Managing Your System Software, Release 4.1.1

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New and Changed Information

The following table provides an overview of the significant changes up to this current release. The table does not provide an exhaustive list of all changes or of the new features up to this release.

Release Version	Feature	Description
Nexus Dashboard 4.1.1	Improved navigation and workflow for system software	Beginning with Nexus Dashboard 4.1.1, the navigation and workflow for working with system software in Nexus Dashboard has been enhanced.

Managing your system software

For the latest upgrade process information, see the online version of the *Cisco Nexus Dashboard Deployment and Upgrade Guide*.

This section describes how to manage different firmware versions and perform cluster upgrades.

The upgrade process involves uploading a new image and then deploying it. As such, the same workflow can be used for cluster firmware downgrades as well.

The following sections provide reference information for firmware upgrades. For the latest upgrade process information, see the online version of the *Cisco Nexus Dashboard Deployment and Upgrade Guide*.

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).

- If you are upgrading a physical Nexus Dashboard cluster, ensure that the nodes have a 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 Upgrading CIMC.

- 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 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 secondary 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.

Adding images

Before you can upgrade your Nexus Dashboard cluster, you need to make the upgrade image available by adding it using the GUI.

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 (nd-dk9.<version>.iso).

      

      You must download the .iso image for all upgrades, even if you used the VMware ESX .ova, Linux KVM .qcow2, or a cloud provider's marketplace for initial cluster deployment.

   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.

2. Add the image.
   a. From the main navigation menu, select **Admin > System Software**.
   b. In the **System Software** page, review the information provided in the **Nexus Dashboard Releases** area.
      - The leftmost tile shows the software image that is currently installed and running on your Nexus Dashboard.
      - The rightmost tile shows the software image that is currently uploaded onto your Nexus Dashboard.

        In either tile, click **What's new** to see the new features available with that particular release, or click **Release notes** to see the Release Notes for that particular release.

   c. In the upper right corner of the **Nexus Dashboard Releases** area, click **Add Image**.
3. In the **Add Software Image** window that opens, choose whether your image is stored on a local system or a remote server.
   - If you are adding an image from a local system, click **Local**, then select the image file from your local system by clicking **Choose File** and navigating to the image file on your local system.

     

     If uploading from a local machine, slow upload speeds may cause the session to timeout which can interrupt the transfer. We recommend at least 40Mbps upload speed and increasing the session timeout to 1800 seconds (from the default 1200).
     You can change the session timeout in the **Admin > Security** page in your Nexus Dashboard GUI. If you are logged out of your Nexus Dashboard session, it may take a minute before you can re-login to the UI.

- If you are adding an image from a remote location, choose how you will add the image:
  - If you choose **HTTP**, enter the full URL to the image in the **URL** field.
  - If you choose **SFTP/SCP**:
    a. In the **Remote Storage** field, choose an already-configured remote storage location from the list, if available, or click **Create Remote Storage Location**.

    If you click **Create Remote Storage Location**, follow the procedures provided in the section "Configuring Remote Storage Locations" in *Backing Up and Restoring Your Nexus Dashboard*, then return here.

    b. In the **Remote Path Filename** field, enter the remote path for the image.

4. Click **Add** to add the image.

   The rightmost tile will show the image upload progress. Wait for it to finish before proceeding to the next section.

Upgrading the cluster

Before you Begin

You must have the upgrade image already added to the Nexus Dashboard cluster as described in Adding images.

To upgrade your cluster:

1. From the main navigation menu, select **Admin > System Software**.
2. In the rightmost tile in the **Nexus Dashboard Releases** area, click **Upgrade**.

a. Click **Set up Update** or **Modify Details**.

If this is the first time you are upgrading your cluster, simply click the **Setup Update** button in the middle of the page.

If you have previously upgraded the cluster, the last upgrade's details will be displayed in this page instead of the **Setup Update** button. In this case, click the **Modify Details** button at the top right of the screen.

1. In the **Setup/Version Selection** screen, select the target version and click **Next** to proceed.

   If you uploaded multiple images to your Nexus Dashboard, they will be listed here.

2. Review the validation report and click **Install** to proceed with the upgrade.

   Before the upgrade is triggered, the system will perform a number of validation checks and show the report.

3. In the **Setup/Confirmation** screen, review the details of the update and click **Begin Install** to proceed.

   The screen will proceed to the **Install** tab and you will be able to see the progress of each node.

The process can take up to 2 hours and you can navigate away from this screen in the meantime.

4. Wait for the image installation to complete.

   You can check the installation status by navigating back to **Operations > Firmware Management** screen and clicking **View Details** link in the **Last Status** tile.

5. Click **Install**.

   If you navigated away from the installation screen, navigate back to **Operations > Firmware Management** screen and click **View Details** link in the **Last Status** tile.

   It may take up to 20 additional minute for all the cluster services to start and the GUI may become unavailable during this process. The page will automatically reload when the process is completed. You can track the activation process in the **Activate** screen as shown below.

6. After the process is complete, check if services are active and verify health of the cluster. For more information on troubleshooting nodes, see Cisco Nexus Dashboard Troubleshooting.

After upgrading to Nexus Dashboard 4.1.1 or later, ensure the cluster's management IP addresses are added to the management routes **Admin > System Settings > General > Routes**. Failure to do so may cause significant delays when accessing API endpoints. Verifying and updating the management routes configuration with the cluster's management IP addresses as a post-upgrade step ensures proper API functionality.

Deleting Images

After an upgrade is completed, Nexus Dashboard will automatically remove the upgrade image that you uploaded for the upgrade. However, if you upload an upgrade image and then choose not to upgrade, you can delete the uploaded images using the following steps:

1. From the main navigation menu, select **Admin > System Software**.
2. In the **Nexus Dashboard Releases** tile, click the trash icon next to the specific release image that you want to delete.
3. In the **Confirm Delete** prompt, click **OK** to confirm.

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