) x 16 (MB) ≤ Storage space (GB) x datastorage_threshold_value_check x 0.5".

Step 7 Retain the default settings for the network information.**Figure 2-3** Network configuration

Relationship among VPCs, subnets, security groups, and DB instances. ⓘ

VPC ⓘ ⓘ

If you want to create a VPC, go to [the VPC console](#).

Security Group ⓘ [View Security Group](#) ⓘ ⓘ

In a security group, rules that authorize connections to DB instances apply to all DB instances associated with the security group.

Ensure that the TCP ports in the inbound rule of the selected security group contain 8000-8100, 20050, 5000-5001, 2379-2380, 6000, 6500.

Security Group Rules

Database Port

Single Floating IP Address ☐

The single floating IP address policy is disabled by default, but you can enable it if you want to create an instance with only one floating IP address. Instances with this policy enabled do not support IPv6.

Step 8 Configure the instance password and enterprise project.

- **Administrator Password:** Set a strong password to improve security.
- **Confirm Password:** Enter the administrator password again.
- **Enterprise Project:** default
- Retain the default values for other parameters.

Figure 2-4 Database configuration

Administrator

Administrator Password ⓘ Keep your password secure. The system cannot retrieve your password.

Confirm Password ⓘ

Parameter Template ⓘ [View Parameter Template](#) ⓘ

Enterprise Project ⓘ [View Enterprise Projects](#) ⓘ ⓘ

Tag

+ Add Tag

You can add 20 more tags.

Step 9 Click **Next**, confirm the instance information, and click **Submit**.**Step 10** Go to the instance list.

If status of the instance becomes **Available**, the instance has been created.

----End

Buying an ECS

GaussDB provides the gsql tool to help you connect to the database using the command-line interface (CLI). You need to create an ECS in advance for installing the gsql tool.

1. **Log in to the management console.**
2. Click **Buy ECS**.
3. Configure basic settings and click **Next: Configure Network**.
 - **Region:** Select the region of the GaussDB instance to be connected.
 - **Billing Mode:** **Pay-per-use**
 - **AZ:** Select the AZ of the GaussDB instance to be connected.
 - **Image:** **EulerOS** and **EulerOS 2.5 64bit(40 GiB)**
 - Retain the default values for other parameters.

Figure 2-5 Basic settings

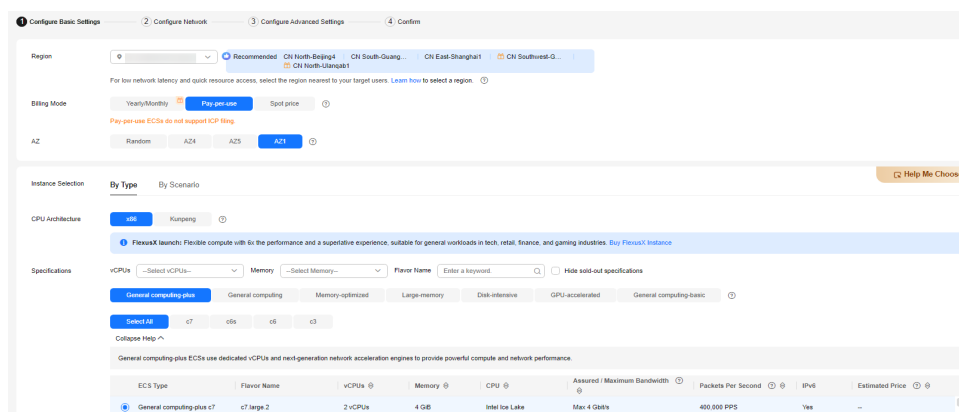
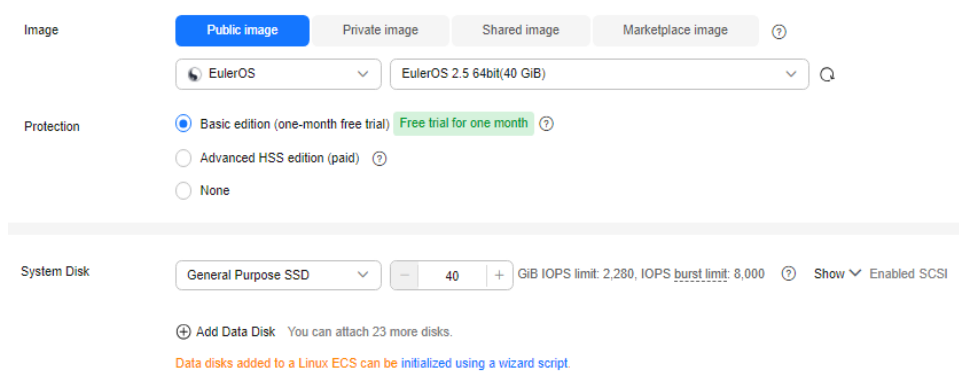
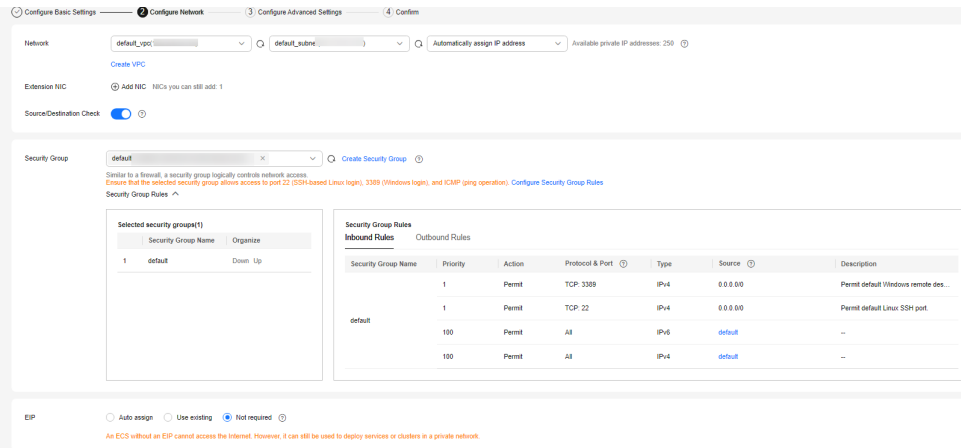


Figure 2-6 Selecting an image



4. Configure the ECS network and click **Next: Configure Advanced Settings**.
 - **Network:** Select the VPC of the GaussDB instance to be connected.
 - **Security Group:** Select the security group of the GaussDB instance to be connected.
 - **EIP: Do Not Use**

Figure 2-7 Network configuration



5. Configure a password for the ECS, set other parameters as required, and click **Next: Confirm**.
- **ECS Name:** Enter a name that is easy to identify.
 - **Password:** Set a strong password to improve security.
 - **Confirm Password:** Enter the password again.
 - Retain the default values for other parameters.

Figure 2-8 Advanced settings

The screenshot displays the 'Configure Advanced Settings' step in the ECS console. The progress bar at the top indicates the current step is 3 of 4. The form includes the following sections:

- ECS Name:** A text input field containing 'ecs-7ed6' and a checkbox for 'Allow duplicate name'.
- Description:** A text area with a character count of 0/85.
- Login Mode:** Three buttons: 'Password' (selected), 'Key pair', and 'Set password later'.
- Username:** A text input field containing 'root'.
- Password:** A text input field with a warning message: 'Keep the password secure. If you forget the password, you can log in to the ECS console and change it.'
- Confirm Password:** A text input field for password confirmation.
- Cloud Backup and Recovery:** A section with a description and three buttons: 'Create new', 'Use existing', and 'Not required' (selected).
- ECS Group (Optional):** A section with two buttons: 'Anti-affinity' (selected) and 'Failure domain', followed by a dropdown menu and a 'Create ECS Group' link.
- Advanced Options:** A checkbox for 'Configure now'.

6. Confirm the configuration and click **Apply Now**.
7. View the purchased ECS.

Obtaining the Driver Package

Download particular packages listed in [Table 2-1](#) based on the version of your instance.

Table 2-1 Driver package download list

Version	Download Address
8.x	Driver package Verification package for the driver package

Version	Download Address
3.x	Driver package Verification package for the driver package
2.x	Driver package Verification package for the driver package

To prevent a software package from being tampered with during transmission or storage, download the corresponding verification package and perform the following steps to verify the software package:

1. Upload the software package and verification package to the same directory on a Linux VM.
2. Run the following command to verify the integrity of the software package:

```
cat GaussDB_driver.zip.sha256 | sha256sum --check
```

If **OK** is displayed in the command output, the verification is successful.

```
GaussDB_driver.zip: OK
```

Connecting to a Database

- **Non-SSL connection**

- a. Log in as user **root** to the ECS you have created.
- b. Upload the client tool package and configure gsql environment variables.

- i. Run the following command to create the **/tmp/tools** directory for storing the client tool package:

```
mkdir /tmp/tools
```

- ii. Download the **GaussDB_driver.zip** driver package of the required version by referring to [Obtaining the Driver Package](#), and upload it to the **/tmp/tools** directory of the created ECS.

- iii. Run the following commands to decompress the **GaussDB_driver.zip** driver package:

```
cd /tmp/tools  
unzip GaussDB_driver.zip
```

- iv. Run the following commands to copy the decompressed **GaussDB-Kernel_***_EULER_64bit-Gsql.tar.gz** client tool package to the **/tmp/tools** directory:

NOTE

This section uses the gsql tool package suitable for the primary/standby instances running on Euler2.5_x86_64 as an example. The relative path of the tool package varies depending on where you decompressed it.

```
cd /tmp/tools/GaussDB_driver/Centralized/Euler2.5_X86_64/  
cp GaussDB-Kernel_***_EULER_64bit-Gsql.tar.gz /tmp/tools
```

- v. Run the following commands to decompress the package:

```
cd /tmp/tools  
tar -zxvf GaussDB-Kernel_***_EULER_64bit-Gsql.tar.gz
```

- vi. Configure environment variables.

Run the following command to open the `~/.bashrc` file:

```
vim ~/.bashrc
```

Press **G** to move the cursor to the last line, press **i** to enter Insert mode, and type the following information. Then, press **Esc** to exit Insert mode, and run `:wq` to save the settings and exit.

```
export PATH=/tmp/tools/bin:$PATH
export LD_LIBRARY_PATH=/tmp/tools/lib:$LD_LIBRARY_PATH
```

Run the following command to make the environment variables take effect permanently:

```
source ~/.bashrc
```

- c. Enter the password when prompted to connect to the database.

After an instance is created, a **postgres** database is generated by default. Database **postgres** is used as an example.




```
gsql -d postgres -h 10.0.0.0 -U root -p 8000
```

Password for user root:

- *postgres* indicates the name of the database to be connected.
- *10.0.0.0* indicates the IP address of the instance. On the **Basic Information** page of the instance to be connected, obtain the IP address in the **Node List** area.
- *root* indicates the username used to log in to the database.
- *8000* indicates the port number of the database. On the **Basic Information** page of the instance to be connected, obtain the database port in the **Network Information** area.

For more information about gsql commands, see [Tool Reference](#).

- **SSL connection**

- a. [Log in to the management console](#).
- b. Click  in the upper left corner and select a region and project.
- c. Click  in the upper left corner of the page and choose **Databases > GaussDB**.
- d. On the **Instances** page, click the name of the target instance. In the **Configuration** area on the **Basic Information** page, click  next to the **SSL** field to download the root certificate or certificate bundle.
- e. Upload the root certificate to the ECS or save it to the device to be connected to the GaussDB instance.
- f. Connect to a GaussDB instance.

Import the root certificate to the Linux ECS. For details, see [How Can I Import the Root Certificate to a Windows or Linux OS?](#)

A Linux ECS is used in this example. Run the following command to set environment variables on the ECS:

```
export PGSSLMODE=<sslmode>
export PGSSLROOTCERT=<ca-file-directory>
```

```
gsql -h <host> -p <port> -d <database> -U <user>
```

Table 2-2 Parameter description

Parameter	Description
<code><host></code>	IP address of the DB instance. To obtain the IP address, click the instance name on the Instances page to go to the Basic Information page of the instance. The IP address can be found in the IP Address column of the Node List area.
<code><port></code>	Database port in use. The default value is 8000 . To obtain this parameter, go to the Basic Information page of the DB instance. The port number can be found in the Database Port field in the Network Information area.
<code><database></code>	Name of the database (postgres by default).
<code><user></code>	Username of the GaussDB database account. The default administrator is root .
<code><ca-file-directory></code>	Path of the CA certificate for SSL connection.
<code><sslmode></code>	SSL connection mode. Set it to verify-ca to use a CA to check whether the service is trusted.

For example, to connect to a **postgres** database through an SSL connection as user **root**, run the following commands on the ECS:

```
export PGSSLMODE="verify-ca"
export PGSSLROOTCERT="/home/Ruby/ca.pem"
```

```
gsql -d postgres -h 10.0.0.0 -U root -p 8000
```

Password for user root:

For more information about gsql commands, see [Tool Reference](#).

- g. Check the command output after you log in to the database. If information similar to the following is displayed, the SSL connection has been established.

```
SSL connection (cipher: DHE-RSA-AES256-GCM-SHA384, bits: 256)
```

Follow-up Operations

After logging in to the instance, you can create alarm rules, set automated backup policies, create databases, and migrate data. For details, see:

- [Creating an Alarm Rule](#)
- [Setting an Automated Backup Policy](#)
- [Creating a Database Using SQL](#)
- [Creating a Database Through an API](#)
- [Managing GaussDB Databases Through DAS](#)
- [Migrating Data to GaussDB](#)

3 GaussDB Common Practices

After buying and connecting to a GaussDB instance, you can use GaussDB as required by referring to the common practices provided in this section.

Table 3-1 Common best practices of GaussDB

Practice		Description
Development and design proposal	Database Object Naming Conventions	This practice describes the restrictions on naming database objects.
	Database Object Design	This practice describes the principles for designing databases, schemas, tables, fields, constraints, views, and joined tables.
	Tool Interconnection	This practice describes notes about configuring tools.
	SQL Compilation	This practice describes the principles for performing DDL operations, loading and unloading data, converting types, and performing queries.
Database usage	Creating a Database Account	This practice describes how to use CREATE USER and ALTER USER to create and manage database users, respectively. Data is not shared between users.
	Creating and Managing Databases	This practice describes how to use CREATE DATABASE and ALTER DATABASE to create and manage database users, respectively.

Practice		Description
	Creating and Managing Tablespaces	The administrator can use tablespaces to control the layout of disks where a database is installed. This practice describes how to use SQL syntax to create and manage tablespaces.
	Creating and Managing Tables	A table is created in a database and can be stored in different databases. Tables under different schemas in a database can have the same name. This practice describes how to use SQL syntax to create tables.
	Querying System Catalogs	In addition to the created tables, GaussDB contains many system catalogs. These system catalogs contain information about instance installation as well as the queries and processes running in GaussDB. This practice describes how to collect information about the databases by querying system catalogs.
Data migration	Using DRS to Migrate Data from Oracle Database to GaussDB	This practice describes how to use DRS to migrate data from Oracle databases to GaussDB.
Data backup	Configuring an Automated Backup Policy	This practice describes how to enable the system to automatically create backups for a DB instance during a backup window and save the backups based on the configured retention period.
	Creating a Manual Backup	This practice describes how to create manual backups for a DB instance. These backups can be used to restore data for improved reliability.
	Deleting a Manual Backup	You can delete manual backups for instances and tables to release storage space. This practice describes how to delete manual backups of an instance.
Data restoration	Restoring a Backup File to a DB Instance	This practice describes how to use an automated or manual backup to restore a DB instance to how it was when the backup was created. The restoration is at the instance level.

Practice		Description
	Restoring a DB Instance to a Specific Point in Time	This practice describes how to use an automated backup to restore instance data to a specified point in time.