Software Upgrade Workflow

Table 1: Feature History

Feature Name	Release Information	Description
Software Upgrade Workflow	Cisco IOS XE Catalyst SD-WAN Release 17.8.1a Cisco vManage Release 20.8.1 Cisco SD-WAN Release 20.8.1	This feature introduces a guided workflow through which you can upgrade the software image on your Cisco IOS XE Catalyst SD-WAN devices and Cisco vEdge devices and monitor the status of the software upgrade. With this workflow, you can choose to download, install, and activate the new software image in discrete steps or in a single step.
Schedule the Software Upgrade Workflow	Cisco IOS XE Catalyst SD-WAN Release 17.9.1a Cisco vManage Release 20.9.1 Cisco SD-WAN Release 20.9.1	This feature introduces an option to schedule software upgrades for edge devices using Cisco SD-WAN Manager.
Software Upgrade Workflow Support for Additional Platforms	Cisco vManage Release 20.9.1	Added support for Cisco Enterprise NFV Infrastructure Software (NFVIS) and Cisco Catalyst Cellular Gateways.
Software Upgrade Scheduling Support for Additional Platforms	Cisco vManage Release 20.10.1	Added support for software upgrade scheduling for Cisco Catalyst Cellular Gateways.

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Information About Software Upgrade Workflow

Using this workflow, you can download and upgrade software images on the various supported Cisco devices with an option to schedule the upgrade process at your convenience. The workflow also shows the status of the software upgrade. This workflow provides you with two options to perform the software upgrade and they are: **Download and Upgrade** and **Dowload Only**.

Benefits of Software Upgrade Workflow

- The software upgrade workflow helps you prevent various device software upgrade failures by displaying device upgrade status. For example, if the upgrade process fails at any particular stage, the workflow flags it as **failed**.
- With this workflow, you can choose to download, install, and activate the new software image in discrete steps or in a single step. You can schedule the workflow at your convenience as well.

Supported Devices for the Software Upgrade Workflow

Devices	Minimum Supported Releases	Comments
Cisco IOS XE Catalyst SD-WAN devices	Cisco SD-WAN Manager: Cisco vManage Release 20.8.1 Devices: Cisco IOS XE Catalyst SD-WAN Release 17.8.1a	Scheduled software upgrade supported from: Cisco IOS XE Catalyst SD-WAN Release 17.9.1a
Cisco vEdge devices	Cisco SD-WAN Manager: Cisco vManage Release 20.8.1 Devices: Cisco SD-WAN Release 20.8.1	Scheduled Software Upgrade feature supported from: Cisco SD-WAN Release 20.9.1
Cisco Catalyst 8200 uCPE Series Edge Platforms	Cisco SD-WAN Manager: Cisco vManage Release 20.9.1 Devices: Cisco IOS XE Catalyst SD-WAN Release 17.9.1a	None
Cisco 5400 Series Enterprise Network Compute System (ENCS)	Cisco SD-WAN Manager: Cisco vManage Release 20.9.1 Devices: Cisco IOS XE Catalyst SD-WAN Release 17.9.1a	None
Cisco Catalyst Cellular Gateways	Cisco SD-WAN Manager: Cisco vManage Release 20.9.1 Devices: Cisco IOS CG Release 17.9.1	Scheduled software upgrade supported from: Cisco vManage Release 20.10.1 and Cisco IOS CG Release 17.9.1

Prerequisites for Using the Software Upgrade Workflow

Ensure that the Cisco devices are running the required software versions for using the software upgrade workflow feature. For the respective device requirements, see Supported Devices for the Software Upgrade Workflow, on page 2.

Access the Software Upgrade Workflow

Before You Begin

To check if there is an in-progress software upgrade workflow:

From the Cisco SD-WAN Manager toolbar, click the **Task-list** icon. Cisco SD-WAN Manager displays a list of all running tasks along with the total number of successes and failures.

Access the Software Upgrade Workflow

1. In the Cisco SD-WAN Manager menu, click **Workflows** > **Workflow Library**.

Note In the Cisco vManage Release 20.8.1, the **Workflow Library** is titled **Launch Workflows**.

2. Start a new software upgrade workflow: **Library** > **Software Upgrade**.

   OR

   Alternatively, resume an in-progress software upgrade workflow: **In-progress** > **Software Upgrade**.

3. Follow the on-screen instructions to start a new software upgrade workflow.

Note Click **Exit** to exit from an in-progress software upgrade workflow. You can resume the in-progress workflow at your convenience.

Note In a multi-node cluster setup, if the control connection switches to a different node during a device upgrade from Cisco SD-WAN Manager, the upgrade may be impacted due to NetConf session timeout. The device then establishes control connection to a different node. You need to re-trigger the upgrade activity.

Verify the Status of the Software Upgrade Workflow

To check the software upgrade workflow status:

1. From the Cisco SD-WAN Manager toolbar, click the **Task-list** icon.

   Cisco SD-WAN Manager displays a list of all running tasks along with the total number of successes and failures.

2. Click the + icon to view the details of a task.

   Cisco SD-WAN Manager opens a pane displaying the status of the task and details of the device on which the task was performed.

Schedule Software Upgrade Workflow

Introduced in Cisco vManage Release 20.9.1, the scheduler in the software upgrade workflow enables you to schedule workflows at your convenience and avoid any downtime due to the software upgrade process. A scheduler enables you to schedule the upgrade workflow either **Now** or **Later**. If you choose to schedule an upgrade for a later time, you can enter the **Start Date**, **Start time**, and **Select Timezone**.

Schedule Software Upgrade Workflow

Use the following steps to schedule a software upgrade workflow:

1. In the Cisco SD-WAN Manager menu, click **Workflows** > **Workflow Library**

   OR

   Starting from Cisco vManage Release 20.9.1, click **Workflows** > **Popular Workflows** > **Software Upgrade.**.

2. Start a new software upgrade workflow: **Workflow Library** > **Software Upgrade**.

   OR

   Alternatively, resume an in-progress software upgrade workflow: **In-progress** > **Software Upgrade**.

3. In the **Scheduler** section, choose **Later**.

Note Use the **Now** option to perform the software upgrade for the selected devices immediately.

4. Choose the **Start Date**, **Start Time**, and **Select Timezone**.

Note Start date and time should always be greater than the Cisco SD-WAN Manager server date and time.

5. Click **Next**.
6. The software upgrade workflow is scheduled.

Cancel the Scheduled Software Upgrade Workflow

To cancel a scheduled software upgrade workflow,

1. From the Cisco SD-WAN Manager menu, click **Maintenance** > **Software Upgrade**.
2. Choose the device that is scheduled for a software upgrade from the list of devices.

3. Click **Cancel Software Upgrade**.

Delete a Downloaded Software Image

To delete downloaded software images from Cisco IOS XE Catalyst SD-WAN devices and Cisco vEdge devices:

1. From the Cisco Catalyst SD-WAN Manager menu, choose **Maintenance** > **Software Upgrade**.
2. Click **WAN Edge**.
3. Click **Delete Downloaded Images**
4. In the **Delete Downloaded Images** dialogue box, choose the appropriate image or images to delete.
5. Click **Delete**.