Preparing for Installing Cisco Cloud Network Controller

Resources Used for Cisco Cloud Network Controller Deployment in Google Cloud

This section lists the requirements for Cisco Cloud Network Controller deployment in Google Cloud.

Cisco Cloud Network Controller Resources

When you deploy Cisco Cloud Network Controller in Google Cloud, the Cisco Cloud Network Controller will use the following instance profile and will create the necessary resources:

- One compute instance:
    - Instance type: n2-standard-16
    - CPU: 16 vCPU
    - Memory: 64 GB
    - Disks: OS disk [300GB], Data Disk – 100GB [empty]

- Data Disk:
    - Empty data disk
    - Size: 100GB
    - Type: Standard SSD

- VPC network: With autoCreateSubnetworks set to False

- Subnet: Cisco Cloud Network Controller management NIC is attached to this subnet.

- Google Cloud projects: A minimum of two Google Cloud projects:

- One for ACI infra

- One per tenant

Note   Beginning with 26.0(2), support is now available for having multiple cloud projects under a single tenant. For more information, see Tenants.

Note   You can run only one Cloud Network Controller in the infra account. Running multiple Cloud Network Controllers in the same infra account is not supported.

Cisco Catalyst 8000V

Deploy the Cisco Catalyst 8000Vs in the appropriate size, depending on the bandwidth requirement defined during the Cisco Cloud Network Controller setup.

The value for the throughput of the routers determines the size of the Cisco Catalyst 8000V instance that you deploy; a higher value for the throughput results in the deployment of a Google Cloud instance type. Cisco Catalyst 8000V licensing is based on the throughput configuration that you set as part of the Cisco Cloud Network Controller setup process. You need the equivalent or higher license in your Smart account and the AX feature set for compliance.

The Cisco Catalyst 8000V supports tier-based (T0/T1/T2/T3) throughput options. The following table lists what Google Cloud instance types are needed for different router throughput settings for the Cisco Catalyst 8000V:

Cisco Catalyst 8000V Throughput	Google Cloud Instance Type
T0 (up to 15M throughput)	n1-standard-2
T1 (up to 100M throughput)	n1-standard-4
T2 (up to 1G throughput)	n1-standard-4
T3 (up to 10G throughput)	n1-standard-8

Tier2 (T2) is the default throughput supported by Cisco Cloud Network Controller.

Cisco Cloud Network Controller Communication Ports

When configuring your Cisco Cloud Network Controller environment, keep in mind that the following ports are required for network communications:

- For the Cisco Cloud Network Controller, use the same Cisco Cloud Network Controller management IP address that you will use to log into the Cisco Cloud Network Controller at the beginning of Configuring Cisco Cloud Network Controller Using the Setup Wizard.

- For the Google Cloud firewall rules:

- WEB-Server: Ingress allow 80, 443

- SSH-Allow: Ingress allow 22

- For license registration (towards `tools.cisco.com`): Port 443 (outbound) is required

- For DNS: UDP Port 53 outbound

- For NTP: UDP Port 123 outbound

- If remote authentication is used (LDAP, Radius, TACACS+, SAML), open the proper ports

- If a certificate authority is used, open the proper ports

Cisco Cloud Network Controller Installation Workflow

This section provides a high-level description of the tasks that are required to install and deploy Cisco Cloud Network Controller. You perform installation tasks through Google Cloud management portal and the Cisco Cloud Network Controller First Time Setup Wizard.

1. Fulfill all prerequisites to prepare for support of Google Cloud with Cisco Cloud Network Controller.

   See Preparing for Installing Cisco Cloud Network Controller, on page 1.

2. Deploy Cisco Cloud Network Controller in Google Cloud.

   See Deploying the Cisco Cloud Network Controller in Google Cloud.

3. Configure Cisco Cloud Network Controller using the First Time Setup Wizard.

   See Configuring Cisco Cloud Network Controller Using the Setup Wizard.

4. Make the necessary configurations through Cisco Cloud Network Controller.

   See Navigating the Cisco Cloud Network Controller GUI and Configuring Cisco Cloud Network Controller Components.

5. Delete the deployment, if necessary.

   See Deleting a Cisco Cloud Network Controller Deployment in Google Cloud (External Connectivity Using Google Cloud Routers).