# Cisco Intersight - Hyperflex Installation, Configuration & Deployment on VMware ESXi

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## Introduction

Cisco Intersight, simplifies data center operations by delivering systems management as-aservice, alleviating the need to maintain islands of on-premise management infrastructure.

Cisco Intersight provides an installation wizard to install, configure, and deploy Cisco HyperFlex clusters — HX Edge and FI-attached. The wizard constructs a pre-configuration definition of your cluster called an HX Cluster Profile. This definition is a logical representation of the HX nodes in your HX cluster and includes-

- Security— credentials for HyperFlex cluster such as controller VM password, hypervisor username, and password.
- Configuration server requirements, firmware, etc.
- Connectivity— upstream network, virtual network, etc.

This document provides the steps and screen shot of how to deploy FI-attached Hyperflex clusters using intersight.

## Prerequisites

## Requirements

Supported versions for HX FI-attached Cluster Deployments

Component

Version/Release

HX220C-M4S HXAF220C-M4S HX240C-M4SX HXAF240C-M4S

M4, M5 Servers

HX220C-M5SX HXAF220C-M5SX HX240C-M5SX HXAF240C-M5SX

Device Connector

Auto-upgraded by Cisco Intersight

Intersight Connectivity

Consider the following prerequisites pertaining to Intersight connectivity-

- Make sure that the **device connector** on the corresponding UCS Manager instance is properly configured to connect to **Cisco Intersight** and claimed.
- All device connectors must properly resolve **svc.ucs-connect.com** and allow outbound initiated HTTPS connections on port 443.
- Hyperflex Installer version till 3.5(2a) supports the use of an HTTP proxy, except when the cluster is redeployed and is not new from the factory.
- All controller VM management interfaces must properly resolve download.intersight.com and allow outbound initiated HTTPS connections on port 443. The current version of HX Installer supports the use of an HTTP proxy if direct Internet connectivity is unavailable, except when the cluster is redeployed and is not new from the factory.
- The intended ESX server, HX Controller network, and vCenter host must be accessible through UCS Fabric Interconnect management interfaces.
- Starting with HXDP release 3.5(2a), the Intersight installer does not require a factory installed controller VM to be present on the HyperFlex servers. However, this requirement will still be applicable if connectivity to Intersight is through a HTTP proxy. All NEW HX servers may be deployed as-is with an HTTP proxy.

#### **Other requirements**

Software Requirements Physical Requirements

Network Requirements

Port Requirements

**Deployment Information** 

### **Components Used**

- Cisco Intersight
- Cisco UCSM
- Cisco HX Servers
- Cisco Hyperflex
- VMWare ESXi
- VMware vCenter

## Configure

### **Network Diagram**

• Cisco Intersight provides an easy way to deploy HyperFlex Clusters by including the HyperFlex Installer in all Editions of Cisco Intersight.



### **Configuration Steps**

Step 1. Login to Cisco Intersight and select the user account as shown below-



Step 2. On the dashboard click on the Devices tab on the right pane.



Step 3. Under Devices, Click on Claim a New Device

☆



Step 4. Login to UCS Manager, browse to Admin -> Device Connector. Click on Settings to configure Access Mode and Proxy Configuration

æ	All 👻	All / Device Connector			
	<ul> <li>Internet Low</li> </ul>				
	LAN Cloud				
	SAN Cloud			_	
86 86	► root ①	Intersight Management	Settings	×	
_	Time Zone Management				
-	<ul> <li>Capability Catalog</li> </ul>	Enabled	General	Proxy Configuration Certificate Manager	
	Adapters		Annual Marke		SSI201001PJ
	Blade Servers	When this option is enabled, you can c this system and leverage the capabilit	Access Mode		
=	CPUs	of Cisco Intersight.	Read-only		3 📴
	Chassis	If disabled, no communication will be	Allow Control		-
	Coprocessor Cards	allowed to Cisco Intersight.		1	
	Crypto Cards				
-0	Fan Modules				
	GPLI Cards				
	IO Modules				
	Local Disks				
	Mamony Linite				
	Mini Storage				
	Nelle				
	Pous			Cancel Ok	
	Rack-Mount Servers				
	Storage Controllers				
	<ul> <li>License Management</li> </ul>				
	Device Connector				
Æ	All	All / Device Connector			
	<ul> <li>Internet Deriv</li> </ul>	The Device Connector is an embedded manage			
	LAN Cloud				
	<ul> <li>SAN Cloud</li> </ul>				
52	► root 🙆		Settings	×	
=	<ul> <li>Time Zone Management</li> </ul>				
-	<ul> <li>Capability Catalog</li> </ul>	Enabled			
Q			General	Proxy Configuration Certificate Manager	
	Adapters	When this online is eachied up	General HTTPS Proxy	Proxy Configuration Certificate Manager	SSI201001PJ
	Adapters Blade Servers	When this option is enabled, you can c this system and leverage the capabilit	General HTTPS Proxy	Proxy Configuration Certificate Manager	SSI201001PJ
≡	Adapters Blade Servers CPUs	When this option is enabled, you can a this system and leverage the capability of Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port *	SSI201001PJ
=	Adapters Blade Servers CPUs Chassis	When this option is enabled, you can o this system and leverage the capabilit of Cisco Intersight. If disabled, no communication will be ellowed to Cisco Intersente	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
	Adapters Blade Servers CPUs Chassis Coprocessor Cards	When this option is enabled, you can o this system and leverage the capabilit of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards	When this option is enabled, you can o this system and leverage the capabilit of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
≡ ≡ ♪₀	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
≡ ≡ ⊀₀	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
= = 40	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
= = *0	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager Enabled Proxy Port * 8080	SSI201001PJ
≡ ■ ♪₀	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP*	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
2 2	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units Mini Storage	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP*	Proxy Configuration Certificate Manager Enabled  Proxy Port * 8080	SSI201001PJ
= 10	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units Mini Storage PSUs	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager  Enabled  Proxy Port *  8080	SSI201001PJ
≡ ∎ ♪₀	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units Mini Storage PSUs Rack-Mount Servers	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication, will be allowed to Cisco Intersight.	General HTTPS Proxy Proxy Hostname/IP*	Proxy Configuration Certificate Manager  Enabled  Proxy Port *  8080  Cancel OK	SSI201001PJ
≡ ■ ♪₀	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units Mini Storage PSUs Rack-Mount Servers Storage Controllers	When this option is enabled, you can o this system and leverage the capability of Cisco Intersight. If disabled, no communication will be allowed to Cisco Intersight. Agent Verson	General HTTPS Proxy Proxy Hostname/IP*	Proxy Configuration Certificate Manager  Enabled  Proxy Port *  8080  Cancel Ok	SSI201001PJ B
≡ ■ ≯0	Adapters Blade Servers CPUs Chassis Coprocessor Cards Crypto Cards Fan Modules GPU Cards IO Modules Local Disks Memory Units Mini Storage PSUs Rack-Mount Servers Storage Controllers + License Management	When this option is enabled, you can option is enabled, you can option is enabled of class interview. If classified, no communication will be allowed to Class Interview. Agent Verson	General HTTPS Proxy Proxy Hostname/IP *	Proxy Configuration Certificate Manager  Enabled  Proxy Port *  8080  Cancel Ok	SSI201001PJ E

Step 5. In UCS Manager, browse to Admin -> Device Connector. Enable Intersight Management toggle button and get the Device ID and the Claim Code.



**Step 6.** On Intersight account, use the **Claim Code** and **Device ID** (captured in step 5) to Claim the device. Now the UCSM domain is claimed.

≡	cisco Intersight	Device Claim	٩	35 🔺 12	ß	Q,	۲	0	Avinash Shukla 🔬
<u>00o</u>	Dashboards	New features have recently been added! Learn More							×
8	Servers								
\$	HyperFlex Clusters								
₽	Fabric Interconnects								
6	Service Profiles								
1	Policies								
Ŷ	Devices		Claim A New Device To claim your device, you must have the Device ID and Claim O Device ID * SSI Claim Code * Required Cancel	Code.					

**Step 7.** Check under Devices to confirm the new domain shows "**Connected**" and "**Claimed**". Also, check that you now have the option to cross launch UCSM UI and UCSM CLI from Intersight.

<u>00o</u>	Dashboards									Claim a	New Device
8	Servers										
*	HyperFlex Clusters		Q Search					12 v per page	$\mathbb{K}$	2_of2. ⊃	
	Fabric Interconnects	Na	ame	Status 🗘	Туре 🗢	Device IP	Device ID		Claimed B		
6	Service Profiles			Connected	UCS Domain		ss	1PJ	rainiini	pelaco.com	
	Policies									( La	Inch UCSM
Ŷ	Devices									La	inch CLI

Step 8. Under Service Profiles, click Create Hyperflex Cluster Profile



Step 9. Configure the Service Profile using the below steps,

#### **General Tasks**

=	cisco Intersight	Create HyperFlex Cluster Profile		φ	<b>5</b> 🔺 11				Avinash Shukla
<u>00o</u>	Dashboards		Prior to creating a HyperFlex Cluster profile, ensure that installation instructions. here	you go through the pre-insta	Ilation checklist	and the de	tailed Hyperf		
		General	Name *						
@ 	HyperFlex Clusters	Cluster Configuration	HX-2 ©						
₽	Fabric Interconnects		HyperFlex Data Platform Version						
1		<ul> <li>Nodes Assignment</li> </ul>	3.5(2a) <u> </u>						
ø	Devices	Nodes Configuration	Type ⊙ ◯ Cisco HyperFlex Edge ⊙ Cisco HyperFlex with Fabric I	nterconnect 3					
		Summary	Replication Factor © 4 O 2 • 3						
		Results	Description HX-2 5						
			Add Tag						
		Cancel							Next

### **Cluster Configuration - Security**

≡	cisco Intersight	Create HyperFlex Cluster Profile		Q 🖬 5 🔺 11 🖂 🔍 😳	O Avinash Shukla
<u>00o</u>	Dashboards				
8	Servers	General	— Security 🛆		
\$	HyperFlex Clusters				
₽		Cluster Configuration	root 1		
6	Service Profiles	Nodes Assignment			
1	Policies	Houes Assignment	The hypervisor on this node uses the factory default password		
ø	Devices	Nodes Configuration	Hypervisor Password *	Hypervisor Password Confirmation *	<u>a o</u> 2
		Summary	Controller VM Admin Password *	Controller VM Admin Password Confirmation *	<u>© 0</u> 3
		Results			
			+ DNS, NTP and Timezone		
			+ vCenter (optional)		
			+ Storage Configuration (optional)		
			+ Auto Support (optional)		

#### **Cluster Configuration - DNS, NTP and Timezone**

≡	cisco Intersight	Create HyperFlex Cluster Profile			Q 🖬 5 🔺 11	₽ <b>٩</b>	۲	② Avi	nash Shukla
000	Dashboards								
8		• General + Security @					hx-2-local-cr	edential-polic	
\$	HyperFlex Clusters	- DNS, NTP and	Timezone 🛆						
무	Fabric Interconnects	Cluster Configuration Timezone *			DNS Suffix				
6	Service Profiles	Nodes Assignment	ouver 1	× 0	sjs.local		2	G	
1	Policies								
ø		Nodes Configuration     172.	3 0		172.		4	◎ +	
		Summary DNS Servers * <u>172.1</u>	0		₽;				
		Results     + vCenter (opt	onal)						
		+ Storage Conf	uration (optional)						
		+ Auto Support	optional)						
		+ IP & Hostnam							

#### **Cluster Configuration - vCenter Configuration**

≡	cisco Intersight	Create HyperFlex Cluster Profile	Q ■ s A 11 🕑 🔍 🤤	Avina 🕄	ash Shukla
<u>00o</u>	Dashboards		+ Security 🧭 ha	-2-local-credential-policy	
8	Servers	General	+ DNS, NTP and Timezone	hx-2-sys-config-policy	
\$	HyperFlex Clusters		— vCenter (optional) 🛆		
무	Fabric Interconnects	Cluster Configuration	VCenter Server FQDN or IP * vCenter Username * vCenter Password *		
õ	Service Profiles	<ul> <li>Nodes Assignment</li> </ul>	172.	3 @ 0	
۵	Policies		vCenter Datacenter Name * VCenter Single-Sign-On Server		
Ŷ		<ul> <li>Nodes Configuration</li> </ul>	нх-2 <u>4 о (Optional) о</u>		
		Summary			
			+ storage configuration (optional)		
		Results	+ Auto Support (optional)		
			+ IP & Hostname		
			+ UCS Manager Configuration		
			+ Network Configuration		
			+ External FC Storage (optional)		
		Save & Close	Previous	Next	

**Note:-** For vCenter Configuration it is recommended to skip the vCenter Single-Sign-On Server. Please check below document page 27,

https://www.cisco.com/c/dam/en/us/products/collateral/hyperconverged-infrastructure/hyperflexhx-series/whitepaper-c11-740456.pdf

**Cluster Configuration - Storage Configuration** 

≡	cisco Intersight	Create HyperFlex Cluster Profile	다 🖬 5 🛦 11 🖂 역, 😨 ⑦ Avinash Shui	kla
<u>olo</u>	Dashboards		т әсыну 🗸 налалысысынадына 📖	
8		General	+ DNS, NTP and Timezone 📀 hx-2-sys-config-policy 🏢	ſ
\$	HyperFlex Clusters		+ vCenter (optional)	
무	Fabric Interconnects	Cluster Configuration	- Storage Configuration (optional)	
â	Service Profiles	Nodes Assignment	Logical Availability Zones configuration is recommended for HunerFlay Clusters with 8 or more nodes connected to Fl	
1				
Ŵ	Devices	<ul> <li>Nodes Configuration</li> </ul>	VDI Optimization © Clean up Disk Partitions © 1 Logical Availability Zones ©	
			+ Auto Support (optional)	
		<ul> <li>Summary</li> </ul>	+ IP & Hostname Select Policy 👔	
		Results	+ UCS Manager Configuration	
			+ Network Configuration	
			+ External FC Storage (optional)	
			+ External iSCSI Storage (optional)	U
			+ Proxy Setting (optional)	
		Save & Close	Previous	

## **Cluster Configuration - Auto Support**

≡	cisco Intersight	Create HyperFlex Cluster Profile	Q 🖬 5 🔺 11	P	Q,	۲	② Avia	hash Shukla
<u>00o</u>	Dashboards							
=		• General	+ Security $\oslash$			hx-2-local-c	redential-polic	
\$	HyperFlex Clusters		+ DNS, NTP and Timezone			hx-2-s	ys-config-polic	
무	Fabric Interconnects	Cluster Configuration	+ vCenter (optional)			hx-2-vcent	er-config-polic	
බ	Service Profiles		+ Storage Configuration (optional)			hx-2-cluste	r-storage-polic	
£	Policies	<ul> <li>Nodes Assignment</li> </ul>	- Auto Support (optional)					
Ŷ	Devices	Nodes Configuration	1 Auto-Support  Send Service Ticket Notification to 2 Send Service Ticket Notification to C					
		<ul> <li>Summary</li> </ul>	[] IP & Hostname					
		Results	+ UCS Manager Configuration					
			+ Network Configuration					
			+ External FC Storage (optional)					
			+ External ISCSI Storage (optional)					
		Save & Close						

## **Cluster Configuration - IP & Hostname**

=	cisco Intersight	Create HyperFlex Cluster Profile		Q 🖬 5 🔺 11 🛛 Q, 🛛 {	Avinash Shukla
<u>00o</u>	Dashboards				
88		📍 General	+ Auto Support (optional)		hx-2-auto-support-policy
<b>\$</b>	HyperFlex Clusters		— IP & Hostname ⊘		
무	Fabric Interconnects	Cluster Configuration	Hostname Prefix *		
බ්	Service Profiles	<ul> <li>Nodee Assignment</li> </ul>	hx-2-esxi		
1	Policies	· Houes Assignment	Management Network Starting IP *	Management Network Ending IP *	
Ŷ		<ul> <li>Nodes Configuration</li> </ul>	172.1	<u>     172.1     172.1     172.1     172.1     172.1     172.1     172.1     172.1 </u>	<mark>- ∡ ⊙</mark> - ₽
		Summary	Management Network Subnet Mask * 3 255.255.255.0 3	Management Network Gateway * O 172.1	<u>4</u> o
		Results	Controller VM Management Network Starting IP 172. 5	Controller VM Management Network Ending IP O 172.	<u>6 o</u>
			Controller VM Management Network Subnet Mask 7	Controller VM Management Network Gateway O 172.1	8 0
		Save & Close		Previous	Next

## Cluster Configuration - UCSM Configuration

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)			0 □ 5 ▲ 11 🛛	۹ ©	O Avinast	h Shukla
<u>00o</u>	Dashboards		+ ID & Hostoame			hv.2-oo	de confin noliny (	<u>എ</u>
		General	- UCS Manager Configuration			114-2-110	Select Policy	2 9
\$	HyperFlex Clusters							
무	Fabric Interconnects	Cluster Configuration	Server Firmware Version * 4.0(1c)					
6	Service Profiles	<ul> <li>Nodes Assianment</li> </ul>						
ſ			MAC Prefix Starting Address * 00:25:B5:AA	2 0	MAC Prefix Ending Address *			
ø	Devices	<ul> <li>Nodes Configuration</li> </ul>						
		Summary	KVM Starting IP * 172.		KVM Ending IP * 172.		0	
		Results	KVM Subnet Mask * 255.255.255.0	<u>6 o</u>	KVM Gateway * 172. Required		0	
			+ Network Configuration					
			+ External FC Storage (optional)					

**Cluster Configuration - Network** 

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)		Q ■ 5 🔺 11 🕑 🧠	© 0	Avinast	h Shukla
<u>00o</u>	Dashboards		+ IP & Hostname 🕑		nx-2-node-con	ing-policy [	
8	Servers	General	+ UCS Manager Configuration		hx-2-ucsm-con	fig-policy (	6
\$	HyperFlex Clusters		- Network Configuration				
무	Fabric Interconnects	Cluster Configuration	Management Network VLAN Name *	Management Network VLAN ID *			
6	Service Profiles	<ul> <li>Nodes Assignment</li> </ul>	HX-MGMT 1 ©	67	2	0	ĺ
۵	Policies		VM Migration VLAN Name *	VM Migration VLAN ID *			
Ŷ	Devices	<ul> <li>Nodes Configuration</li> </ul>	HX-VMOTION 3 ©	4		0	
		Summary	VM Network VLAN Name* HX-VMNETWORK 5	VM Network VLAN ID * 6		<u>o</u> +	
		Results	<ul> <li>Jumbo Frames ◎ 7</li> </ul>				
			+ External FC Storage (optional)				
			+ External ISCSI Storage (optional)				6
			+ Proxy Setting (optional)	13			
		Save & Close			Previous	Next	

## **Cluster Configuration - External Storage (Optional)**

If enabled, fill the VSAN name and VSAN ID for FI A and FI B respectively.

=	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)			Δ 🛛 5 🔺 11 🛛 🖓	۵. ۵		Avinas	ih Shukla
<u>00o</u>	Dashboards		+ Storage Configuration (optional)			hx-2	-cluster-storaç	ge-policy	
8		• General	+ Auto Support (optional)	+ Auto Support (optional)					
8	HyperFlex Clusters		+ IP & Hostname ⊘				hx-2-node-config-policy		
무	Fabric Interconnects	Cluster Configuration	+ UCS Manager Configuration			h	hx-2-ucsm-config-policy		
តិ	Service Profiles	<ul> <li>Nodes Assignment</li> </ul>	+ Network Configuration 🖉			hx-2	cluster-netwo	rk-policy	
1			External FC Storage (optional)						
Ŷ	Devices	<ul> <li>Nodes Configuration</li> </ul>	Enable FC Storage 🛇 🔍 Enables or disables external FC sto	orage co	infiguration.				
		Summary	VSAN A Name *	0	VSAN A ID *			0	
		Results							
			VSAN B Name *	0	VSAN B ID *			0	
			WWxN Range Starting Address * 20:00:00:25:B5:	0	WWxN Range Ending Address * 20:00:00:25:85:			0	
		Save & Close			Previous		Next		

**Cluster Configuration - Proxy Setting (Optional)** 

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)		Q 🖬 5 🔺 11	☑ 4,	O Avinash Shukla
<u>00o</u>	Dashboards					
=	Servers	• General	+ Auto Support (optional)			hx-2-auto-support-policy
\$	HyperFlex Clusters		+ IP & Hostname ⊘			hx-2-node-config-policy
	Fabric Interconnects	Cluster Configuration	+ UCS Manager Configuration 🔗			hx-2-ucsm-config-policy
6	Service Profiles		+ Network Configuration			hx-2-cluster-network-policy
1		<ul> <li>Nodes Assignment</li> </ul>	+ External FC Storage (optional)			
ŵ	Devices	<ul> <li>Nodes Configuration</li> </ul>	+ External iSCSI Storage (optional)			
			— Proxy Setting (optional)			
		Summary	Hostname* Port*	Ø	Username	Ø
		Results				
			Password (1) (2) (2)	<b>₽</b>		
			+ HyperFlex Storage Network 🔗			
		Save & Close			Previo	ous

## Cluster Configuration - Hyperflex Storage Network

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)		Q 🖬 5 🔺 11 🛛 🖓	९, 🧿 🗿 Avinash Shukla
<u>00o</u>	Dashboards				
8		• General	+ vCenter (optional)		hx-2-vcenter-config-policy
8	HyperFlex Clusters		+ Storage Configuration (optional)		hx-2-cluster-storage-policy
Ŧ	Fabric Interconnects	Cluster Configuration	+ Auto Support (optional)		hx-2-auto-support-policy
តី	Service Profiles		+ IP & Hostname ⊘		hx-2-node-config-policy
1		<ul> <li>Nodes Assignment</li> </ul>	+ UCS Manager Configuration		hx-2-ucsm-config-policy 📋
6	Devices	<ul> <li>Nodes Configuration</li> </ul>	+ Network Configuration	,	hx-2-cluster-network-policy
			+ External FC Storage (optional)		
		Summary	+ External iSCSI Storage (optional)		
			+ Proxy Setting (optional)		hx-2-proxy-setting-policy
		Results	— HyperFlex Storage Network 🔺		
			Storage Network VLAN Name * Stor HX-StorageDataNetwork 1 © 5	rage Network VLAN ID* 2 0	
					Previous

**Step 10.** Select the servers as a part of Node Assignment.

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)		Q 🖪 5 🔺 11	🖸 🔍 🖏 🕜 Avinash Shukla
<u>00o</u>	Dashboards				
8	Servers	General	Cisco HyperFlex Fabric Interconnect cluster a	allows a minimum of 3 to a maximum of 32 nodes.	
\$	HyperFlex Clusters		Assign Nodes     Assign Nodes Later		
무	Fabric Interconnects	<ul> <li>Cluster Configuration</li> </ul>	Show selected(3) Select the	servers	
õ	Service Profiles	Nodes Assianment			
۵	Policies		Q Search	4 items found	10 v perpage K < 1 of 1 > > > ③
ø		<ul> <li>Nodes Configuration</li> </ul>		ssign Status Model	
			hx-2-ucsm-2	lot Assigned HX240C-M4SX	
		<ul> <li>Summary</li> </ul>	hx-2-ucsm-4 M	lot Assigned HX240C-M4SX	
		<ul> <li>Results</li> </ul>	hx-2-ucsm-3 N	lot Assigned HX240C-M4SX	
			hx-2-ucsm-1	lot Assigned HX240C-M4SX	
			Selected 3 of 4 Show Selected Unselect		
					Previous

**Step 11.** Configure and confirm Hypervisor IP & Storage Controller IP address for **Node Configuration**,

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)				Q 🖬 5 🔺 11	ß	Q,	٢	0	Avinash Shukla		
<u>01o</u>	Dashboards												
	Servers	General	IP & Hostname Setting:	s									
\$	HyperFlex Clusters		Hostname Prefix	hx-2-esxi	Management Subnet Mask	255.255.255.0	Manage Gatewa	rment Netw Y	ark				
₽	Fabric Interconnects	Cluster Configuration	Management Network Starting IP	172.	Management Network Ending IP	172.1	Control Mask	ler VM Subn	et	255.255.255			
â	Service Profiles	Nodes Assignment	Controller VM Gateway		Controller VM Starting IP	172.	Control	ler VM Endir	g IP				
1	Policies	Rodeo Assignment											
ø	Devices	Nodes Configuration	Nodes Configuration Above shown IP & Hostname settings were used for nodes configuration auto-complete. You can change configuration manually.										
		Summary	Cluster Management IP Ad		MAC Prefix Address * 2 00:25:B5:AA 2								
		Results	Nodes (4) Expand										
		Save & Close						Previo	vus		Next		

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)			Q 🖬 5 🔺 11	C 4 0	Ø Avinash Shukla
<u>00o</u>	Dashboards		172.	00:25:85:AA			
8	Servers	General	Nodes (4) Collapse All				
\$	HyperFlex Clusters						
무	Fabric Interconnects	<ul> <li>Cluster Configuration</li> </ul>	- FCH2024V0NC				
6	Service Profiles	Nodes Assignment	Hostname * hx-2-esxi-1	Hypervisor IP *		Storage Controller IP * 172.1	٥
6	Policies						
ø	Devices	Nodes Configuration	- FCH2045V1BQ				
		Summary	Hostname * hx-2-esxi-2	Hypervisor IP *		Storage Controller IP * 172.1	0
		Results	ŀ				
			- FCH2024V0MN				
_			Hostname * hx-2-esxi-3	Hypervisor IP *		Storage Controller IP * 172.1	
		Save & Close				Previous	Next

**Step 12.** Click **Validate & Deploy** and check the progress status and wait for the installation to complete.

≡	cisco Intersight	Edit HyperFlex Cluster Profile (HX-2)				Q 🖬 5 🔺 11 🖂	°	O Avinash Shukla ,	
<u>00a</u>	Dashboards						Chuster Pro	file HX-2 was	
8		• General	General				Updated.		
\$	HyperFlex Clusters		HyperFlex Cluster Name	HX-2	Assigned Nodes	4	Replication	3	
무	Fabric Interconnects	Cluster Configuration	HyperFlex Cluster Type HyperFlex Data Platform Version	3.5(2a)	Address	172.	Address	UU-25185:AA	
6	Service Profiles	Nodes Assignment							
ſ	Policies								
ø	Devices	Nodes Configuration	Cluster Configuration Node:	s Configuration	Errors / Warnings				
		Summary	Security				root		
					The hypervisor of default password	n this node uses the factory I	y Yes		
		Results							
			DNS, NTP and Timezone				America/Vancouver		
							172. 172.		
		Save & Close				Previous	Validate	Validate & Deploy	

Step 13. Check progress status and wait for the installation to complete.

General     Cluster Configuration	HyperFlex Cluster Name Progress Current Stage	HX-2 67% Cluster deployment	HyperFle Type Start Tin	ex Cluster ne	Fi Mar 9, 2019 9:04 AM	Assigned Nodes Duration	4 17m 17s
<ul> <li>Nodes Assignment</li> </ul>				≓ All (43-	4) In Progress (4)	Success (428) Fai	led (0) Warning (2)
Nodes Configuration	— HyperFlex Cluster I	+X-2 ⊘		Witness N	Node IP Reachability Che	ck	
<ul> <li>Summary</li> </ul>	Witness Node	P Reachability Check					
Results	DNS reachab	lity					
	NIP reachable	lity					
	Controllers no	ot in existing cluster check					
	vCenter Reve	rse Proxy Port check					
	ESXi uniform	version check					

• General	Cluster HX-2 was created successfully				
Cluster Configuration	HyperFlex Cluster HX-2 Name — 100% Progress Cluster creation	HyperFlex Cluster Type Start Time	Fl Mar 9, 2019 9:04 AM	Assigned Nodes Duration	4 1h 1m 9s
<ul> <li>Nodes Assignment</li> </ul>	Expand All	≓ All (560)	) In Progress (0)	Success (558) Failed	(0) Warning (2)
<ul> <li>Nodes Configuration</li> </ul>	+ HyperFlex Cluster HX-2 ⊘	Node disk :	summary: e60b7bbb-f86f-b	0748-bb5d-5c6d1fdd087c	
<ul> <li>Summary</li> </ul>	+ UCS-hx-2-ucsm ⊘	Configurinç	g static ip on the specified i	ESXi servers	
le Results	+ rack-unit-1 hx-2-esxi-4 (172.16.67.140)	Host data s	subnet check		
	+ rack-unit-2 hx-2-esxi-1 (172.16.67.137) 🛆	Host data s	subnet check		
	+ rack-unit-3 hx-2-esxi-3 (172.16.67.139) ⊘	Host data s	subnet check		
	+ rack-unit-4 hx-2-esxi-2 (172.16.67.138) 🛕	Host data s	subnet check		
					ОК

Step 14. Please verify that cluster is ONLINE and HEALTHY and RUN the post\_install.py script.

- SSH to the cluster management IP address and login using <root> (HX 4.0 and below) or <admin> (HX 4.5 and above) username and the controller VM password provided during installation.
- Paste the following command in the Shell, and hit enter: hx\_post\_install

## Verify

Step 1. Check the Service Profile status under Service Profiles.

≡	cisco Intersight	Service	Profiles				🗘 🖬 43 🔺 12	☑	0	② Avinash	Shukla 🔬
<u>00o</u>	Dashboards	🔲 Ne	w features have	recently been added! Lea	rn More						×
88		HyperF	lex Cluster Profil	es Server Profiles 🖯					Cre	ate HyperFlex Clust	r Profile
\$	HyperFlex Clusters			_							
무	Fabric Interconnects			Search			xport 1 items found	d <u>10 ~</u>	per page 🔣 🔇		
ra.	Service Profiles		Name		Туре	Nodes	Status		Last Update		
10							ок		Mar 9, 2019 10	:05 AM	
í	Policies										
Ŷ											NN

Step 2. Under Hyperflex Cluster, confirm the HX cluster Health and other details,

≡	cisco Intersight	HyperF	lex Clusters						û 🛛 39	<b>▲</b> 12	B	۹ ۵	O Avinash S	shukla 🕰
<u>00o</u>	Dashboards	🔲 Ne	New features have recently been added! Learn More									×		
8			⊘ Q Search ☐ Export 1 items found 11 ∨ per page ⊠ < 1											
\$	HyperFlex Clusters		Name		Health 🗢	Type 🗧	HyperFlex 🗧	Hypervisor 🗘	Storage Capacity	Storage U	tilization	Storage Optimiz	Server Nodes	
무	Fabric Interconnects				Healthy	HyperFlex Hybrid	3.5(2a)	VMware vSphe	20.1		1.0%	0%		
6	Service Profiles												। । বি বি 1 of 1	
ſ	Policies													
Ŷ	Devices													

Step 3. Click the Name HX-2 and browse to profile details, verify the following under Details,

- Cluster Management IP Address
- Storage VLAN ID
- Replication Factor
- Cluster Type

Verify the various policies and node details under Configuration,

≡ <sup>  </sup> Intersight	HyperFlex Clusters > HX-2		🚨 🖪 39 🔺 12	₽ ¢	۲	<ul> <li>Avinash Shukla 요</li> </ul>
000 Dashboards	New features have recently been added! Learn M	lore				×
Servers Servers	General Profile					
HyperFlex Clusters	Details	Configuration				E
Fabric Interconnects	Status Ok	Cluster Nodes Results				
Service Profiles	Nama HV.2	Network Configuration				hx-2-cluster-network-policy 🏢
Policies	Description HX-2	Security				hx-2-local-credential-policy 🏢
😭 Devices	Last Update Mar 9, 2019 10:05 AM	vCenter				hx-2-vcenter-config-policy 🏢
	Assigned Nodes 4	Proxy Setting				hx-2-proxy-setting-policy 🏢
	Cluster Type Interconnect	UCS Manager Configuration				hx-2-ucsm-config-policy 🎒
	Replication Factor 3	IP & Hostname				hx-2-node-config-policy 🏢
	Cluster Management IP Address 172.	Auto Support				hx-2-auto-support-policy 🗐
	Storage Network VLAN ID 5	Storage Configuration				hx-2-cluster-storage-policy 🏢
	Storage Network VLAN Name StorageDataN	DNS, NTP and Timezone				hx-2-sys-config-policy 🗐
	MAC PIEIX AUGRESS 00.25.85.44					

**Step 4. Cross launch** Hyperflex Connect from **Hyperflex Clusters** on Intersight and verify the cluster status from **Hyperflex Connect**.

≡	cisco Intersight	HyperFlex Clusters						🗘 🖬 38 🖌	12	٩	0	O Avinash S	Shukla 🔬	
<u>00o</u>	Dashboards	New features have recently been added! Learn More										×		
8	Servers													
\$	HyperFlex Clusters		Name		Health ‡	Type ‡	HyperFlex 🕴	Hypervisor \$	Storage Capacity	Storage Utilizat		Storage Optimiz	Server Nodes	
5	Fabric Interconnects				Healthy	HyperFlex Hybrid	3.5(2a)	VMware vSphe_	20.1			0*		
6	Service Profiles												Launch HyperFlex C	Connect
1												L		
ŵ	Devices													

· ·		https://intersight.com/nx/starget=5063e4	sbol72012031aabosaascope=nx	(-3.5.2d#/clusters/1		× · · · · · · · · · · · · · · · · · · ·		
=	сіясо Нуре	rFlex Connect		HX-2		Ω <mark>∞</mark> 2 ₿ Ø ₽		
Θ	$\oslash$	OPERATIONAL STATUS Online						
<b>↓</b>	-∕∕~•	RESILIENCY HEALTH Healthy ①			✓ 1 Node failure can be tolerated			
Î	Ð	сарасіту 20.1 тв	1.0% 195.9 GB Used	19.9 TB Free	STORAGE Storage optimization, com OPTIMIZATION usage.	pression and deduplication ratios will be ufficient information regarding cluster		