



# Upgrade UCS Firmware, HX Data Platform and VMware vSphere - Individual Component Upgrade

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## Overview

Cisco recommends upgrading all these 3 components in a combined full-stack upgrade from HyperFlex Connect. You can choose to upgrade one, two or all three components at a time. If you are combining 2 or more components in a single upgrade process, follow procedures described in the previous chapter. Otherwise, follow below procedures for individual component upgrade one at a time.

## Cisco HyperFlex Data Platform Upgrade

### Before you begin

- Download the latest *Cisco HX Data Platform Upgrade Bundle for upgrading existing clusters from previous releases*, from [Downloading Software](#).
- Disable snapshot schedule, on the storage controller VM. SSH to the HyperFlex cluster IP and run the command `stcli snapshot-schedule -disable snapshot schedule`.
- Pause replication using the run the `stcli dp schedule pause` command and enable it after upgrade using the `stcli dp schedule resume` command. For more detailed steps, see [Pausing Replication](#).

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- Step 1** Log into HX Data Platform.
- a) Enter the administrative username and password.

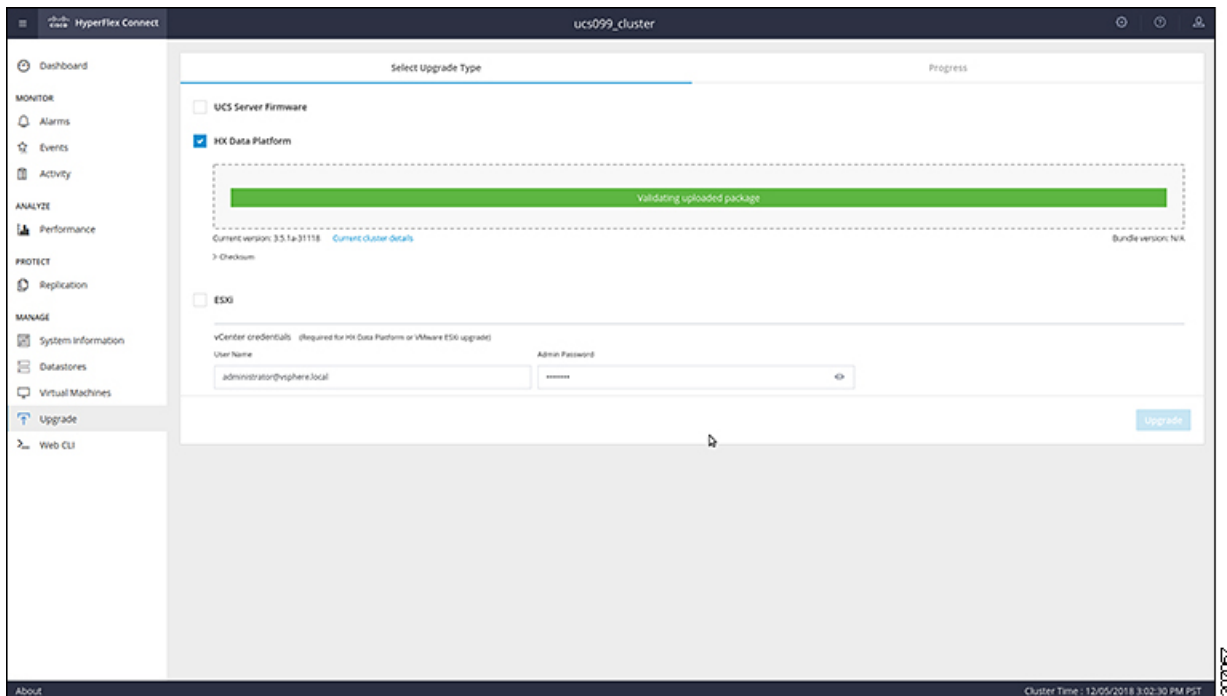
b) Click **Login**.

**Step 2** In the Navigation pane, select **Upgrade**.

**Step 3** On the **Select Upgrade Type** page, select **HX Data Platform** and complete the following fields:

UI Element	Essential Information
<b>Drag the HX file here or click to browse</b>	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-4.5.1a-31601.tgz</i> .
(Optional) <b>Checksum</b> field	The <i>MD5 Checksum number</i> is available by hovering over the filename in the Cisco Software Download section.  This is an optional step that helps you verify the integrity of the uploaded upgrade package bundle.

Figure 1: Select Upgrade Type Page



**Step 4** Enter the **vCenter credentials**.

UI Element	Essential Information
<b>User Name</b> field	Enter the vCenter <admin> username.
<b>Admin Password</b> field	Enter the vCenter <admin> password.

**Step 5** Click **Upgrade** to begin the cluster upgrade process.

**Step 6** The Validation screen on the **Upgrade Progress** page displays the progress of the checks performed. Fix validation errors, if any.

**Note** At this point, all pre-upgrade checks and validations are run, along with the initial upgrade stage. Within a few minutes, HX Connect returns and prompts you to confirm and start the second stage of the upgrade. The upgrade is not complete until both steps are performed in the UI. The system should never be left in a state where only the first step of the upgrade is complete.

**Step 7** The HyperFlex Connect UI refreshes after the first step of the upgrade, and a banner pops up prompting you to provide the UCS and vCenter credentials and start the second stage of the upgrade process. Monitor the upgrade page and confirm that the upgrade is complete.

When upgrade is in progress, you may see an error message **Websocket connection failed. Automatic refresh disabled**. You can either refresh the page or log out and log back in to clear the error message. You can safely ignore this error message.

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### What to do next

Proceed to [Confirm That Upgrade Is Complete](#) for post upgrade tasks once the upgrade is complete. If the upgrade fails, you can re-try the upgrade or contact Cisco TAC for further assistance.



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**Note** Running a cluster without remediation after an upgrade failure is not recommended. Care should be taken to fully complete the upgrade as soon as possible.

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## Cisco HXDP Upgrade using HX Installer

The ability to upgrade HXDP and ESXi (optional) using the HX Installer was introduced in Cisco HyperFlex Release 6.0(1a).

Perform the following steps to upgrade HXDP and (optional) ESXi using the HX Data Platform Installer (OVA).

### Before you begin

- Download the HXDP bundle from CCO <https://software.cisco.com/download/home/286305544/type/286305994/>.

### SUMMARY STEPS

1. Log in to the HX Data Platform Installer.
2. Follow the **Upgrade Cluster** workflow for a standard cluster.
3. On the **Credentials** view, type your vCenter and Hypervisor credentials in the field boxes for the cluster you intend to upgrade. Use the eye icon to show or hide the passwords.
4. Click the **Continue** button to discover the cluster and advance to the **Upgrade Cluster** view.
5. Type the cluster password in the **Password** box and click the **Continue** button.

6. Check the box to start the optional ESXi upgrade on all nodes in the cluster. Once checked, either drag or browse to the local ESXi bundle to the highlighted box.
7. Use the **Test Upgrade Eligibility** button to test the HXDP and ESXi combination.
8. Click the **Upgrade** button to complete the upgrade.

## DETAILED STEPS

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- Step 1** Log in to the HX Data Platform Installer.
  - Step 2** Follow the **Upgrade Cluster** workflow for a standard cluster.
  - Step 3** On the **Credentials** view, type your vCenter and Hypervisor credentials in the field boxes for the cluster you intend to upgrade. Use the eye icon to show or hide the passwords.
  - Step 4** Click the **Continue** button to discover the cluster and advance to the **Upgrade Cluster** view. The **Select a Cluster to Upgrade** box appears.
  - Step 5** Type the cluster password in the **Password** box and click the **Continue** button. The workflow advances to the **Optional ESXi Upgrade Configuration** view.
  - Step 6** Check the box to start the optional ESXi upgrade on all nodes in the cluster. Once checked, either drag or browse to the local ESXi bundle to the highlighted box.
  - Step 7** Use the **Test Upgrade Eligibility** button to test the HXDP and ESXi combination.  
To validate or upgrade the firmware version, use HX Connect.
  - Step 8** Click the **Upgrade** button to complete the upgrade.
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# Cisco UCS Server Firmware Upgrade

## Before you begin

- Check and confirm the UCS B-Series and C-Series server firmware packages have been downloaded to the Fabric Interconnects.
- Disable snapshot schedule, on the storage controller VM. SSH to HyperFlex cluster IP and run the command `stcli snapshot-schedule -disable snapshot schedule`.

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- Step 1** Log into HX Connect.
    - a) Enter the administrative username and password.
    - b) Click **Login**.
  - Step 2** In the Navigation pane, select **Upgrade**.
  - Step 3** On the **Select Upgrade Type** page, select **UCS Server Firmware**, and complete the following fields:

Field	Essential Information
UCS Manager Connectivity	

Field	Essential Information
UCS Manager FQDN/IP	Enter the Cisco UCS Manager FQDN or IP address. Example: 10.193.211.120.
User Name	Enter the Cisco UCS Manager <admin> username.
Admin Password	Enter the Cisco UCS Manager <admin> password
<b>HX Server Firmware</b>	
Discover	Click <b>Discover</b> to view the current UCS firmware package version.
M3/M4 Desired Version/M5 Desired Version (Depending on the nodes in the cluster)	<p>Select the appropriate C-Series firmware versions.</p> <p>Optionally, if you have Compute only B-Series UCS blades in the cluster select the appropriate B-Series firmware version.</p> <p>Only C &amp; B bundles uploaded to UCS Manager will be shown in the list. Return to <a href="#">Upgrading UCS Infrastructure Firmware Workflow</a> if the desired version is not shown.</p> <p>Only compatible firmware versions are shown in the dropdown list. If the desired version is not displayed, confirm the compatibility between HXDP &amp; Server Firmware in the <a href="#">Cisco HyperFlex Software Requirements and Recommendations</a> document.</p>

**Step 4** Click **Upgrade** to begin the UCS firmware upgrade process.

**Step 5** The **Validation Screen** on the **Upgrade Progress** page displays the progress of the checks performed. Fix validation errors, if any. Monitor the upgrade page and confirm that the upgrade is complete.

When upgrade is in progress, you may see an error message, `Websocket connection failed. Automatic refresh disabled`. You can either refresh the page or log out and log back in to clear the error message. You can safely ignore this error message.

**Note** Do not manually acknowledge servers in UCS Manager. While the servers will enter a pending-ack state, the administrator should not manually intervene. The HyperFlex platform will automatically acknowledge each server at the correct time.

## VMware vSphere/ESXi Upgrade



**Important** Using VMware Update Manager (VUM) or VMware Lifecycle Manager (vLCM) for upgrading the ESXi on HyperFlex node is not supported. Using these upgrade methods may delete Cisco custom drivers and cause cluster outages. We recommend using Cisco Intersight or HyperFlex Connect for ESXi upgrades including the security patches from VMware or manually installing patches using the offline zip bundle with ESXCLI commands.

Follow the procedure below to upgrade only VMware ESXi from HyperFlex Connect. This procedure can be followed for ESXi patch upgrades as well.

Upgrading vSphere requires you to complete the following tasks:

- Refer to the release documents for software compatibilities of HXDP, UCS, and VMware and confirm your vCenter is upgraded before you upgrade. For details, see the [Release Notes for Cisco HX Data Platform](#) for your release, [Cisco HyperFlex Recommended Software Release and Requirements Guide](#), and [VMware Product Interoperability Matrices](#).
- Log into HX Connect using admin privileges and navigate to the Upgrade page.

### Before you begin

Download the appropriate HX custom ESXi offline upgrade bundle. For details, see [Downloading Software](#). Cisco does not recommend use of non-HX customized ESXi bundles, although it is supported. Using HX customized bundles ensures all the latest drivers are updated and compatibility with the HyperFlex hardware.

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- Step 1** Log into HX Connect with admin privileges.
- Step 2** Navigate to the System Information tab and confirm the running Hypervisor version.
- Step 3** Click on the Upgrade tab and select **ESXi**.
- Step 4** Click in the bundle version window and navigate to your previously saved ESXi offline bundle and click **Open**.
- Step 5** Once the bundle is uploaded, enter your vCenter credentials and click **Upgrade**.
- Note** The upgrade process is non-disruptive and upgrades one server at a time.
- Step 6** Refresh your browser screen to view the upgrade changes on the Dashboard tab.
- Note** Click on the System Information tab to confirm that all the nodes are online.
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