Tencent Cloud

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 network instances

Step 3: check the route table

Step 4: configure bandwidth

For more information, 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 under account A

Step 2: use account B to apply for associating VPC with CCN

Step 3: use account A to accept the association request

Step 4: check the route table

Step 5: set cross-region bandwidth cap (optional)

For more information, see Network Instance Interconnection Crossing Accounts.

Connecting Network Instances Under the Same Account

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Communications between two VPCs or between a VPC and an IDC can be implemented through CCN. This document describes how to use a CCN instance to interconnect VPCs in the Guangzhou and Shanghai regions under the same account.

Background

You can create a pay-as-you-go CCN instance billed by monthly 95 percentile.
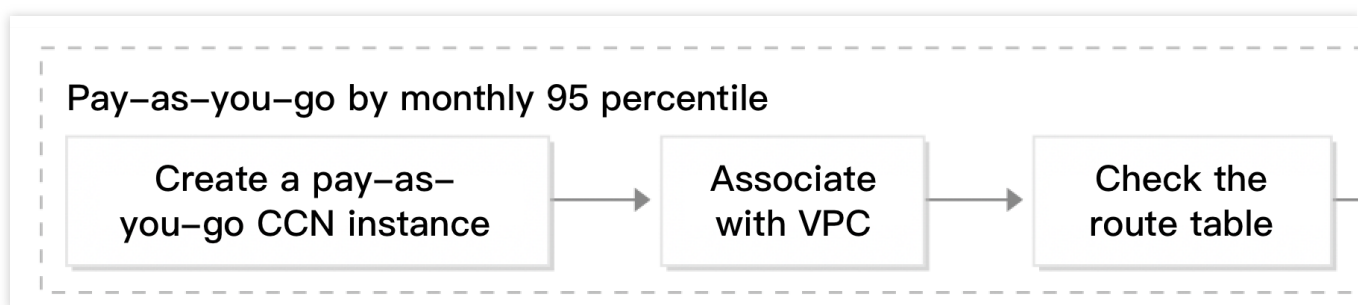
This document guides you through how to interconnect a VPC in Guangzhou with a VPC in Shanghai under the same account.

Prerequisites

You have created VPCs, subnets and CVMs in the 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 an IPv4 VPC.

Step 1. Create a CCN Instance

1. Log in to the CCN console.
2. Click **Create** at the top of the CCN management page.
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	Pay-as-you-go by monthly 95 percentile	Bill the actual bandwidth usage of the current month on 95th percentile basis. It's applicable to business with fluctuating bandwidth demands.
Service level	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.
Limit method	Inter-region bandwidth cap	The inbound and outbound bandwidth cap between two regions.

Step 2. Associate Instances

To associate a VPC in the Guangzhou region with CCN, perform the following steps.

1. Log in to the CCN console, and click the ID/Name of the target CCN instance to open its details page.

2. Select the **Associated instances** tab, and click **Add an instance**.

3. In the **Associated instances** dialog box, choose to associate the VPC instance in the Guangzhou region.

Note

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

Associated Instances

The bandwidth in the same region is free of charge. Learn more

| VPC ▾ | ▾ | ▾ | ✕ |

Add

OK   Close

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

Step 3. Check the Route Table

Check and confirm that routing policies of all subnets in the VPC associated with the CCN instance are valid. Any IP range conflicts between associated network instances will invalidate routes.

1. Log in to the CCN console, and click the ID/Name of the target CCN instance.

2. Select the **Route table** tab on the details page of the CCN instance to view its route tables.

3. Check if there is any **invalid** routing policy. If so, modify the route table according to route limits, and then enable it.
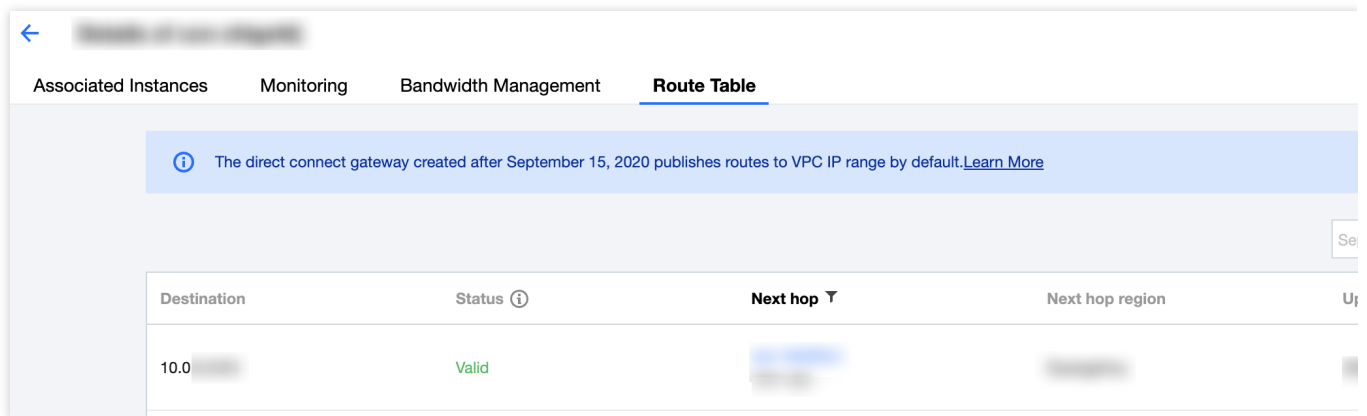
Step 4. Configure Bandwidth

Setting the cross-region bandwidth cap (only for pay-as-you-go CCN instances billed by monthly 95th percentile)

For pay-as-you-go CCN instances billed by monthly 95 percentile, you can configure a cross-region bandwidth cap as needed, including inter-region bandwidth limit and region outbound bandwidth limit.

Note

The pay-as-you-go by monthly 95 percentile mode is currently in beta. To try it out, submit a ticket.

The default bandwidth cap is 1 Gbps. To increase the bandwidth, submit a ticket.

1.1 Log in to the CCN console, and click the ID/Name of the target CCN instance.

1.2 Select the **Bandwidth management** tab on the details page of the CCN instance.

1.3 (Optional) Click **Change**, and select the bandwidth limit mode as needed.

Note

Changing the bandwidth limit mode will delete existing configurations. The bandwidth cap will be set to 1 Gbps by default. To increase the bandwidth, submit a ticket.

1.4 Configure the bandwidth cap according to the bandwidth limit mode of the CCN instance:

Setting inter-region bandwidth limit

Click **Change bandwidth**. In the pop-up window, select **Region A** and **Region B** from the drop-down list and enter the **Bandwidth cap**. You can also click **Add** to configure multiple bandwidth limit rules, and then click **OK**.

Change Bandwidth

Region A	Region B	Bandwidth
Please select ▼	Please select ▼	

Add

OK   Close

Setting region outbound bandwidth limit

Click **Adjust bandwidth cap**. In the pop-up window, select regions for which you want to limit the bandwidth on the left and set the bandwidth cap on the right. Click **OK**.

Add region outbound bandwidth limit

0 selected

Region
☑ Guangzhou
☐ Guangzhou(Bare Metal)
☑ Shanghai
☐ Shanghai(Bare Metal)
☐ Nanjing
☐ Beijing
☐ Beijing(Bare Metal)

↔

Region
Guangzhou
Shanghai

OK   Close

Note

Communication between CCN instances may incur fees. For pricing details, see Pricing.

Result Validation

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

```
[root@VM-               ]# ping 10.        .3
PING 10.      .3 (10.12.25.3) 56(84) bytes of data.
64 bytes from 10.12.25.3: icmp_seq=1 ttl=62 time=32.1 m
64 bytes from 10.12.25.3: icmp_seq=2 ttl=62 time=32.0 m
64 bytes from 10.12.25.3: icmp_seq=3 ttl=62 time=32.0 m
64 bytes from 10.12.25.3: icmp_seq=4 ttl=62 time=39.3 m
64 bytes from 10.12.25.3: icmp_seq=5 ttl=62 time=31.7 m
64 bytes from 10.12.25.3: icmp_seq=6 ttl=62 time=31.7 m
^C
--- 10.12.25.3 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time
rtt min/avg/max/mdev = 31.730/33.164/39.336/2.770 ms
[root@VM-              ]#
```

Connecting Network Instances Across Accounts

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This document 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 under Account A

1. Log in to the CCN console with account A and click **+ New** on the CCN instance management page.
2. Enter a name for the CCN instance and a description. Select billing mode, service quality and bandwidth limit.
Note
You can associate instances after creating the CCN.
3. Click **OK**.

Step 2. Use Account B to Apply for Associating VPC with CCN

1. Log in to the VPC console with account B and click the ID of the VPC to be associated with the CCN instance in the VPC list to enter the details page.
2. Click **Associate Now**.

Associate with CCN

CCN provides multi-point intranet interconnection service between VPCs, or between VPCs and customer I
Learn More
The current VPC is not associated with any CCN instance. Associate Now

3. In the pop-up window, select **Other accounts** 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 counter party needs to accept the CCN application within 7 days,
>   otherwise the application will expire.
>   2. The network interconnection fee generated by the instance joining the
>   CCN is assumed by the owner of the CCN

[OK]   [Close]

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

Step 3. Use Account A to Accept the Association Request

1. Log in to the CCN console with account A.

2. Click the **ID**/**Name** of the CCN instance with a pending association request.

3. On the **Associated Instances** page, locate the VPC to be associated, and click **Agree** to add the VPC to the CCN instance.

ID/Name	Status	Instance type ⇕	Account	Association time	Region ⇕
vpc-h▓ ▪️ ▪️ test	Pending	Virtual Private Cloud	10000▓▓	2019-09-16 19:07:18	Guangzhou

Step 4. Check the Route Table

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

1. Log in to the CCN console, click the **ID/Name** of the desired CCN instance.

2. Click the **Route Table** tab to view the route table of this CCN instance.

3. Check if there is any invalid routing policy.

Associated Instances	Monitoring	Bandwidth Management	**Route Table**

ⓘ The direct connect gateway created after September 15, 2020 publishes routes to VPC IP range by default.Learn More

Separate keywords with "|"; press

Destination	Status ⓘ	Next hop ▽	Next hop region	Update Time
10.0▓	Valid	▓▓	▓▓	▓ 12-08 11:14:17

4. See Route Limits to learn more about route conflicts. If you want to enable a route, please see Enabling a Route.

Step 5. Set Cross-region Bandwidth Cap (Optional)

1. Log in to the CCN console, click the **ID/Name** of the CCN instance for which to set the bandwidth.

2. Select the **Bandwidth Management** tab on the details page of the CCN instance.

3. (Optional) Click **Change** to select the bandwidth limit mode as needed.

4. Configure the bandwidth cap depending on the bandwidth limit mode of the CCN instance:

Note

The default bandwidth cap is 1 Gbps. If you require a higher bandwidth, please submit a ticket.

Inter-region bandwidth limit

Click **Change Bandwidth**. In the pop-up window, select **Region A** and **Region B** from the drop-down list and enter the **Bandwidth Cap**. You can also click **Add** to configure multiple bandwidth limit rules, and then click **OK**.

Change Bandwidth

Region A	Region B	Bandwidth Cap
Please select ▾	Please select ▾	

Add

OK   Close

Region outbound bandwidth limit

Click **Adjust bandwidth cap**. In the pop-up window, select regions for which you want to limit the bandwidth on the left and set the bandwidth cap on the right. Click **OK**.

Add region outbound bandwidth limit   0 selected

Region		Region	Band
☑ Guangzhou		Guangzhou	0
☐ Guangzhou(Bare Metal)		Shanghai	0
☑ Shanghai	↔		
☐ Shanghai(Bare Metal)			
☐ Nanjing			
☐ Beijing			
☐ Beijing(Bare Metal)			

OK   Close

Note

Communication between CCN instances may incur fees. For pricing details, refer to Pricing.