

# Tencent Cloud TCHouse-D

## Cloud Ecosystem

### Product Documentation



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# Cloud Ecosystem

## Granting CAM Policies to Sub-accounts

Last updated : 2024-08-02 12:43:06

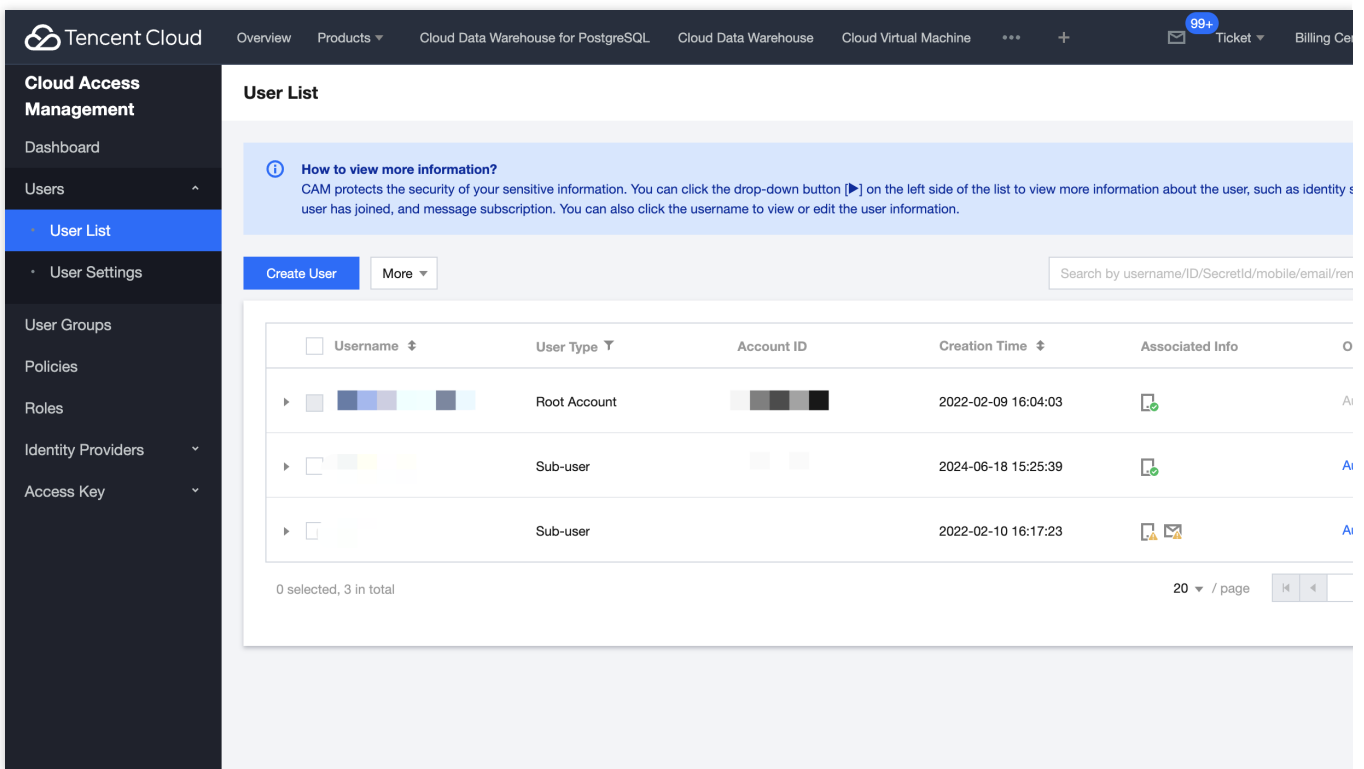
**Note:**

The following steps require using either the root account or a sub-account with full CAM read and write permissions.

### Granting Policies to Sub-accounts

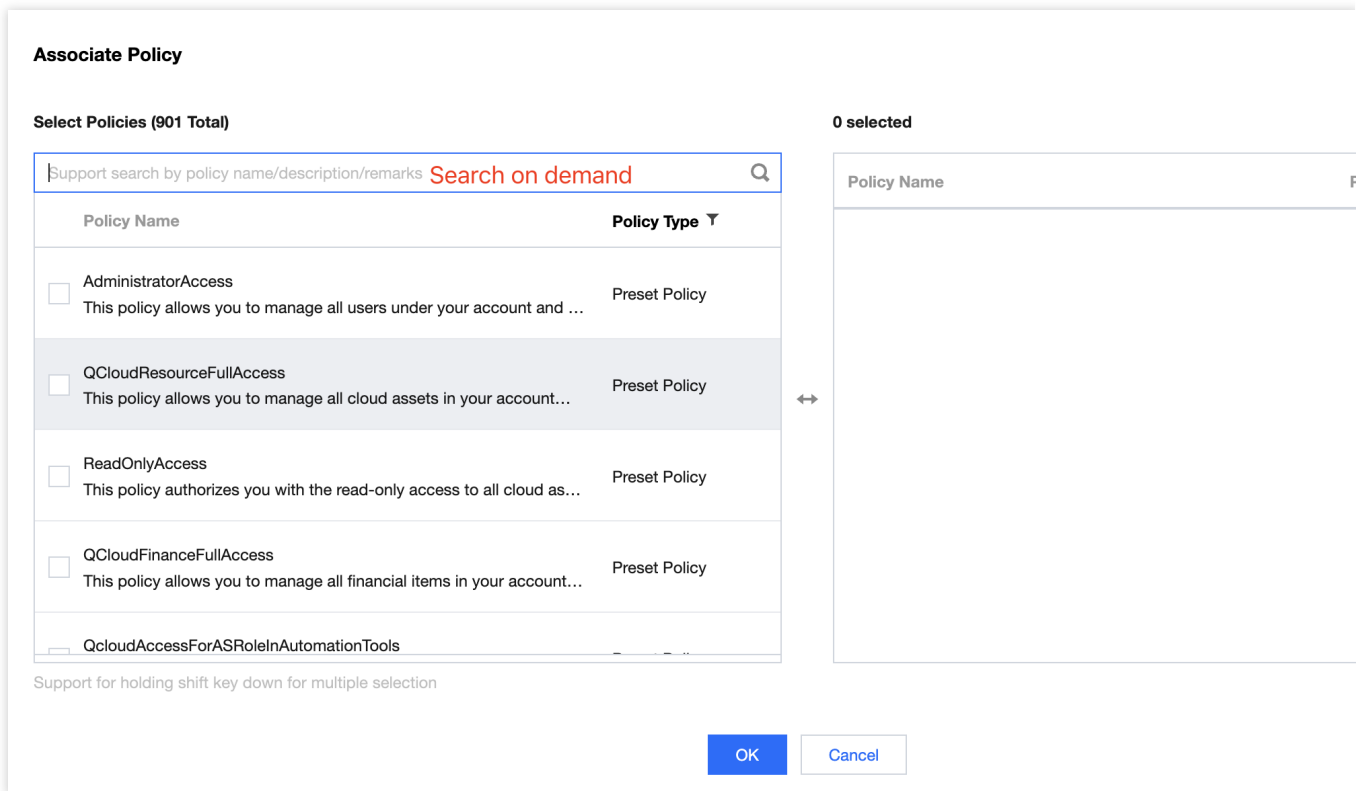
Using the root account or a sub-account with full CAM read and write permissions, go to the Tencent Cloud [CAM - User List](#) page, find the sub-account that needs to be granted CAM policies, and click **Authorize**.

Search for the required CAM policy as needed, and click to complete policy association.



Appendix: Supplementary Policy Explanation

Search for the required CAM policy as needed, and click to complete policy association.



Tencent Cloud TCHouse-D common preset policies are as follows:

### Preset Policy

Tencent Cloud TCHouse-D Common predefined policies are as follows:

Purpose of Policy	Policy Description	Tencent Cloud TCHouse-D full read-write access permission
Required when entering and using the TCHouse-D cluster	Tencent Cloud TCHouse-D Full Read-Write Access	Full read-write access permission for users and CAM
Required when the sub-account needs to activate Lakehouse in the Tencent Cloud TCHouse-D cluster.	Creating a Custom Policy	On the CAM console's

### In the pop-up window, click

On the CAM console's [Access Control - Policy](#) page, click **Create a custom policy** to create a new policy. Search for the required CAM policy as needed, and click to complete policy association.

The screenshot shows the Tencent Cloud console interface. On the left is a dark sidebar with the 'Cloud Access Management' section expanded, and 'Policies' highlighted in blue. The main content area is titled 'Policies' and contains a light blue information banner with an 'i' icon and the text 'Associate users or user groups with policies to gran...'. Below the banner are two buttons: 'Create Custom Policy' (highlighted with a red border) and 'Delete'. At the bottom is a table with the following structure:

<input type="checkbox"/>	Policy Name	Serv
<input type="checkbox"/>		-
<input type="checkbox"/>		-
<input type="checkbox"/>		-

In the pop-up window, click **Create by Policy Syntax** to enter the edit policy page.

Search for the required CAM policy as needed, and click to complete policy association.

## Select Policy Creation Method



### Create by Policy Generator

Select service and actions from the list to auto-generate policy syntax



### Create by Policy Syntax

Write policy syntax to generate policies



### Authorize by Tag

Grant permissions of resources under certain tags to users or user groups

On the Create by Policy Syntax page, select **Blank Template** and click Next.

Search for the required CAM policy as needed, and click to complete policy association.

← **Create by Policy Syntax**

1 **Select Policy Template** > 2 **Edit Policy**

Template Type: All Templates Search policy name

**Select a template type**

All Templates (901 Total)

<input type="radio"/> Blank Template	<input type="radio"/> AdministratorAccess This policy allows you to manage all users under your account and their permissions, financial information...	<input type="radio"/> QCloudResourceFullAccess This policy allows you to manage all cloud asset your account (Except all permissions to use CA
<input type="radio"/> ReadOnlyAccess This policy authorizes you with the read-only access to all cloud assets that support authentication at A...	<input type="radio"/> QCloudFinanceFullAccess This policy allows you to manage all financial items in your account, such as payment and billing.	<input type="radio"/> QcloudAccessForASRoleInAuto... Auto Scaling operation permission for TAT.
<input type="radio"/> QcloudAccessForCLSRoleInAcc... This policy is for the CLS service role (CLS_QCSRole) to be associated and used by CLS to access other...	<input type="radio"/> QcloudAccessForCLSRoleInCDB This policy is for the CLS service role(CLS_QCSRole) to be associated and used by CLS to access CDB...	<input type="radio"/> QcloudAccessForCLSRoleInCls... This policy allows CLS(Cloud Log Service ) DataTransform task to play a role as the clients..

Next

In the template, enter the policy name and description. After completing, click **Complete** to successfully create a custom policy.

Search for the required CAM policy as needed, and click to complete policy association.



← Create by Policy Syntax

- ✓ Select Policy Template >
- 2 Edit Policy

Policy Name \*  Modify the policy name on demand

After the policy is created, its name cannot be modified.

Description

**Policy Content** [Use Legacy Version](#)

```
1 {  
2   "version": "2.0",  
3   "statement": []  
4 }
```

Modify the policy content on demand

# Query Acceleration for Tencent Cloud DLC

Last updated : 2024-08-02 12:43:41

This document describes how to accelerate queries on Tencent Cloud DLC using Tencent Cloud TCHouse-D (TCHouse-D).

## Prerequisites

The [Tencent Cloud TCHouse-D](#) cluster has been purchased.

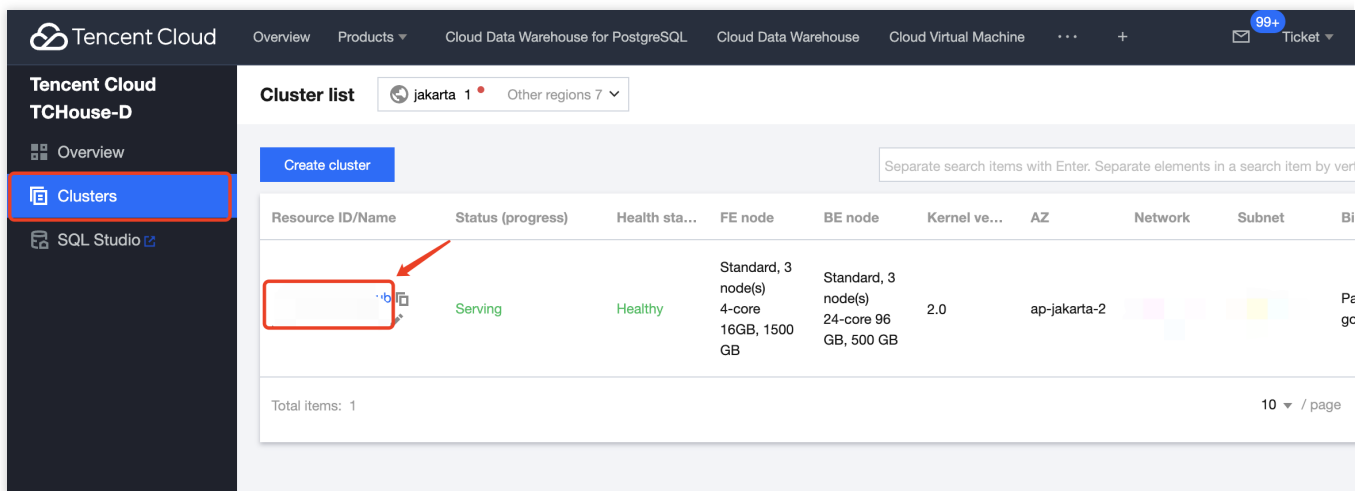
The [Tencent Cloud DLC](#) service has been activated.

### Note:

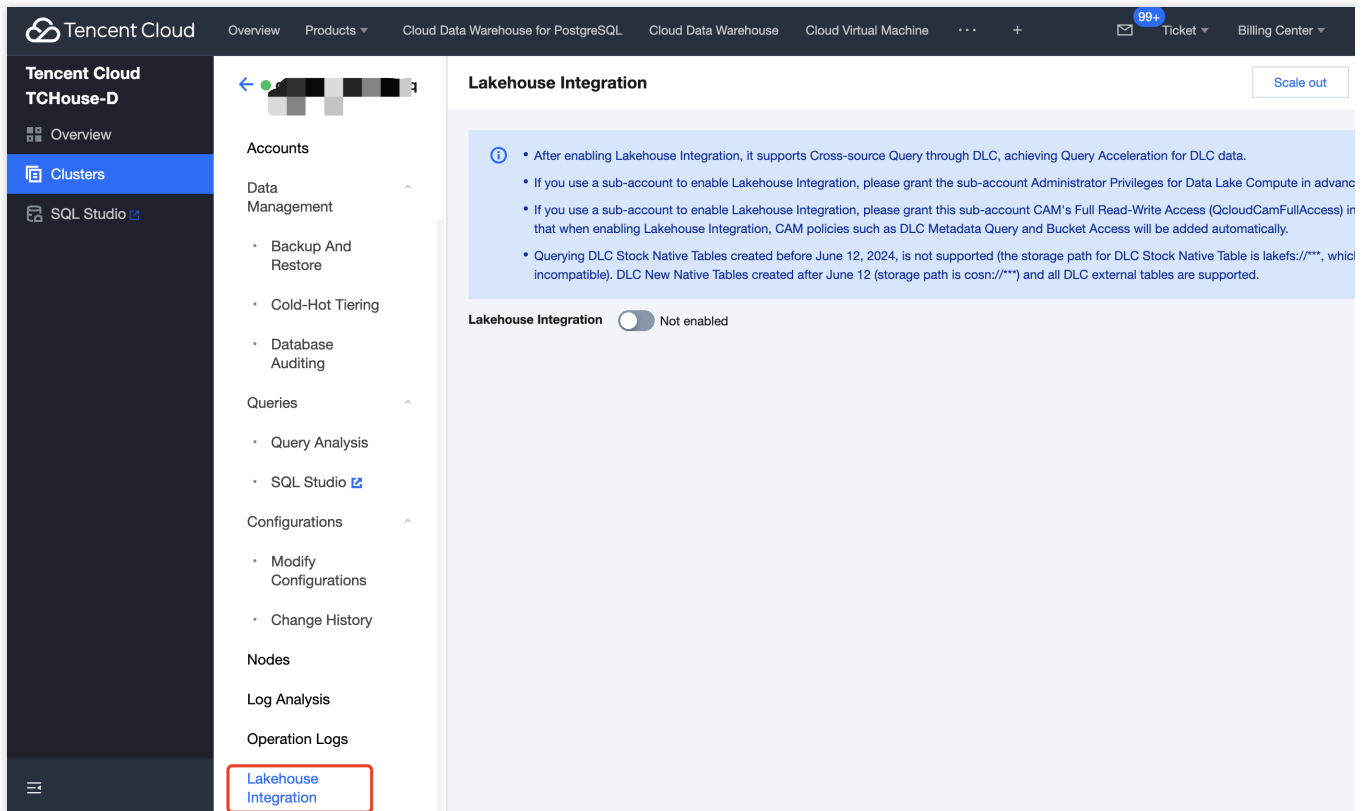
1. Cross-regional Federal DLC is not supported. Plan your environment accordingly to ensure that Tencent Cloud TCHouse-D and DLC are in the same region and VPC;
2. **DLC stock native tables created before June 12, 2024 are not supported for query (storage path of the DLC stock native table is lakefs://\*\*\*, and this format is not yet compatible)**— DLC new native tables created after June 12 (storage path is cosn://\*\*\*) and all DLC external tables are supported.

## Operation Steps

1. Enter the [Tencent Cloud TCHouse-D console](#), and select the Tencent Cloud TCHouse-D cluster which requires DLC query acceleration on the **Cluster List** page. Click the cluster name to enter the cluster.



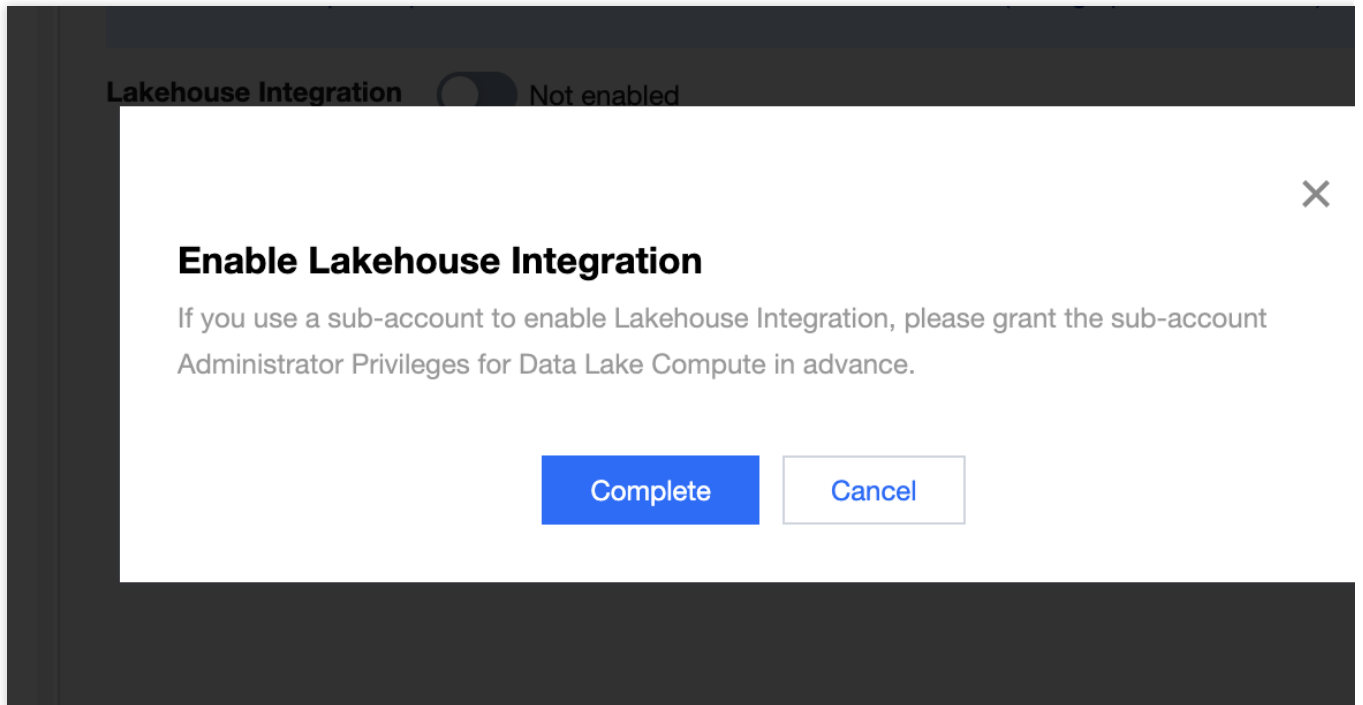
2. The account enabling Lakehouse must have administrative permissions for DLC. You can use the root account (or a sub-account with DLC administrator permissions) to perform this operation.



3. The account enabling Lakehouse Integration must have administrative privileges for DLC. Please use the root account (or a sub-account with DLC administrator privileges) to perform this operation.

**Note:**

1. After clicking the Lakehouse
2. If you are using a sub-account without DLC administrator privileges, please refer to the document [Data Lake DLC Sub-account Permission Management](#) to have an account with DLC administrator privileges grant you access.



4. After clicking the Lakehouse switch, enter the configuration page.

Field	Field description
Catalog name	It is customized as needed, should not start with a number, can include numbers, letters, and _, and should not exceed 50 characters. Tencent Cloud TCHouse-D will retrieve metadata of the data lake DLC in Catalog mode.
SecretId/SecretKey	You can fill in the SecretId/SecretKey for the root account or sub-account. If you fill in the SecretId/SecretKey for a CAM sub-account, DLC-related CAM policies will be authorized for this sub-account simultaneously (including DLC full read-write policy and DLC bucket access policy). Note: Ensure that the sub-account requires enabling Lakehouse must have CAM full read-write permissions (QcloudCamFullAccess).
Enable Metadata Auto-refresh	No: Only manual metadata refresh is supported. Yes: You can configure the metadata refresh time. At the configured time, metadata will be periodically retrieved and updated from DLC.

### Enable Lakehouse Integration



- Before lakehouse integration is enabled, you need to authorize the authentication account access to the DLC storage bucket.
- Ensure that the data storage for DLC is under the COSN path, e.g., cosn://\* (lakefs://\*\* is not supported)

Catalog name \*

test1

Manage DLC metadata through the Catalog. Please customize the Catalog name

SecretId \*

asc [redacted]

SecretKey \*

[redacted]

Enable Metadata Auto-Refresh

Yes

Note: Please enter the account's SecretId/SecretKey to obtain DLC Metadata and Query Permission. If you enter the SecretId/SecretKey of a CAM Sub-account, the relevant CAM policies for DLC (including: DLC Read-Write Strategy, DLC Bucket Access Policy, etc.) will be synchronized for this Sub-account.

Bind and enable policy

Cancel

5. After completing the configuration, click the Bind Policy and Enable button to complete the Lakehouse enabling configuration.

Field	Field description
Edit	Click Edit to modify the catalog name, SecretId, SecretKey, and Metadata automatic refresh method.
Manual Update	Click the Manual Update button to manually refresh and retrieve the DLC metadata.

**Lakehouse Integration** Scale out

**Information:**

- After enabling Lakehouse Integration, it supports Cross-source Query through DLC, achieving Query Acceleration for DLC data.
- If you use a sub-account to enable Lakehouse Integration, please grant the sub-account Administrator Privileges for Data Lake Compute in advance.
- If you use a sub-account to enable Lakehouse Integration, please grant this sub-account CAM's Full Read-Write Access (QcloudCamFullAccess) in advance that when enabling Lakehouse Integration, CAM policies such as DLC Metadata Query and Bucket Access will be added automatically.
- Querying DLC Stock Native Tables created before June 12, 2024, is not supported (the storage path for DLC Stock Native Table is lakefs://\*\*, which is incompatible). DLC New Native Tables created after June 12 (storage path is cosn://\*\*) and all DLC external tables are supported.

**Lakehouse Integration**  Enabled Edit

Account Status Check Normal status

DLC Catalog Name

Metadata Refresh Interval **60 S**

**Configure DLC Access Permissions**  
Go to Account Management to configure data permissions for the TCHouse-D account for DLC. Go to Account Management

**Use SQL Workspace to link to DLC**  
Go to SQL Workspace to enable query acceleration for DLC. Go to SQL Studio

6. Before querying DLC using Tencent Cloud Data TCHouse-D, users need to go to the Tencent Cloud Data TCHouse-D console's [Account Management](#) to grant query permissions for the DLC database table.

**Accounts**

**Accounts** Resource Group

- You can create a TCHouse-D account and grant it permissions such as management, query, and write permissions on databases or tables.
- You can control the access to the cluster by modifying the host address that can be accessed by the account. Fuzzy matching using the wildcard character (%) is supported to allow users to log in from any node.
- To modify the host address, you must reset the account password. This process may affect the read/write operations of the account. We recommend that you disconnect and proceed with caution.

**Add account**

Account	Host ⓘ	Description	Operation
admin	%	grants for system user can't be modified or deleted	<a href="#">Change password</a>
	%	-	<a href="#">Modify permission</a> <a href="#">Modify Host</a> <a href="#">More</a>
	%		<a href="#">Modify permission</a> <a href="#">Modify Host</a> <a href="#">More</a>

### Modify permissions

Account \*

Host

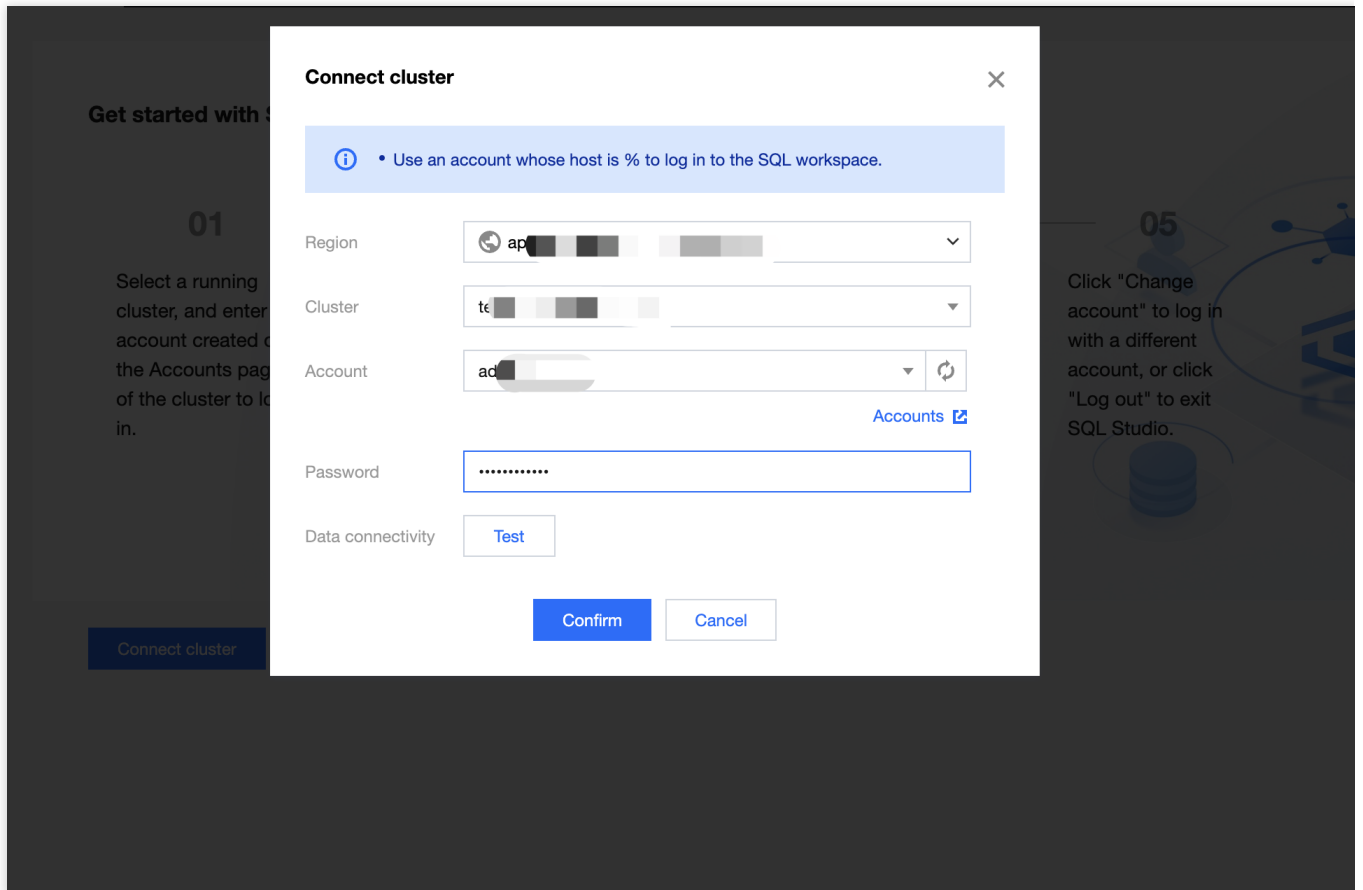
Grant Cluster Management Permissions ⓘ  Enable

Permission Configuration \*

Permission Type	Scope of application	General permissions	High-risk permissions
▼ Global Permissions	Globally Effective	<input type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete
Data Directory Name		General permissions ?	High-risk permissions ⚠
▼ internal		<input type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete <input type="checkbox"/>
Database/Table		General permissions ?	High-risk permissions ⚠
▶ <input type="text" value=""/>		<input type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete <input type="checkbox"/>
▶ <input type="text" value=""/>		<input type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete <input type="checkbox"/>
▶ <input type="text" value=""/>		<input checked="" type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete <input type="checkbox"/>
▶ <input type="text" value=""/>		<input checked="" type="checkbox"/> Query <input type="checkbox"/> Insert	<input type="checkbox"/> Alter <input type="checkbox"/> Delete <input type="checkbox"/>

7. After authorization, you can query accelerated DLC through the **MySQL Client** or click the [SQL Workspace](#) quick link to enter SQL Workspace, where you can query accelerated DLC using Tencent Cloud TCHouse-D.





8. In SQL Workspace, you can view authorized database tables on the left side of the page and conduct queries in the SQL editor as needed.

The screenshot displays the Tencent Cloud console interface for a MySQL instance. On the left, the 'Data sources' sidebar shows a tree view with 'internal' expanded, containing 'information\_schema(default...)', 'mysql(default\_cluster)', and 'sub\_dlc\_0701'. The 'information\_schema' folder is highlighted with a red box. The main console area shows a 'Table' view of the 'information\_schema' database. A SQL query editor displays the query: `select * from character_sets limit 10`, which is also highlighted with a red box. Below the query editor, the 'Execution log' section shows the query results. The log title is 'Query result (sequence number: 863)'. A search bar is present above the log table. The log table has columns: No., Start time, Execution d..., Executi..., Node, Executing u..., and Es. Two rows are visible, both with a status of 'Successful' and are highlighted with a red box.

No.	Start time	Execution d...	Executi...	Node	Executing u...	Es
863	2024-07-23 11:04:35	51 ms	Successful	10.22.0.7	test1	se
862	2024-07-23 11:04:25	15 ms	Successful	10.22.0.29	test1	se