

# Data Transfer Service

## Access Management

## Product Documentation



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# Access Management

## Creating and Authorizing Sub-User to Use DTS

Last updated : 2023-07-05 16:11:05

### Overview

If you have multiple users managing different Tencent Cloud services such as CVM, VPC, and TencentDB, and they all share your Tencent Cloud account access key, you may face the risk of your key being compromised. Therefore, we recommend you create sub-users and let them manage different services to avoid such risk.

By default, sub-users have no permission to use DTS. Therefore, you need to create policies to allow them to use it.

You can skip this section if you don't need to manage the permissions of DTS resources for sub-users.

## Creating and Authorizing Sub-user to Use DTS

1. Log in to the [CAM console](#) as the root account.
2. On the left sidebar, select **User > User List** to enter the user list management page.
3. Click **Create User** to enter the user creation page.
4. On the user creation page, select the creation method.
5. On the **Quick User Creation** page, set the sub-user name, access method, user permission, etc.
  - Console Login: Select **Console access** or **Programming access**.
  - User permission: Select the permission as needed. If you select **QcloudDTSFullAccess**, the sub-user will be granted all read/write permissions of the DTS service. If you select **QcloudDTSReadOnlyAccess**, only the read-only permission will be granted.
6. Click **Create User**.
7. You will be redirected to the page prompting that the user is successfully created, and you can get the sub-user information in the following two methods:
  - Click **Copy** to directly get and copy the login information of the sub-user.
  - Click **Send**, enter the email address, and the system will send the complete sub-user information to the specified email address.

## Authorizing Existing Sub-user to Use DTS

1. Log in to the [CAM console](#) with the root account, locate the target sub-user in the user list, and click **Authorize**.

Username	User Type	Account ID	Creation Time	Associated Info	Operation
65...	Root Account	10...	2019-02-20 15:10:30		Authorize More
y...	Sub-user	20...	2021-07-29 17:30:16	-	Authorize More

2. In the pop-up window, select the **QcloudDTSFullAccess** preset policy and click **OK** to complete the authorization.

### Associate Policy

Select Policies (10 Total)
1 selected

Policy Name	Policy type
<input checked="" type="checkbox"/> QcloudDTSFullAccess Full read-write access to Data Transfer Se...	Preset Policy
<input type="checkbox"/> QcloudTSEFullAccess Full read-write access to TSE	Preset Policy
<input type="checkbox"/> QcloudTSEReadOnlyAccess Read-only access to TSE	Preset Policy
<input type="checkbox"/> QcloudTSIFullAccess Full read-write access to TSI	Preset Policy
<input type="checkbox"/> QcloudTSWFullAccess	

Policy Name	Policy type
QcloudDTSFullAccess Full read-write access to Data Transfer Se...	Preset Policy

Support for holding shift key down for multiple selection

Confirm
Cancel

# Granting Sub-User Financial Permissions

Last updated : 2022-09-01 16:02:03

## Overview

Sub-users generally don't have financial permissions. When they purchase a monthly subscribed DTS instance, the system will prompt that only the root account can pay the order. After the root account grants financial permissions to them, they can purchase such instances by themselves and use the account balance of the root account to make payments.

## Prerequisites

You have created and authorized a sub-user as instructed in [Creating and Authorizing Sub-user](#).

## Directions

1. Log in to the [CAM console](#) as the root account.
2. Click **Policies** on the left sidebar. Then, click **Create Custom Policy** on the right and select **Create by Policy Syntax**.
3. Select **Blank Template** and click **Next**.
4. Create a policy, enter the policy name and description as needed, and copy the sample code to the **Policy Content**.

Sample policy syntax:

```
{
  "version": "2.0",
  "statement": [
    {
      "effect": "allow",
      "action": "finance:*",
      "resource": "qcs::dts:::*"
```

```
}  
]  
}
```

5. Click **Complete**, return to the **Policy List** page, and click **Associate Users/Groups**.
6. Select the sub-user to be authorized (i.e., the sub-user created above) and click **OK**.

# Authorizing Sub-User to Use DTS SDK

Last updated : 2023-07-05 16:11:33

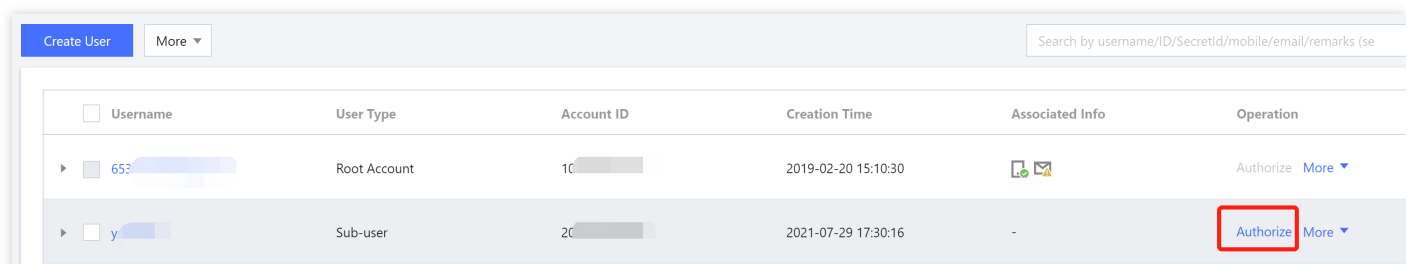
## Overview

You can use a sub-user to create and manage subscription tasks. You can also use the `AccessKey` and `AccessKeySecret` of a sub-user in the SDK demo for data subscription.

When using Cloud Access Management (CAM), you can associate a policy with a user or user group to allow or forbid them to use specified resources to complete specified tasks. For more information on CAM policies, see [Syntax Logic](#).

## Authorizing Sub-user

1. Log in to the [CAM console](#).
2. On the **User > User List** page, find the sub-user whom you want to authorize and click **Authorize** in the **Operation** column on the right as shown below:



Username	User Type	Account ID	Creation Time	Associated Info	Operation
653...	Root Account	10...	2019-02-20 15:10:30		Authorize More ▾
y...	Sub-user	20...	2021-07-29 17:30:16	-	Authorize More ▾

3. In the pop-up window, search for "DTS" and select the permission to be granted.
  - QcloudDTSFullAccess: it indicates to grant the read and write permissions.



- QcloudDTSReadOnlyAccess: it indicates to grant the read-only permissions.

**Associate Policy**
✕

**Select Policies (10 Total)**

dts
✕ 🔍

Policy Name	Policy type
<input checked="" type="checkbox"/> QcloudDTSFullAccess Full read-write access to Data Transfer Se...	Preset Policy
<input type="checkbox"/> QcloudTSEFullAccess Full read-write access to TSE	Preset Policy
<input type="checkbox"/> QcloudTSEReadOnlyAccess Read-only access to TSE	Preset Policy
<input type="checkbox"/> QcloudTSIFullAccess Full read-write access to TSI	Preset Policy
<input type="checkbox"/> QcloudTSWFullAccess	

**1 selected**

Policy Name	Policy type
QcloudDTSFullAccess Full read-write access to Data Transfer Se...	Preset Policy <span style="float: right; font-size: 0.8em;">✕</span>

Support for holding shift key down for multiple selection

Confirm
Cancel

- Click **OK** to complete authorization.

## Policy Syntax

The CAM policy for DTS is described as follows:

```

{
  "version": "2.0",
  "statement": [
    {
      "effect": "effect",
      "action": ["action"],
      "resource": ["resource"]
    }
  ]
}

```

- **version** is required. Currently, only the value "2.0" is allowed.

- **statement** describes the details of one or more permissions. It contains a permission or permission set of multiple other elements such as `effect` , `action` , and `resource` . One policy has only one `statement` .

Note :

As DTS needs to manipulate your database, you need to grant the sub-account access to the database resources involved in DTS tasks separately (the read permission, i.e., `Describe\*` is required). This authorization operation is not included in this document.

- **effect** is required. It describes the result of a statement. The result can be "allow" or an "explicit deny".

```
"effect": "allow"
```

- **action** is required. It describes the allowed or denied action (operation). An operation can be an API (prefixed with "name") or a feature set (a set of specific APIs prefixed with "permid").
- **resource** is required. It describes the details of authorization.

## DTS Operations

In a CAM policy statement, you can specify any API operation from any service that supports CAM. APIs prefixed with `name/dts:` should be used for DTS. To specify multiple operations in a single statement, separate them with commas as shown below:

```
"action": ["name/dts:action1", "name/dts:action2"]
```

You can also specify multiple operations by using a wildcard. For example, you can specify all operations beginning with "Describe" in the name as shown below:

```
"action": ["name/dts:Describe*"]
```

If you want to specify all operations in DTS, use the `*` wildcard as shown below:

```
"action": ["name/dts:*"]
```

## DTS Resource Path

Resource paths are generally in the following format:

```
qcs::service_type::account:resource
```

- `service_type`: describes the product abbreviation, such as `dts` here.
- `account`: describes the root account of the resource owner, such as `uin/32xxx546`.
- `resource`: describes the detailed resource information of the specific service. Each DTS task ( `task` ) is a resource.

Below is a sample:

```
"resource": ["qcs::dts::uin/32xxx546:task/dts-kf291vh3"]
```

Here, `dts-kf291vh3` is the ID of the DTS task, i.e., the `resource` in the CAM policy statement.

## Sample

Note :

The following example only shows the usage of CAM. For the complete process of a DTS task and the corresponding APIs, see [Introduction](#).

```
{
  "version": "2.0",
  "statement": [
    {
      "effect": "allow",
      "action": [
        "name/dts:DescribeAccessKeys"
      ],
      "resource": [
        "*"
      ]
    },
    {
      "effect": "allow",
      "action": [
        "name/dts:CreateAccess*"
      ],
      "resource": [
```

```
"*"
]
},
{
  "effect": "allow",
  "action": [
    "name/dts:DescribeMigrateJobs"
  ],
  "resource": [
    "qcs::dts::uin/32xxx546:task/dts-kf291vh3"
  ]
},
{
  "effect": "allow",
  "action": [
    "name/dts:CreateMigrateCheckJob"
  ],
  "resource": [
    "qcs::dts::uin/32xxx546:task/dts-kf291vh3"
  ]
}
]
```

# Authorizing DTS to Access CCN Resources Under Other Tencent Cloud Accounts

Last updated : 2023-09-05 15:01:53

## Overview

You can select CCN as the access type when DTS connects to the source/target database. The CCN resources can be under the migration account or other Tencent Cloud accounts.

Using the CCN under other accounts is suitable for resource sharing between multiple companies. For example, the CCN resources belong to the root account A of the parent company, and the DTS and target database resources used by users belong to the subsidiary's root account B, and there are no CCN resources under the root account B. Then, you can use the CCN resources under the root account A to access the self-built databases and perform DTS tasks. This document describes how to authorize DTS to access CCN resources under other Tencent Cloud accounts. Generally, you need to log in to the CAM console with the root account of the CCN resources, create a role, and authorize DTS to access the CCN resources under other accounts.

## Directions

1. Log in to the [CAM console](#) with the Tencent Cloud root account of the CCN resources. If the sub-account has CAM and role permissions, you can also log in with the sub-account.
2. Click **Role** on the left sidebar to enter the role management page. Then, click **Create Role**.
3. On the **Select Role Entity** page, select **Tencent Cloud Product Service**.
4. In the **Enter Role Entity Info** step, select **Data Transfer Service (dts)** and click **Next**.
5. In the **Configure Role Policy** step, enter **QcloudAccessForDTSRole** in the search box, select the displayed policy, and click **Next**.
6. In the **Set Role Tag** step, you can configure role tags as needed or skip this step.
7. In the **Review** step, enter the role name and click **Complete**. You must enter **DTS\_QCSRole** rather than a custom role name, otherwise you cannot pull CCN resources under other accounts on the DTS task page.

## Subsequent Operations

For subsequent directions after the authorization, see [Migrating Data from Self-Built MySQL to TencentDB for MySQL Through CCN](#).

