



# HyperFlex Edge Upgrade

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## Overview

This section provides information related to upgrading a Cisco HyperFlex Edge system.



### Important

- For upgrading a HyperFlex Edge system, use split upgrade only. Do not use combined upgrade.
- Automated ESXi upgrade should be performed via HX Connect or Intersight.
- When upgrading a HyperFlex Edge system, only HyperFlex Data Platform can be upgraded from the HX Connect UI. Do not select the UCS Server firmware option. Instead, perform the firmware upgrade separately using the Host Upgrade Utility (HUU) tool or the Integrated Management Controller (IMC) Supervisor.
- Review the Cisco HyperFlex Upgrade Guidelines in the [Recommended Cisco HyperFlex HX Data Platform Software Releases - for Cisco HyperFlex HX-Series Systems](#).

## HyperFlex Edge and Firmware Compatibility Matrix for 3.x Deployments

### Cisco HX Data Platform, Release 3.x based Deployments

Confirm the component firmware on the server meets the minimum versions listed in the following tables.



**Important** HyperFlex Edge does not support Cisco IMC versions 4.0(4a), 4.0(4b), 4.0(4c), 4.0(4d), and 4.0(4e).

*Table 1: HX220c M4 / HXAF220c M4 Cluster*

Component	Minimum Firmware Version - HXDP 3.x *(be sure to review important note(s) above)	Recommended Firmware Version - HXDP 3.x *(be sure to review important note(s) above)
Cisco Integrated Management Controller (CIMC)	3.0(3f)	4.0(2f)
Host Upgrade Utility (HUU) Download Link	3.0(3f) <a href="#">Download Software</a>	4.0(2f) <a href="#">Download Software</a>

*Table 2: HX220c M5 / HXAF220c M5 Cluster*

Component	Minimum Firmware Version - HXDP 3.x *(be sure to review important note(s) above)	Recommended Firmware Version - HXDP 3.x *(be sure to review important note(s) above)
Cisco Integrated Management Controller (CIMC)	3.1(2d)	4.1(2f)
Host Upgrade Utility (HUU) Download Link	3.1(2d) <a href="#">Download Software</a>	4.1(2f) <a href="#">Download Software</a>

## Upgrading HyperFlex Edge Using vSphere Web Client from 2.1 or Earlier Releases

Follow these steps when upgrading from a HyperFlex Data Platform version prior to 2.5(1a):

### Procedure

**Step 1** Bootstrap to upgrade Cisco HX Data Platform Plug-in. See [Manual Bootstrap Upgrade Process](#).

- Important**
- Be sure to copy the bootstrap file to the controller VM /tmp directory.
  - Ensure that you confirm the version of the plug-in in the vCenter **Administration > Client Plug-Ins** page.

- Step 2** Disable snapshot schedule, on the bootstrapped storage controller VM. Run the command `stcli snapshot-schedule --disable`.
- It is enough to run this script on one of the controller nodes.
- Step 3** Log in to the vSphere Web Client Plug-in with administrator credentials.
- Step 4** Perform a split upgrade of the HX Data Platform only.
- Step 5** Confirm that upgrade is complete. See [Post Upgrade Tasks for HyperFlex Edge, on page 6](#) for more details.
- Step 6** On the same controller VM, to enable snapshot schedule, run the command `stcli snapshot-schedule --enable`.
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## Upgrading HyperFlex Edge Using HX Connect from 2.5(1a) or Later Releases

When upgrading a HyperFlex Edge system not managed by Cisco Intersight or prior to a HX release 4.0(2a) use the HX Connect procedure below.



**Note** HX Edge clusters deployed via Intersight do not have upgrade capability from Hyperflex Connect. The upgrade is only supported through Intersight.

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For upgrading a HyperFlex Edge system managed using Cisco Intersight or for systems running HX release 4.0(2a), follow the steps listed [here](#).

### Upgrade guidelines:

- Only Cisco HyperFlex Edge clusters that are deployed through Cisco Intersight can be upgraded.
- Additionally, upgrade can be initiated only from the Organization to which the HyperFlex Cluster Profile belongs to. For example, if a cluster is shared between Org A and Org B and the Cluster Profile belongs to Org A, upgrade can be performed only from Org A.
- All clusters that are selected for the upgrade must be HyperFlex Edge clusters.
- Ensure that the cluster is at HyperFlex Data Platform version 4.0(1a) or later.

See full procedure here: [Upgrading Cisco HyperFlex Edge Systems with Cisco Intersight](#).

### Procedure

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- Step 1** Bootstrap to upgrade Cisco HX Data Platform Plug-in. See [Manual Bootstrap Upgrade Process](#) for more details.
- Important** Be sure to copy the bootstrap file to the controller VM `/tmp` directory.
- Step 2** Log in to HX Connect.
- Step 3** In the Navigation pane, select **Upgrade**.

**Step 4** On the **Select Upgrade Type** page, select **HX Data Platform** only. Click **Continue**.

**Step 5** Complete the following fields on the **Enter Credentials** page.

#### Upgrade HX Data Platform

UI Element	Essential Information
Drag the HX file here or click to browse	Upload the latest <i>Cisco HyperFlex Data Platform Upgrade Bundle for upgrading existing clusters with previous release.tgz</i> package file from <a href="#">Download Software - HyperFlex HX Data Platform</a> .  Sample file name format: <i>storfs-packages-3.5.2a-31601.tgz</i> .
Current version	Displays the current HyperFlex Data Platform version.
Current cluster details	Lists the HyperFlex cluster details like the <b>HyperFlex version</b> and <b>Cluster upgrade state</b> .
Bundle version	Displays the HyperFlex Data Platform version of the uploaded bundle.
(Optional) Checksum field	The <i>MD5 Checksum number</i> is stored in a separate text file at the <code>/tmp</code> directory where the upgrade package was downloaded.  This is an optional step that helps you verify the integrity of the uploaded upgrade package bundle.

#### vCenter Credentials

UI Element	Essential Information
User Name field	Enter the vCenter <i>&lt;admin&gt;</i> username.
Admin Password field	Enter the vCenter <i>&lt;admin&gt;</i> password.

**Step 6** Click **Upgrade**.

**Step 7** The **Validation Screen** on the **Upgrade Progress** page displays the progress of the checks performed. Fix validation errors, if any. Confirm that the upgrade is complete.

## Server Firmware Upgrade Using the Cisco Host Upgrade Utility Tool

The following table summarizes the server firmware upgrade workflow on Cisco HX Servers:

Step	Description	Reference
1.	Place a node in HX maintenance mode.  <b>Note</b> Upgrade one node at a time, for the cluster to stay online during upgrade.	<a href="#">Verify vMotion Configuration for HX Cluster</a>  <a href="#">Entering Cisco HyperFlex Maintenance Mode</a>
2.	Upgrade server firmware using the Host Upgrade Utility tool.	See <a href="#">Updating the Firmware on Cisco UCS C-Series Servers</a> in the <i>Cisco Host Upgrade Utility User Guide</i> .
3.	Reboot the node back into ESXi. Exit HX maintenance mode.	<a href="#">Exiting Cisco HyperFlex Maintenance Mode</a>
4.	Wait until the cluster becomes fully healthy.	<a href="#">Viewing HyperFlex Cluster Health</a>
5.	Repeat steps 1-4 on the remaining HX nodes in a rolling fashion.  <b>Note</b> Ensure that you check the health state before entering maintenance mode on the next host in the cluster.	

You can find current and previous releases of the *Cisco Host Upgrade Utility User Guide* at this location: <https://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-c-series-rack-servers/products-user-guide-list.html>.

## Upgrading Server Firmware on a Cisco UCS C-Series Server Using the Cisco IMC Supervisor

If you are upgrading to Cisco IMC version 2.0(x), you must change the default Cisco IMC password.



**Note** Before upgrading Cisco IMC Supervisor and if a firmware profile was already set up, ensure that the Cisco.com credentials and proxy details are configured.

### Procedure

- Step 1** Choose **Systems > Firmware Management**.
- Step 2** On the **Firmware Management** page, click **Firmware Upgrades**.

**Step 3** Click **Run Upgrade**. A warning message appears, advising you that running the upgrade on the selected servers will cause the host to reboot into the firmware update tool. On completion of the firmware update, the servers will reboot back to the host OS.

**Step 4** Click **OK** to confirm.

**Step 5** On the **Upgrade Firmware** screen, complete the following:

Field	Description
Select Profile drop-down list	Choose a profile from the drop-down list.
Platform field	Click <b>Select</b> and choose the servers from the list. The list displays only those servers whose platforms match the one configured in the selected profile.
Image Version field	
Image Path field	
Schedule later check box	Check this check box and select an existing schedule to run an upgrade. You can also click the + icon to create a new schedule.

**Step 6** Click **Submit**.

## Post Upgrade Tasks for HyperFlex Edge

After the upgrade is complete and the HyperFlex Edge cluster has been upgraded, log out and log back in to vCenter to see the upgrade changes.

### Procedure

**Step 1** Confirm that the HX nodes match the expected firmware version.

Check the firmware version in the IMC supervisor GUI to verify for the correct firmware version.

To view the firmware version, in the IMC Supervisor GUI, navigate to the **Systems > Firmware Management** tab. See [Upgrading Firmware using IMC Supervisor](#) for more details.

**Step 2** Log in to any controller VM through SSH.

```
# ssh root@controller_vm_ip
```

**Step 3** Confirm the HyperFlex Data Platform version.

```
# stcli cluster version
```

```
Cluster version: 2.5(1c)
Node HX02 version: 2.5(1c)
Node HX01 version: 2.5(1c)
Node HX03 version: 2.5(1c)
```

**Step 4** Verify that the HX storage cluster is online and healthy.

```
# stcli cluster info|grep -i health
```

Sample output:

```
healthstate : healthy
```

```
state: healthy
```

```
storage cluster is healthy
```

**Step 5** Verify that the datastores are up and are mounted properly on the ESXi host.

From HX controller VMs run the command:

```
# stcli datastore list
```

From the ESXi host run:

```
# esxcfg-nas -l
```

**Step 6** For each browser interface you use, empty the cache and reload the browser page to refresh the HX Connect content.

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