



## Appendix

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- [Rack Cisco HyperFlex Nodes, on page 1](#)
- [Setting Up the Fabric Interconnects, on page 1](#)
- [How to upload the iso and img file to the installer VM using WinSCP, on page 5](#)
- [DNS Records, on page 7](#)
- [Updating HX Service Account Username and Password, on page 8](#)

## Rack Cisco HyperFlex Nodes

For details on the HyperFlex cluster and node limits, see **Cisco HX Data Platform Storage Cluster Specifications** in the latest version of the [Release Notes for Cisco HX Data Platform](#).

For details on the installation of Cisco HyperFlex nodes, refer to respective links from the following table:

Type of Node To Be Installed	Reference
<b>Converged Nodes</b>	
HyperFlex HX220c M5 Nodes	<a href="#">Cisco HyperFlex HX220c M5 Node Installation Guides</a>
HyperFlex HX240c M5 Nodes	<a href="#">Cisco HyperFlex HX240c M5 Node Installation Guides</a>



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**Note** Hyper-V is only supported on M5 servers.

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## Setting Up the Fabric Interconnects

Configure a redundant pair of fabric interconnects for high availability. Connect the two fabric interconnects directly using Ethernet cables between the L1 and L2 high availability ports. Connect Port L1 on fabric interconnect A to port L1 on fabric interconnect B, and Port L2 on fabric interconnect A to port L2 on fabric interconnect B. This allows both the fabric interconnects to continuously monitor the status of each other.

Verify and obtain the following information before connecting the fabric interconnects.

Item	Description
Verify the physical connections of the fabric interconnects.	<ul style="list-style-type: none"> <li>• Console port for the first fabric interconnect must be physically connected to a computer or console server.</li> <li>• Management Ethernet port (mgmt0) must be connected to an external hub, switch, or router.</li> <li>• L1 ports on both the fabric interconnects must be directly connected to each other.</li> <li>• L2 ports on both the fabric interconnects must be directly connected to each other.</li> </ul>
Verify console port parameters on the computer terminal.	<ul style="list-style-type: none"> <li>• 9600 baud</li> <li>• 8 data bits</li> <li>• No parity</li> <li>• 1 stop bit</li> </ul>
Obtain information for initial setup.	Collect the following information for initial setup: <ul style="list-style-type: none"> <li>• System name</li> <li>• Password for admin account</li> <li>• Three static IP addresses</li> <li>• Subnet mask for three static IP addresses</li> <li>• Default gateway IP address</li> <li>• DNS server IP address</li> <li>• Domain name for the system</li> </ul>

Both fabric interconnects must go through the same setup process. Set up the primary fabric interconnect and enable for cluster configuration. When you use the same process to set up the secondary fabric interconnect, it detects the first fabric interconnect as a peer.

## Configure the Primary Fabric Interconnect Using GUI

You can either follow the procedure below for configuring the primary fabric interconnect or watch [Cisco UCS Manager Initial Setup part 1](#).




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**Attention**

IPv4 addressing is required for HyperFlex.

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## Procedure

- Step 1** Power up the fabric interconnect.  
You will see the power on self-test messages as the fabric interconnect boots.
- Step 2** If the system obtains a lease, go to step 6, otherwise, continue to the next step.
- Step 3** Connect to the console port.
- Step 4** At the installation method prompt, enter **gui**.
- Step 5** If the system cannot access a DHCP server, you are prompted to enter the following information:
- IPv4 address for the management port on the fabric interconnect.
  - IPv4 subnet mask for the management port on the fabric interconnect.
  - IPv4 address for the default gateway assigned to the fabric interconnect.
- Step 6** Copy the web link from the prompt into a web browser and go to the Cisco UCS Manager GUI launch page.
- Step 7** On the Cisco UCS Manager GUI launch page, select **Express Setup**.
- Step 8** On the **Express Setup** page, select **Initial Setup** and click **Submit**.
- Step 9** In the **Cluster and Fabric Setup** area:
- a) Click the **Enable Clustering** option.
  - b) For the **Fabric Setup** option, select **Fabric A**.
  - c) In the **Cluster IP Address** field, enter the IPv4 address that Cisco UCS Manager will use.
- Step 10** In the **System Setup** area, complete the following fields:

Field	Description
<b>System Name</b> field	The name assigned to the Cisco UCS domain.  In a standalone configuration, the system adds "-A" to the system name. In a cluster configuration, the system adds "-A" to the fabric interconnect assigned to fabric A, and "-B" to the fabric interconnect assigned to fabric B.
<b>Admin Password</b> field	The password used for the Admin account on the fabric interconnect.  Choose a strong password that meets the guidelines for Cisco UCS Manager passwords. This password cannot be blank.
<b>Confirm Admin Password</b> field	The password used for the Admin account on the fabric interconnect.
<b>Mgmt IP Address</b> field	The static IPv4 address for the management port on the fabric interconnect.
<b>Mgmt IP Netmask</b> field or <b>Mgmt IP Prefix</b> field	The IPv4 subnet mask prefix for the management port on the fabric interconnect.  <b>Note</b> The system prompts for a <b>Mgmt IP Netmask</b> or a <b>Mgmt IP Prefix</b> based on what address type you entered in the <b>Mgmt IP Address</b> field.

Field	Description
<b>Default Gateway</b> field	The IPv4 address for the default gateway assigned to the management port on the fabric interconnect.  <b>Note</b> The system prompts for a <b>Default Gateway</b> address type based on what type you entered in the <b>Mgmt IP Address</b> field.
<b>DNS Server IP</b> field	The IPv4 address for the DNS Server assigned to the fabric interconnect.
<b>Domain Name</b> field	The name of the domain in which the fabric interconnect resides.

- Step 11** Click **Submit**.  
A page displays the results of your setup operation.

## Configure the Subordinate Fabric Interconnect Using GUI

You can either follow the procedure below for configuring the subordinate fabric interconnect or watch [Cisco UCS Manager Initial Setup part 2](#).

### Procedure

- Step 1** Power up the fabric interconnect.  
You will see the power-up self-test message as the fabric interconnect boots.
- Step 2** If the system obtains a lease, go to step 6, otherwise, continue to the next step.
- Step 3** Connect to the console port.
- Step 4** At the installation method prompt, enter **gui**.
- Step 5** If the system cannot access a DHCP server, you are prompted to enter the following information:
- IPv4 address for the management port on the fabric interconnect
  - IPv4 subnet mask for the management port on the fabric interconnect
  - IPv4 address for the default gateway assigned to the fabric interconnect
- Step 6** Copy the web link from the prompt into a web browser and go to the Cisco UCS Manager GUI launch page.
- Step 7** On the Cisco UCS Manager GUI launch page, select **Express Setup**.
- Step 8** On the **Express Setup** page, select **Initial Setup** and click **Submit**.  
The fabric interconnect should detect the configuration information for the first fabric interconnect.
- Step 9** In the **Cluster and Fabric Setup** Area:
- a) Select the **Enable Clustering** option.
  - b) For the **Fabric Setup** option, make sure **Fabric B** is selected.

**Step 10** In the **System Setup** Area, enter the password for the Admin account into the **Admin Password of Master** field.

The **Manager Initial Setup** Area is displayed.

**Step 11** In the **Manager Initial Setup** Area, complete the following:

Field	Description
<b>Peer FI is IPv4 Cluster enabled. Please Provide Local Fabric Interconnect Mgmt0 IPv4 Address</b> field	Enter an IPv4 address for the Mgmt0 interface on the local fabric interconnect.

**Step 12** Click **Submit**.

A page displays the results of your setup operation.

## How to upload the iso and img file to the installer VM using WinSCP

You may choose to use the Installer VM as host for the ISO and IMG files to install Hyper-V. To accomplish that you need to upload the Windows ISO and the Cisco HyperFlex driver image to the installer.

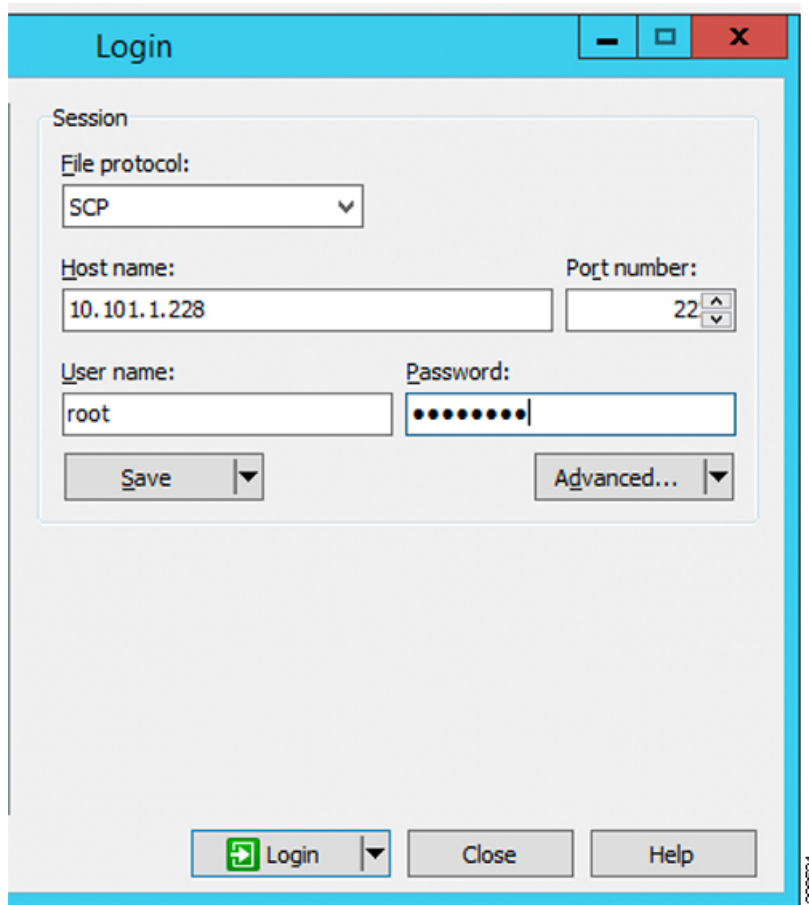
For the purpose of this guide we will use WinSCP, you can use whatever SCP client you have available.

### Procedure

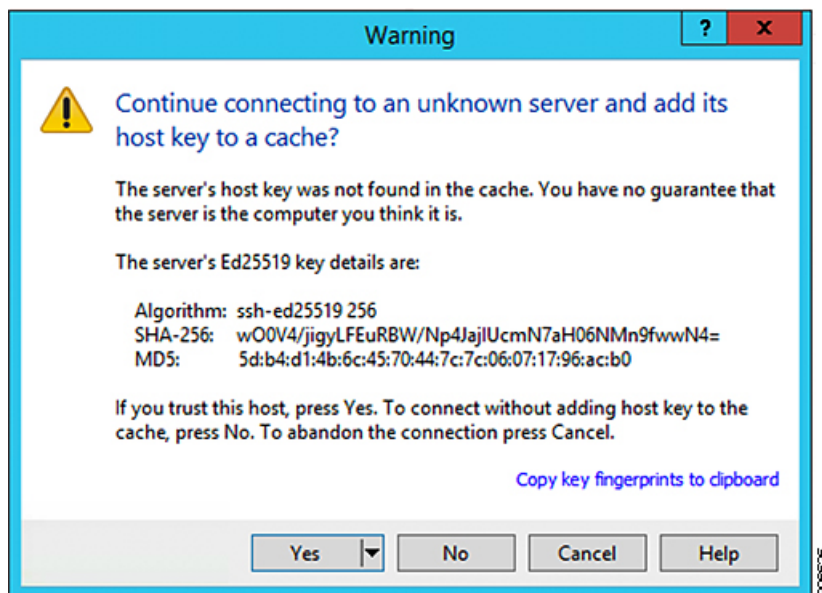
**Step 1** Download a SCP client for Windows. It could be WinSCP (<https://winscp.net/eng/download.php>) and install it on your workstation.

**Step 2** Connect to your installer VM from WinSCP. Username **root** and password **Cisco123**

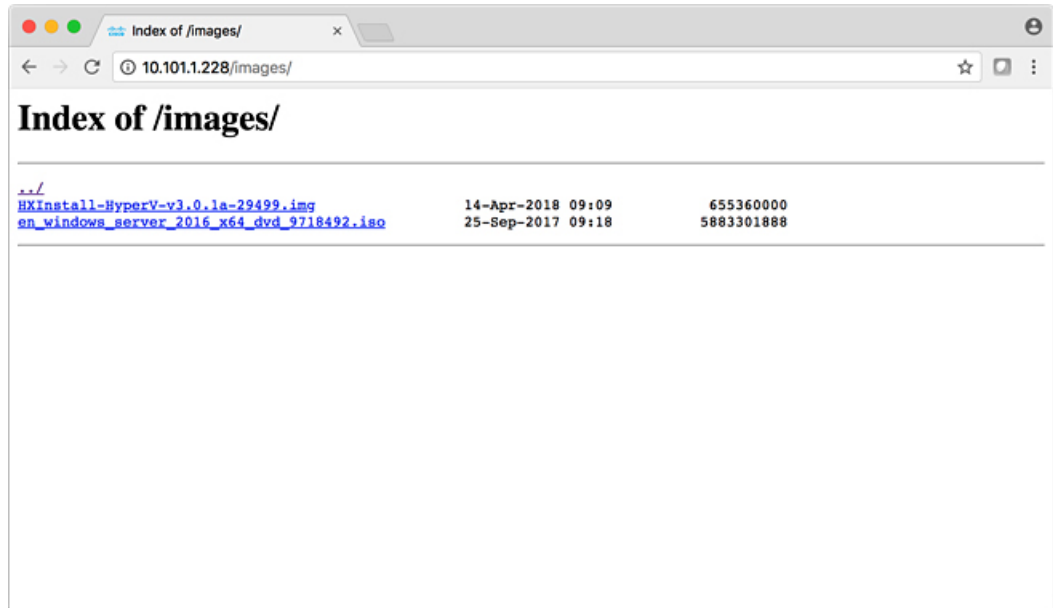
**Important** Systems ship with a default password of Cisco123 that must be changed during installation. You cannot continue installation unless you specify a new user supplied password.



**Step 3** Accept the key and add to the cache.



- Step 4** Once connected browse to the folder `/var/www/localhost/images/` on the installer. Browse to where to local files are located on your machine.
- Step 5** Transfer the files. File names can be copied if you access the URL in a browser: `http://<controller_IP>/images/`



## DNS Records

Refer to the list below for the DNS records that must be added to your environment.

Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername

Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "-CNTL" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "-CNTL" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "-CNTL" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername
Add-DnsServerResourceRecordA -Name "-CNTL" -ZoneName "Ciscolab.dk" -AllowUpdateAny -IPv4Address "" -TimeToLive 01:00:00 -CreatePtr -computername

## Updating HX Service Account Username and Password

A new password must be updated within an HX Cluster if the password expired or was changed voluntarily. Perform the following step to update the Cisco HX Service Account Password.



**Note** The access to VMs and datastores will still continue to work without the new password. However, the cluster will experience some issues with the Alert, Systems Status, Support Bundle and Datastore Access reporting.

### Before you begin

Ensure that the Cisco HX Service Account User Name is in the following format:

```
username@domain.com
```

### Procedure

**Step 1** Run the `resethypervcred -u` command from one of the Storage Controller node within the cluster.

#### Example:

The following is an example of the command with sample output:

```
root@cvmhvl1:~# resethypervcred -u
Enter service admin name:administrator@domain.com
Enter service admin passwd:
Enter local admin name:administrator
Enter local admin passwd:
Hyperv creds updated successfully
```

Login to each controller vm as the root user and run `restart hxHyperVSvcMgr`.



After you have completed the reset and service restarts, then login to **HX Connect** as the HX Service Account User to verify your login works and HX Connect is displaying the cluster information.

**Step 2** To change the HX Service Account username, run the `resethypervcred -u` command.

**Example:**

```
root@cvmhv1:~# resethypervcred -u
Enter service admin name:newhxuser@domain.com
Enter service admin passwd:
Enter local admin name:administrator
Enter local admin passwd:
Hyperv creds updated successfully
```

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