

Upgrade UCS Manager

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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.

Configure

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.

1 Support Manager

Further firmware upgrade recommendations (when using the Firmware Upgrade TAC Assistant tool) can be obtained via the **Support Case Manager** when opening a Service Request.

Support Case Manager

Open a new support case

Let's get your Webex issue resolved!

1

Please provide us with your email address.

Email Address

populated@email.com

Continue

2

2 Support Case Manager

Download the required firmware bundle for your specific Fabric Interconnect model from the [Cisco Software Download Center](#) website.

Log in with your Cisco account for download.

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

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

UCS Infrastructure and UCS Manager Software

Release 4.3(3a) Related Links and Documentation
Release Note for 4.3(3a)

[My Notifications](#)

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

When the 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.

Navigate to **Download Tasks**, and click **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

Advanced Filter Export Print Download Firmware

Filename	Path	Transfer State
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5 Download Tasks

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

Download Firmware

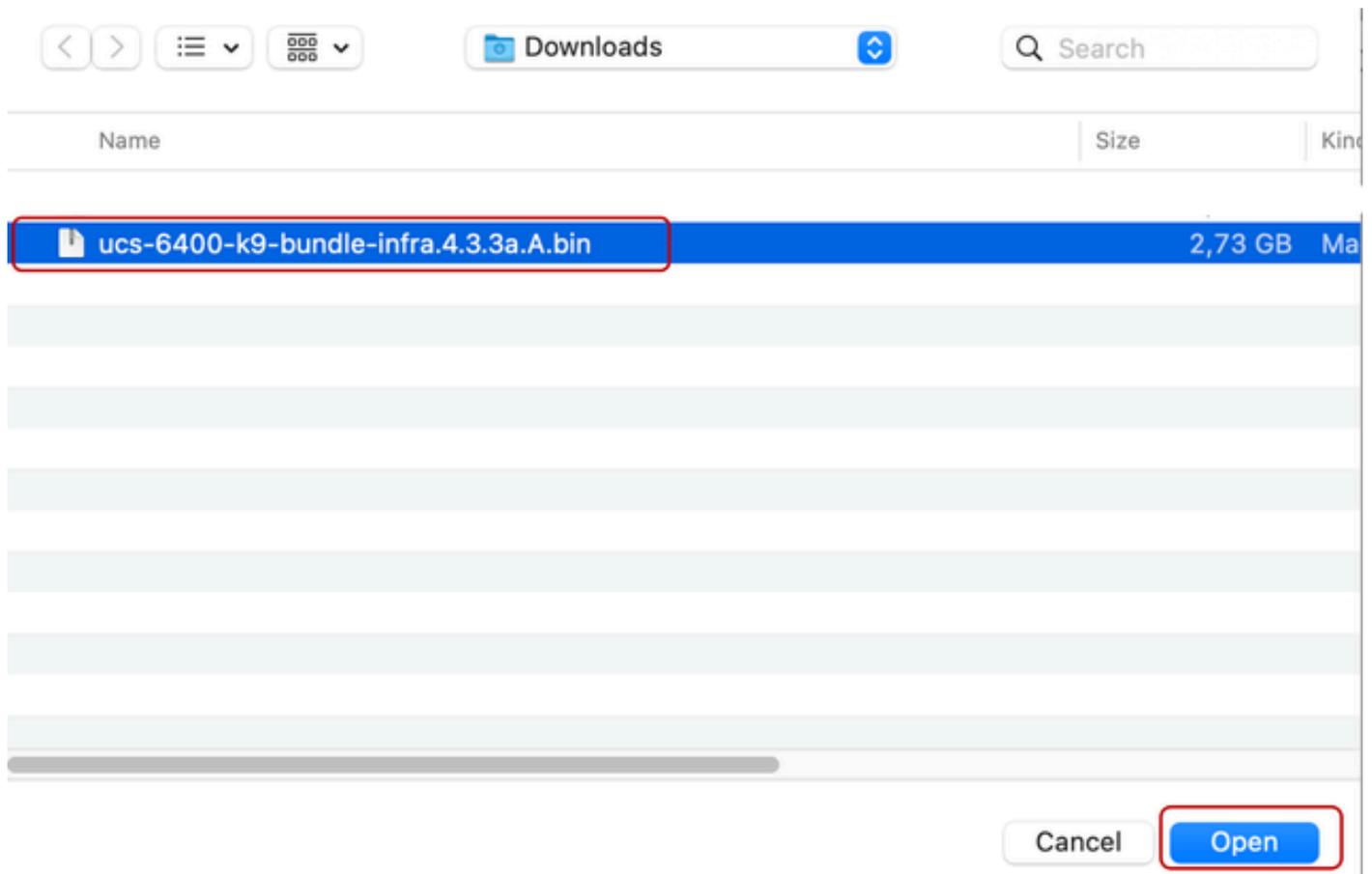
Location of the Image File:

Local File System Remote File System

Filename : **No file chosen**

6 Choose File

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



7 Open File

After the downloaded bundle has been imported into UCS Manager, click on **Firmware Auto Install**, select **Install Infrastructure Firmware** under **Actions**.

Equipment

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

General **FSM**

Status

Firmware Installer : **Ready**

Infrastructure Firmware

Package Version : **4.2(2e)A**

Backup Version :

Startup Version : **4.2(2e)A**

Service Pack Running Version : **4.2(2)SP0(Default)**

Service Pack Startup Version :

Owner : **Local**

Actions

- Install Infrastructure Firmware**
- Install Chassis Firmware
- Install Server Firmware
- Clear StartUp Version
- Prepare for Firmware Install

8 Install Firmware

Carefully review all warnings and resolve any pending issues in the pop-up if required before proceeding. Select **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

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.

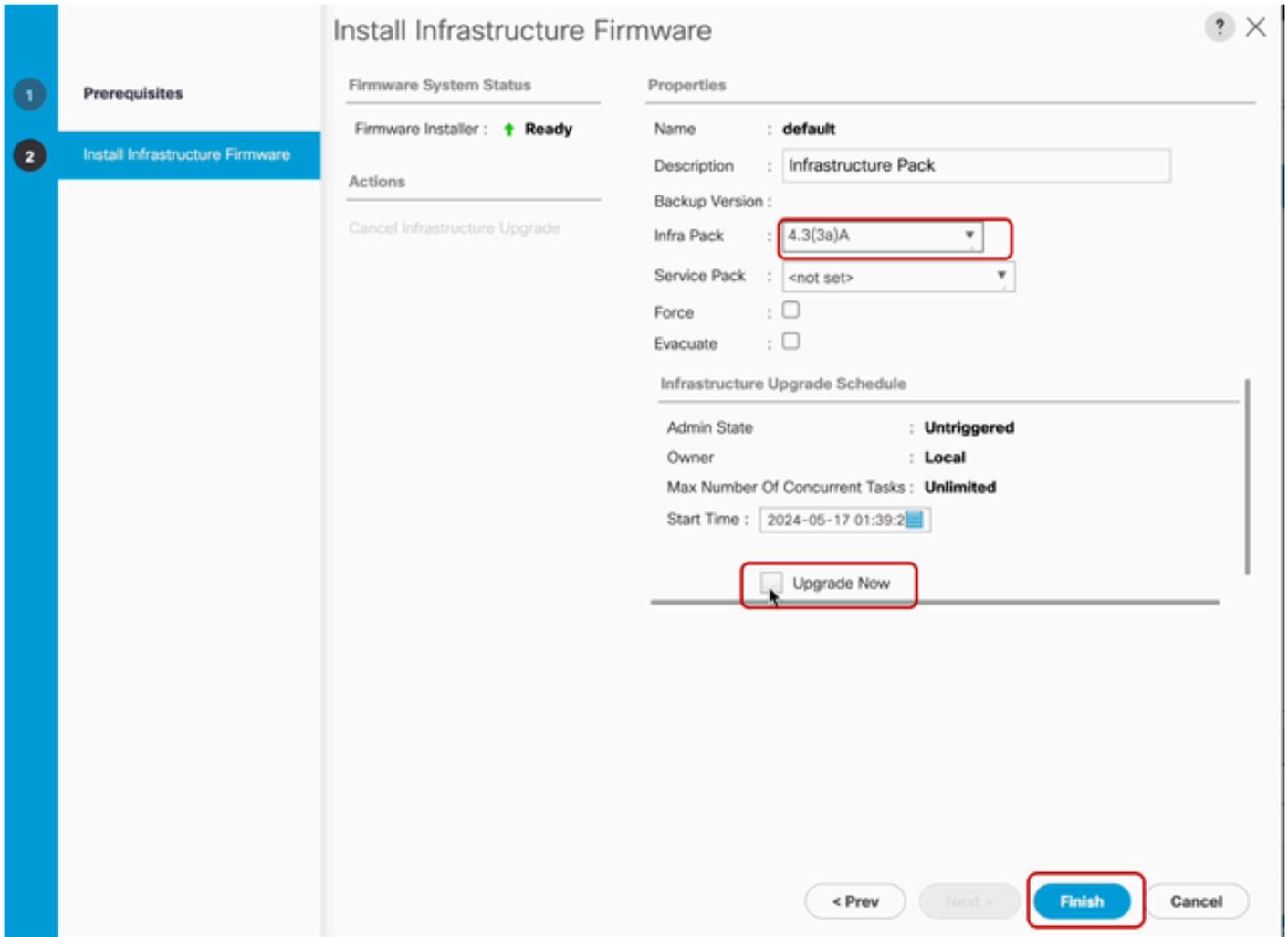
2) Check if any hardware (fabric interconnects, io-modules, servers or adapters) is unsupported in the target release.

Ignore All

< Prev **Next >** Finish Cancel

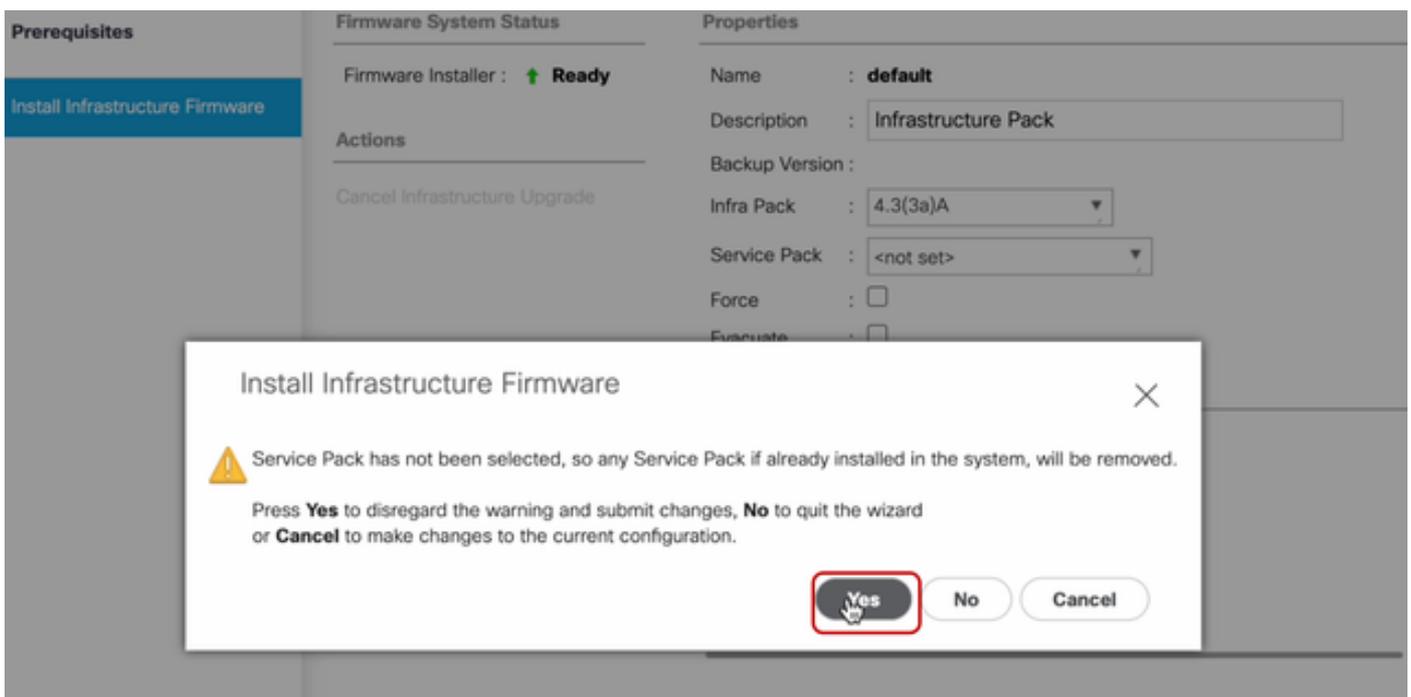
9 Ignore All, Next

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



10 Upgrade Now, Finish

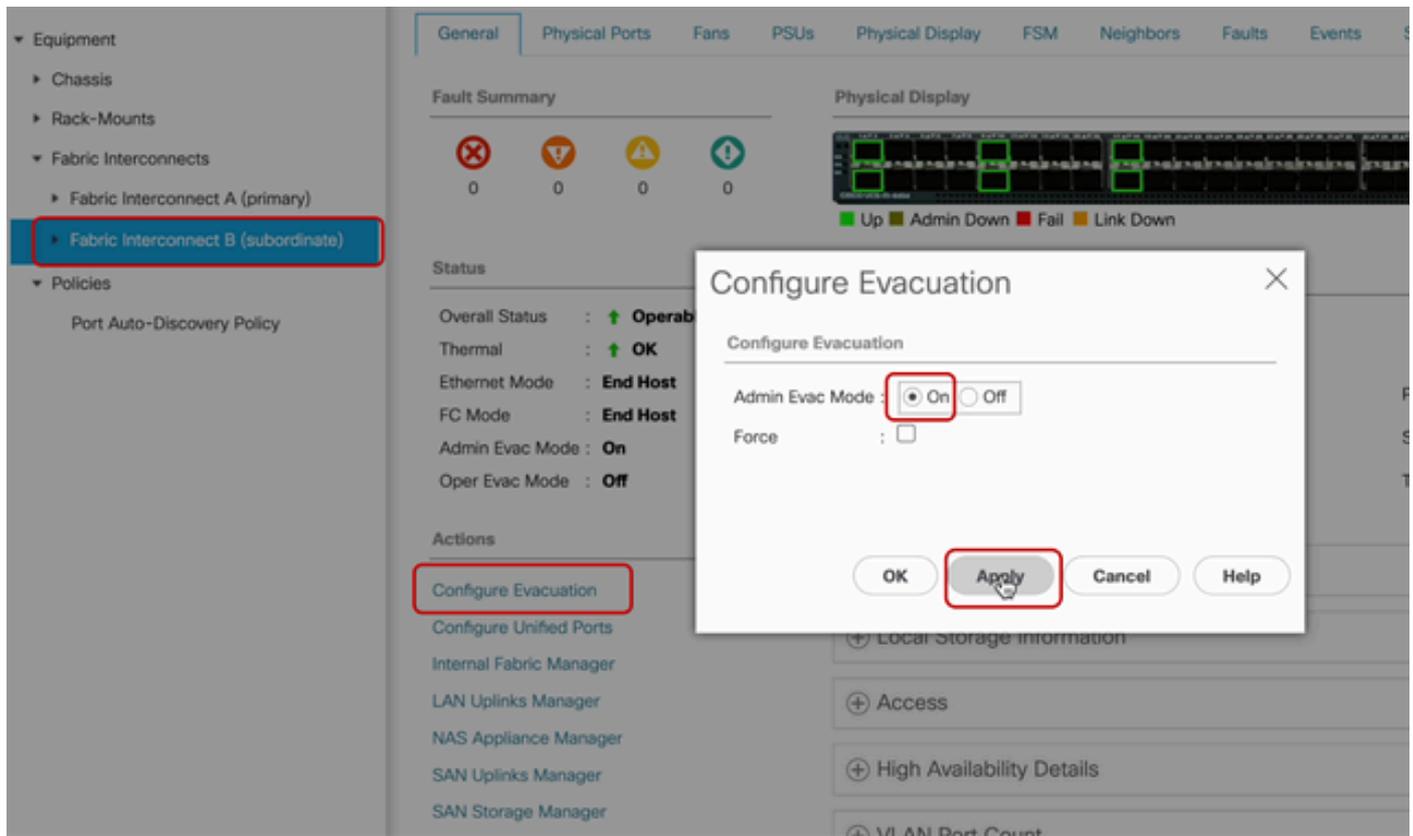
Click **Yes** to disregard the warning for the **Service Pack** not being selected. Click **OK**.



To monitor the upgrade progress, click the **FSM** tab. The upgrade begins after a few moments.

It is highly recommended to enable the **Evacuate** option, to ensure traffic is moved between Fabric Interconnects during the upgrade process and to avoid traffic disruption.

This is typically done first on the Secondary Fabric Interconnect.



12 Configure and Apply

Verify paths are functioning (from UCS perspective) as well as any virtual path and/or virtual machine, virtual NIC, or HBA.

This ensures that traffic is not impacted during the upgrade process.

If there are any vNIC or vHBA down, verify the impact and resolve the situation before the upgrade.

By design, the UCS Infrastructure upgrade, starts the upgrade on the Secondary Fabric Interconnect.

When the upgrade is about to finish at the Secondary Fabric Interconnect, you are temporarily logged-out by the UCS system.

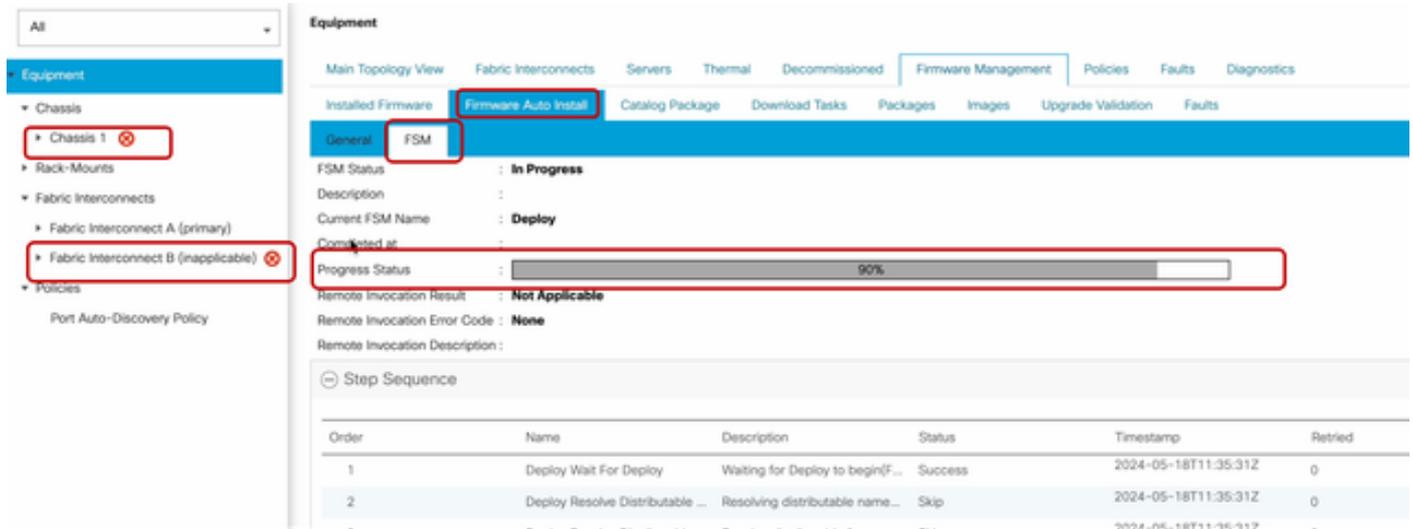
This happens because the UCS Manager is being upgraded and management processes are down, however the data plane remains up as it is detached from the management plane.

If you configured **SNMP**, you can possibly receive alerts regarding the state of the management plane.

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

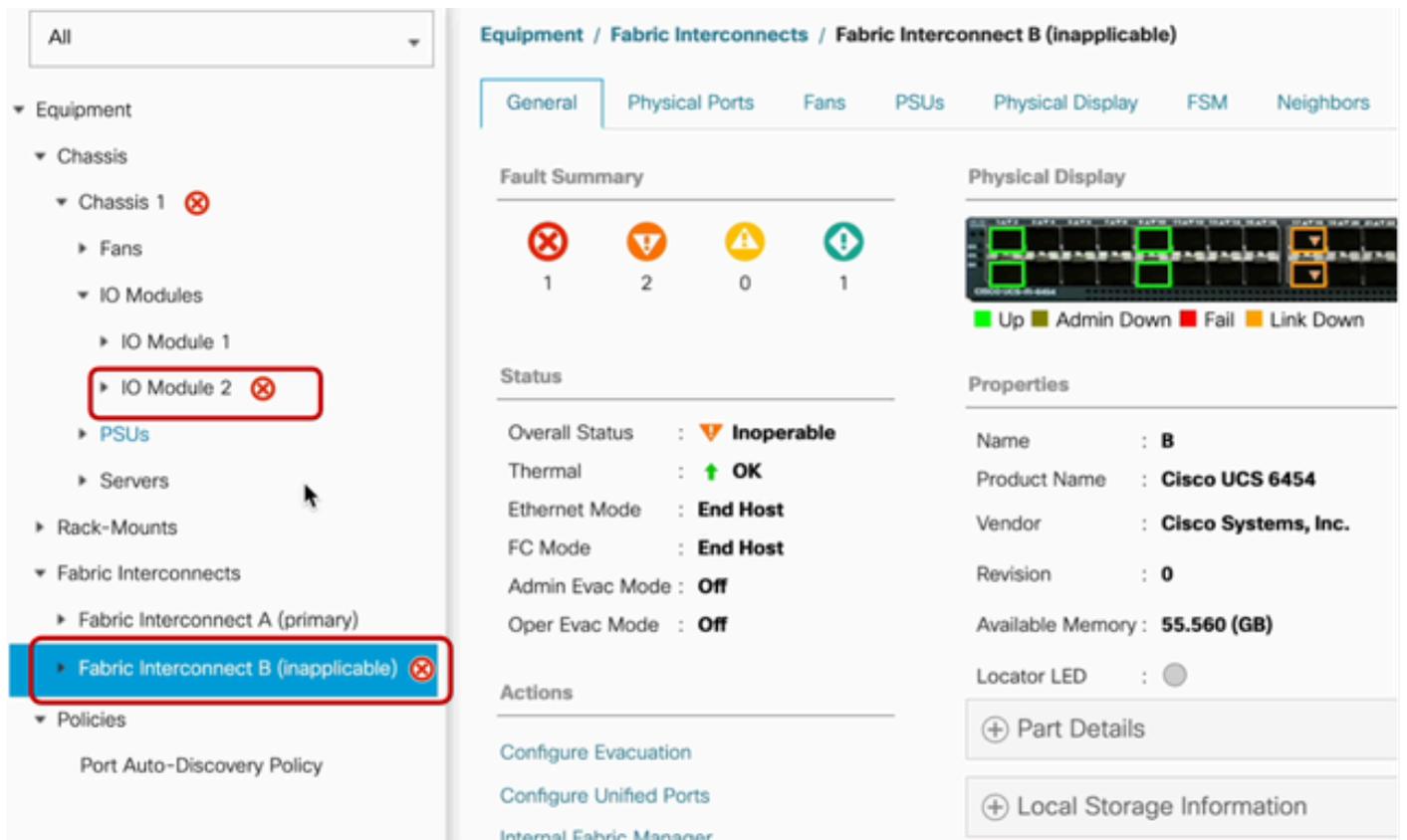
As soon as the system becomes available again, the upgrade of the UCS Manager component is completed.

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



13 Firmware Auto Install

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

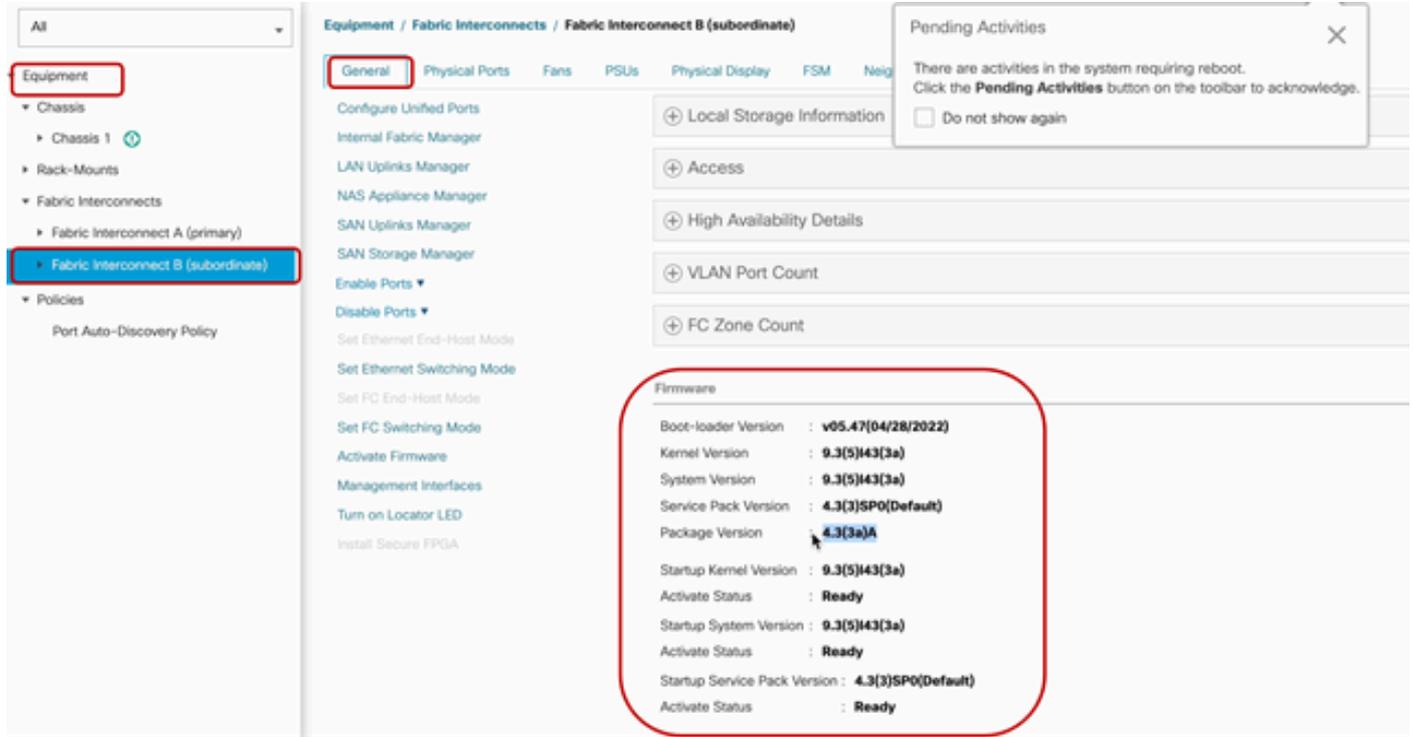


14 Fabric Interconnect

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).

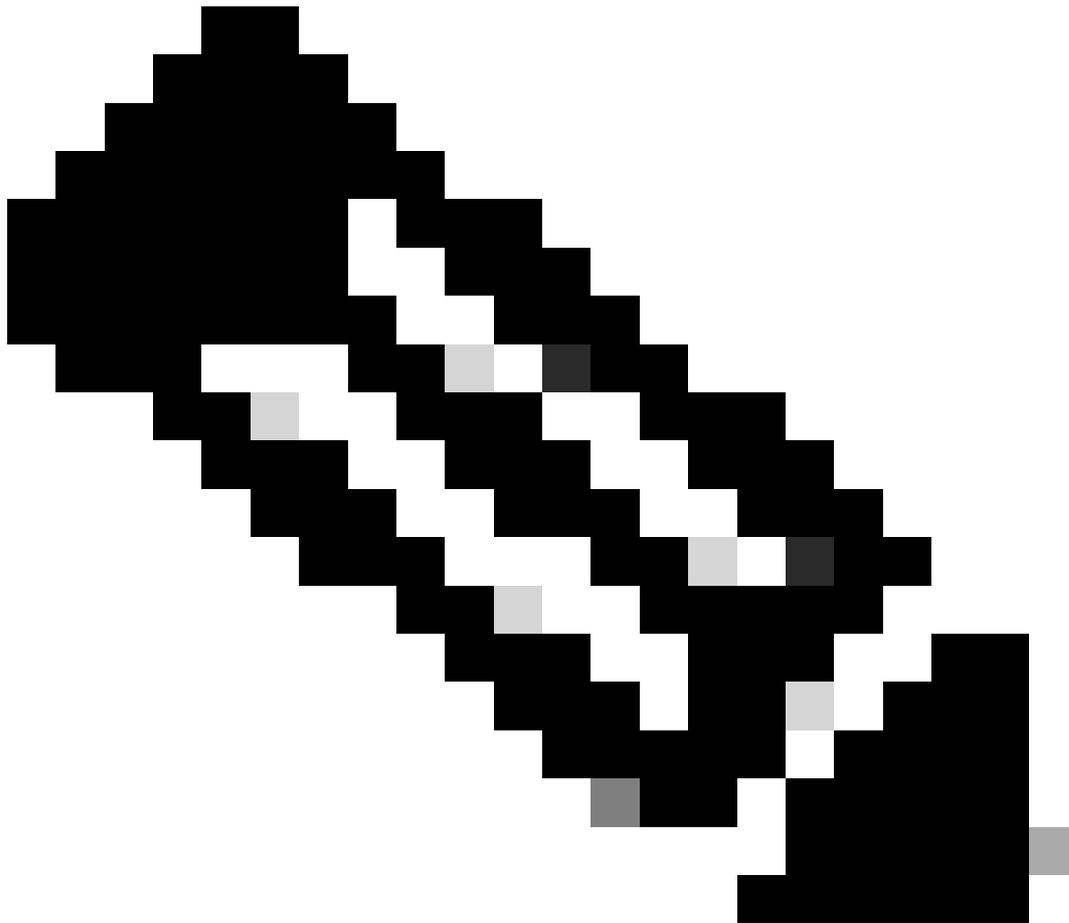
Scroll down under the **General** tab. In the **Firmware** section, observe the newly installed firmware version on the subordinate Fabric Interconnect.



14 Fabric Interconnect

For completeness, the primary Fabric Interconnect needs to upgrade and be rebooted.

There is an alert that a reboot is required to make effective changes.



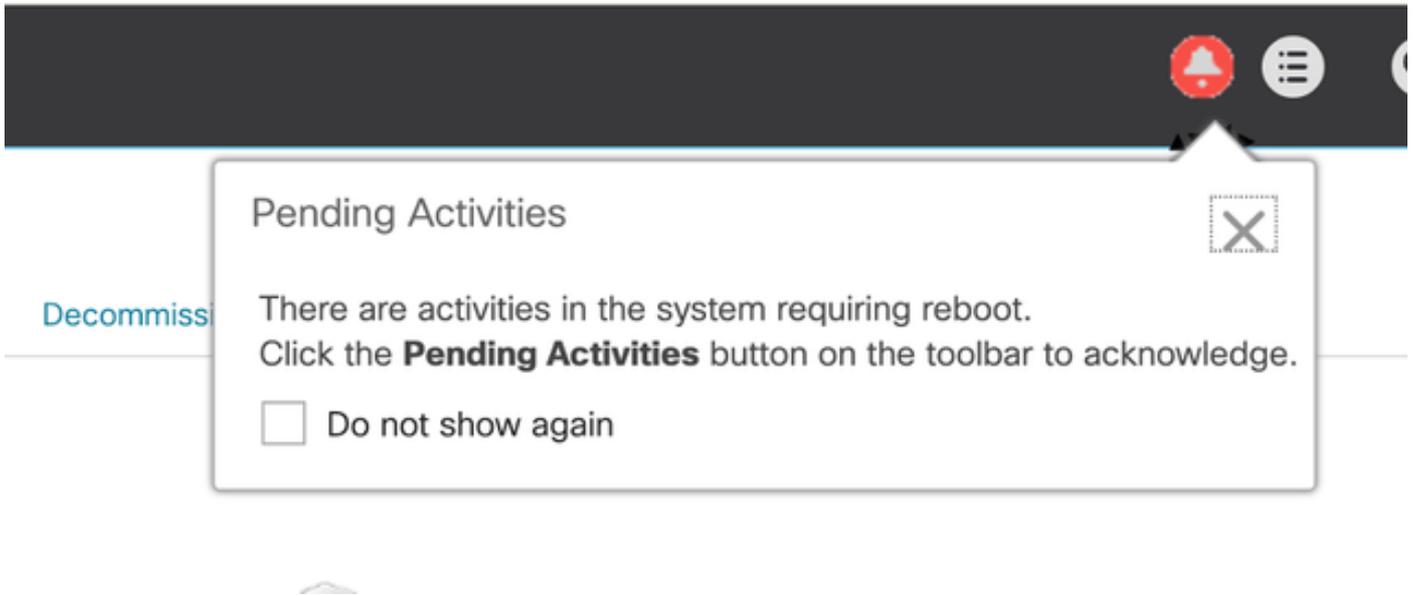
Note: This is a critical step. Verify that all paths are physically and virtually running as well as the high availability in both Fabric Interconnects prior to the reboot of the Fabric Interconnect A.

This is key to ensure success and avoid any downtime or outage. An Operating System or Virtual Machine seems to be running, however its secondary path is not fully up.

If this is the situation, upon Fabric Interconnect A reboot, the Operating System or the Virtual Machine possibly loses connection due to its inability to find a path.

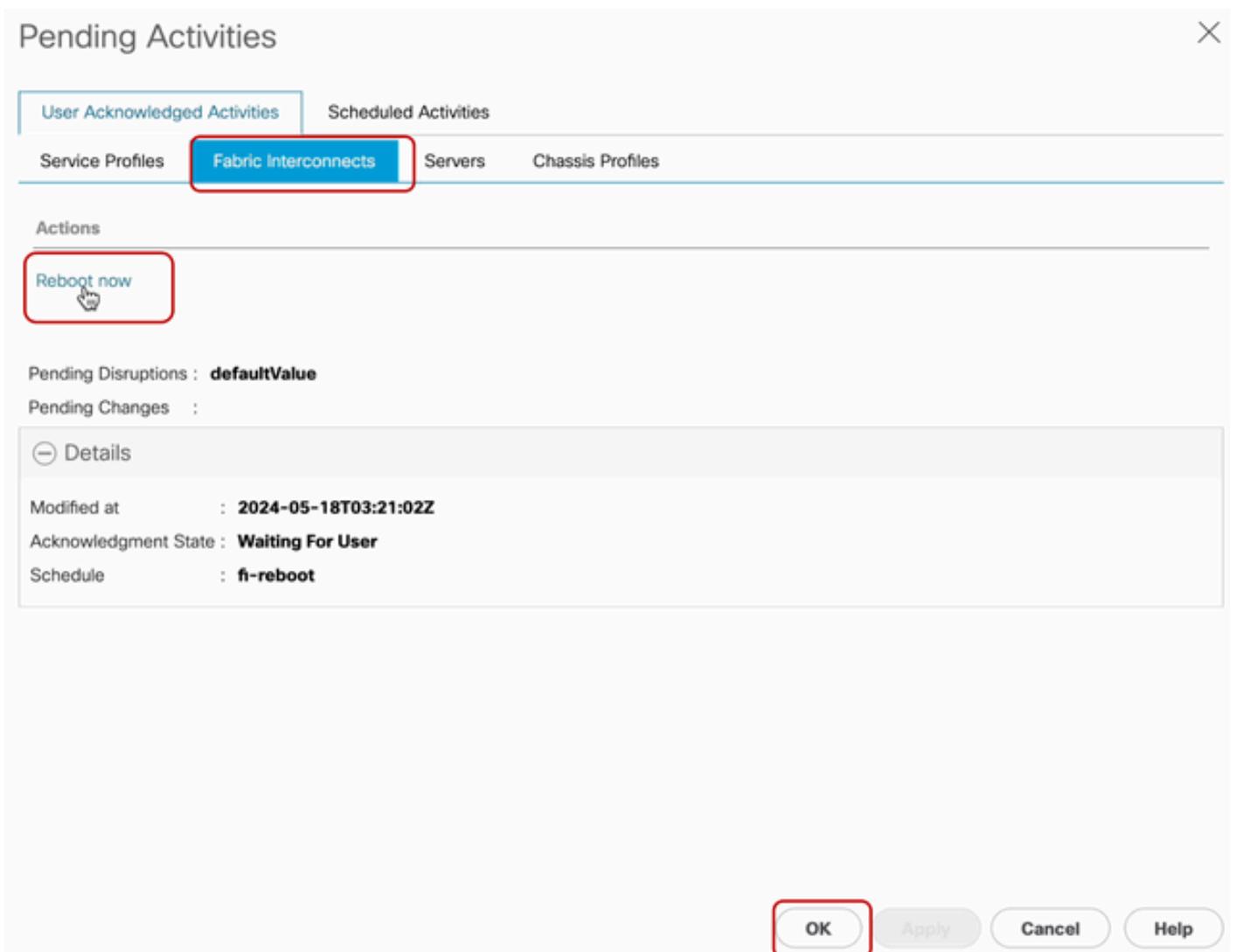
Once all have been verified, proceed safely to reboot Fabric Interconnect A.

Click on the **Pending Activities** pop-up at the top right corner



14 Fabric Interconnect

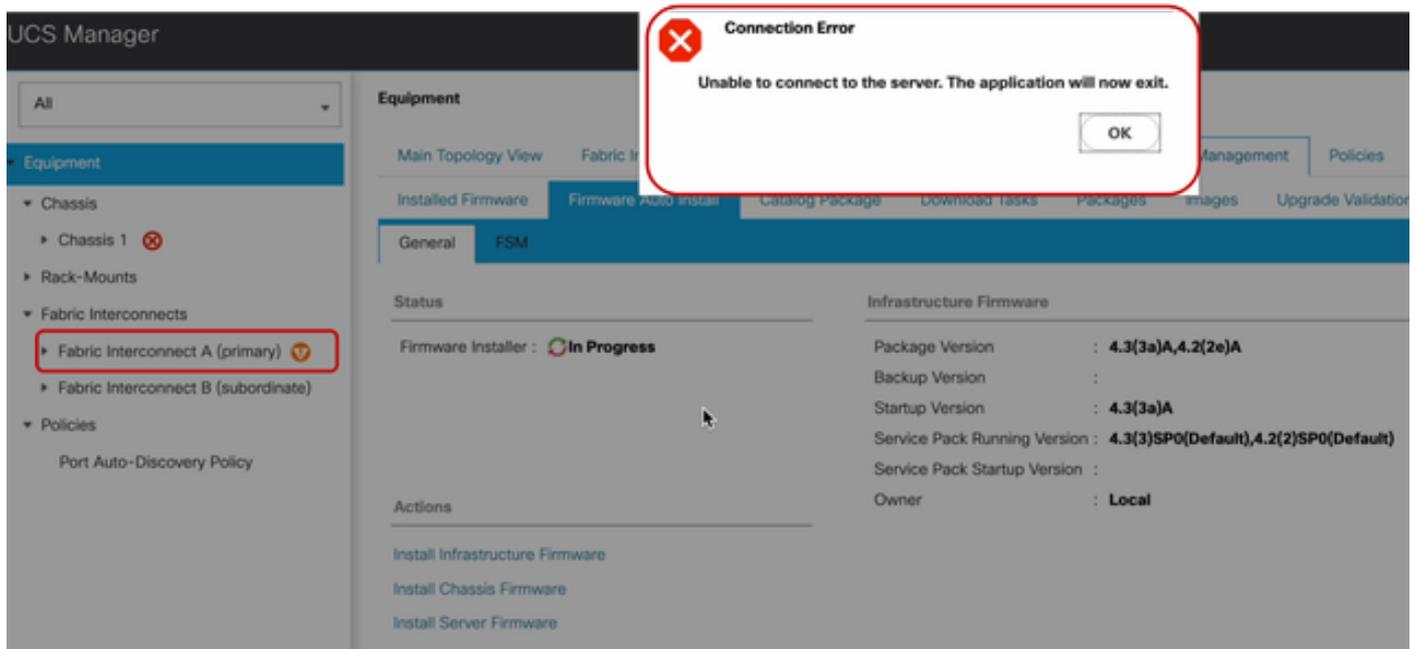
Select **Fabric Interconnects**. Click **Reboot Now**. Select **Yes** in the pop-up window and click **OK** to close the pop-ups.



17 Reboot, OK

This action reboots the primary Fabric Interconnect to complete the firmware upgrade.

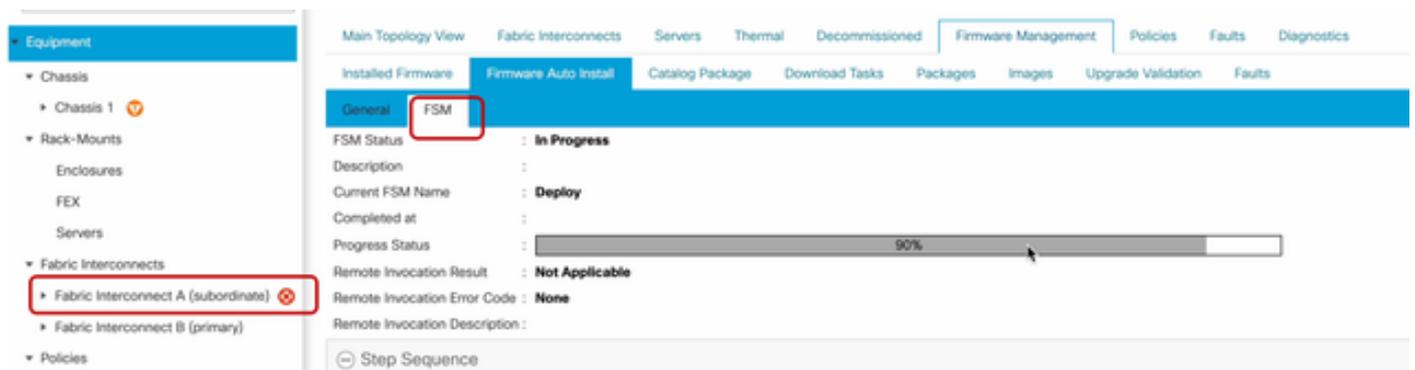
During this reboot process, the cluster leadership role of the system is taken over by the subordinate, hence you are logged out of UCS Manager temporarily.



18 Connection Error

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

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



19 Fabric Interconnect A

Upon upgrade completion, the previous primary Fabric Interconnect assumes 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**.

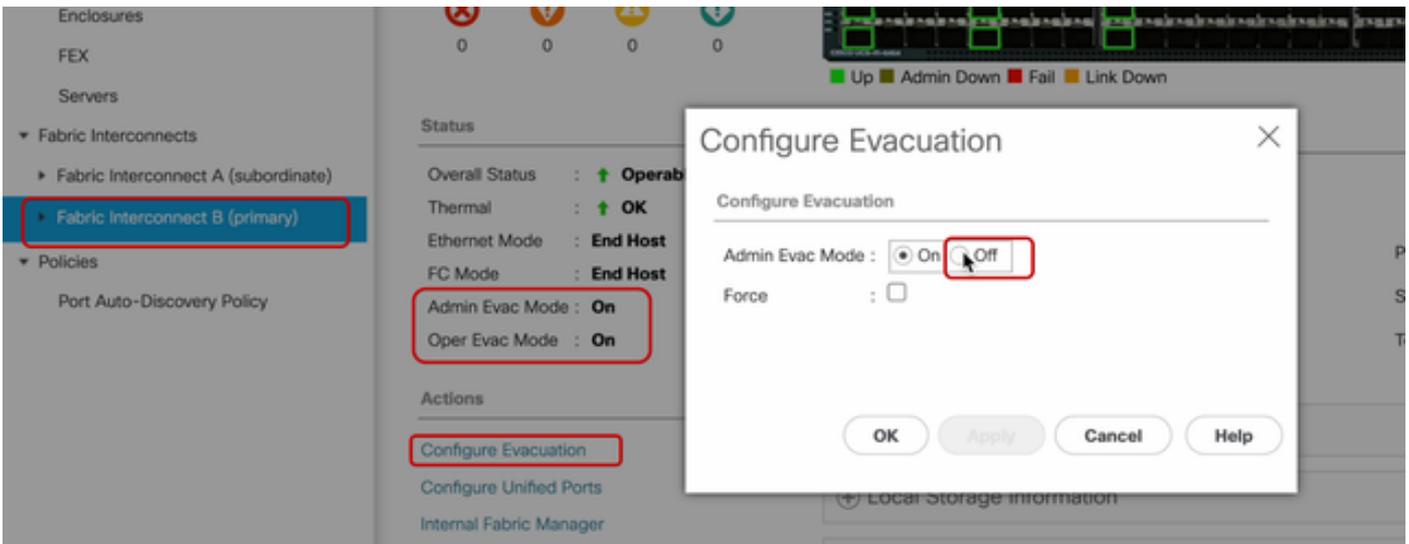
Under the **Installed Firmware** tab, click the expand all plus (+) icon.

Name	Model	Package Version	Running Version	Startup Version	Activate Status
▼ UCS Manager					
UCS Manager Service Pack			4.3(3)SPO(Default)	4.3(3)SPO(Default)	Ready
UCS Manager System		4.3(3a)A	4.3(3a)	4.3(3a)	Ready
▼ Fabric Interconnects					
▼ Fabric Interconnect A (subordi... Cisco UCS 6454					
Kernel		4.3(3a)A	9.3(5)43(3a)	9.3(5)43(3a)	Ready
Service Pack			4.3(3)SPO(Default)	4.3(3)SPO(Default)	Ready
System		4.3(3a)A	9.3(5)43(3a)	9.3(5)43(3a)	Ready
▼ Fabric Interconnect B (primary) Cisco UCS 6454					
Kernel		4.3(3a)A	9.3(5)43(3a)	9.3(5)43(3a)	Ready
Service Pack			4.3(3)SPO(Default)	4.3(3)SPO(Default)	Ready
System		4.3(3a)A	9.3(5)43(3a)	9.3(5)43(3a)	Ready

20 Installed Firmware

UCS Manager has been successfully upgraded.

If you previously configured the **evacuation** setting, remember to now disable it.



21 Admin mode Off

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

#cluster lead a

```
██████████-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
██████████-FI-B(local-mgmt)# cluster lead a
```

22 Connect Cluster Lead

Type **Y**esto continue. You are then 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 complete.