

Upgrading Nexus Dashboard

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Prerequisites and Guidelines

Before you upgrade your existing Nexus Dashboard cluster:

- Ensure that you have read the target release's *Release Notes* for any changes in behavior, guidelines, and issues that may affect your upgrade.

  The upgrade process is the same for all Nexus Dashboard form factors. However, if your existing cluster is deployed using physical servers, VMware ESX, Linux KVM, Azure, or AWS, you will use the target release's ISO image (`nd-dk9.<version>.iso`) to upgrade; if your existing cluster is deployed in Red Hat Enterprise Linux, you will use the RHEL-specific image (`nd-rhel-<version>.tar`).

- Ensure that you have read the *Release Notes* and upgrade guides for any services you run in the existing cluster and plan to run on the target release for service-specific changes in behavior, guidelines, and issues that may affect your upgrade.

  You can find the service-specific documents at the following links:

  - Nexus Dashboard Fabric Controller Release Notes
  - Nexus Dashboard Fabric Controller Upgrade Guide
  - Nexus Dashboard Insights Release Notes
  - Nexus Dashboard Insights Upgrade Guide
  - Nexus Dashboard Orchestrator Release Notes
  - Nexus Dashboard Orchestrator Upgrade Guide

- If you are upgrading a physical Nexus Dashboard cluster, ensure that the nodes have the supported CIMC version for the target Nexus Dashboard release.

  Supported CIMC versions are listed in the *Nexus Dashboard Release Notes* for the target release.

  CIMC upgrade is described in detail in the "Troubleshooting" sections of the *Nexus Dashboard User Guide*.

- You must perform configuration backups of your Nexus Dashboard and services before the upgrade to safeguard data and minimize any potential risk before proceeding with the upgrade.
- You must be running Nexus Dashboard release 2.1(2) or later to upgrade directly to release 2.3(x).

  If you are running a version prior to the minimum required release, we recommend that you upgrade to release 2.2(2) as described in *Cisco Nexus Dashboard Deployment Guide, Release 2.2(x)* before upgrading to a 2.3(x) release.



Note Additional upgrade path and minimum version requirements may depend on the specific services you have installed in your cluster. Check the service-specific *Release Notes* and *Upgrade Guides* linked above for more information.

- You must disable all services running in the cluster before upgrading to a 2.3(x) release.
  - If you are upgrading Nexus Dashboard from one patch to another patch within the same release (for example, from 2.3.2b to 2.3.2d), simply re-enable the services after Nexus Dashboard upgrade is completed.
  - If you are upgrading Nexus Dashboard from one release to another release (for example, 2.3.1 to 2.3.2), your existing services may not be compatible with your target Nexus Dashboard release, in which case you must also upgrade the services after the platform upgrade is completed.

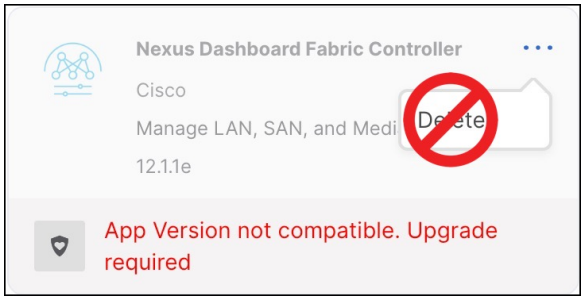
    For a complete list of Nexus Dashboard and services interoperability support, see the Nexus Dashboard and Services Compatibility Matrix or the service-specific upgrade guides listed earlier in this section.

Note

- For Nexus Dashboard Fabric Controller, you must keep the service disabled after the cluster is upgraded until you upgrade the service as well.

  After the Nexus Dashboard cluster is upgraded, you may see that the existing version of the service is listed with the `App Version not compatible. Upgrade required.` warning.

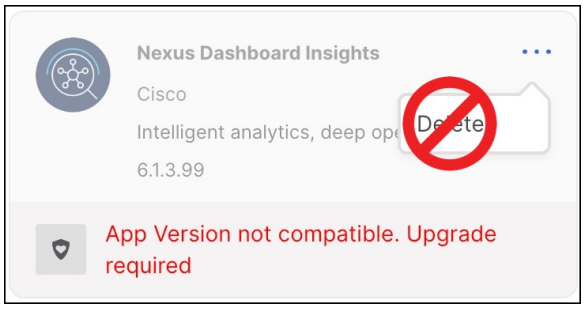
  You **must not delete or re-enable** this version before uploading the Fabric Controller upgrade image. After you upload the new version, you must enable it and complete the service upgrade before you can delete the older release. Deleting the older service version before the new release is activated may cause the upgrade to fail.



- For Nexus Dashboard Insights, you must keep the service disabled after the cluster is upgraded until you upgrade the service as well.

  After the Nexus Dashboard cluster is upgraded, you may see that the existing version of the service is listed with the `App Version not compatible. Upgrade required.` warning.

  You **must not delete or re-enable** this version before uploading the Insights upgrade image. After you upload the new version, you must enable it and complete the service upgrade before you can delete the older release. Deleting the older service version before the new release is activated may cause the upgrade to fail.



- For Nexus Dashboard Orchestrator, you must re-enable the existing version of the service before uploading and activating the new version.

- You must have valid DNS and NTP servers configured and reachable by all cluster nodes.
- Ensure that your current Nexus Dashboard cluster is healthy.

You can check the system status on the **Overview** page of the Nexus Dashboard's **Admin Console** or by logging in to one of the nodes as `rescue-user` and ensuring that the `acs health` command returns `All components are healthy`.

- Ensure that no configuration changes are made to the cluster, such as adding worker or standby nodes, while the upgrade is in progress.
- Nexus Dashboard does not support platform downgrades.

  If you want to downgrade to an earlier release, you will need to deploy a new cluster and reinstall the services.

Upgrading Nexus Dashboard

This section describes how to upgrade an existing Nexus Dashboard cluster.

Before you begin

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

Procedure

Step 1 Download the Nexus Dashboard image.

a) Browse to the Software Download page.

https://software.cisco.com/download/home/286327743/type/286328258

b) Choose the Nexus Dashboard version you want to download.

c) Download the Cisco Nexus Dashboard image for your target release.

Note

- If your Nexus Dashboard is deployed in Red Hat Enterprise Linux, you must download the `.tar` image (`nd-rhel-<version>.tar`) to perform the upgrade.

  More information about RHEL deployments is available in Deploying in Existing Red Hat Enterprise Linux Installation.

- For all other form factors, you must download the `.iso` image (`nd-dk9.<version>.iso`) to perform the upgrade.

  For example, even if you used the virtual form factors, such as the `.ova` image for deploying in VMware ESX, or a cloud provider's marketplace for initial cluster deployment, you must still use the `.iso` image for upgrades.

d) (Optional) Host the image on a web server in your environment.

When you upload the image to your Nexus Dashboard cluster, you will have an option to provide a direct URL to the image.

Step 2 Log in to your current Nexus Dashboard GUI as an `Administrator` user and navigate to the **Admin Console**.

Step 3 Disable any existing services installed in the cluster.

Note

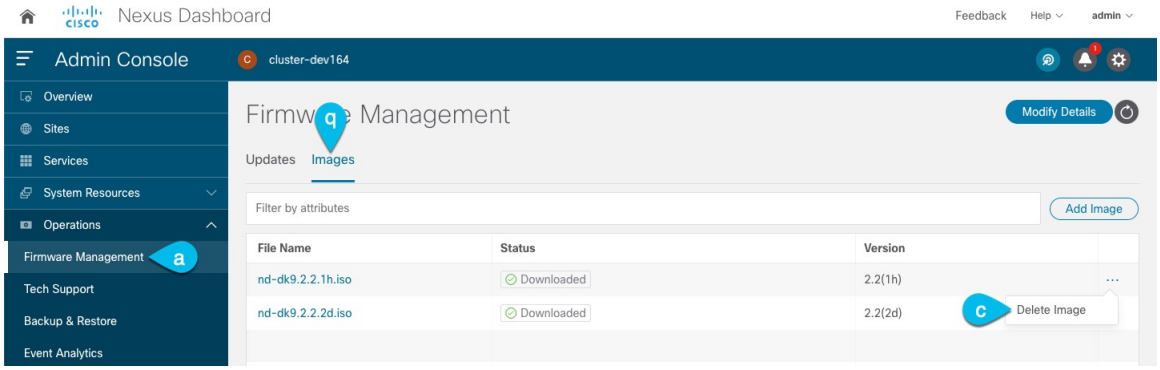
You must disable all services before you upgrade the cluster.

a) From the main navigation menu, select **Services**.
b) In the service's tile, click the **Actions** (**…**) menu and choose **Disable**.
c) Repeat this step for all other services deployed in the cluster.

Step 4 Delete any existing upgrade images from your cluster.

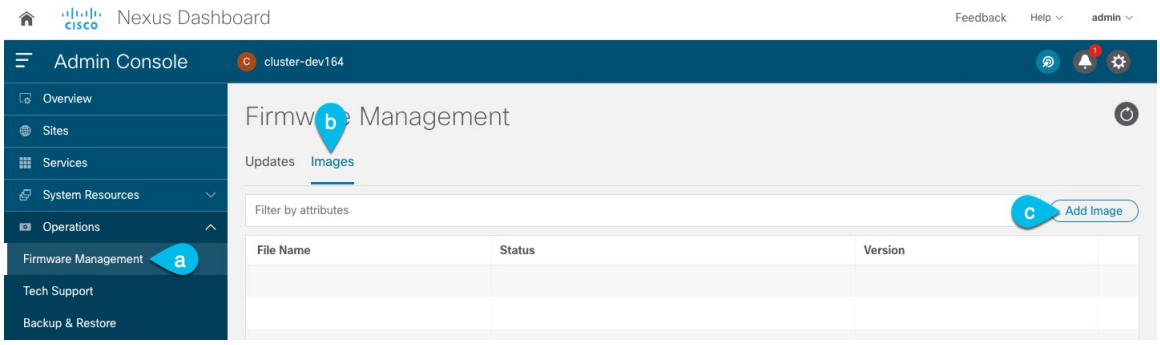
If this is the first time you're upgrading your cluster, you can skip this step.

If you had previously upgraded your cluster to your current version, you must delete the upgrade image used in the previous upgrades.



a) Navigate to **Operations** > **Firmware Management**.
b) Select the **Images** tab.
c) From the actions menu (**…**) next to an existing upgrade image, choose **Delete Image**.
d) Repeat this step for all existing upgrade images.

Step 5 Upload the new image to the cluster.



a) Navigate to **Operations** > **Firmware Management**.
b) Select the **Images** tab.
c) Click **Add Image**.

Step 6 Select the new image.

a) In the **Add Firmware Image** window, select **Local**.

   Alternatively, if you hosted the image on a web server, choose **Remote** instead.

b) Click **Select file** and select the `.iso` or `.tar` image you downloaded in the first step.

   For RHEL deployments, use the `.tar` file to upgrade. For all other deployment factors, use the `.iso` file.

If you chose to upload a remote image, provide the file path for the image on the remote server.

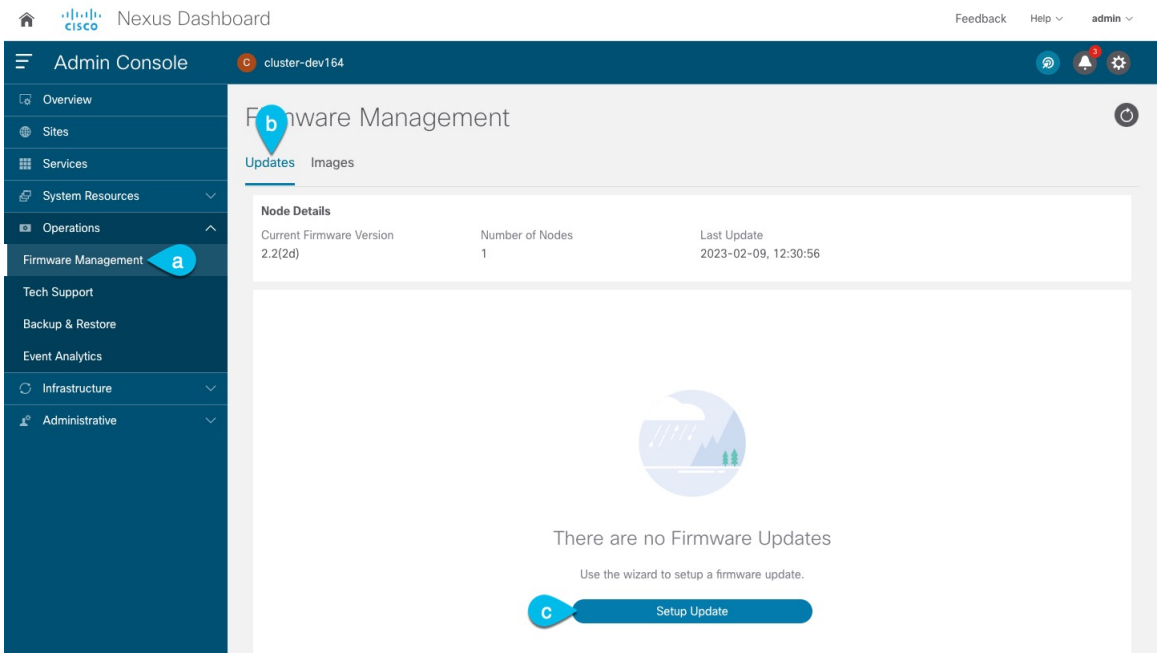
c) Click **Upload** to add the image.

The image will be uploaded to the Nexus Dashboard cluster, unpacked, processed, and made available for the upgrade. The whole process may take several minutes and you will be able to see the status of the process in the **Images** tab.

Step 7 Wait for the image status to change to `Downloaded`.

You can check the status of the image download progress in the **Images**.

Step 8 Set up the update.



a) Navigate to **Operations** > **Firmware Management**.
b) Select the **Updates** tab.
c) Click **Set Up Update**.

Note
If you had upgraded your cluster before, the page shows the previous upgrade's details instead. In that case, click the **Modify Details** button in the top right of the page to provide new upgrade information.

The **Firmware Update** screen opens.

Step 9 Start the upgrade.

a) In the **Firmware Update** > **Version selection** screen, select the firmware version you uploaded and click **Next**.
b) In the **Firmware Update** > **Confirmation** screen, verify the details and click **Validate**.

The setup goes through a number of preparation and validation stages to ensure successful upgrade. This may take several minutes to complete.

c) After the validation is complete, click **Install**.

The installation progress window is displayed. You can navigate away from this screen while the update is in progress. To check on the update status at a later time, navigate to the **Firmware Management** screen and click **View Details** in the **Last Update Status** tile.

This will set up the required Kubernetes images and services but will not switch the cluster to the new version. The cluster will continue to run the existing version until you activate the new image in the next step. This step may take up to 20 minutes.

Step 10 Activate the new image.

If you never navigated away from the upgrade screen, simply click **Activate** to activate the new image.

Otherwise:

a) Navigate back to the **Operations** > **Firmware Management** screen
b) In the **Last Update Status** tile, click **Continue**.

In some of the earlier Nexus Dashboard versions, this link may be called **View Details** instead.

c) In the **Firmware Update** > **Install** screen, click **Activate**.

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

Step 11 Upgrade the individual services deployed in the cluster.

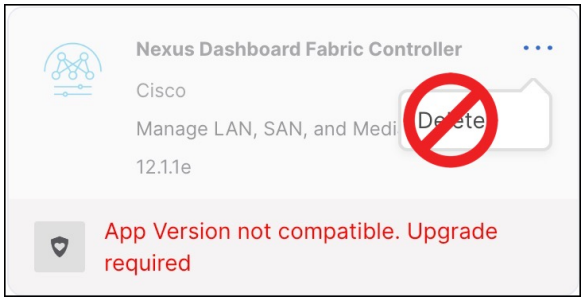
Ensure that you have read the upgrade guide specific to the service that you are upgrading:

- Nexus Dashboard Fabric Controller Upgrade Guide
- Nexus Dashboard Insights Upgrade Guide
- Nexus Dashboard Orchestrator Upgrade Guide

Note
When upgrading the services:

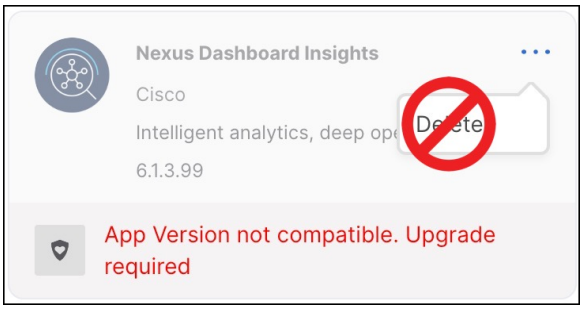
- For Nexus Dashboard Fabric Controller, you must keep the service disabled after the cluster is upgraded until you upgrade the service as well.

  After the Nexus Dashboard cluster is upgraded, you may see that the existing version of the service is listed with the `App Version not compatible. Upgrade required.` warning. You **must not delete or re-enable** this version before uploading the Fabric Controller upgrade image.



- For Nexus Dashboard Insights, you must keep the service disabled after the cluster is upgraded until you upgrade the service as well.

After the Nexus Dashboard cluster is upgraded, you may see that the existing version of the service is listed with the `App Version not compatible. Upgrade required.` warning. You **must not delete or re-enable** this version before uploading the Insights upgrade image.



- For Nexus Dashboard Orchestrator, you must re-enable the existing version of the service before uploading and activating the new version.

Step 12 (Optional) Migrate to the new UCS-C225-M6 hardware.

Note
If you do not plan to replace your Nexus Dashboard nodes with the new UCS-C225-M6 servers, you can skip this step.

If you do plan to migrate to the new hardware, you must first upgrade your existing cluster to release 2.3(1) or later as described in the previous steps.

To migrate your existing Nexus Dashboard cluster deployed using UCS-C220-M5 hardware, you can simply add a new UCS-C225-M6 node as a `stadby` node to the existing cluster and fail over one of the older nodes.

Then repeat the process one node at a time for the remaining nodes of the older cluster. Adding and using `stadby` nodes is described in detail in the "Infrastructure Management" chapter of the *Nexus Dashboard User Guide*.