Manage Connectors

Cloud Manager

NetApp
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Manage Connectors

Finding the system ID for a Connector

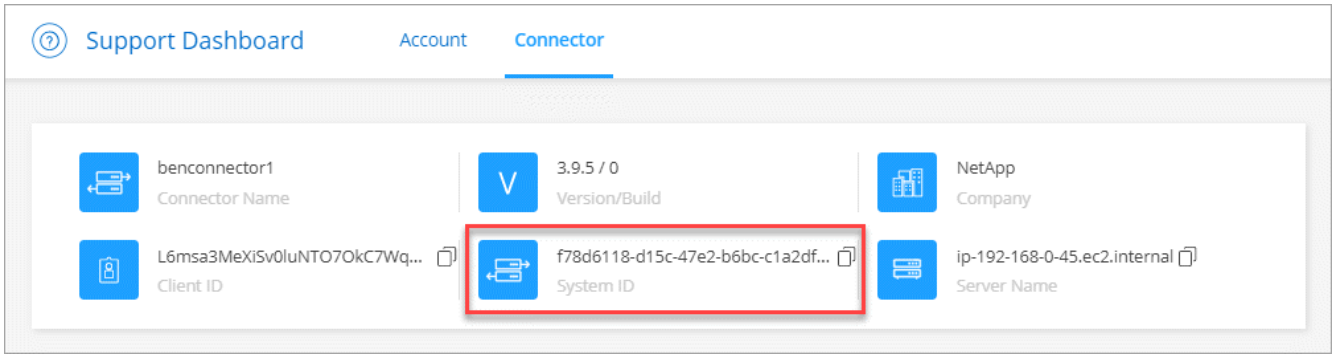
To help you get started, your NetApp representative might ask you for the system ID for a Connector. The ID is typically used for licensing and troubleshooting purposes.

Steps

1. In the upper right of the Cloud Manager console, click the Help icon.
2. Click **Support > Connector**.

   The system ID appears at the top.

   Example



Managing existing Connectors

After you create one or more Connectors, you can manage them by switching between Connectors, connecting to the local user interface running on a Connector, and more.

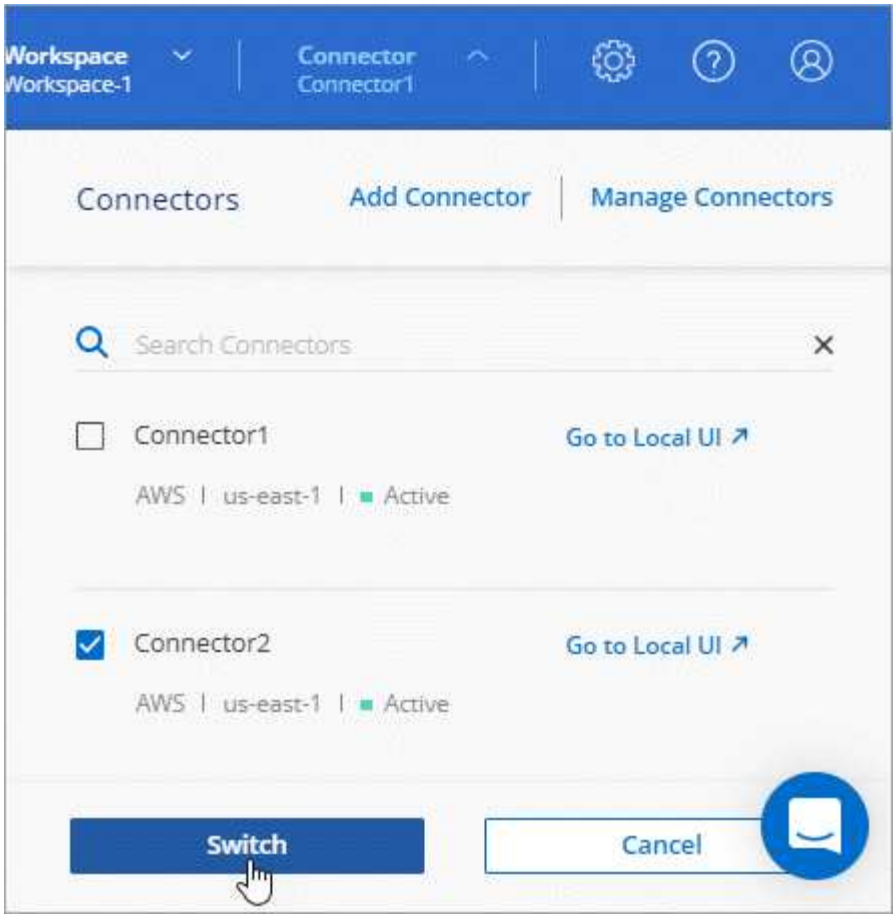
Switching between Connectors

If you have multiple Connectors, you can switch between them to see the Working Environments that are associated with a specific Connector.

For example, let's say that you're working in a multi-cloud environment. You might have one Connector in AWS and another in Google Cloud. You'd need to switch between those Connectors to manage the Cloud Volumes ONTAP systems running in those clouds.

Step

1. Click the **Connector** drop-down, select another Connector, and then click **Switch**.



Cloud Manager refreshes and shows the Working Environments associated with the selected Connector.

Accessing the local UI

While you should perform almost all tasks from the SaaS user interface, a local user interface is still available on the Connector. This interface is needed for a few tasks that need to be performed from the Connector itself:

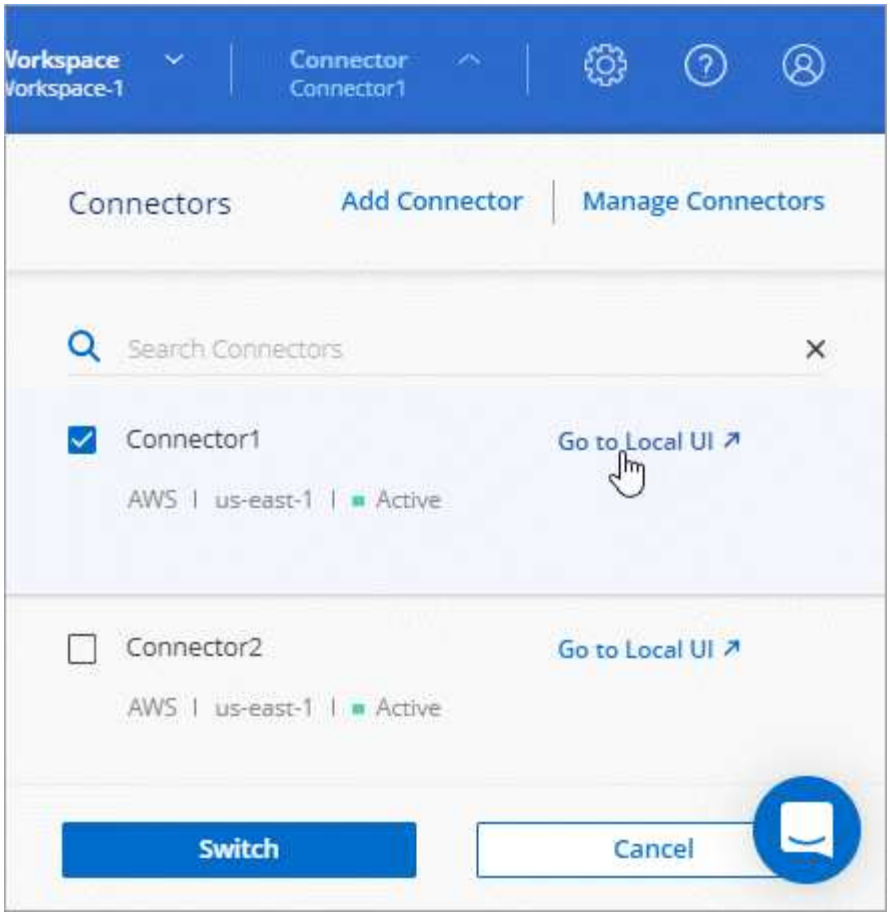
- Setting a proxy server
- Installing a patch (you'll typically work with NetApp personnel to install a patch)
- Downloading AutoSupport messages (usually directed by NetApp personnel when you have issues)

Steps

1. Log in to the Cloud Manager SaaS interface from a machine that has a network connection to the Connector instance.

   If the Connector doesn't have a public IP address, you'll need a VPN connection or you'll need to connect from a jump host that's in the same network as the Connector.

2. Click the **Connector** drop-down and then click **Go to Local UI**.



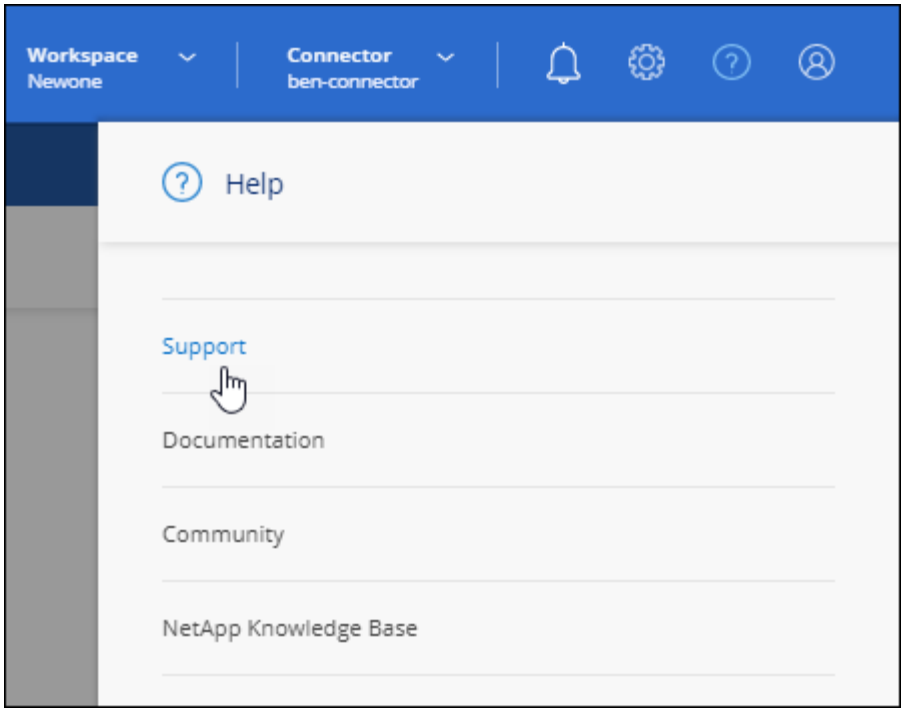
The Cloud Manager interface running on the Connector loads in a new browser tab.

Downloading or sending an AutoSupport message

If you're having problems, NetApp personnel might ask you to send an AutoSupport message to NetApp support for troubleshooting purposes.

Steps

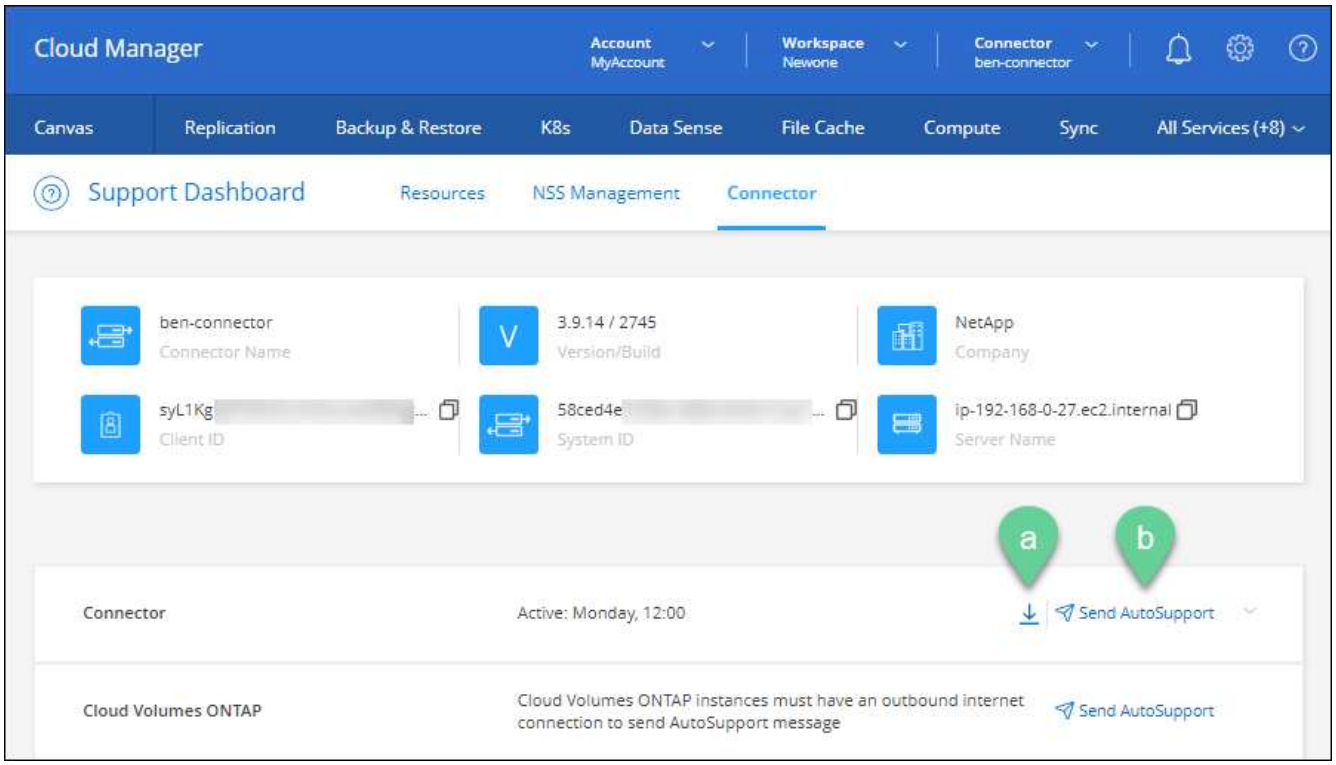
1. Connect to the Connector local UI, as described in the section above.
2. In the upper right of the Cloud Manager console, click the Help icon, and select **Support**.



3. Click **Connector**.
4. Depending on how you need to send the information to NetApp support, choose one of the following options:

   a. Select the option to download the AutoSupport message to your local machine. You can then send it to NetApp Support using a preferred method.

   b. Click **Send AutoSupport** to directly send the message to NetApp Support.



Editing a Connector's URIs

Add and remove the URIs for a Connector.

Steps

1. Click the **Connector** drop-down from the Cloud Manager header.
2. Click **Manage Connectors**.
3. Click the action menu for a Connector and click **Edit URIs**.
4. Add and remove URIs and then click **Apply**.

Fixing download failures when using a Google Cloud NAT gateway

The Connector automatically downloads software updates for Cloud Volumes ONTAP. The download can fail if your configuration uses a Google Cloud NAT gateway. You can correct this issue by limiting the number of parts that the software image is divided into. This step must be completed by using the Cloud Manager API.

Step

1. Submit a PUT request to /occm/config with the following JSON as body:

```
{
  "maxDownloadSessions": 32
}
```

The value for *maxDownloadSessions* can be 1 or any integer greater than 1. If the value is 1, then the downloaded image will not be divided.

Note that 32 is an example value. The value that you should use depends on your NAT configuration and the number of sessions that you can have simultaneously.

Learn more about the /occm/config API call.

Removing Connectors from Cloud Manager

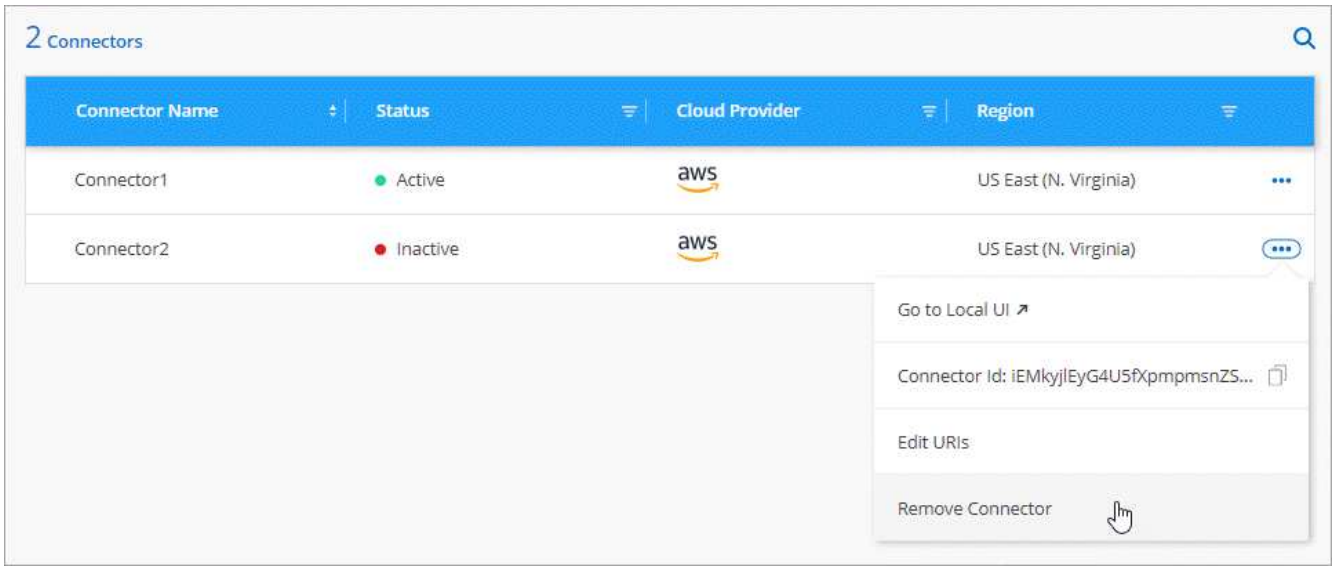
If a Connector is inactive, you can remove it from the list of Connectors in Cloud Manager. You might do this if you deleted the Connector virtual machine or if you uninstalled the Connector software.

Note the following about removing a Connector:

- This action doesn't delete the virtual machine.
- This action can't be reverted—once you remove a Connector from Cloud Manager, you can't add it back to Cloud Manager.

Steps

1. Click the **Connector** drop-down from the Cloud Manager header.
2. Click **Manage Connectors**.
3. Click the action menu for an inactive Connector and click **Remove Connector**.



4. Enter the name of the Connector to confirm and then click Remove.

Result

Cloud Manager removes the Connector from its records.

Upgrading the Connector on-prem without internet access

If you installed the Connector on an on-premises host that doesn't have internet access, you can upgrade the Connector when a newer version is available from the NetApp Support Site.

The Connector needs to restart during the upgrade process so the user interface will be unavailable during the upgrade.

Steps

1. Download the Cloud Manager software from the NetApp Support Site.
2. Copy the installer to the Linux host.
3. Assign permissions to run the script.

```
chmod +x /path/cloud-manager-connector-offline-v3.9.14
```

4. Run the installation script:

```
sudo /path/cloud-manager-connector-offline-v3.9.14
```

5. After the upgrade is complete, you can verify the Connector's version by going to **Help > Support > Connector**.

What about software upgrades on hosts that have internet access?

The Connector automatically updates its software to the latest version, as long as it has outbound internet access to obtain the software update.

Uninstalling the Connector software

Uninstall the Connector software to troubleshoot issues or to permanently remove the software from the host. The steps that you need to use depends on whether you installed the Connector on a host that has internet access or a host in a restricted network that doesn't have internet access.

Uninstalling the Connector from a host that has internet access

The online Connector includes an uninstallation script that you can use to uninstall the software.

Step

1. From the Linux host, run the uninstallation script:

   /opt/application/netapp/cloudmanager/bin/uninstall.sh [silent]

   silent runs the script without prompting you for confirmation.

Uninstalling the Connector from a host that doesn't have internet access

Use these commands if you downloaded the Connector software from the NetApp Support Site and installed it in a restricted network that doesn't have internet access.

Step

1. From the Linux host, run the following commands:

```
docker-compose -f /opt/application/netapp/ds/docker-compose.yml down -v
rm -rf /opt/application/netapp/ds
```

Default configuration for the Connector

If you need to troubleshoot the Connector, it might help to understand how it's configured.

Default configuration with internet access

- If you deployed the Connector from Cloud Manager (or directly from a cloud provider's marketplace), note the following:
  - In AWS, the user name for the EC2 Linux instance is ec2-user.
  - The operating system for the image is as follows:
    - AWS: Red Hat Enterprise Linux 7.6 (HVM)
    - Azure: CentOS 7.6

        - GCP: CentOS 7.9

          The operating system does not include a GUI. You must use a terminal to access the system.

- When deployed from Cloud Manager, the default system disk is as follows:
    - AWS: 50 GiB gp2 disk
    - Azure: 100 GiB premium SSD disk
    - Google Cloud: 100 GiB SSD persistent disk
- The Connector installation folder resides in the following location:

  /opt/application/netapp/cloudmanager

- Log files are contained in the following folders:
    - /opt/application/netapp/cloudmanager/log

      The logs in this folder provide details about the Connector and docker images.

    - /opt/application/netapp/cloudmanager/docker_occm/data/log

      The logs in this folder provide details about cloud services and the Cloud Manager service that runs on the Connector.

- The Cloud Manager service is named occm.
- The occm service is dependent on the MySQL service.

  If the MySQL service is down, then the occm service is down too.

- Cloud Manager installs the following packages on the Linux host, if they are not already installed:
    - 7Zip
    - AWSCLI
    - Docker
    - Java
    - Kubectl
    - MySQL
    - Tridentctl
    - Pull
    - Wget
- The Connector uses the following ports on the Linux host:
    - 80 for HTTP access
    - 443 for HTTPS access
    - 3306 for the Cloud Manager database
    - 8080 for the Cloud Manager API proxy
    - 8666 for the Service Manager API
    - 8777 for the Health-Checker Container Service API

Default configuration without internet access

The following configuration applies if you manually installed the Connector on an on-premises Linux host that doesn't have internet access. Learn more about this installation option.

- The Connector installation folder resides in the following location:

  /opt/application/netapp/ds

- Log files are contained in the following folders:

  /var/lib/docker/volumes/ds_occmdata/_data/log

  The logs in this folder provide details about the Connector and docker images.

- All services are running inside docker containers

  The services are dependent on the docker runtime service running

- The Connector uses the following ports on the Linux host:
  - 80 for HTTP access
  - 443 for HTTPS access