Monitoring Cisco CloudCenter Suite

Beta Version

Cisco: CloudCenter Suite PowerPack version 100

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Chapter 1

Introduction

Overview

This manual describes how to monitor Cisco CloudCenter Suite services in SL1 using the Dynamic Applications in the *Cisco CloudCenter Suite* PowerPack.

NOTE: The *Cisco CloudCenter Suite* PowerPack supports Cisco CloudCenter Suite version 5.1 and higher.

The following sections provide an overview of Cisco CloudCenter Suite and the *Cisco CloudCenter Suite* PowerPack:

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What is the Cisco CloudCenter Suite?

Cisco CloudCenter Suite is a comprehensive, enterprise-class multicloud orchestration and workflow management platform used for deploying and managing infrastructure and applications in data centers, private clouds, and public clouds. Cisco CloudCenter Suite 5.1 includes Cisco CloudCenter, now known as Workload Manager.

What Does the Cisco: CloudCenter Suite PowerPack Monitor?

The *Cisco CloudCenter Suite* PowerPack lets you discover and collect configuration and performance data about CloudCenter Suite 5.1 deployments and their components. The *Cisco CloudCenter Suite* PowerPack can monitor CloudCenter Manager version 5.1 and higher.

The *Cisco: CloudCenter Suite* PowerPack includes:

- A sample Credential you can use as a template to create your own Credentials to monitor CloudCenter Suite deployments
- Dynamic Applications and Run Book Actions to discover, model, and monitor performance metrics and/or collect configuration data for the following CloudCenter Suite components:
    - CloudCenter Suite Action Orchestrator
    - CloudCenter Suite Workload Manager
    - CloudCenter Suite Cost Optimizer
    - Supported CloudCenter Suite Applications
- Device Classes for each of the CloudCenter Suite components that SL1 monitors
- Event Policies and corresponding alerts that are triggered when CloudCenter Suite components meet certain status criteria
- Automation policies you can use to specify actions you want to run automatically in response to specific event conditions in SL1.

Installing the Cisco: CloudCenter PowerPack

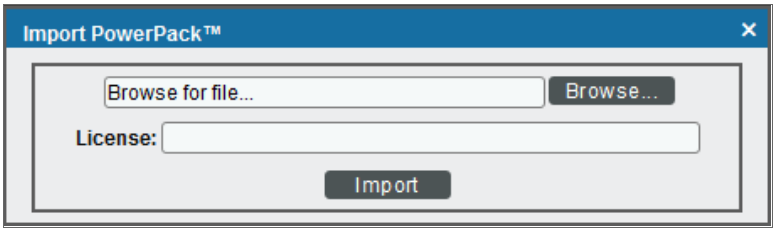
Before completing the steps in this manual, you must import and install the latest version of the *Cisco CloudCenter Suite* PowerPack.

NOTE: To align RabbitMQ with your Remote Cloud, you must install the Docker PowerPack discover the swarm. You must also have the AMQP: RabbitMQ PowerPack installed.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the ***System Administration*** manual.)

To download and install a PowerPack:

1. Download the PowerPack from the ScienceLogic Customer Portal.
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.
4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal appears, click the **[Install]** button to install the PowerPack.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Configuration and Discovery

Overview

This manual describes how to monitor Cisco CloudCenter Suite services in SL1 using the Dynamic Applications in the *Cisco CloudCenter Suite* PowerPack.

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Configuration and Discovery for Standard Cisco CloudCenter Suite Deployments

The *Cisco CloudCenter Suite* PowerPack lets you discover and collect configuration and performance data about CloudCenter Suite deployments and their components. The following sections describe the configuration and discovery steps for monitoring standard CloudCenter Suite deployments.

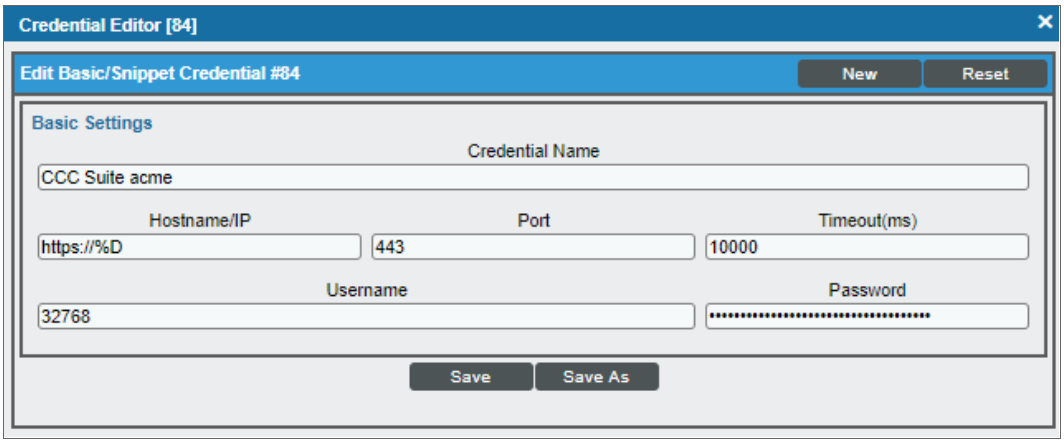
Creating a Basic/Snippet Credential for Standard Deployments

To configure SL1 to monitor a CloudCenter Suite deployment, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the *Cisco CloudCenter Suite* PowerPack to communicate with your CloudCenter Suite.

The PowerPack includes an example Basic/Snippet credential (**Cisco CloudCenter EXAMPLE**) that you can edit for your own use.

To configure a Basic/Snippet credential to access CloudCenter Suite:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **Cisco CloudCenter EXAMPLE** credential, and then click its wrench icon ( ). The **Edit Basic/Snippet Credential** modal appears.
3. Enter values in the following fields:



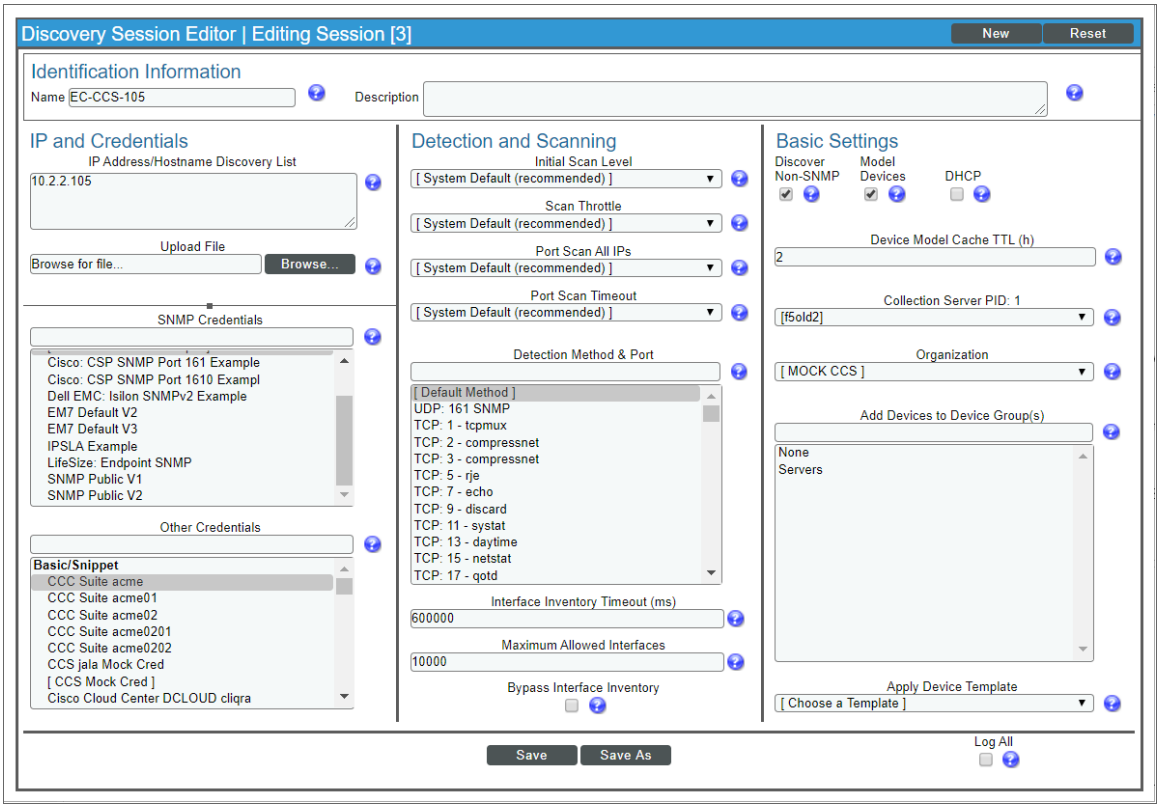
   - ***Credential Name***. Type a name for the CloudCenter Suite credential.
   - ***Username***. Type the User ID for a CloudCenter Suite user that has root tenant administration privileges. This account must be an API user, not a UI user.
   - ***Password***. Type the API key for the user you entered in the ***Username*** field.
4. Leave all other fields set to the default values. Click the **[Save As]** button.

Discovering the CloudCenter Suite Root Tenant

To discover CloudCenter Suite, perform the following steps:

1. Go to the **Discovery Control Panel** page (System > Manage > Discovery).
2. In the **Discovery Control Panel**, click the **[Create]** button.

3. The **Discovery Session Editor** page appears. In the **Discovery Session Editor** page, define values in the following fields:



- ***IP Address/Hostname Discovery List***. Enter the IP address for the CloudCenter Suite root tenant.
- ***Other Credentials***. Select the Basic/Snippet credential you created for the CloudCenter Suite root tenant.
- ***Discover Non-SNMP***. Select this checkbox.

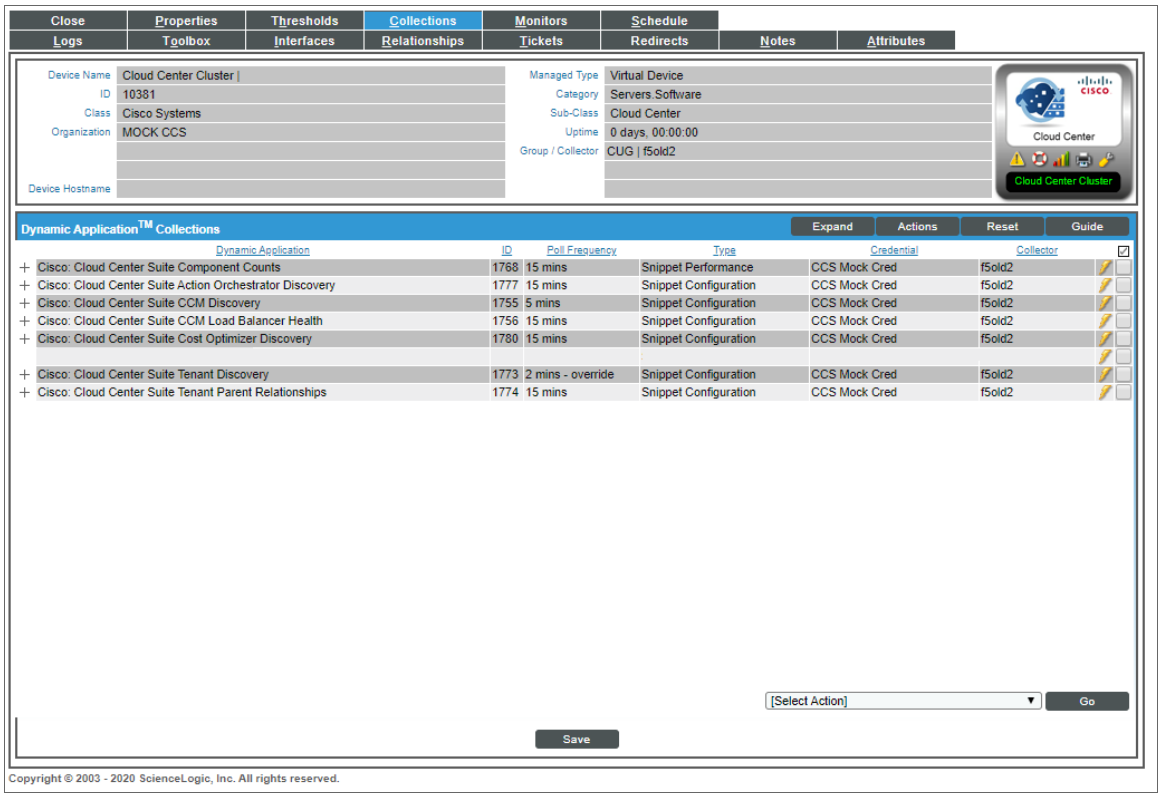
4. Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the ***Discovery & Credentials*** manual.
5. Click the **[Save]** button to save the discovery session and then close the **Discovery Session Editor** window.
6. The discovery session you created appears at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon ( ) to run the discovery session.
7. The **Discovery Session** window appears. When the device is discovered, click the device icon ( ) to view the **Device Properties** page for the device.

Verifying Discovery and Dynamic Application Alignment

To verify that SL1 automatically aligned the correct Dynamic Applications during discovery:

1. From the **Device Properties** page for the CloudCenter Suite root device, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
2. All applicable Dynamic Applications for CloudCenter Suite are automatically aligned during discovery.

> **NOTE:** It can take several minutes after the discovery session has completed for Dynamic Applications to appear in the **Dynamic Application Collections** page.

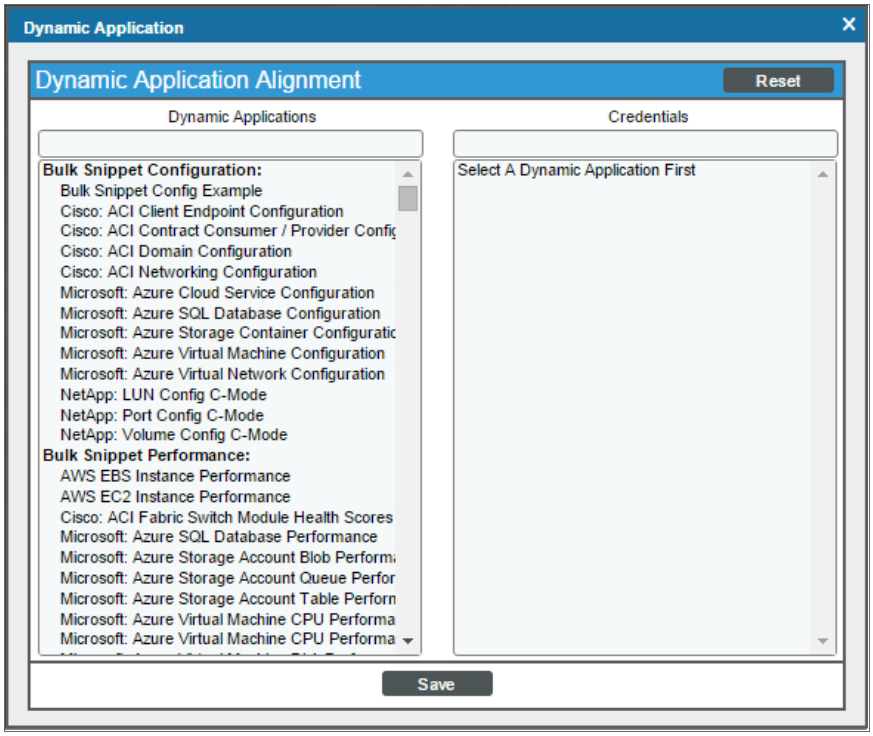


The following Dynamic Applications should be aligned to the device:

- Cisco: Cloud Center Suite Component Counts
- Cisco: Cloud Center Suite Action Orchestrator Discovery
- Cisco: Cloud Center Suite CCM Discovery
- Cisco: Cloud Center Suite Cost Optimizer Discovery
- Cisco: Cloud Center Suite Tenant Discovery
- Cisco: Cloud Center Suite Tenant Parent Relationships

If the listed Dynamic Applications have not been automatically aligned during discovery, you can align them manually. To do so, perform the following steps:

1. Click the **[Action]** button and then select *Add Dynamic Application*. The **Dynamic Application Alignment** page appears:



2. In the ***Dynamic Applications*** field, select the Dynamic Application you want to align.
3. In the ***Credentials*** field, select the Basic/Snippet credential you created for CloudCenter Suite.
4. Click the **[Save]** button.
5. Repeat steps 1-4 for the other unaligned Dynamic Applications.

Discovering Multiple Tenants for Standard Deployments

The *Cisco CloudCenter Suite* PowerPack can be used to monitor a CloudCenter Suite cluster that includes multiple tenants. To discover multiple tenants, you must follow the steps in the following sections for each tenant in order (in other words, parents must be discovered before their children):

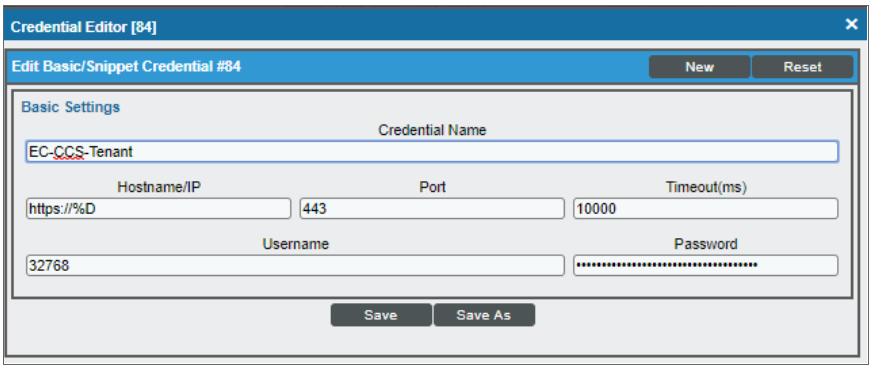
- *Creating a Credential for a CloudCenter Suite Tenant*
- *Discovering an additional CloudCenter Suite Tenant*

For each tenant, you must use the administrator account for that tenant when you create the credential.

Creating a Credential for a CloudCenter Suite Tenant

To configure a Basic/Snippet credential to access an additional CloudCenter Suite tenant:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the credential you used to discover the root tenant, then click its wrench icon ( ). The **Edit Basic/Snippet Credential** modal appears.
3. Enter values in the following fields:



- ***Credential Name***. Enter a new name for the CloudCenter Suite tenant credential.
- ***Username***. Enter the User ID for a CloudCenter Suite user that is an administrator for the tenant you want to discover.

> CAUTION: The account specified must be an API user, not a GUI user.

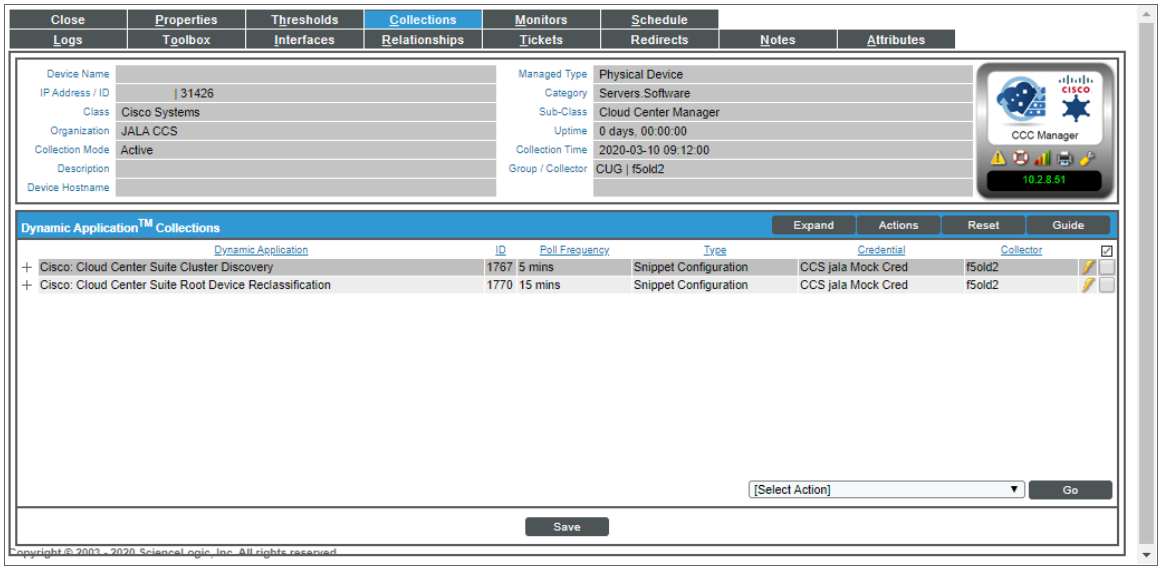
- ***Password***. Enter the API key for the user you entered in the ***Username*** field.

4. Leave all other fields set to the default values. Click the **[Save As]** button.

Discovering an Additional CloudCenter Suite Tenant

To discover an additional tenant:

1. From the **Device Properties** page for the CloudCenter Suite root device, click the name of the CloudCenter Cluster device that appears in the ***Root Device*** field.
2. Click the **[Collections]** tab. The **Dynamic Application Collections** page appears.

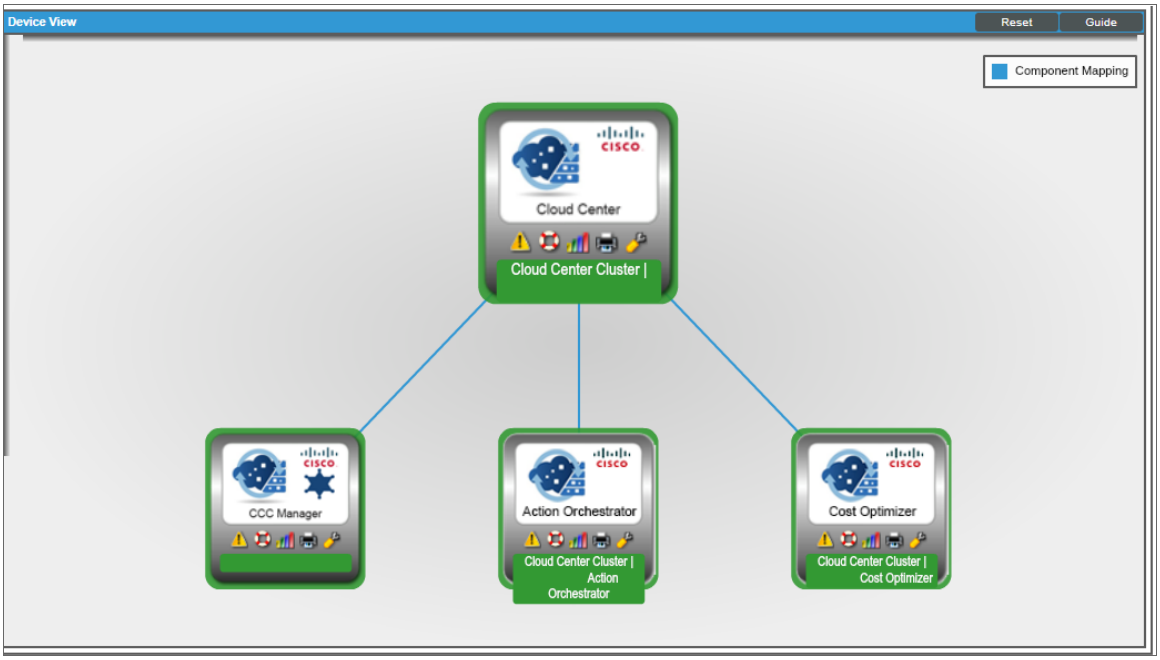


3. Select the checkbox for the "Cisco: CloudCenter Tenant Discovery" Dynamic Application.
4. In the ***Select Action*** drop-down list, select the credential you created for the tenant.
5. Click **[Go]**.

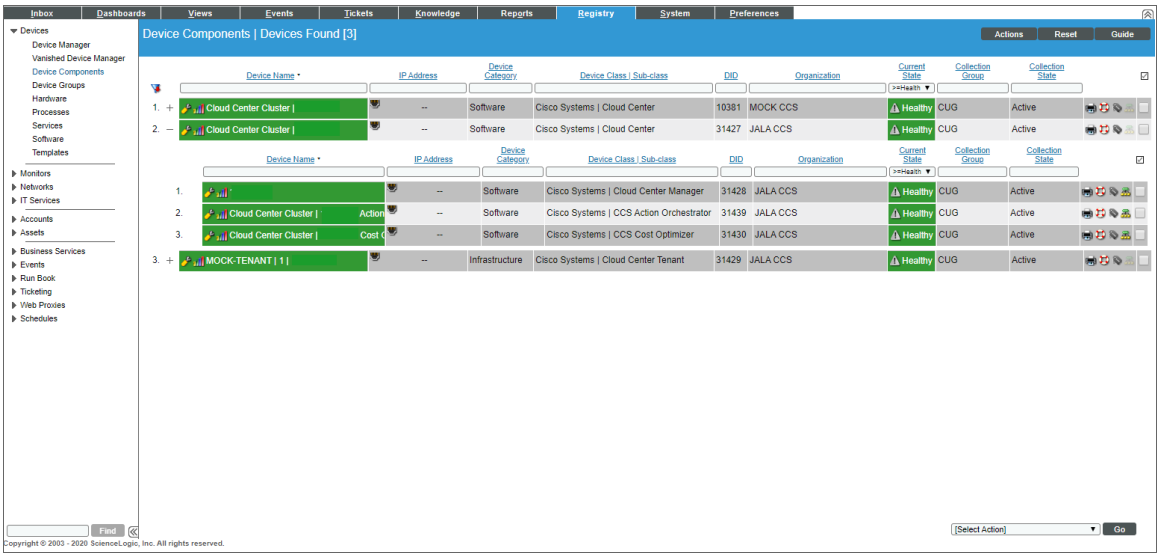
Viewing CloudCenter Component Devices

In addition to the **Device Manager** page (Registry > Devices > Device Manager), you can view CloudCenter Suite component devices in the following places in the user interface:

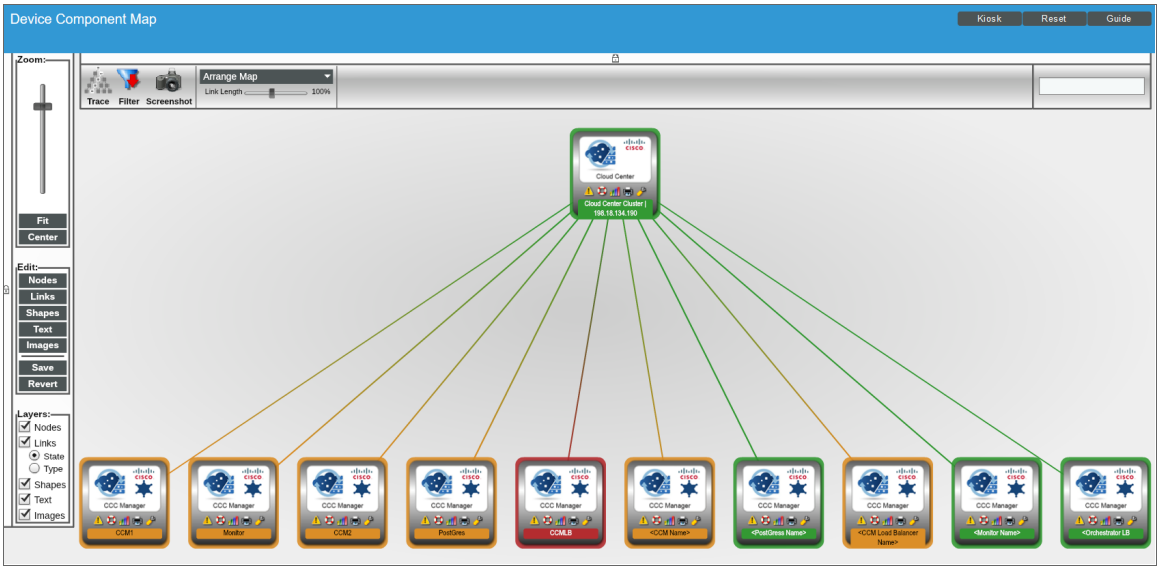
- The **Device View** page displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device:



- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by SL1 in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with CloudCenter Suite, find the CloudCenter Suite root device and click its plus icon (+):



- The **Component Map** page (Views > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for CloudCenter Suite, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the ***Views*** manual.



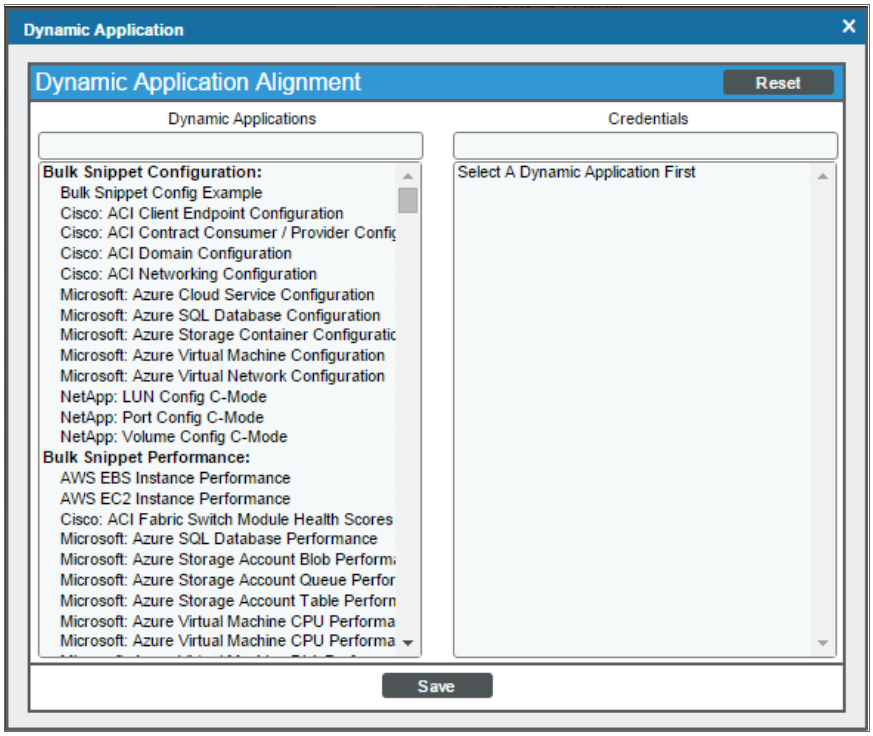
Manually Aligning RabbitMQ to the Remote Cloud

If you want to monitor your remote cloud using RabbitMQ, you must have both the Docker and AMQP: RabbitMQ PowerPacks installed. You must also have the Docker swarm (remote cloud) discovered and the component tree for it built out before doing the following steps to align RabbitMQ with your remote cloud.

1. Open the **Device Components** page (Registry > Devices > Device Components and locate your remote cloud (Docker swarm).
2. Edit the swarm by clicking its wrench icon ( ).
3. Click on the **Collections** tab.
4. Add the following RabbitMQ Dynamic Applications to the collection.
    - AMQP: RabbitMQ Configuration
    - AMQP: RabbitMQ Performance

    a. Click **[Actions]** and select *Add Dynamic Application*.

    The **Dynamic Application Alignment** page appears:



    b. In the ***Dynamic Applications*** field, select one of the RabbitMQ Dynamic Applications.

c. In the ***Credentials*** field, select the Basic/Snippet credential you created for RabbitMQ.

> **NOTE:** When adding these Dynamic Applications to the remote cloud, you must select the RabbitMQ API credential to use. The API credentials are the same as UI credentials for RabbitMQ. For more information, see "Creating a Credential for RabbitMQ" in the ***Monitoring RabbitMQ*** manual.

d. Click **[Save]**.

e. Repeat steps a - d for the other unaligned Dynamic Application for RabbitMQ.

Relationships Between Component Devices

SL1 can automatically build relationships between CloudCenter component devices and other associated devices:

- If you discover an ACI system using the Dynamic Applications in the *Cisco: ACI* PowerPack version 106 or later, SL1 will automatically create relationships between CloudCenter Applications and ACI Application Network Profiles.
- If you discover an AWS account using the Dynamic Applications in the *Amazon Web Services* PowerPack version 103 or later, SL1 will automatically create relationships between CloudCenter Applications and AWS EC2 Instances.
- If you discover an Azure account using the Dynamic Applications in the *Microsoft: Azure* PowerPack version 103 or later, SL1 will automatically create relationships between CloudCenter Applications and Azure Virtual Machines.
- If you discover a vCenter device using the Dynamic Applications in the *VMware: vSphere Base Pack* PowerPack version 207 or later, SL1 will automatically create relationships between CloudCenter Applications and VMware Virtual Machines.

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