

# **Cloud Connect Network**

## **Getting Started**

### **Product Documentation**



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# Getting Started

## Getting Started with the CCN

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Cloud Connect Network (CCN) enables interconnection between Virtual Private Clouds (VPCs) on Tencent Cloud and between VPCs and local IDCs. With CCN, you can easily create an intelligent, secure and flexible hybrid cloud and globally interconnected network. This document describes how to use CCN under the same or different accounts.

### Network Instance Interconnection in One Account

Follow the steps to interconnect the network instances in one account:

Step 1: Create a CCN instance

Step 2: Associate a network instance

Step 3: Check the route table

For details, see [Network Instance Interconnection in One Account](#).

### Network Instance Interconnection Crossing Accounts

Follow the steps to interconnect the network instances crossing accounts:

Step 1: Create a CCN instance in account A.

Step 2: Use account B of the VPC to request to associate CCN.

Step 3: Account A accepts the association request.

Step 4: Check the route table.

For more information, see [Network Instance Interconnection Crossing Accounts](#).

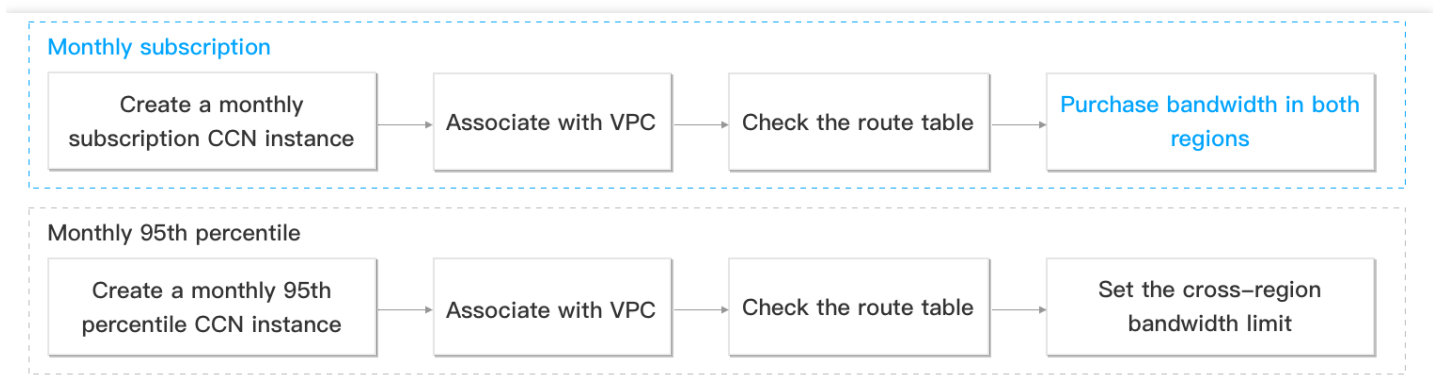
# Network Instance Interconnection in One Account

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CCN connects a VPC with another or with IDCs. This document introduces how to use CCN to interconnect VPCs in Guangzhou and Shanghai regions under the same account.

## Background

When creating a CCN instance, you can select either of the billing mode as needed: monthly subscription or monthly 95th percentile pay-as-you-go. The instance creation varies by the billing mode, as shown below:



This document guides you through how to interconnect a VPC in Guangzhou with a VPC in Shanghai under the same account.

## Prerequisites

You have created VPCs, subnets and CVMs in Shanghai and Guangzhou regions. The two subnets have no duplicate IP ranges, and CVMs reside in the subnets. For the step-by-step instructions, see [Building Up a IPv4 VPC](#).

## Step 1: create a CCN instance

1. Log in to the [Virtual Private Cloud Console](#).

2. Click **Cloud Connect Network** in the left sidebar to go to the **CCN** page, and then click **+New**.
3. In the **Create CCN instance** dialog box, complete the following configurations, and click **OK**.

Field	Subfield	Description
Name	-	Name of the CCN instance.
Billing Mode	Monthly subscription	Its unit price is about 20% lower than that of monthly 95th percentile billing. It's applicable to business with stable bandwidth needs.
	Monthly 95th percentile	Bill the actual bandwidth usage of the current month on 95th percentile basis. It's applicable to business with fluctuating bandwidth demands.
Service Quality	Platinum	It's ideal for key businesses that require extremely high communication quality. Gold service is suitable for businesses that require high communication quality, such as payment and game acceleration.
	Gold	It's suitable for businesses that require transmission of key business data, such as enterprise business data and ERP.
	Silver	It's suitable for cost-sensitive and jitter-insensitive businesses that require high security.
Speed Limit Mode	Region outbound speed limit	The overall outbound bandwidth limit from one region to another.
	Inter-region speed limit	It's the total bandwidth limit for traffic from a certain region to other regions. A monthly subscription CCN instance only supports the inter-region speed limit.
Associate with Instance	-	The options include VPC, Direct Connect Gateway, BM Virtual Private Cloud, and VPN Gateway. In this example, we choose to associate with VPC in the Shanghai region.

Step 2: associate a network instance

To associate a VPC in the Guangzhou region with CCN, do as follows:

1. On the **CCN** page, click the ID/Name of the CCN you want to associate with.
2. On the **Associate with Instance** page, click **Add an instance**.
3. In the **Associate with Instance** dialog box, choose to associate the VPC instance in the Guangzhou region.

**Note :**

If you need to associate another network instance, click **Add**.

4. Click **OK** to add the selected network instances to CCN.

Step 3: check the route table

Check and confirm that routing policies of each subnet in the VPC associated with the CCN take effect. Any IP range conflicts between associated network instances will invalidate routes.

1. On the **CCN** page, click ID/Name of the CCN instance for which you want to query the route table.
2. Select the **Route table** tab on the details page of the CCN instance to view its route tables.
3. Check for route in **invalid** status. If any, [modify the route](#) and [enable it](#).

Destination	Status ⓘ	Next hop	Next hop region	Update Time	Enable routing
192.168.0/24	Valid	vpc-iis7iefb cgu-gz	Guangzhou	2018-11-22 23:12:01	<input checked="" type="checkbox"/>
192.168.0/24	Valid	vpc-iis7iefb cgu-gz	Guangzhou	2018-11-22 23:12:01	<input checked="" type="checkbox"/>

##Step 4: configure the bandwidth

**-Purchasing bandwidth in both regions (only for monthly subscription CCN instances)**

For monthly subscription CCN instances, bandwidth of 10 Kbps or less is free of charge in any region. If you need a higher bandwidth, purchase it according to regions.

1. On the **CCN** page, click ID/Name of the CCN instance for which you want to purchase a bandwidth.

2. Select the **Bandwidth Management** tab on the details page of the CCN instance, and click **Purchase Bandwidth**.
  - iii. On the **Purchase Bandwidth** dialog box, choose Guangzhou and Shanghai regions, configure the bandwidth cap and validity period, and click **Confirm**.
- **Setting cross-region bandwidth limit (only for monthly 95th percentile CCN instance)**

You can set the cross-region bandwidth cap for monthly 95th percentile CCN instances as needed:

**Note :**

The default bandwidth cap is 1 Gbps. If you want to increase the bandwidth, [submit a ticket](#).

- Setting inter-region bandwidth speed limit

Click **Change Bandwidth** to go to the **Change Bandwidth** page. In the pop-up window, select the two regions where you want to limit the bandwidth, and enter the **Bandwidth Cap**. If you need to add more entries, click **Add**, and then click **OK** to complete the configurations.
- Setting region outbound bandwidth speed limit

Click **Adjust bandwidth speed limit**. In the pop-up window, select regions for which you want to limit the bandwidth on the left, enter the **Bandwidth Cap** on the right, and click **OK** to complete the configurations.

**Note :**

Communications between CCN instances may incur fees. For pricing details, see [Pricing](#).

## Result Validation

Log in to a CVM in Shanghai region, and run the `ping <IP address>` to connect the CVM in Guangzhou region. If the following result appears, the two CVMs are successfully connected.



# Network Instance Interconnection Crossing Account

Last updated : 2020-05-14 16:43:29

This article describes how to associate VPCs under another account with your CCN instance.

## Prerequisites

- The VPCs you want to associate with have been created.
- The IP ranges of the VPCs and IDCs do not overlap.

## Step 1: Create a CCN Instance in Account A

1. Log in to the [Virtual Private Cloud Console](#) with account A.
2. Click **Cloud Connect Network** on the left sidebar to enter the CCN management page.
3. Click **+New**. The **New CCN instance** page appears.
4. Enter a name for the CCN instance and a description. Select billing mode, service quality, bandwidth limit, and the ID of the VPC you want to associate with. Click **Add** if you want to associate with multiple VPCs.

You can associate more instances after the CCN is created.

5. Click **OK**.

## Step 2: Use Account B to Apply for the VPC Association.

1. Log in to the [Virtual Private Cloud Console](#) with account B.
2. In the VPC list, click the ID of the desired VPC.
3. In the details page, click **Associate Now**. The **Associate with CCN** page appears.

4. Select **Other Account** and enter the ID of account A and the CCN instance ID.

### Associate with CCN ×

Account  My Account  Other accounts

Account ID

CCN ID

1. The other party should agree to the application within 7 days, and the application will expire after 7 days.

2. The network interconnection fee generated by the instance joining the CCN is assumed by the owner of the CCN.

5. Click **OK** to send the association request to the account A.

## Step 3: Accept the Association Request in Account A

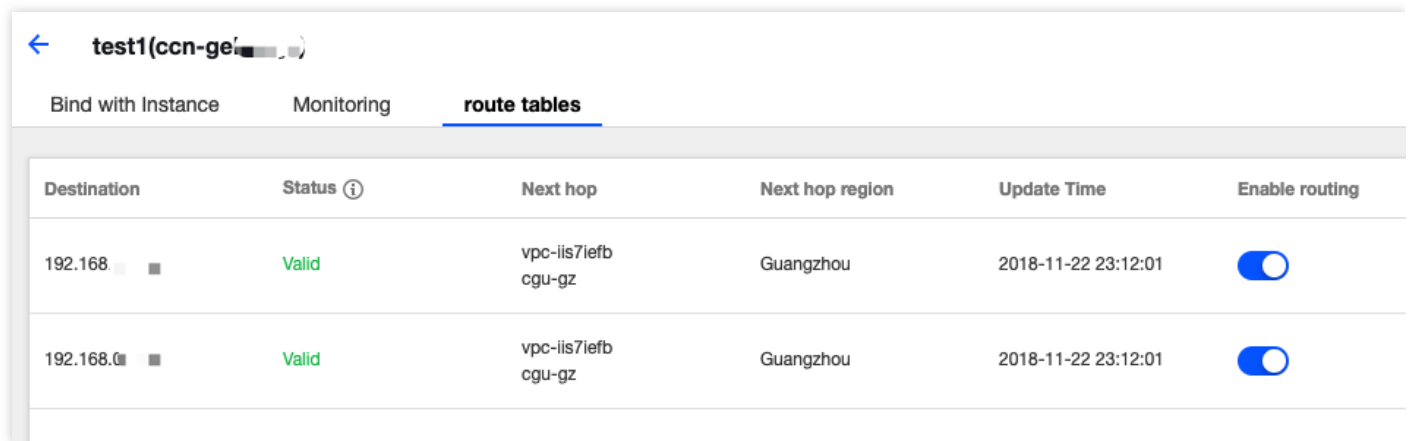
1. Log in to the [Virtual Private Cloud Console](#) with account A.
2. Click **Cloud Connect Network** in the left sidebar. Then, click the ID of the desired CCN instance.
3. On the **Associate with Instance** tab, find the information about the VPC to be approved, and click **Accept** to add the VPC to the CCN.

ID/Name	Status	Instance type	Account	Association time	Region	Operation
vpc-h- test	Pending	Virtual Private Cloud	10000	2019-09-16 19:07:18	Guangzhou	<a href="#">Agree</a> <a href="#">Refuse</a>

## Step 4: Checking the Route Table

IP range conflicts produce invalid routes. To check if such conflicts exist, use the following steps:

1. In the CCN list, click the ID of the desired CCN instance.
2. Click **Route Tables** to view the route table of this CCN instance.
3. Check if there is any invalid routing policy.



Destination	Status ⓘ	Next hop	Next hop region	Update Time	Enable routing
192.168.0.0	Valid	vpc-iis7iefb-cgu-gz	Guangzhou	2018-11-22 23:12:01	<input checked="" type="checkbox"/>
192.168.0.0	Valid	vpc-iis7iefb-cgu-gz	Guangzhou	2018-11-22 23:12:01	<input checked="" type="checkbox"/>

4. For more information on routing conflicts, refer to [Route Restrictions](#). If you want to enable a route that may lead to routing conflicts, refer to [Enabling a Route](#).

## Step 5: Setting Cross-region Bandwidth Cap (Optional)

1. In the CCN list, click the ID of the desired CCN ID.
2. Click **Bandwidth Management**. Click **Change** to change the speed limit mode.

The default bandwidth cap is 1 Gbps. If you want to increase the bandwidth, [submit a ticket](#).

- Inter-region bandwidth limit

Click **Change Bandwidth** to go to the **Change Bandwidth** page. Select **Region A** and **Region B** and enter the **Bandwidth Cap**. If you need to add more entries, click **Add**. Click **OK** to finish.

- Region outbound bandwidth limit

Click **Adjust bandwidth speed limit**. In the page that appears, select desired regions in the **Add region outbound speed limit** list on the left. Enter corresponding speed limits on the right. Click **OK** to finish.

Communication between CCN instances may incur fees. For pricing details, refer to [Pricing](#).