

Upgrade UCS Manager

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Background Information](#)

[Upgrade UCS Manager](#)

[Verification](#)

Introduction

This document describes how to upgrade Cisco UCS Manager.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Basic understanding of Cisco UCS.

Components Used

The information in this document is based on these software and hardware versions:

- Software version 4.2(2e)
- Software version 4.3(3a)
- Fabric Interconnects 6454 (UCS-FI-6454)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

The example in this guide demonstrates a pair of Cisco Fabric Interconnects **6454** and performs an upgrade from version **4.2(2e)** to **4.3(3a)** using the Cisco UCS infrastructure software A bundle.

This bundle includes firmware images that are required to update these components:

- Cisco UCS Manager software
- Kernel and system firmware for the fabric interconnects
- I/O module firmware

Read the Cisco official documentation for your specific model and firmware version of fabric interconnects before proceeding with this exercise.

Upgrade UCS Manager

Validate the upgrade path for your current software version on the [Cisco UCS Manager Upgrade/Downgrade Support Matrix](#) website.



Cisco UCS Manager Upgrade/Downgrade Support Matrix

This page provides Cisco UCS Manager software upgrade and downgrade information based on your current release. The provided upgrade paths have been tested and validated by Cisco. Use this tool as a reference for supported software.

To get a complete overview of all the possible upgrade paths in Cisco UCS Manager, see the Cisco UCS Manager Upgrade and Downgrade [matrix](#).

For Release Notes and other documentation, see the Cisco UCS Manager documents [landing page](#).

To download Cisco UCS Manager Software bundles, see the Software Download [landing page](#).

To provide feedback on this tool, send your comments to ucs-docfeedback@external.cisco.com.

| | |
|---------|--------------------------------------|
| Upgrade | Choose upgrade or downgrade info |
| 4.2(2) | Current release of Cisco UCS Manager |
| 4.3(3) | Target release of Cisco UCS Manager |

Current release: 4.2(2)

Target release: 4.3(3) [[↗](#)]

Recommended path: Direct path from Current Release. [[Show All](#)]

Procedure:

- Upgrade the Infrastructure A bundle.
- After the Infrastructure A bundle is upgraded successfully, upgrade the B and C bundles for all servers.

Recommended software for target release:

- Cisco IMC version: 4.3(3)-All M7, All M6, All M5.

Proceed to download the required firmware bundle for your specific Fabric Interconnect model from the Cisco Software Download Center website.

Note that the FI-6454 uses the same firmware image as the FI-64108 Fabric Interconnects because they are both 6400 series Fabric Interconnects.

You will be required to login with your Cisco account for download.

Accept Cisco's General Terms for the download to begin.

Expand All

Collapse All

Suggested Release

4.3(3a)

4.2(3j)

4.1(3m)

Latest Release

4.3(3c)

4.2(3j)

4.1(3m)

4.0(4o)

All Release

4.3

4.2

4.1

4.0

UCS Infrastructure and UCS Manager Software

Release 4.3(3a)

[My Notifications](#)

Related Links and Documentation

[Release Note for 4.3\(3a\)](#)

| File Information | Release Date | Size |
|---|--------------|------------|
| The UCS Infrastructure Software Bundle contains: - NX-OS software for the UCS 6332 Fabric Interconnects - Firmware for the fabric extenders and I/O modules - UCS Manager - Chassis Management Controller - UCSM Capability Catalog. ucs-6300-k9-bundle-infra.4.3.3a.A.bin Advisories | 15-Feb-2024 | 1472.60 MB |
| The UCS Infrastructure Software Bundle contains: - NX-OS software for the UCS 6454 Fabric Interconnects - Firmware for the fabric extenders and I/O modules - UCS Manager - Chassis Management Controller - UCSM Capability Catalog. ucs-6400-k9-bundle-infra.4.3.3a.A.bin Advisories | 15-Feb-2024 | 2602.95 MB |
| The UCS Infrastructure Software Bundle contains: - NX-OS software for the UCS 6536 Fabric Interconnects - Firmware for the fabric extenders and I/O modules - UCS Manager - Chassis Management Controller - UCSM Capability Catalog. ucs-6500-k9-bundle-infra.4.3.3a.A.bin Advisories | 15-Feb-2024 | 2643.70 MB |

Once your download is complete, log on to UCS Manager web interface using the Fabric Interconnect cluster IP address or the fully qualified domain name with an account possessing admin privileges.

Navigate to **Equipment >> Firmware Management >> Installed Firmware**.

Expand **UCS Manager** and confirm the running UCS Manager firmware version.

| Main Topology View | Fabric Interconnects | Servers | Thermal | Decommissioned | Firmware Management | Policies | Faults | Diagnostics |
|---|-----------------------|-----------------|--------------------|--------------------|---------------------|--------------------|-----------------|-------------|
| Installed Firmware | Firmware Auto Install | Catalog Package | Download Tasks | Packages | Images | Upgrade Validation | Faults | |
| <div> <div>+</div> <div>-</div> <div>Advanced Filter</div> <div>Export</div> <div>Print</div> <div>Download Firmware</div> <div>Update Firmware</div> <div>Activate Firmware</div> <div>Capability Catalog</div> </div> | | | | | | | | |
| Name | Model | Package Version | Running Version | Startup Version | Backup Version | Update Status | Activate Status | |
| ▼ UCS Manager | | | | | | | | |
| UCS Manager ... | | | 4.2(2)SP0(Default) | 4.2(2)SP0(Default) | N/A | N/A | Ready | |
| UCS Manager ... | | 4.2(2e)A | 4.2(2e) | 4.2(2e) | N/A | N/A | Ready | |
| ▶ Chassis | | 4.2(2e)A | | | | | | |
| ▶ Rack-Mounts | | | | | | | | |
| ▶ Fabric Intercon... | | | | | | | | |

Navigate to **Download Tasks**, click on **Download Firmware**.

| Main Topology View | Fabric Interconnects | Servers | Thermal | Decommissioned | Firmware Management | Policies | Faults |
|---|-----------------------|-----------------|----------------|----------------|---------------------|--------------------|--------|
| Installed Firmware | Firmware Auto Install | Catalog Package | Download Tasks | Packages | Images | Upgrade Validation | Faults |
| <div> <div>Advanced Filter</div> <div>Export</div> <div>Print</div> <div>Download Firmware</div> </div> | | | | | | | |
| Filename | Path | Transfer State | | | | | |

In the pop-up window, click **Choose file**

Download Firmware

Location of the Image File:

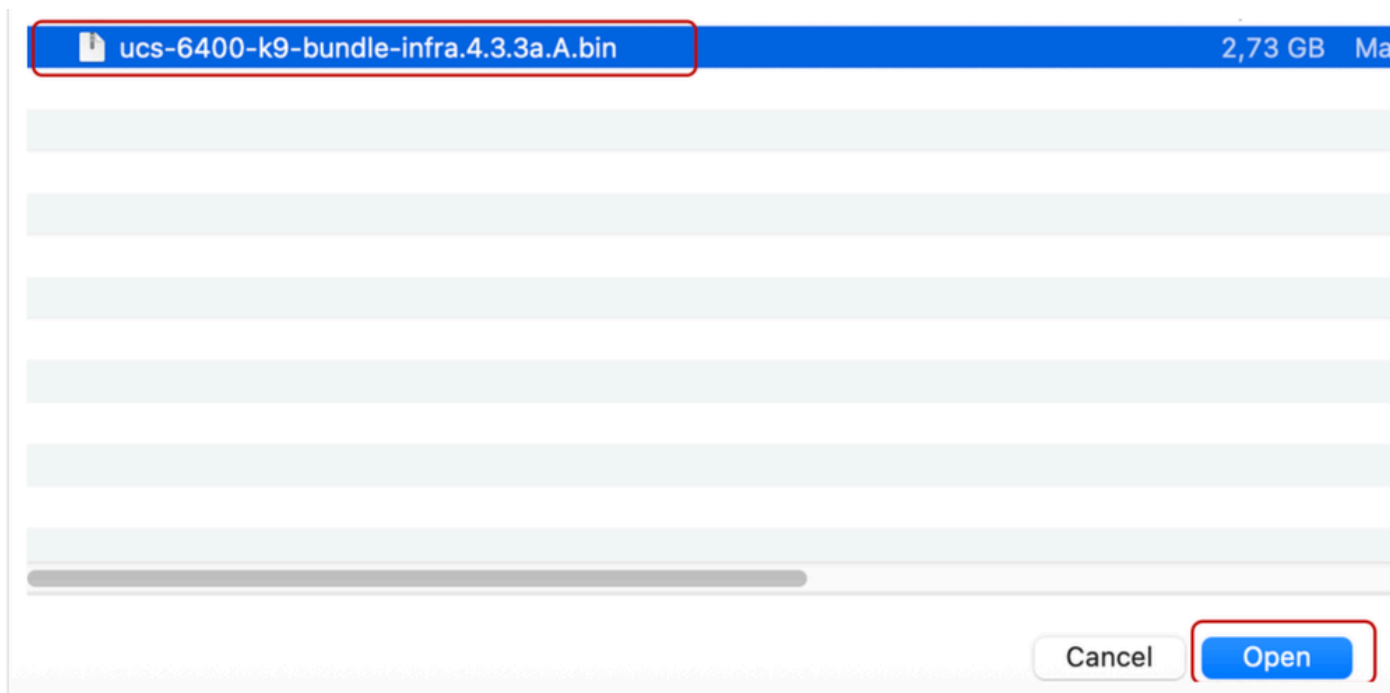
☒ Local File System ☐ Remote File System

Filename :

Choose file

No file chosen

Browse to the directory where your earlier downloaded Fabric Interconnect bundle was saved and select the **Infra A**, Bundle file. click **Open** and **OK**.



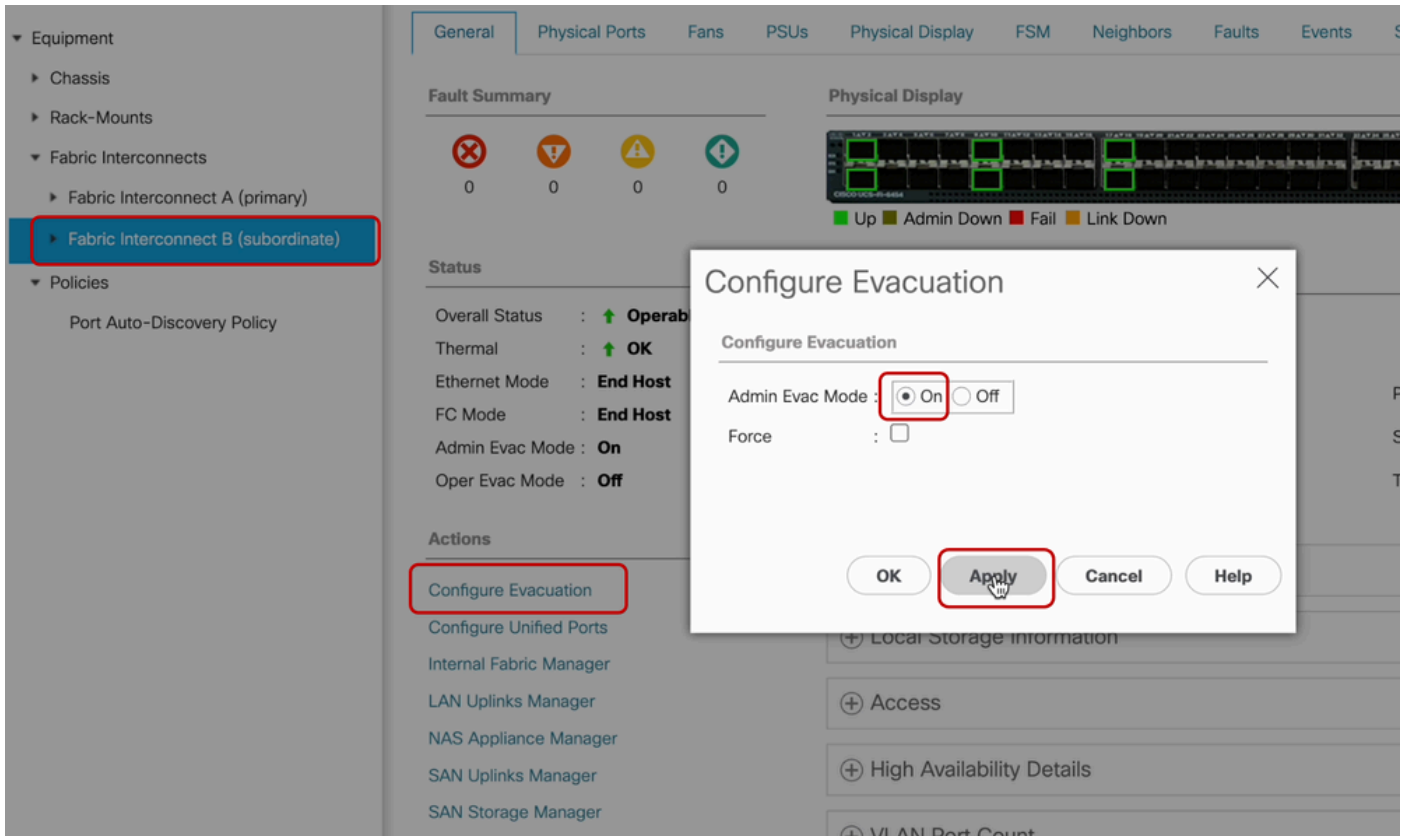


Note: As a best practice, it is recommended to validate paths are up and running from UCS and Operating System perspective as well as any virtual path and or virtual machine virtual NIC or HBA. This will ensure that traffic will not be impacted during the upgrade process.

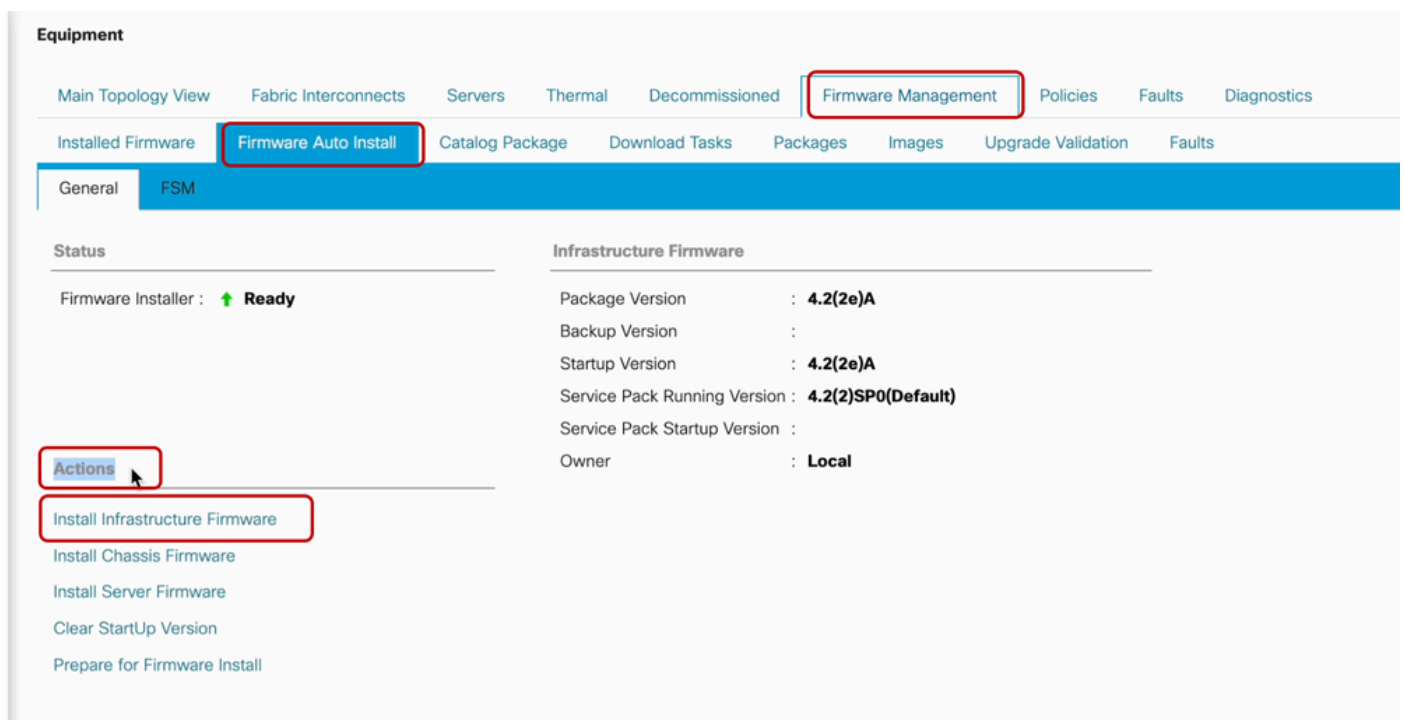
Should there be any vNIC, vHBA or Paths down, verify the impact of it and resolve the situation prior to starting the upgrade process.

By design, the UCS Infrastructure upgrade, will start the upgrade on the Subordinate Fabric Interconnect.

Upon importing the downloaded firmware bundle to UCS Manager, before beginning the upgrade, it is highly recommended to enable the **Evacuate** option, to ensure traffic is moved from the Subordinate Fabric Interconnect to the primary Fabric Interconnect to avoid traffic disruption during the upgrade. This would be typically done on the Subordinate Fabric Interconnect.



Once traffic evacuation is completed, click on **Firmware Auto Install**, select **Install Infrastructure Firmware** under **Actions**.



Carefully review all warnings and resolve any pending issues in the pop-up if required before proceeding. Once the impact of each alert has been evaluated and confirmed to be non-critical, choose **Ignore all** and click **Next**

1

Prerequisites

2

Install Infrastructure Firmware

Install Infrastructure Firmware

?

×

What happens during this stage:

- . This wizard will enable you to perform infrastructure firmware upgrade, which would upgrade UCS Manager and the UCS fabric interconnects.
- . If the backup version is set through Prepare for Firmware Install and is the same as the selected infra firmware version, the backup version is set as the startup version.
- . If the backup version is not set earlier, the selected firmware version is set as the backup version. This version is then set as the startup version.

Completing this stage will result in a reboot.

The system has performed a sanity check and found the following issues. Suggestions about fixing these issues are also displayed.
Please go through the list of issues and suggested fixes carefully, and take appropriate action.

Warnings

☒ Ignore All

1) Critical and major faults exist. Proceeding without fix might lead the system in unexpected state.
Click [here](#) to see the existing critical and major faults.

2) Check if any hardware (fabric interconnects, io-modules, servers or adapters) is unsupported in the target release.

☒

☒

< Prev

Next >

Finish

Cancel

Choose the appropriate Infra Pack from the drop-down and check **Upgrade Now** checkbox. Click **Finish**.

Install Infrastructure Firmware

Prerequisites

Firmware Installer : **Ready**

Actions

Cancel Infrastructure Upgrade

Properties

Name : **default**

Description : Infrastructure Pack

Backup Version :

Infra Pack : 4.3(3a)A

Service Pack : <not set>

Force : ☐

Evacuate : ☐

Infrastructure Upgrade Schedule

Admin State : **Untriggered**

Owner : **Local**

Max Number Of Concurrent Tasks : **Unlimited**

Start Time : 2024-05-17 01:39:2

☐ Upgrade Now

< Prev Next > **Finish** Cancel

You can click **Yes** to disregard the warning for the **Service Pack** not being selected. Click **OK**.

Install Infrastructure Firmware

Prerequisites

Install Infrastructure Firmware

Firmware System Status

Firmware Installer : **Ready**

Actions

Cancel Infrastructure Upgrade

Properties

Name : **default**

Description : Infrastructure Pack

Backup Version :

Infra Pack : 4.3(3a)A

Service Pack : <not set>

Force : ☐

Evacuate : ☐

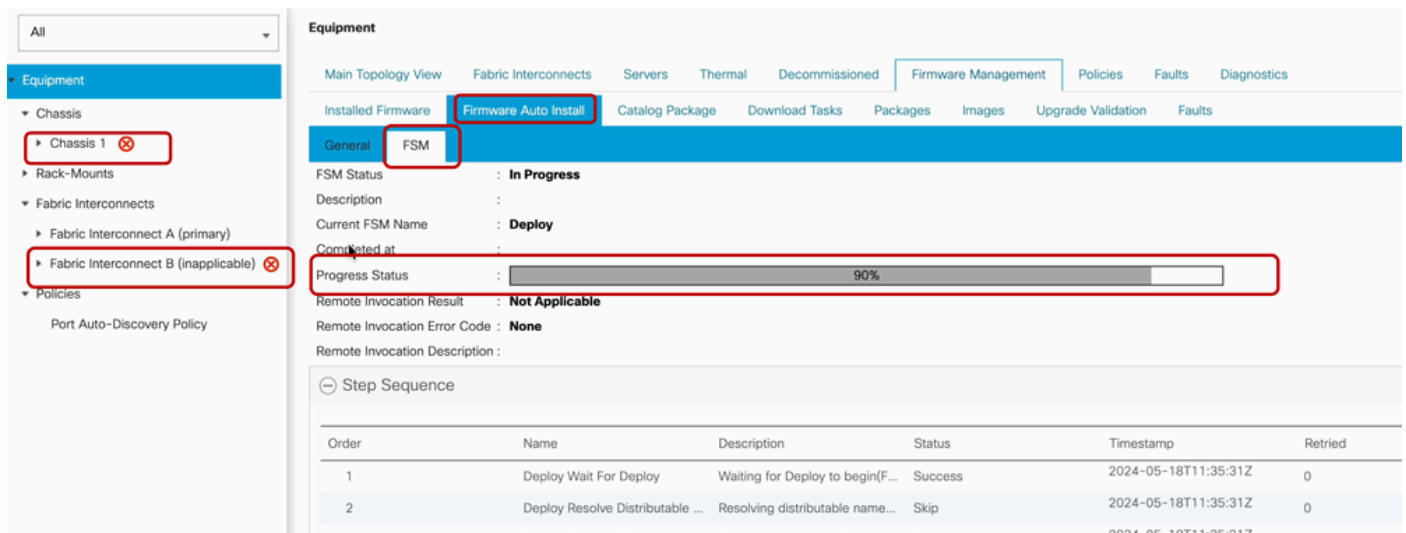
Install Infrastructure Firmware

Warning Service Pack has not been selected, so any Service Pack if already installed in the system, will be removed.

Press **Yes** to disregard the warning and submit changes, **No** to quit the wizard or **Cancel** to make changes to the current configuration.

Yes No Cancel

To monitor the upgrade progress, click on the **FSM** tab. Allow a few moments and the upgrade will begin.



The subordinate **Fabric Interconnect** and its corresponding chassis **IO Module** will complete their respective upgrades.

Once the upgrade is about to finish at the Subordinate Fabric Interconnect, you will be logged out temporarily by the UCS system.

This happens because the UCS Manager is being upgraded and the management processes are down, however the data plane will remain up as it is detached from the management plane.

If you configured **SNMP** you might receive alerts regarding the management plane being down during upgrade.

This is expected, hence it is recommended to disable **SNMP** notifications during your upgrade and re-enable after having completed the activity.

As soon as the system becomes available again, the upgrade of the UCS Manager component will have been completed.

You can log back in to UCS Manager to monitor the rest of the upgrade via the **FSM** tab

Equipment / Fabric Interconnects / Fabric Interconnect B (inapplicable)

General Physical Ports Fans PSUs Physical Display FSM Neighbors

Fault Summary

1 2 0 1

Physical Display

Up Admin Down Fail Link Down

Status

Overall Status : Inoperable

Thermal : OK

Ethernet Mode : End Host

FC Mode : End Host

Admin Evac Mode : Off

Oper Evac Mode : Off

Properties

Name : B

Product Name : Cisco UCS 6454

Vendor : Cisco Systems, Inc.

Revision : 0

Available Memory : 55.560 (GB)

Locator LED :

Actions

Configure Evacuation

Configure Unified Ports

Internal Fabric Manager

Upon completion, verify that the new firmware version is installed on the subordinate Fabric Interconnect by selecting the **subordinate Fabric Interconnect**, in this case **Fabric Interconnect B** in the **Equipment** section of the navigation pane.

Scroll down under the **General** tab and in the **Firmware** section. You can see the newly installed firmware version on the subordinate Fabric Interconnect.

Equipment / Fabric Interconnects / Fabric Interconnect B (subordinate)

General Physical Ports Fans PSUs Physical Display FSM Neighbors

Configure Unified Ports

Internal Fabric Manager

LAN Uplinks Manager

NAS Appliance Manager

SAN Uplinks Manager

SAN Storage Manager

Enable Ports

Disable Ports

Set Ethernet End-Host Mode

Set Ethernet Switching Mode

Set FC End-Host Mode

Set FC Switching Mode

Activate Firmware

Management Interfaces

Turn on Locator LED

Install Secure FPGA

Firmware

Boot-loader Version : v05.47(04/28/2022)

Kernel Version : 9.3(5)I43(3a)

System Version : 9.3(5)I43(3a)

Service Pack Version : 4.3(3)SP0(Default)

Package Version : 4.3(3a)A

Startup Kernel Version : 9.3(5)I43(3a)

Activate Status : Ready

Startup System Version : 9.3(5)I43(3a)

Activate Status : Ready

Startup Service Pack Version : 4.3(3)SP0(Default)

Activate Status : Ready

Pending Activities

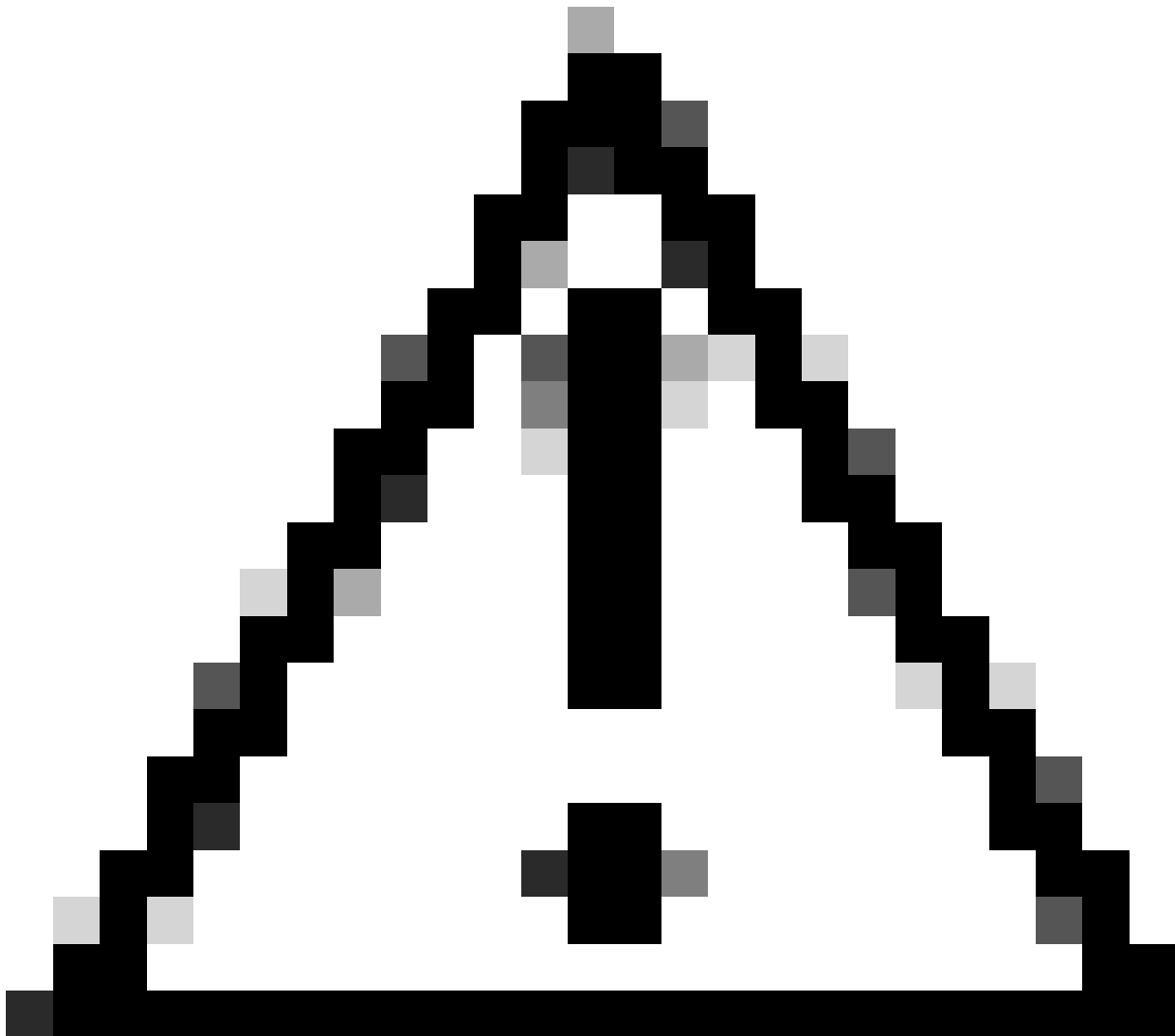
There are activities in the system requiring reboot. Click the Pending Activities button on the toolbar to acknowledge.

☐ Do not show again

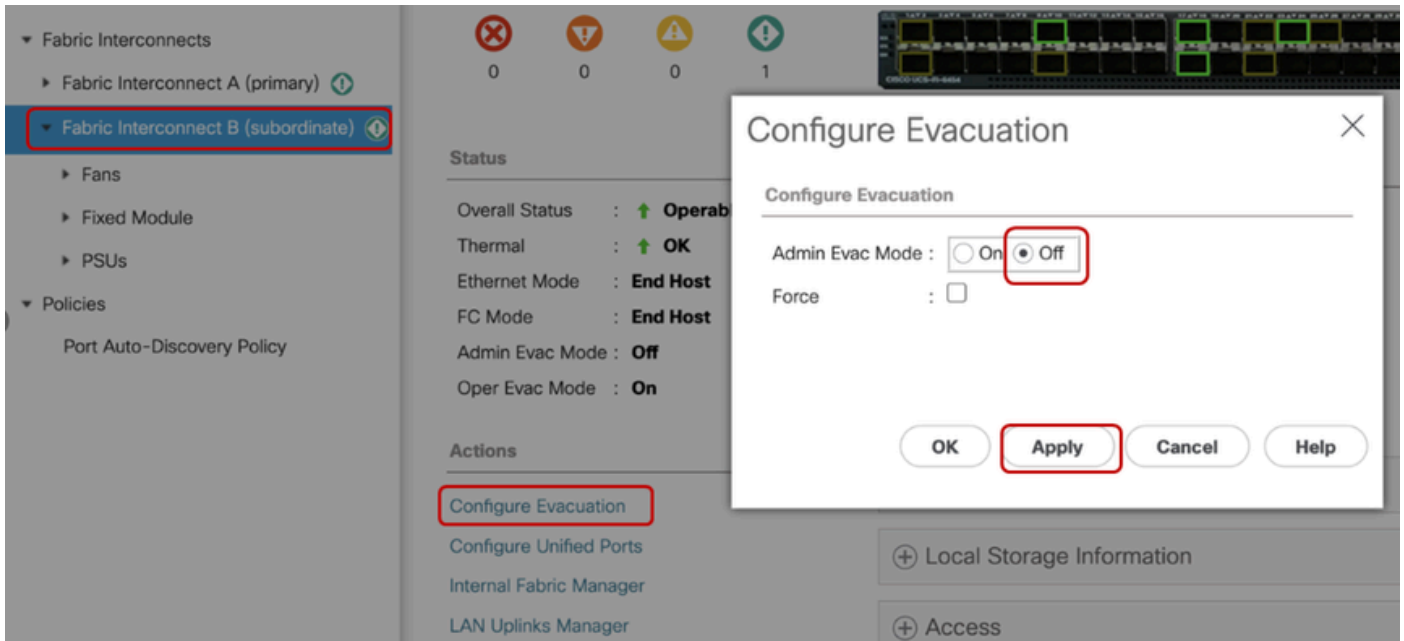
A pop-up will appear on the top right corner, suggesting that a reboot is required on the Primary Fabric

Interconnect, to continue with the firmware upgrade.

For completeness, the primary Fabric Interconnect will need to be upgraded and rebooted.



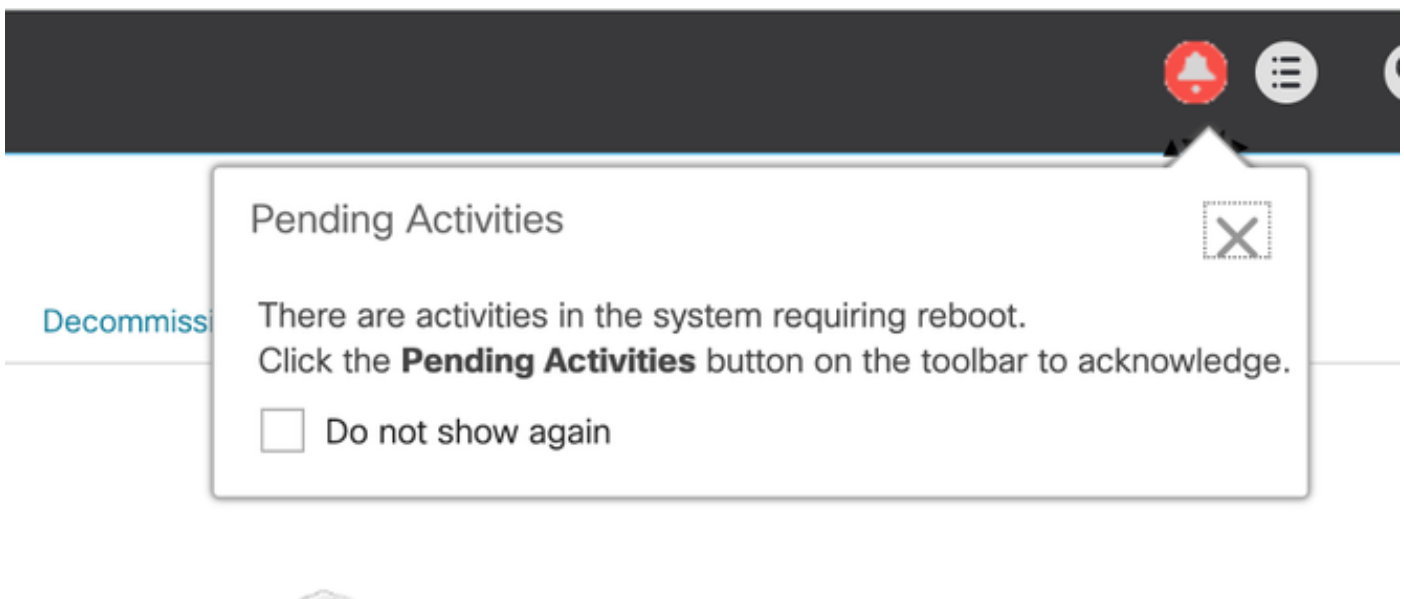
Caution: Ensure that Fabric Evacuation is disabled and verify that all paths are up before proceeding to safely reboot the Fabric Interconnect. This is a critical step. Verify that all paths are physically and virtually running as well as the high availability in Fabric Interconnects, Servers and Server Operating Systems prior to the reboot of the primary Fabric Interconnect.



This is key to ensure success and avoid any downtime or outage, as an Operating System or Virtual Machine may seem to be up and running, however it's secondary path might not be completely up.

Should this be the situation, upon reboot of the primary Fabric Interconnect, the Operating System or the Virtual Machine can lose connectivity due to its inability to find an active path.

To reboot the primary Fabric Interconnect, click on the **Pending Activities** pop-up at the top right corner



Select **Fabric Interconnects**. Click **Reboot Now**. Select **Yes** in the pop-up window and click **OK** to close the pop-ups.

Pending Activities

User Acknowledged Activities

Scheduled Activities

Service Profiles

Fabric Interconnects

Servers

Chassis Profiles

Actions

Reboot now

Pending Disruptions : defaultValue

Pending Changes :

Details

Modified at : 2024-05-18T03:21:02Z

Acknowledgment State : Waiting For User

Schedule : fi-reboot

OK

Apply

Cancel

Help

This action will reboot the primary Fabric Interconnect to complete the firmware upgrade.

During this reboot process, the cluster leadership role of the system will be taken over by the subordinate, hence you are logged out of UCS Manager temporarily.

UCS Manager

All

Equipment

Chassis

Rack-Mounts

Fabric Interconnects

Polices

Port Auto-Discovery Policy

Equipment

Main Topology View

Fabric Interconnects

Installed Firmware

Firmware Auto Install

Catalog Package

Download Tasks

Packages

Images

Upgrade Validation

General

FSM

Status

Firmware Installer : In Progress

Actions

Install Infrastructure Firmware

Install Chassis Firmware

Install Server Firmware

Infrastructure Firmware

Package Version : 4.3(3a)A,4.2(2e)A

Backup Version :

Startup Version : 4.3(3a)A

Service Pack Running Version : 4.3(3)SP0(Default),4.2(2)SP0(Default)

Service Pack Startup Version :

Owner : Local

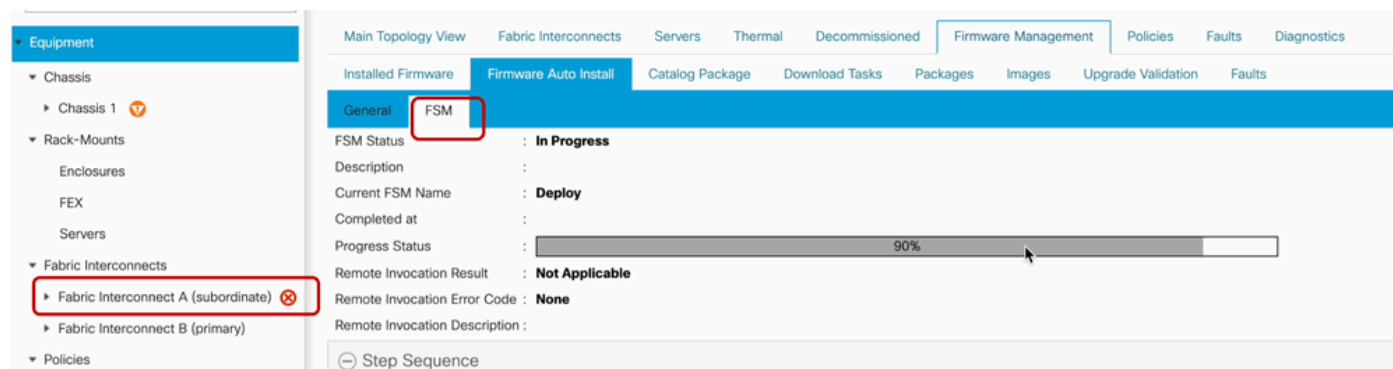
Connection Error

Unable to connect to the server. The application will now exit.

OK

Once access to the UCS Manager GUI is restored, log back in.

Monitor the **FSM** once again to verify the upgrade progress.

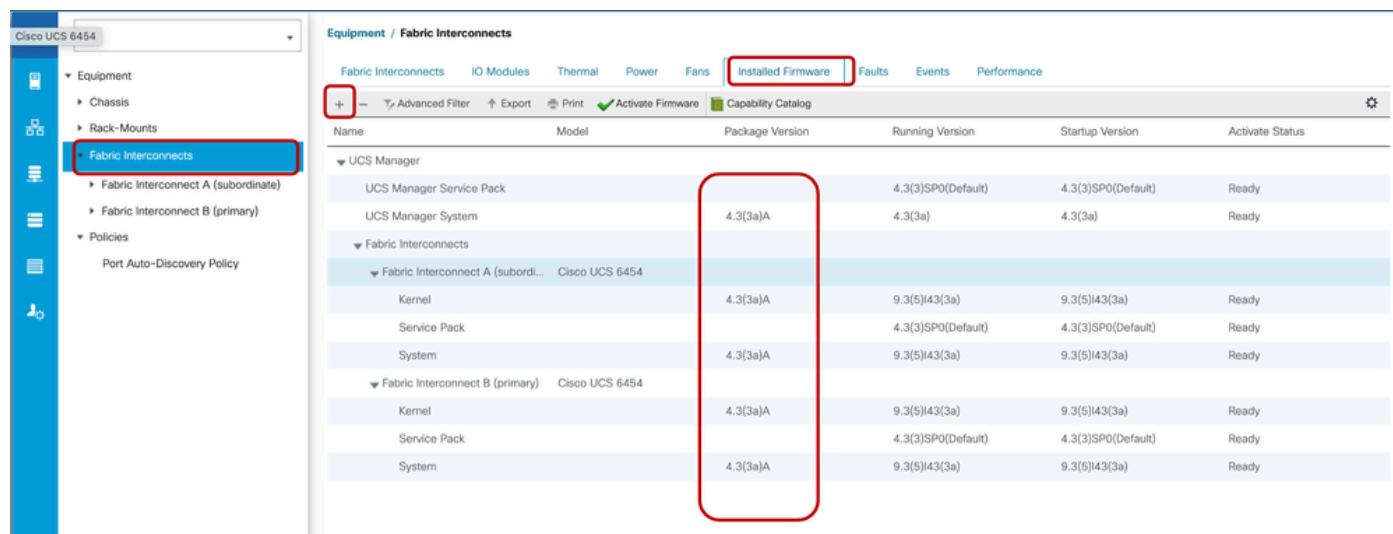


Upon upgrade completion, the previous primary Fabric Interconnect will assume the subordinate role in the cluster.

Verification

To verify a successful UCS Manager upgrade, in the **Equipment** section of the navigation pane, select **Fabric Interconnects**.

Under the **Installed Firmware** tab, click the expand all plus (+) icon.



UCS Manager has been successfully upgraded.

If required, you can change the cluster lead by using the following CLI command in the "local-mgmt" mode:

#cluster lead a

```

[redacted]-FI-B# connect local-mgmt
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2009, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php

[redacted]-FI-B(local-mgmt)# cluster lead a
```

Type **Yes** to continue. You will be temporarily logged out of out of the CLI and GUI instances.

Log back into UCS Manager to verify that the cluster lead is now your previous primary Fabric Interconnect.

Your UCS Manager upgrade is now completed.