About Cisco Cloud Network Controller

Overview

What Cisco Cloud Network Controller Is

Cisco Cloud Network Controller is a software deployed on a cloud-based virtual machine (VM). Amazon Web Services (AWS), Azure, and Google Cloud are the cloud providers supported with the Cisco Cloud Network Controller.

When deployed, the Cisco Cloud Network Controller:

- Provides an interface that is similar to Cisco APIC (applicable for existing ACI customers only) to interact with the Google Cloud public cloud.

- Automates the deployment and configuration of cloud connectivity.

- Configures the cloud router control plane.

- Configures the data path between on-premises Cisco ACI or NX-OS fabrics and the cloud site

- Translates CCNC policies to cloud native constructs.

- Discovers endpoints.

For more information about extending Cisco ACI or NX-OS fabrics to the public cloud, see the *Cisco Cloud Network Controller Installation Guide* or the Hybrid Cloud Connectivity Deployment for Cisco NX-OS.

When the Cisco Cloud Network Controller is up and running, you can begin adding and configuring Cisco Cloud Network Controller components. This document describes the Cisco Cloud Network Controller policy model and explains how to manage (add, configure, view, and delete) the Cisco Cloud Network Controller components using the GUI and the REST API.

Guidelines and Limitations

This section contains the guidelines and limitations for Cisco Cloud Network Controller.

- Before configuring an object for a tenant, first check for any stale cloud resource objects. A stale configuration might be present if it was not cleaned properly from the previous Cisco Cloud Network Controller virtual machines that managed the account. Cisco Cloud Network Controller can display stale cloud objects, but it cannot remove them. You must log in to the cloud account and remove them manually.

To check for stale cloud resources:

1. From the Cisco Cloud Network Controller GUI, click the **Navigation menu > Application Management > Tenants**. The **Tenants** summary table appears in the work pane with a list of tenants as rows in a summary table.

2. Double click the tenant you are creating objects for. The Overview, Topology, Cloud Resources, Application Management, and Event Analytics tabs appear.

3. Click the **Cloud Resources > Actions > View Stale Cloud Objects**. The **Stale Cloud Objects** dialog box appears.

About the Cisco Cloud Network Controller GUI

The Cisco Cloud Network Controller GUI is categorized into groups of related windows. Each window enables you to access and manage a particular component. You move between the windows using the **Navigation** menu that is located on the left side of the GUI. When you hover your mouse over any part of the menu, the following list of tab names appear: **Dashboard**, **Application Management**, **Cloud Resources**, **Operations**, **Infrastructure**, and **Administrative**.

Each tab contains a different list of subtabs, and each subtab provides access to a different component-specific window. For example, to view the EPG-specific window, hover your mouse over the **Navigation** menu and click **Application Management** > **EPGs**. From there, you can use the **Navigation** menu to view the details of another component. For example, you can navigate to the **Active Sessions** window from **EPGs** by clicking **Operations** > **Active Sessions**.

The **Intent** menu bar icon enables you to create a component from anywhere in the GUI. For example, to create a tenant while viewing the **EPGs** window, click the **Intent** icon. A dialog appears with a search box and a drop-down list. When you click the drop-down list and choose **Application Management**, a list of options, including the **Tenant** option, appears. When you click the **Tenant** option, the **Create Tenant** dialog appears displaying a group of fields that are required for creating the tenant.

For more information about configuring Cisco Cloud Network Controller components, see Configuring Cisco Cloud Network Controller Components
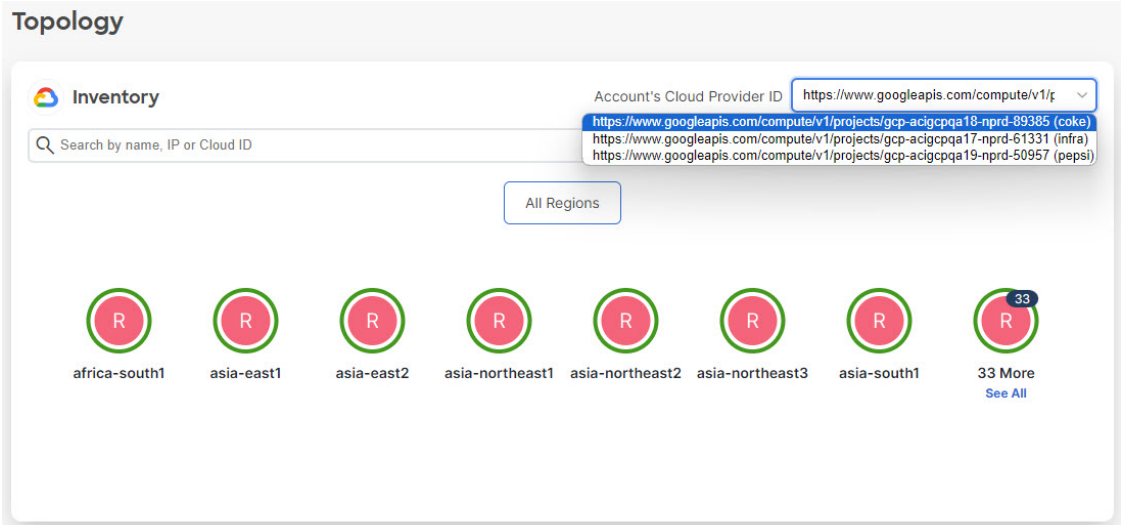
Topology View

Beginning with 26.0(2), Cisco Cloud Network Controller will now provide you with a real time view of their inventory and resources in a topology view. This helps navigate through deployments and establish a clear view of the environment. The deployed resources will be displayed in a hierarchial manner. They can be organized based on accounts, regions or VPCs/VNets.

Topology also offers search so that you can easily navigate resources by name, DN, cloud provider ID, IP address etc.

Navigation in Topology

Click Topology from the left navigation pane to view the Topology Main Page.

Topology Main Page is where the topology is displayed. There's a drop down box with a list of the accounts deployed or managed by Cisco Cloud Network Controller. One is selected by default. The view displays all the regions in which the account selected is deployed.

The Cloud Provider for the topology is mentioned at the top left next to the Inventory header. The 'Cloud Provider ID' provides a drop down with the list of the accounts deployed or managed by Cisco Cloud Network Controller. One is selected by default.
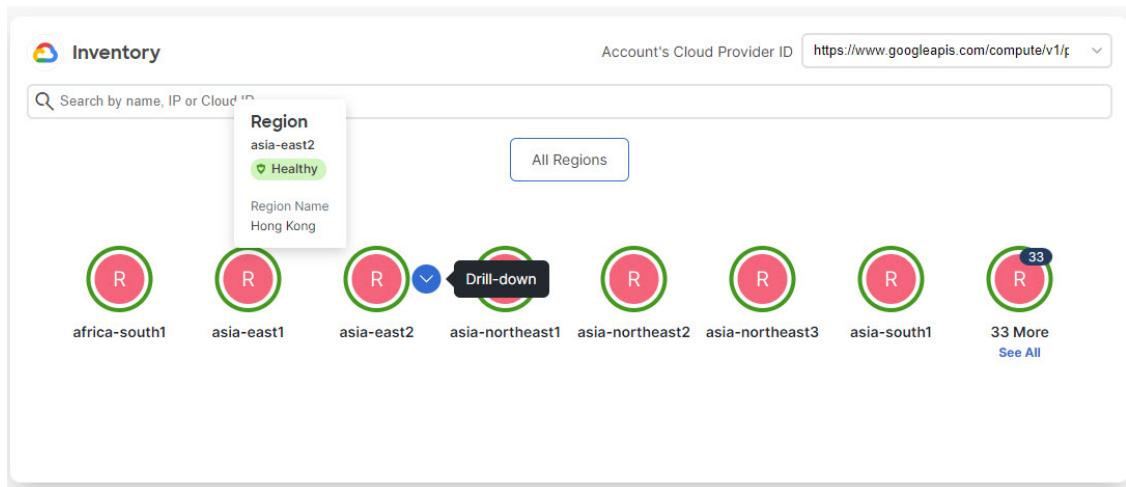
If you hover over any node, you see a box which displays details regarding the node. You can also drill down on the node to view the associated resources (VPCs/VNets). If there are more than eight assoicated nodes with any node, the 'More' node is created. You can click on that to view the rest of the nodes. The NIC nodes are viewed as a hover up on the VM nodes.

If you right click on the node and select Region Details, a slider on the right side opens with more details about the selected resource.

You can further drill down on the VPCs/VNets to view more resources in the hierarchy. Some of the resources available are :

- Subnets

- Route Tables

- Security Groups

- Network Interfaces

- Virtual Machines

- Account

- Region

- VPC

- Route Table Entry

- Load Balancers

- Cloud Router

Note The resources available are inclusive but not limited to the ones mentioned above.

The search bar allows you search for any resource in the topology. It is based on some of the attributes of objects. You can select any object and the bottom-up topology for that will be shown.