

Upgrading from Existing 4.0(x) Release

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Overview

The following sections describe how to upgrade Cisco Nexus Dashboard Orchestrator release 4.0(1) or later.

Prerequisites and Guidelines

Before you upgrade your Cisco Nexus Dashboard Orchestrator cluster:

- Ensure that you are running Nexus Dashboard Orchestrator release 4.0(1) or later.

Note If you are running a release prior to release 4.0(1), skip this section and follow the instructions described in Upgrading from 3.7(x) or Earlier Releases instead.

- Ensure that your current Nexus Dashboard cluster is healthy.

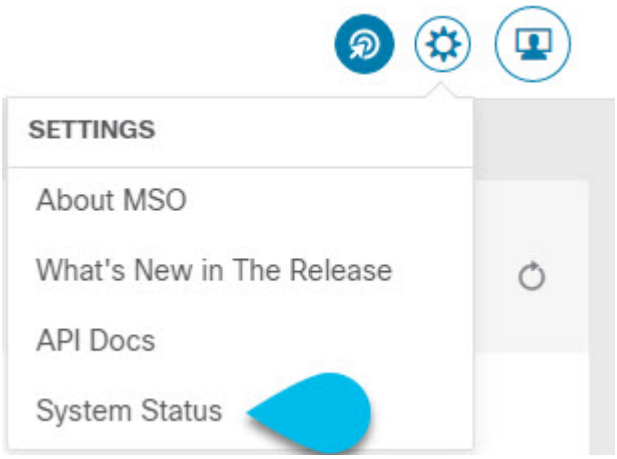
  You can check the Nexus Dashboard cluster health in one of two ways:

  - By logging into your Nexus Dashboard GUI and verifying system status in the **System Overview** page.
  - By logging into any one of the nodes directly as `rescue-user` and running the following command:

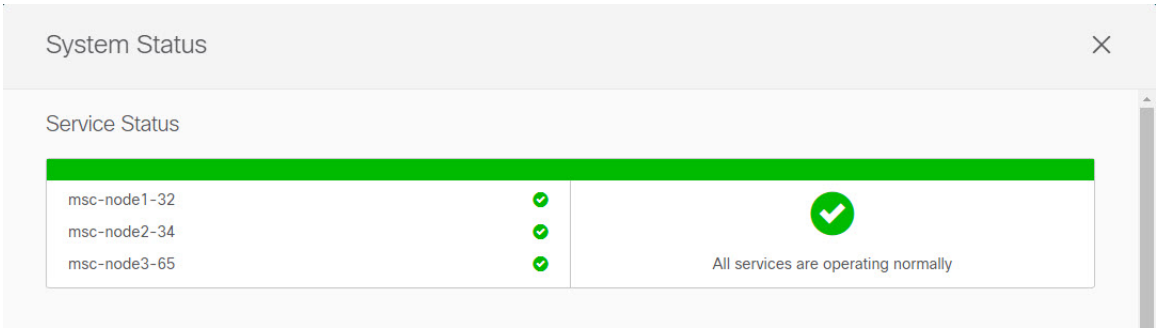
    ```
    # acs health
    All components are healthy
    ```

- Ensure that your current Cisco Nexus Dashboard Orchestrator is running properly.

  You can check the status of you Nexus Dashboard Orchestrator service by navigating to **Settings** > **System Status**:



Then ensure that the status of all nodes and services is healthy:



- Back up your existing Orchestrator configurations.

  Configuration backups are described in the "Backup and Restore" chapter of the *Nexus Dashboard Orchestrator Configuration Guide* for your release.

- Back up your existing fabrics' configurations.

  We recommend running configuration drift reconciliation after you upgrade your Nexus Dashboard Orchestrator, which may require you to redeploy configurations to your fabrics. As such, we recommend creating configuration backups of all fabrics managed by your Nexus Dashboard Orchestrator.

  For more information on creating Cisco APIC configuration backups, see the "Management" chapter of the *Cisco APIC Basic Configuration Guide* for your release.

  For more information on creating Cisco Cloud Network Controller configuration backups, see the "Configuring Cisco Cloud Network Controller Components" chapter of the *Cisco Cloud Network Controller for AWS User Guide* for your release.

  For more information on creating Cisco Nexus Dashboard Fabric Controller configuration backups, see the "Backup and Restore" chapter of the *Cisco NDFC Fabric Controller Configuration Guide* for your release.

- You can upgrade the NDO service in one of two ways:

  - Using the Nexus Dashboard's App Store, as described in Upgrading NDO Service Using Cisco App Store, on page 3.

In this case, the Cisco DC App Center must be reachable from the Nexus Dashboard via the Management Network directly or using a proxy configuration. Nexus Dashboard proxy configuration is described in the *Nexus Dashboard User Guide*.

Note The App Store allows you to upgrade to the latest available version of the service only. In other words, if release 4.0(2) is available, you cannot use the App Store to upgrade to any release prior to that. If you want to upgrade to a different release, you must use the manual upgrade process as described below.

- By manually uploading the new app image, as described in Upgrading NDO Service Manually, on page 5.

  You can use this approach if you are unable to establish the connection to the DC App Center or if you want to upgrade to a version of the application that is not the latest available release.

- If you plan to add and manage new Cloud Network Controller sites after you upgrade your Nexus Dashboard Orchestrator to this release, ensure that they are running Cloud Network Controller release 5.2(1) or later.

  On-boarding and managing Cloud Network Controller sites running earlier releases is not supported.

- Downgrading from this release is not supported.

  We recommend creating a full backup of the configuration before upgrading, so that if you ever want to downgrade, you can deploy a brand-new cluster using the earlier version and then restore your configuration in it.

Upgrading NDO Service Using Cisco App Store

This section describes how to upgrade Cisco Nexus Dashboard Orchestrator.

Before you begin

- Ensure that you have completed the prerequisites described in Prerequisites and Guidelines, on page 1.
- Ensure that Cisco DC App Center is reachable from the Nexus Dashboard via the Management Network directly or using a proxy configuration.

  Nexus Dashboard proxy configuration is described in the *Nexus Dashboard User Guide*

Procedure

Step 1 Log in to your Nexus Dashboard..

Step 2 From the left navigation menu, select **Service Catalog**.

Step 3 Upgrade the application using the App Store.

a) In the **Service Catalog** screen, select the **App Store** tab.

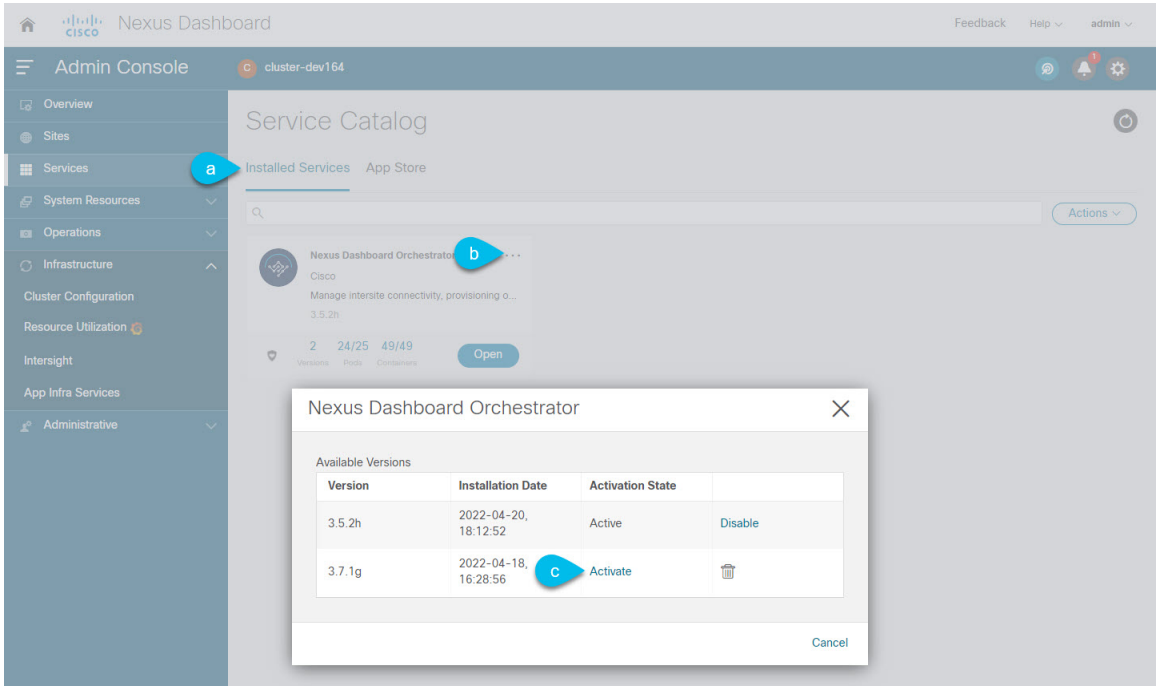
b) In the **Nexus Dashboard Orchestrator** tile, click **Upgrade**.

c) In the License Agreement window that opens, click **Agree and Download**.

Step 4 Wait for the new image to initialize.

It may take up to 20 minutes for the new application image to become available.

Step 5 Activate the new image.



a) In the **Service Catalog** screen, select the **Installed Services** tab.
b) In the top right of the Nexus Dashboard Orchestrator tile, click the menu (. . .) and choose **Available Versions**.
c) In the available versions window, click **Activate** next to the new image.

Note
Do not **Disable** the currently running image before activating the new image. The image activation process will recognize the currently running image and perform the upgrade workflows necessary for the currently running version.

It may take up to 20 additional minutes for all the application services to start and the GUI to become available. The page will automatically reload when the process is completed.

Step 6 (Optional) Delete the old application image.

You can choose to retain the old application version in case you ever want to downgrade. Or you can delete it as described in this step.

a) In the **Service Catalog** screen, select the **Installed Services** tab.
b) In the top right of the Nexus Dashboard Orchestrator tile, click the menu (. . .) and choose **Available Versions**.
c) In the available versions window, click the delete icon next to the image you want to delete.

Step 7 Launch the app.

To launch the app, simply click **Open** on the application tile in the Nexus Dashboard's **Service Catalog** page.

The single sign-on (SSO) feature allows you to log in to the application using the same credentials as you used for the Nexus Dashboard.

What to do next

After you have upgraded the NDO service, you must resolve any configuration drifts and redeploy the templates as described in Resolve Configuration Drifts, on page 7.

Upgrading NDO Service Manually

This section describes how to upgrade Cisco Nexus Dashboard Orchestrator.

Before you begin

- Ensure that you have completed the prerequisites described in Prerequisites and Guidelines, on page 1.

Procedure

Step 1 Download the target release image.

a) Browse to the Nexus Dashboard Orchestrator page on DC App Center:
https://dcappcenter.cisco.com/nexus-dashboard-orchestrator.html

b) From the **Version** dropdown, choose the version you want to install and click **Download**.

c) Click **Agree and download** to accept the license agreement and download the image.

Step 2 Log in to your Nexus Dashboard.

Step 3 Upload the image to your Nexus Dashboard.

a) From the left navigation menu, select **Service Catalog**.

b) In the Nexus Dashboard's **Service Catalog** screen, select the **Installed Services** tab.

c) From the **Actions** menu in the top right of main pane, select **Upload App**.

d) In the **Upload App** window, choose the location of the image

If you downloaded the application image to your system, choose **Local**.

If you are hosting the image on a server, choose **Remote**.

e) Choose the file.

If you chose **Local** in the previous substep, click **Select File** and select the app image you downloaded.

If you chose **Remote**, provide the full URL to the image file, for example
`http://<ip-address>:<port>/<full-path>/cisco-mso-<version>.nap`.

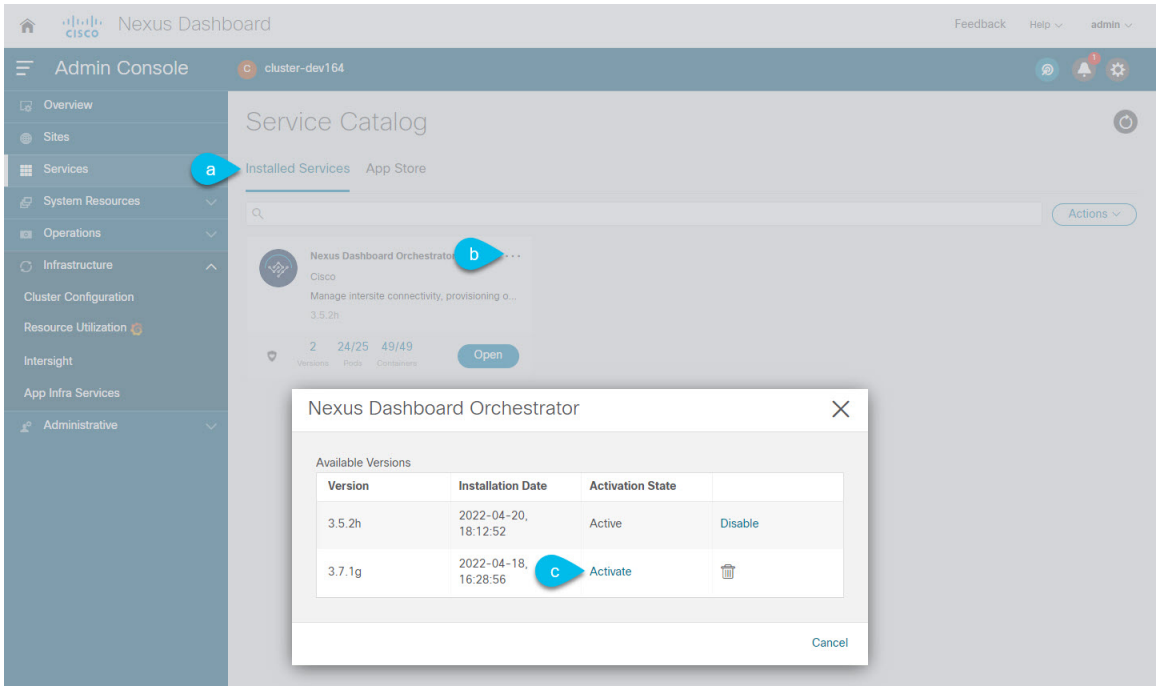
f) Click **Upload** to add the app to the cluster.

A new tile will appear with the upload progress bar. Once the image upload is completed, the Nexus Dashboard will recognize the new image as an existing application and add it as a new version.

Step 4 Wait for the new image to initialize.

It may take up to 20 minutes for the new application image to become available.

Step 5 Activate the new image.



a) In the **Service Catalog** screen, select the **Installed Services** tab.
b) In the top right of the Nexus Dashboard Orchestrator tile, click the menu (. . .) and choose **Available Versions**.
c) In the available versions window, click **Activate** next to the new image.

Note
Do not **Disable** the currently running image before activating the new image. The image activation process will recognize the currently running image and perform the upgrade workflows necessary for the currently running version.

It may take up to 20 additional minutes for all the application services to start and the GUI to become available. The page will automatically reload when the process is completed.

Step 6 (Optional) Delete the old application image.

You can choose to retain the old application version in case you ever want to downgrade. Or you can delete it as described in this step.

a) In the **Service Catalog** screen, select the **Installed Services** tab.
b) In the top right of the Nexus Dashboard Orchestrator tile, click the menu (. . .) and choose **Available Versions**.
c) In the available versions window, click the delete icon next to the image you want to delete.

Step 7 Launch the app.

To launch the app, simply click **Open** on the application tile in the Nexus Dashboard's **Service Catalog** page.

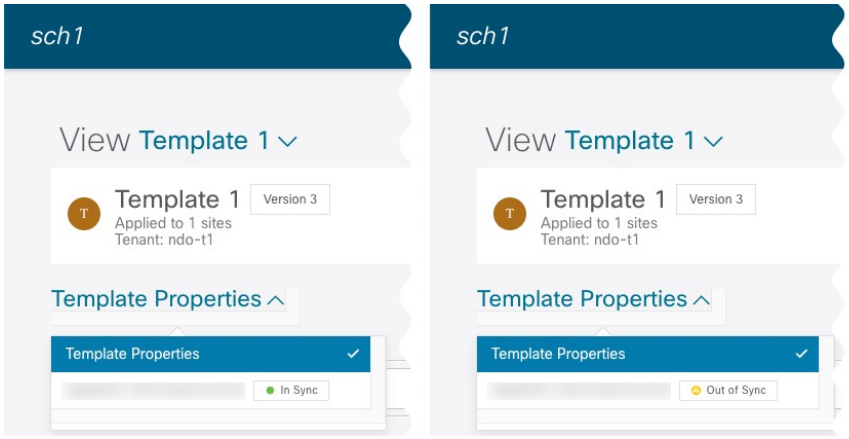
The single sign-on (SSO) feature allows you to log in to the application using the same credentials as you used for the Nexus Dashboard.

What to do next

After you have upgraded the NDO service, you must resolve any configuration drifts and redeploy the templates as described in Resolve Configuration Drifts, on page 7.

Resolve Configuration Drifts

In some cases you may run into a situation where the configuration actually deployed in the site's controller is different from the configuration defined in the Nexus Dashboard Orchestrator. These configuration discrepancies are referred to as **Configuration Drifts** and are indicated by an `Out of Sync` warning next to the site name in the template view page as shown in the following figure:



After upgrading your Nexus Dashboard Orchestrator and restoring the previous configuration backup, we recommend that you check for and resolve any configuration drifts as described in this section.

Note Deploying any templates before resolving configuration drifts would push the configuration defined in the Orchestrator and overwrite the values defined in the fabrics' controllers.

Procedure

Step 1 In your Nexus Dashboard Orchestrator, navigate to **Application Management** > **Schemas**.

Step 2 Select the first schema and check its templates for configuration drifts.

You will repeat the following steps for every schema and template in your deployment

You can check for configuration drifts in one of the following two ways:

- Check the template deployment status icon for each site to which the template is assigned.
- Select the template and click **Deploy to sites** to bring up the configuration comparison screen to check which objects contain configuration drifts.

Step 3 If the template contains a configuration drift, resolve the conflicts.

For more information about configuration drifts, check the "Configuration Drifts" chapter in the *Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics*.

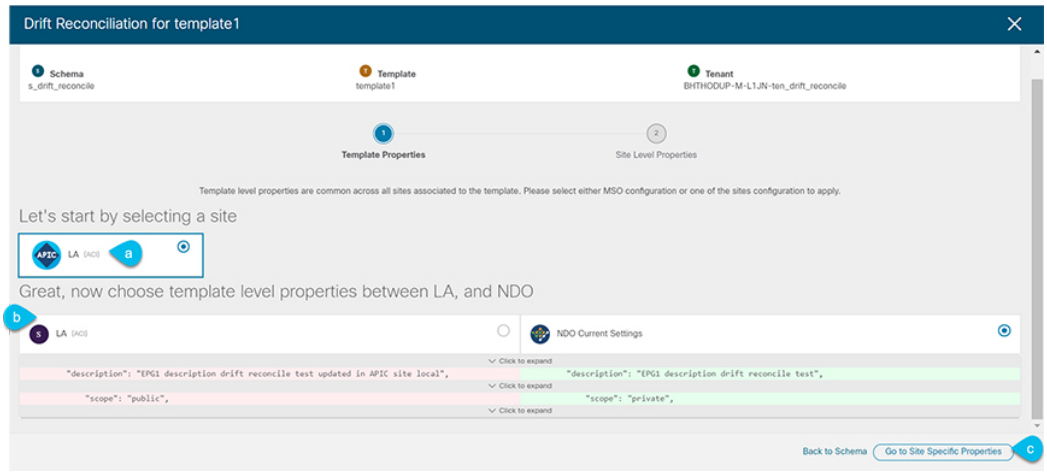
a) Close the template deployment dialog to return to the Schema view.

Deploying any templates at this point would push the values in the Orchestrator database and overwrite any existing settings in the fabrics.

b) From the template's **Actions** menu, select **Reconcile Drift**.

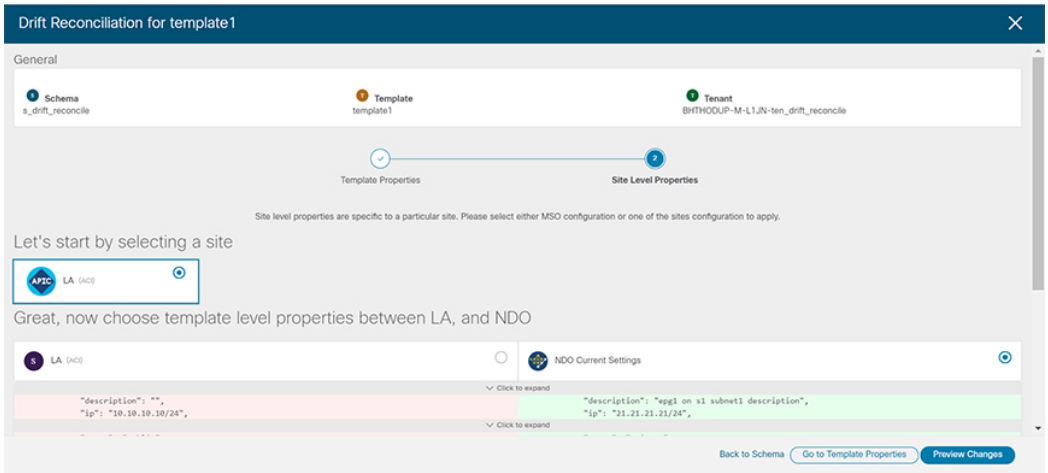
The **Drift Reconciliation** wizard opens.

c) In the **Drift Reconciliation** screen, compare the template-level configurations for each site and choose the one you want.



Template-level properties are common across all sites associated to the template. You can compare the template level properties defined on Nexus Dashboard Orchestrator with the configuration rendered in each site and decide what should become the new configuration in the Nexus Dashboard Orchestrator template. Selecting the site configuration will modify those properties in the existing Nexus Dashboard Orchestrator template, whereas selecting the Nexus Dashboard Orchestrator configuration will keep the existing Nexus Dashboard Orchestrator template settings as is

d) Click **Go to Site Specific Properties** to switch to site-level configuration.



You can choose a site to compare that specific site's configuration. Unlike template-level configurations, you can choose either the Nexus Dashboard Orchestrator-defined or actual existing configurations for each site individually to be retained as the template's site-local properties for that site.

Even though in most scenarios you will make the same choice for both template-level and site-level configuration, the drift reconciliation wizard allows you to choose the configuration defined in the site's controller at the "Template Properties" level and the configuration defined in Nexus Dashboard Orchestrator at the "Site Local Properties" level or vice versa.

e) Click **Preview Changes** to verify your choices.

The preview will display full template configuration adjusted based on the choices picked in the **Drift Reconciliation** wizard. You can then click **Deploy to sites** to deploy the configuration and reconcile the drift for that template.

Step 4 Repeat the above steps for every schema and template in your Nexus Dashboard Orchestrator.

Step 5 Check audit logs to verify that all templates have been re-deployed.

You can view the audit logs in the **Operations** tab.

Audit Logs page and confirm that all templates show as `Redeployed` to ensure that full re-deployment successfully completed.