

# **Managing Blueprints**

The following topics tell you how to manage Cisco NFVI Blueprints.

- Blueprints, on page 1
- Creating a Blueprint Using Upload Functionality, on page 2
- Managing Post Install Features, on page 101

## Blueprints

Blueprints contain the configuration metadata required to deploy an OpenStack system through a Cisco VIM pod in Cisco VIM Uinfied Management. You can create a blueprint in Cisco UM or you can upload a yaml file that contains the metadata for a blueprint. You can also create a blueprint from an existing OpenStack system that you are configuring as a Cisco VIM pod.

The configuration in the blueprint is specific to the type of Cisco UCS server that is in the OpenStack system. A blueprint for a C-Series server-based OpenStack system cannot be used to configure a B-Series server-based OpenStack system. Cisco UM displays an error if the blueprint does not match the configuration of the OpenStack system.

The blueprint enables you to quickly change the configuration of an OpenStack system. While only one blueprint can be active, you can create or upload multiple blueprints for a Cisco VIM pod. If you change the active blueprint for a pod, you have to update the configuration of the OpenStack system to match the new blueprint.



**Note** You can modify and validate an existing blueprint, or delete a blueprint. However, you cannot modify any of the configuration metadata in the active blueprint for a Cisco VIM pod.

### **Blueprint Activation**

A blueprint becomes active when you use it in a successful installation for a Cisco VIM pod. Other blueprints that you created or uploaded to that pod are in nonactive state.

Uploading or creating a blueprint does not activate that blueprint for the pod. Install a blueprint through the **Cisco VIM Suite** wizard. If the installation is successful, the selected blueprint becomes active.



**Note** If you want to activate a new blueprint in an existing pod, you have to delete certain accounts and the credential policies for that pod before you activate the blueprint. See Activating a Blueprint in an Existing Pod with OpenStack Installed, on page 3.

### **Viewing Blueprint Details**

To view blueprint details:

- **Step 1** Log in to Cisco VIM Unified Management as pod user.
- **Step 2** Choose the Cisco VIM pod with the blueprint that you want to view.
- **Step 3** Click **Menu** at the top left corner to expand the navigation pane.
- **Step 4** Choose **Pre-Install** > **Blueprint Management.**
- **Step 5** Choose a blueprint from the list.
- Step 6 Click Preview and Download YAML.

## **Creating a Blueprint Using Upload Functionality**

### Before you begin

- You must have a YAML file (B series or C Series) on your system.
- Only one blueprint can be uploaded at a time. To create a blueprint off-line, refer to the setup\_data.yaml.B\_Series\_EXAMPLE or setup\_data.yaml.C\_Series\_EXAMPLE.
- The respective keys in the sample YAML have to match or the corresponding pane does not get populated during the upload.
- **Step 1** Log in to **Cisco VIM UM**.
- **Step 2** In the navigation pane, expand the**Pre-Install** section and click **Blueprint** setup.
- **Step 3** Click the**Browse** in the **Blueprint Initial Setup**.
- Step 4 ClickSelect.
- **Step 5** ClickLoad in the Unified Management UI Application.

All the fields present in the YAML file is uploaded to the respective fields in the UI.

**Step 6** Provide a Name for the Blueprint.

While saving the blueprint name has to be unique.

- Step 7 Click Offline Validation.
  - If all the mandatory fields in the UI are populated, then Offline Validation of the Blueprint commences, or else a pop up message indicating the section of Blueprint creation that has missing information error shows up.

**Step 8** On Offline Blueprint Validation being successful, **Save Blueprint** and **Cancel** is enabled.

**Note** If the Blueprint Validation Fails, only the **Cancel** button is enabled.

### Activating a Blueprint in an Existing Pod with OpenStack Installed

### Before you begin

You must have a POD which has an active Installation of OpenStack. If the OpenStack installation is in Failed State, then UM UI will not be able to fetch the Blueprint.

**Step 1** Go to the Landing page of the UM Log in.

### Step 2 Click Register Management Node.

- **Step 3** Enter the following details:
  - Management Node IP Address.
  - Management Node Name (Any friendly Name).
  - REST API Password ( /opt/cisco/ui\_config.json).
  - Description about the Management Node.
  - POD Admin's Email ID.

A notification email is sent to the email id entered during registration.

- **Step 4** Log in using the same email id and password.
- **Step 5** In the navigation pane, click **Pre-Install** > **Blueprint Management**.

Choose the NEWSETUPDATA from the Blueprint Management pane.

This is the same setup data which was used by ciscovimclient, to run the installation on the Management Node.

### **Blueprint Management**



**Note** You must have at least one blueprint (In any state Active or In-Active or In-progress), in the Blueprint Management Pane.

nhoard -Install	-	Blueprints Management			
Bueprint Setup Bueprint Management		Topology Install Remove		🗄 🔍 Search	h best
ost-linstall	¢	Blueprint Title	Wodified Date	≚ Status	* Action *
ew Topology		- Test	4/3/2018, 2:55:18 PM	Invalid	/ × ±
d User Administration		- 5555	4/2/2018, 9:27:07 PM	Invalid	/ × ±
	1	NEWSETUPDATA	4/3/2018, 5:15:25 PM	Depkoyed	/ × ±
		56646	4/2/2018, 9:29:00 PM	Invalid	/ × ±

Blueprint Management grid contains the list of all the blueprints that are saved. You can save the blueprint even if it is failed in the Blueprint Setup. However, you will not be allowed to deploy those Blueprints.

Blueprint Management table provides the following information:

- Blueprint Name
- · Modified Date
- · Edit, Remove, and Download Blueprint
- · Search Blueprint

**Blueprint Name:** It shows the name of the Blueprint. You cannot edit this field. It shows the name of the blueprint that is saved after Offline Validation.



Note No two blueprints can have the same Blueprint name.

Modified Date: This shows when blueprint was last modified.

Blueprint Status: There are 6 total status for the Blueprint.

- · Valid: Blueprint that is saved after offline validation success.
- Invalid: Blueprint that is saved after Offline Validation failure.
- Inprogress: Blueprint that is saved without running Offline Validation.
- Deployed: Blueprint that is used to bring up cloud without failures.
- Installing: Blueprint that is used to initiate the cloud deployment.

• Failed: Blueprint that is used to deploy the cloud which eventually failed.

With every blueprint record, there are some operations associated that you can perform by using the buttons – Topology, Install, and Remove.

#### Topology

Topology allows you to view graphical representation of the control, compute, and storage node that is associated with the various network segments.

whether with Unified		ont	Calsoft	Role: Full-Pod-Access   User ID: roheshar	
Unified Dashboard Pre-Instal Post-Instal View Topology Pod User Administration	Kanagem K	Blueprints Man Repology Rec Blueprint Title Recent Professional Recent Professional Rece	Confirm Do you want to Remove the previous 'NEWSETUPDATA' Deployment and continue with the current 'NEWSETUPDATA' Deployment'.	Aler Ful-Acces   Der Dinkelwr 🔷	

### **Install Button**

Click **Install**, a confirmation message is generated requesting to initiate the deployment with the stages you wants to run. By default all stages are selected but you can also do an incremented install. In case of Incremented Install, you have to choose stages in the order. For Example: If you choose Validation Stage then the 2nd stage Management Node Orchestration is enabled. You cannot skip stages and run a deployment. Once you click **Proceed**, the Cloud Deployment is initiated and the progress can be viewed from the Dashboard.

### **Remove Button**

Choose the blueprint and click **Remove** to remove the blueprint. A confirmation message appears. If you click**Proceed**, the blueprint removal operation is initiated.

#### Edit, Remove, and Download Blueprint

You can edit or delete a Blueprint which is not in Deployed State. If you want to take a backup of the Blueprint locally, click *Download* icon which generates the preview to download the Blueprint.

Following are the ways to deploy a Blueprint:

- If there is no Blueprint in Deployed state, then you can choose any Valid Blueprint from the list.
- If there is a Blueprint in a Failed state, you can choose another Valid Blueprint but Unified Management asks you to remove the previous deployment before proceeding.
- If there is a Blueprint in Deployed state, you can choose another Valid Blueprint but Unified Management asks you to remove the previous deployment before proceeding.

The deployment of Blueprint occurs stepwise and if any one step fails for some reason, a **Play** button is displayed on that particular step. You can click a**Play** button and begin the installation for that particular state.

Note

There is always one blueprint in Deployed state. You cannot deploy multiple blueprints in the cloud.

**Search Blueprint**: Search box is displayed on top-right of the table which facilitates you to lookup for Blueprint by their name or status. Navigate to **Topology** and choose a Blueprint which redirects you to the default blueprint, the one which is selected in the Blueprint Management pane.

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Note

During the various operations across the application the cloud icon in the center of the header changes its color which is based on the following table.

#### Table 1:

POD Operation	Status	Icon or Color
Management Node Registered, No Active Deployment	Pending	Gray
Cloud Up And Running, No Failure	Active	Green
Cloud Installation/ Any Operation In Progress	In-Progress	Blue
Cloudpulse Failed	Critical Warnings	Red
Pod Operation Failed	Warning	Amber
Software Update (Auto) Rollback Failed	Critical Warnings	Red
Uncommitted Software Update	Warning	Amber
Reconfigure Openstack Password	Critical Warning	Red
Reconfigure CIMC Password	Warning	Amber
Reconfigure Optional Features/ OS	Critical Warning	Red
Power Management Operation Fails	Warning	Amber
Management Not-Reachable	Not-Reachable	Red

## **Creating a Blueprint for B-Series Server Platform**

	Command or Action	Purpose
tep 1	In the navigation pane, choose <b>Pre-Install</b> > <b>Blueprint Setup</b> .	
Step 2	To create a <b>B Series Blueprint</b> :	1. On the Blueprint Initial Setup pane of the Cisco VIM Unified Management, complete the following fields:  Current Setup Prot-Instal Vew Topology Prot-Instal Vew Topology Prot User Administration  Current Network *  Systop Topol Setup Setup *  Setup *  Systop Topol Setup *  Set
		Name Description
		Blueprint Name field Enter blueprint configuration name.
		Platform Type drop-down listChoose one of the following platform types:• B-Series (By default) choose B series for this section.• C-Series

### Procedure

Command or Action	Purpose		
	Name	Description	
	<b>Tenant Network</b> drop-down list	Choose one of the following tenant network types: • Linuxbridge/VXLAN	
		• OVS/VLAN	
	Pod Type drop-down	list Choose one of the following pod types: • Fullon(By Default)	
	<b>Ceph Mode</b> drop-do list	wn Choose one of the following Ceph types: • Dedicated	
		Central (By Default)     - Not supported in     Production	
	<b>Optional Features a</b> <b>Services</b> Checkbox	nd Swiftstack, LDAP, Syslog Export Settings, Install Mode, ToR Switch Information, TLS, NFVMON, Pod Name, VMTP, NFV Bench, Auto-backup, Heat, Keystone v3, Enable Esc Priv.	
		If any one is selected, the corresponding section is visible in various Blueprint sections.	
		By default all features are disabled except Auto -backup.	

Purpose		
Name		Description
Import Existi file	-	Click <b>Browse</b> button to import the existing yaml file.
		If you have an existing B Series YAML file you can use this feature to upload the file.
		Unified Management automatically fill in the fields and if any mandatory field is missed then it gets highlighted in the respective section.
	ration page.	wigate to the <b>Registry</b> Fill in the following
ultulus cace VIM United Ma		
Cashboard		
Pre-Instat Bueprint Setup	. Create Bl	ueprint configuration
Bueprint Management		
Post-mstall	Burprint in	
	r Registry 1	genny Sense X CRMC Common X Networking Deer Name *
Post-restal View Topology	c Registry to Registry to	provy Secue X CANCE Common X Resourcing User Name * ngatay Username Israel *
Post-restal View Topology	c Registry to Registry to	geny Gene X CIAC Common X Networking Jaar Name <sup>4</sup> Igany Username
Post-restal View Topology	s Registry ( Registry ( Enter or Registry (	provy Secue X CANCE Common X Resourcing User Name * ngatay Username Israel *
Post-testat Vew Topology Pod User Administration	* Ruginy 1 Ruginy 1 Ruginy 1 Ruginy 1 Ruginy 1	genry Kenny X CIAIC Common X Networking User Name * geory const med * geory email
Post-estat Verw Topologie Pod Caser Administration Name Registry User	Name text word text	CARC Common     X Researching
Prot-restail View Topologie Prot-Cuer Administration Name Registry User field Registry Pass field	Name text word text	CARC Common     X Manual Ma Manual Manual Manua Manual Manual Manual Manual Manual Manual Manua
Name Registry User field Registry Pass field Registry Ema	Name text il text field	A CARC Common     X Memory      X Memor

Purpose
UM Unified Management         Damoard         Pre-instal         Burgner Management         Vew Topology         Pod Over Administration         Vol Wer Administration
Name Description
User name disabled field By default the value is Admin.
Password text field       Enter Password for UCSM Common (Mandatory).
UCSM IP text field Enter IP Address for UCSM Common (Mandatory).
Resource Prefix text fieldEnter the resource prefix(Mandatory).
QOS Policy Type drop-downChoose one of the following types: • NFVI (Default) • Media

mmand or Action	Purpose	
	Name	Description
	Max VF Count text field	Select the Max VF Count.
		<1-54> Maximum VF count 54, default is 20.
		If VF performance is enabled we recommend you to keep MAX_VF_COUNT to 20 else may fail on some VICs like 1240.
	<b>Enable VF Performance</b> optional checkbox	Default is false. Set to true to apply adaptor policy at VF level.
	Enable Prov FI PIN optional checkbox	Default is false.
	MRAID-CARD optional checkbox	Enables JBOD mode to be set on disks. Applicable only if you have RAID controller configured on Storage C240 Rack servers.
	<b>Enable UCSM Plugin</b> optional checkbox	Visible when Tenant Network type is OVS/VLAN.
	Enable QoS Policy optional checkbox	Visible only when UCSM Plugin is enabled. If UCSM Plugin is disabled then this option is set to False.
	Enable QOS for Port Profile optional checkbox	Visible only when UCSM Plugin is enabled.
	SRIOV Multi VLAN Trunk optional grid	Visible when UCSM Plugin is enabled. Enter the values for network and vlans ranges. Grid can handle all CRUD operations such as Add, Delete, Edit and, Multiple Delete.

Command or Action	Purpose	
	4. Click <b>Networking</b> to advance to the networking section of the Blueprint:	_
	Citice VM Unified Management	Calloft 10.30.116.244
	Dushboard Pre-Instal Create Blueprint configuration	
	Bueprint Setup Bueprint Management Bueprint Initial Setup Physical Setup Poor-Initial <	
	Vew Topology Pod User Administration c Domain Name : *	ichworking X Servers an
	Enter Domain Name HTTP Proxy : Coles HTTP Proxy	
	IP Tables on Management Pods : O e	+ NTP Server : * NTP server
	Televistics (*	
	Van <sup>v</sup> Segment <sup>v</sup> Subra v cmc	t <sup>V</sup> Subnet IPv6
	Image     api       Imagement(provis)     management(provis)       Imagement(provis)     tenant	
		©2018 Cisco and/or its affiliates.
		Cisco VM Unified Managemen
	Name Description	
	Domain Name fieldEnter the domain name (Mandatory).	
	HTTP Proxy Server fieldIf your configuration use an HTTP proxy server, enter the IP address of the	
	server.	
		,

Command or Action	Purpo	se		
		Name	Description	
		NTP Server	Enter a maximum of four and minimum of one IPv4 and /or IPv6 addresses in the table.	
		Domain Name Server	Enter a maximum of three and minimum of one IPv4 and/or IPv6 addresses.	

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I

Command or Action	Purpose		
		Name	Description
		Network table	

Command or Action	Purpose		
	Name	Description	
		Network table is	
		pre-populated with	
		segments. To add	
		Networks you can either	
		clear all the table using	
		Delete All or click Edit	
		icon for each segment	
		and fill in the details.	
		You can add, edit, or	
		delete network	
		information in the table	
		Edit Network	
		VLAN : *	
		Enter VLAN Begment : *	
		None Selected +	
		Subnet : * Enter Subnet	
		Pv6 Subret :	
		Enter Subnet (Pv6	
		Gateway (* Enter Caneway Address	
		Pv6 Gateway : Enter Gateway Address(Pv6)	
		Pool : * (multiple pool ranges should be comme appendix) Enter IP Pool	
		IPv6 Pool : (Initiate and request should be common aspected) Enter IPv6 Pool	
		Sale Carcer	
		• Click + to enter nev	
		entries (networks) to	
		the table.	
		• Specify the	
		fallowing fields in	
		following fields in	
		the Edit Entry to	
		Networks dialog	
		box.	
		Name Description	
		VLAN Enter the	
		field VLAN ID	
		For	
		Segment -	
		Provider,	
	1 1	the VLAN	

Command or Action	Purpose		
	Name	Description	
		Name	Description
			ID value is always none.
		<b>Segment</b> drop-down list	You can select any one segment from the drop-down list. • API
			• Magndilin
			Tenant     CIMC
			<ul> <li>Storage</li> </ul>
			• External
			• Provider (optional)
			Note Som segn do no need some the value listed the prece poin
		Subnet field	Enter the IPv4 address for the subnet.
		IPv6 Subnet field	

Command or Action	Purp	ose		
		Name	Description	
			Name	Description
				Enter IPv6 address. This field is available only for Managemen provision and API.
			<b>Gateway</b> field	Enter the IPv4 address for the Gateway.
			IPv6 Gateway field	Enter IPv6 gateway. This field is available only for Managemen provision and API network.
			Pool field	Enter the pool information in the following format. Fo example: 10.30.1.1 or 10.30.1.1 to 10.30.1.12
			IPv6 Pool field	

CEPH Dedicated is selected in Blueprint Initial Setup.

Command or Action	Purpose	
	Name	Description
		Name Description
		Enter the pool information in the following format. For example: UISUIQUESUU This field is only available for the MgmtProvision
		Click Save.

nd or Action	Purpose		
	elector     VM Unified Management       Dushboard     Pre-Install     Cree       Busprint Benagement     Busprint Banagement     Busprint Banagement       Post-Install        View Tipology     Pod User Administration	eate Blueprint configuration  ueprint Initial Setup Physical Setup  Common V Region UCSM Common V Ne  Server User Name Cod Consoler Hyperthreading CodeLLR: CoeBler Timeout a5 Control Kicsstart* Cost-0-and-c-serles.ks Server Host Password Enter Server Host Password Server and Roles : *   Server and Roles : *   Server and Roles : *   Server Type Kack ID  Server Initial CodeLLR  Server Init	•orking
	Name	• Description	018 Cisco and Cisco VIM Uni
		Enter the username of the server.	
	Disable Hyperthreading		

Command or Action	Purpose		
		Name	Description
		Cobbler	

 Command or Action	Purpo	ose		
		Name	Description	
			Enter the Co in the follow	
			Name	Description
			Cobbler Timeout field	The default value is 45 min.
				This is an optional parameter. Timeout is displayed in minutes, and its value ranges from 30 to 120.
			Block Storage Kickstart field	Kickstart file for Storage Node.
			Admin Password Hash field	Enter the Admin Password. Password must be Alphanumeric. Password should contain minimum 8 characters and maximum of 32 characters.
			<b>Cobbler</b> <b>Username</b> field	Enter the cobbler username to access the cobbler server.
			Control	Kickstart

Command or Action	Action Purpose		
	Name	Description	
		Name Desci	ription
		Kickstartfile forfieldControlNode	ol
		ComputeKicksKickstartfile forfieldCompNode	or oute
		CobblerEnterAdminadminUsernameusernfieldof theCobb	n ame

Command or Action	Purpose		
		Name	Description
		Add Entry to Servers and Roles	

Command or Action	Purpo	ose		
		Name	Description	
			Click Edit of new server an table.	
			Server Name *	
			Enter Server I VIC Slot	vame
			Enter VIC Slot	ť
			CIMC IP *	
			Enter CIMC IF	Address
			CIMC User Nam	
			CIMC Password	
			Enter CIMC P	
			Rack ID *	
			Enter Rack ID	
			Role *	
			Management IP	
			Enter Manage	ment IP Address
			Management IP	v6 ment IPv6 Address
			criter manage	andie in to Address
			Swe Cance Server Name	Enter a server name.
			Server Type drop-down list	Choose Blade or Rack from the drop-down list.
			Rack ID	The Rack ID for the server.
			Chassis ID	Enter a Chassis ID.
			If Rack is	Enter a

Command or Action	Purp	ose	
		Name	Description
			chosen, the Rack Unit ID field is displayed.Rack U
			If Blade is chosen, the Blade ID field is displayed.Enter a Blade I
			Select the <b>Role</b> from the drop-down list.If Serve type is Blade ti select and Compu- If serve Rack th select Block Storage
			ManagementIt is an optiona field bu provide for one server t it is mandat to prov. details other Servers well.
			ManagementEnter thIPv6ManagementIPv6Addres
			Click Save.

6. Click ToR Switch checkbox in Blueprint Initial Setup to enable the TOR SWITCH configuration page. It is an Optional section in Blueprint Setup,

mand or Action	Purpose	
		s are filled it is a part of the
	Daepelet Setup	Create Blueprint configuration Tereste Blueprint configuration Tereste Blueprint configuration Configure Iola Configure Iola Configure Iola Configure Iola Terfesten Islanding I Heatmann User Name Plasmood SIGH P 559 H + 1 [1 ] H
	Name	Out of the Case and the Case of the Case o
	Configure ToR optional checkbox.	Enabling this checkbox, changes the configure ToR section from false to true.

 Command or Action	Purpose			
		Name	Description	
		ToR Switch		
		<b>Information</b> mandatory table.		

Command or Action Purpose					
		Name	Description		
			Click (+) to a information f Switch.		
			Switch Details		
			Hostname *		
			Enter Switch	h Hostname	
			Enter Switch	h Username	
			Password *		
			Enter Passv	vord	
			SSH-IP *		
			Enter IP Add	dress	
			SSN Num		
			Enter SSN M	lum	
			VPC Peer Kee	palive	
			Enter IP Ade	fress	
			VPC Domain		
			Enter VPC D	lomain	
			VPC Peer Por		
			Enter VPC F		
			VPC Peer VLA Enter VPC V		
			BR Managem Enter BR Po		
			BR Managem		
			Enter BR PC		
			Save Can	cel	
			Name	Description	
			Hostname	ToR switch hostname.	
			Username	ToR switch username.	
			Password	ToR switch password.	
			SSH IP	ToR switch	

Command or Action	Purpose			
	Name	Description		
			SSH IP Address.	
		SSN Num	ToR switch ssn num.	
		VPC Peer Keepalive	Peer Management IP. You do not define if there is no peer.	
		VPC Domain	Do not define if peer is absent.	
		VPC Peer Port Info	Interface for vpc peer ports.	
		BR Management Port Info	Management interface of the management node.	
		BR Management PO Info	Port channel number for management interface of the management node.	
		ClickSave.		
	On clicking save button, Add ToR Info Connected to Fabric field is visible.	Port Channel field.	Enter the Port Channel input.	
		Switch Name field.	Enter the name of the Switch.	

 Click NFVI Monitoring checkbox in Blueprint Initial Setup to enable the NFVI Monitoring configuration tab.

Purpose		
-those - VM Unified Managem	ment	<b>Celecti</b> 10.33.116.244 ● ✓
Ceshboard		
Pye-trasat Discret Setup	Create Blueprint configuration	
Baugetet Managerevet Post-Jostal c	Bueprint Initial Setup Physical Setup Open	K Networking     K Servers and Roles     V Tor Switch     K Nohit Montaining
View Topology Post User Administration  <		
	Moster Admin IP: * Admin IP	
	Collector Management VIP: *	
	Management VIP Collector VM1 Info Host Nerve: *	
	Host Name: * hostrane OCUSER Password: *	Pessevord:*     passevord     Admin P: *
	COUSER Password * password Mangament IP; *	Admin P
	Management IP	-
	Collector VM2 Info Host Name: *	Password: *
	hostranse COUSER Passwort *	passeord Admin IP:* Admin IP:
	password Management IP: * Management IP	Admin P
	Collector Tor Connections	
	Collector for Connections	
	H H T JI H H	No data available
	Dispetcher Robbit MQ User Name: *	
	- construction of the PROPERTY	02018 Claco and/or its affiliates. All rights reserved. Class VMU Unified Management Version: 2.4.1
Name		Description
		Description
Admin IF	Р	IP Address of Control
		Center VM
		_
Managen	nent VIP	VIP for
		ceilometer/dispatcher to
		use, must be unique
		across VIM Pod
Host Nan	ne	Hostname of Collector
		VM
<b>D</b>		Degenerate Continue
Password	1	Password of Collector
		VM
CCUSER	R Password	Password of CCUSER
		SSH IP of Collector VM
Admin II	r	SSH IP OF Collector VM
Managen	nent IP	Management IP of
Trana_en		

Command or Action	Purpose		
	Name	Description	
	Collector ToR Connections	1. Click on Add Col Connect	lector ToR
			e ToR from list to nformation.
		3. It is opti- available type NC	e for ToR
		4. For now, adding o Collecto Connect:	nly one r ToR
		Add Collector To	r Connections
		Select Tor sw test-torhos	itch for connections stname
		Save Can	cel
		Port Channel	Enter port channel.
		Switch - {aSvithfortam}	Enter port number, E.g:eth1/15.
		Click Save	
	Rabbit MQ User Nam	e Enter Rabbit username.	MQ

Managing Blueprints

Management wizard, complete the following fields:

Command or Action	Purpo	se			
		Name	Description		
		HA Proxy	Fill in the fo details:	llowing	
			Burgerint Initial S X 144 Prov External VP Ac	Keystone	penStack Setup
			Enter IP Add Virtual Router I Enter Virtual Internal VIP IPv Enter IPv6 A	D = Router ID 6 Address	
			External VIP Address field	Enter the IP address of the External VIP.	
			External VIP Address IPv6 field	Enter the IPv6 address of the External VIP.	
			Virtual Router ID field	Enter the Router ID for the HA.	
			Internal VIP Address IPv6 field	Enter the IPv6 address of the Internal IP.	
			Internal VIP Address field	Enter the IP address of the Internal VIP.	

Command or Action	Purpose	
	Name	Description
	Keystone	The following are the Pre-populated field values. This option is always set to be true.
		Create Blueprint configuration
		Biueprint Initial Setup Physical Setup Open
		admin
		Enter Vittaar Router ID Internal VIP IPv6 Address Enter IPv6 Address
		AdminadminUsernamefield
		AdminadminTenantName field

-

Command or Action	Purpos	Purpose			
	NameLDAP (Only if Keystonev3 is enabled)			Description	
			ev3 is		
	,	Note	This option is only available with Keystone v3		

Command or Action	Purpose	
	Name	Description
		This is available only when Keystone v3 and LDAP both are enabled under <i>Optional Features and</i> <i>Services</i> in Blueprint Initial Setup.
		Create Blueprint configuration
		Bueprint Initial Setup Physical Setup
		🗙 HA Proxy 🖌 Keystone
		Domain Name * Enter Domain specific name
		Object Class for Groups *
		Enter objectClass for Groups Domain Name Tree for Groups *
		Enter DN tree for Groups
		URL * Enter URL
		Password * Enter Password
		User ID Attribute * Enter User Id Attribute
		User Mail Attribute
		Enter User Mail Attribute
		DomainEnter theName fieldDomainname.
		ObjectEnter aClass forstring asUsers fieldinput.
		Object Class for GroupsfieldEnter a string.
		DomainEnter aName Treestring.for Usersfield
		DomainEnter aName Treestring.for Groups

Command or Action	Purpo	Purpose				
		Name	Description			
			field			
			Suffix for Domain Name field	Enter a string.		
			URL field	Enter a URL with ending port number.		
			Domain Name of bind user field	Enter a string.		
			<b>Password</b> field	Enter Password as string format.		
			<b>User Filter</b> field	Enter filter name as string.		
			<b>User ID</b> <b>Attribute</b> field	Enter a string.		
			User Name Attribute field	Enter a string.		
			User Mail Attribute field	Enter a string.		
			Group Name Attribute field	Enter a string.		

Command or Action	Purpo	se	
		Name	Description
		Neutron	

Command or Action	Purpose				
	Na	me	Description		
			Neutron field the basis of <i>To</i> <i>Network Type</i> from <b>Bluepri</b> <b>Setup</b> . Follow options availa Neutron for C	enant selection <b>nt Initial</b> ving are the uble for	
			Create Blueprint o	onfiguration	
			Bueprint Initial Setup		CEPH
			Tenant Network Type * VLAN NPV Hosts *		
			Compute Name	1 <b>F</b>	
			Tenant Network Type field	It is Auto-filled based on the <i>Tenant</i> <i>Network</i> <i>Type</i> selected in the Blueprint Initial Setup page.	
			Mechanism Drivers field	It is Auto-filled based on the <i>Tenant</i> <i>Network</i> <i>Type</i> selected in Blueprint Initial Setup page.	
			NFV Hosts field	It is Auto-filled with the Compute you added	

Command or Action	Purpo	se		
		Name	Description	
				in Server and Roles.
				If you selec All in this section NFV_HOSTS <b>ALL</b> is added to the Blueprint o you can select one particular compute. For Example:
				NFV_HOSTS compute-server-1 compute-server-2
			Tenant VLAN Ranges field	List of ranges separated b comma form start:end.
			Provider VLAN Ranges field	List of ranges separated b comma form start:end.
			VM Hugh Page Size (available for NFV_HOSIS option) field	2M or 1G
			Enable Jumbo Frames field	Enable the checkbox.

Command or Action	Purpose	
	Name	Description
		For Tenant Network Type, Linux Bridge everything remains the same but <b>Tenant VLAN Ranges</b> is removed.

Command or Action	Purpo	se	
		Name	Description
		СЕРН	

Command or Action	Purpose	
	Name	Description
		1. 1. When Object Storage Backend is selected as <i>Central</i> in the blueprint initial setup.
		Create Blueprint configuration
		Burgrint Initial Setup Physical Setup
		🗙 HA Proxy 🗸 Keystone 🗶 1 Ceph Mode *
		Central Monitor Host *
		Enter Monitor Hoat for CEPH Secret UAD * Enter Secret UAD for CEPH NOAR RED POOL * wris
		CEPH By default
		CEPH By default Mode Ceph Mode is Central.
		Cluster Enter the ID Cluster ID.
		Monitor Enter the Host Monitor Host for CEPH
		Monitor Enter the Members Monitor Members for CEPH
		Secret Enter the UUID Secret UUID for CEPH
		NOVA You can Boot choose from CEPH or local from the drop-down list.
		NOVA Enter the RBD NOVA

Command or Action	Purpose	
	Name	Description
		POOL RBD Pool (default's to vms)
		CEPH CEPH NAT NAT is required for Central Ceph and when mgm network is not routable
		2. When Object Storage Backend is selected a <i>Dedicated</i> in the blueprint initial setup
		Create Blueprint configuration Blueprint Initial Setup Physical Setup Open X 145 Preny Xaystane X Ceph Mode * Descrated
		<ul> <li>CEPH Mode: By default Dedicated.</li> <li>NOVA Boot: From drop-down selection you can choose CEPI or local.</li> </ul>
		3. When Object Storage Backend is selected a <i>NetApp</i> in the blueprin initial setup.
		Create Blueprint configuration Blueprint initial Setup Physical Setup X HA Phony X Keystone Ceph Mode *

>\*

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Command or Action	Purpose			
	Name	Description		
	GLANCE	1. When Obj Backend is so <i>Central</i> in th initial setup.	elected as	
		Create Blueprint con	figuration	
		Bueprint Initial Serup	nysical Setup OpenStack Setup	
		🗙 NA Prony	Keystone	ары
		Store Backend * CEPH		
		Glance Client Key * Enter GLANCE Client fo	v	
		Store Backend	By default CEPH.	
		Glance RBD Pool field	By default images.	
		Glance Client Key	Enter GLANCE Client Key	
		2. When Obj Backend is su <i>Dedicated</i> in initial setup.	elected as the blueprint	
		Bueprint Initial Setup		
				CEPH
		Store Backend * CCPH		
		By default Pe CEPH Dedic Store Backer CEPH.	ated with	

Name     Description       CINDER     By default Populated for CEPH Dedicated with Volume Driver value as CEPH.       Create Blueprint configuration       Work the Way of the	Command or Action	Purpose	
CEPH Dedicated with         Volume Driver value as         Create Blueprint configuration         Image: State State State         Image: State State         Image: State Sta		Name	Description
Volume       By default         Order Cherr       CEPH.         Cinder       By default         Volumes.       By default         Cinder       By default         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter		CINDER	<i>CEPH Dedicated</i> with Volume Driver value as
Volume       By default         Driver       CEPH.         Cinder       By default         RBD Pool       By default         field       Cinder         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter         Cinder       Enter			Create Blueprint configuration
Values Offset*         Correct Collect Kay*         Ener Collect Kay*         Ener Collect Kay*         Cinder         By default         Cinder         By default         Volumes.         field         Cinder         Enter         Clinder         Enter         Enter         Clinder         Enter         Clinder			Bueprist Initial Setup Physical Setup Ope
Volume     By default       Driver     CEPH.       Cinder     By default       CEPH.     Cinder       RBD Pool     By default       field     Volumes.       field     Enter       Cinder     Enter       Cinder     Enter       Cinder     Enter       Cinder     Enter			
Driver       CEPH.         Cinder       By default         RBD Pool       volumes.         field       Cinder         Cinder       Enter         Clinder       Enter         Clinder       Cinder			CEPH Cinder Client Key *
RBD Pool field     volumes.       Cinder     Enter       Client Key     Cinder			
Client Key Cinder			RBD Pool volumes
			Client Key Cinder
			🗙 HA Frony 🖌 Keystone
			Volume Driver * CEPH
🗶 HA, Proxy 🗸 Keystone 🗸 Volume Driver*			

Command or Action	Purpose
	Name Description
	VMTP
	VMTP optional section will only be visible once VMTP is selected from Blueprint Initial Setup.

Command or Action	Purpo	se	
		Name	Description
			Check one of the check boxes to specify a VMTF network:
			Provider Network
			• External Network
			For the <b>Provider Networ</b> complete the following:
			Create Blueprint configuration
			Bueprint Initial Serup Physical Serup OpenSta
			🗶 IAA Prony 🗸 Keystone 🗸 N
			Provider Network () Network Neme *
			Enter Network Name
			Network IP Start * Enset IP Access
			Network Gateway *
			Segmentation ID * Enter/ Segmentation ID from 2 to 4004
			NetworkEnter theName fieldname for theexternal
			network.
			Subnet Enter the field Subnet for Provider Network.
			Network IPEnter theStart fieldstart of thefloating $IPv4$ address.
			Network IP End fieldEnter the end of the floating IPv4 address.
			NetworkEnter theGatewayfieldIPv4address for

Command or Action	Purpose	Purpose		
	Name	Description		
		the Gatew	vay.	
		DNSEnterServer fieldDNSIPv4addre	server	
		SegmentationEnterIDfieldsegmentationID.ID.	the entation	
		For <b>External Netwo</b> in the following deta		
		External Network III Network Name * Enter Network Name		
		Network IP Start *		
		Network Gateway		
		Enter Network Gateway		

Command or Action	Purpo	se		
		Name	Description	
			Network Name field	Enter the name for the external network.
			Subnet field	Enter the Subnet for the external Network.
			Network IP Start field	Enter the start of the floating IPv4 address.
			Network IP End field	Enter the endof the floating IPv4 address.
			Network Gateway field	Enter the IPv4 address for the Gateway.
			DNS Server field	Enter the DNS server IPv4 address.
		<b>TLS</b> This optional section will only be visible once TLS is selected from Blueprint Initial Setup Page.	• Externa TLS Tr	<b>I LB VIP</b> Text field.

Command or Action	Purpose	
	Name	Description
	Name         Under the OpenStack         setup tab, Vim_admins         tab will be visible only         when Vim_admins is         selected from the         Optional Features &         Services under the         Blueprint Initial setup         tab	Following are the field descriptions for VIM
		• <b>Password</b> -Password field. Admin hash password should always start with \$6.

Command or Action	Purpose		
	Name	Description	
	SwiftStack optional section will be visible once SwiftStack is selected from	Following art that needs to SwiftStack:	
	Blueprint Initial Setur Page. SwiftStack is only supported with		
	KeyStonev2 . If you	Blueprint Initial Setup	Physical Setup Open
	select Keystonev3,	🗙 HA Proxy	✓ Keystone
	swiftstack will not be available for	Cluster End Point * Enter Cluster End Po	int IP/Domain
	configuration.	Admin User *	
		Enter Admin User nä Admin Tenant *	
		Enter Admin Tenant	tame
			1
		Cluster End Point field	IP address of PAC (Poy-AccurCoting endpoint.
		Admin User field	Admin user for swift to authenticate in keystone.
		Admin Tenant field	The service tenant corresponding to the AccortCortine used by the Swiftstack.
		Reseller Prefix field	Reseller_prefix as configured for Keysone AuthAuthToken support in Swiftstack. Example: KEY_
		Admin Password field	svikik_athin_pasvad
		Protocol	http or https

Command or Action	Purpose		
	9. For SolidFire, enter the	following:	
	Name	Descriptio	n
	SolidFire is visible for configuration on day0	Create Blues	print configuration
	SolidFire is not allowe as a day-2 deployment	d Biotorim initia S	etup Physical Settup OpenStack S
	option	) × HAP10	ng 🗸 Keystore 🗸 Vestr
	SolidFire is always available with CEPH.	Cluster MVP 172.23.105	217
		Admin Userna circlerstade	
		Cluster	Managamant
		MVIP field	Management IP of SolidFire cluster.
		Cluster SVIP field	Storage VIP of SolidFire cluster.
		Admin Username	Admin user on SolidFire cluster
		Admin Password	Admin password on SolidFire cluster.

Following are the options under Services Setup Tab:

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Command or Action Purpose			
	Name	Description	
	Syslog Export	Following a Syslog Setti	re the options for ngs:
		Create Blueprint o	onfiguration
		Bueprint Initial Setup	Physical Setup OpenStack Setu X NFVEENCH
		Remote Host * Enter IP Address	
		Facility * local5	
		Port * 534	
		Remote Host	Enter Syslog IP address.
		Protocol	Only UDP is supported.
		Facility	Defaults to local5.
		Severity	Defaults to debug.
		Clients	Defaults to ELK.
		Port	Defaults to 514 but can be modified by the User.

Command or Action	Purpose	Purpose			
	Name	Description			
	NFVBENCH	<b>NFVBENCH enable</b> <b>checkbox</b> which by default is <i>False</i> .			
		Create Blueprint configuration			
		Blueprint Initial Setup Physical Setup OpenStack Setup			
		Enable TORSWITCH details are empty, Add TORSWITCH details to config			
		NIC Ports: INT1 1			
		Add ToR information connected to switch:			
		• Select a TOR Switch and enter the Switch name.			
		• Enter the port number. For example:eth1/5.			
		VTEP VLANS (mandatory and needed only for VXLAN):			
		Enter 2 different VLANs for VLAN1 and VLAN2			
		• NIC Ports: INT1 and INT2 optional input. Enter the 2 port			
		numbers of the 4-port 10G Intel NIC at the management node used for the NFVBench.			
	ENABLE_ESC_PRIV	<sup>7</sup> Enable the checkbox to set it as True. By default it is <i>False</i> .			

## **Creating a Blueprint for C-Series Server Platform**

Create a Cisco VIM Unified Management User Account and register the respective Pod.

- Step 1 Log into CISCO VIM Unified Management.
- **Step 2** In the Navigation pane, expand the Pre-Install Section.
- Step 3 Click Blueprint Setup.
- **Step 4** To create a C Series Blueprint:
  - 1. On the Blueprint Initial Setup page of the Cisco VIM Unified Management, complete the following fields:

cisco VM Unified	Management	i.	Calsoft 10.30.116.34	. Oʻ		Role Full-Pod-Access	User D. nhadar	•~
Dushboard Pre-Instal		Create Blueprint configuration				Saw form Office	Validation Clear	
Burprint Setup Burprint Management		Bueprint Initial Setup Physical Setup	OpenStack Setup					
Post-Install		Busprint Name: *			Platform Type: *			
Vew Topology		Errer Burgritt Name			C-series			
Pod User Administration	*	Tenant Network: *			POD Type *		0	
		LinuxDridge/VXLAN			Fution		•	
		Object Storage Backand *						
		Central						
		Optional Features & Services:						
		II Systop Export Settings	E ES_REMOTE_BACKUP		N/VI Monitoring	III Swiftstack		
		Pod Name	Wm Admins		Enable Est Priv	C Install Mode		
		Parmit Root Login	II Mildench If Auto Beckup		SRIOV CARD TYPE	TORSwitch Information		
		I NETAPP_SUPPORT	Keystone v3		O TLS	- 44.0		
		Import Existing 1984, file						
			Bowse	LONG				

Name	Description
Blueprint Name field.	Enter the name for the blueprint configuration.
Platform Type drop-down list	Choose one of the following platform types:
	• B-Series (By default)
	• C-Series ( Select C Series)

Name	Description
Tenant Network drop-down list	Choose one of the following tenant network types:
	Linux Bridge/VXLAN
	• OVS/VLAN
	• VTS/VLAN
	• VPP/VLAN
	• ACI/VLAN
	Note when VTS/VLAN or ACI/VLAN is selected then respective tabs are available on Blueprint setup. When Mechanism driver OVS or ACI is selected, VM_HUGEPAGE_PERCENTAGE field is enabled for all standalone compute nodes, when NFV_HOSTS is enabled.
Pod Type drop-down list	Choose one of the following pod type :
	• Fullon(By Default)
	• Micro
	• UMHC
	• NGENAHC
	Note• UMHC pod type is only supported for OVS/VLAN tenant type.
	• NGENAHC is supported for VPP/VLAN tenant type with no SRIOV
	• Pod type micro is supported for OVS/VLAN, ACI/VLAN, VPP/VLAN.
Ceph Mode drop-down list	Choose one of the following Ceph types:
	• Dedicated (By Default)
	• Central. Central is not supported in Production
Optional and Services Features checkbox	Swiftstack, LDAP, Syslog Export Settings, Install Mode, TorSwitch Information, TLS, NFVMON, Pod Name, VMTP, NFVBench, Autbackup, Heat, Keystone v3, Enable Esc Priv.
	If any one is selected, the corresponding section is visible in various Blueprint sections.
	By default all features are disabled except Auto Backup.

Name	Description
Import Existing YAML file	If you have an existing C Series YAML file you can use this feature to upload the file. Unified Management will automatically fill in the fields and any missed mandatory field will be highlighted in the respective section.
	and any missed mandatory field will be highlighted the respective section.

2. Click **Physical Setup** to advance to the **Registry Setup** configuration page. Fill in the following details for Registry Setup:

dialise VM Unifie	d Managemen	£ Cullect ○ ~		Rake Full-Pod-Access 🔄 User KD: inherhar 🖉 🗘
Dashboard Pre-Instal Burprint Setup		Create Blueprint configuration		Save Form Office Valdation Dicar
Biveprint Management Post-metall View Topology	8	Burgnint Initial Setup         Physical Setup         OpenStack Setup           X Insymptome         X CMC Common         X Networking         X Servers and Roles		
Pod User Administration	1	Registry User Name * Ester registry Username Registry Ernal * Ester registry email	Registry Password * Cotor registry password	•

Name	Description
Registry User Name text field	User-Name for Registry (Mandatory).
Registry Password text field	Password for Registry (Mandatory).
Registry Email text field	Email ID for Registry (Mandatory).

Once all the mandatory fields are filled the Validation Check Registry Page will be changed to a Green Tick.

3. Click CIMC Common Tab and complete the following fields:

hashboard he-Install v	Create Blueprint configuration		Save Form Offline Validation Clear
Bueprint Setup			
Bueprint Management	Biurprint Initial Setup Physical Setup OpenStack Setup		
et-install e			
ew Topology	X Registry Setup X CM/C Common X Networking X Servers an	3 Roles	
d User Administration 4	Usemame *	Password *	•
	admin	password	

Name	Description
User Name disabled field	By default value is Admin.

Password text field	Enter Password for UCSM Common (Mandatory).

4. Click **Networking** to advance to the networking section of the Blueprint.

cisco VIM Unified Managem	ent	Called 10 30.116.244		Rule: Full-Pod-Acces	s   User ID; rohasha
e-instal +	Create Blueprint configuration			Save Form Off	ne Validation Cie
Bueprint Setup Bueprint Management sc-Instal	Biueprint Initial Setup Physical Setup OpenStuck	Setup			
e Topology Uber Administration c	Domain Name :*				0
	HTTP Prove : Enter STTP Prove		TTPs Proxy : Enter HTTP'S Proxy		
	IP Tables on Management Pode : 0	50n * * NTP Server :*	• 🖶 🕈 Don * Action *	on Name Server : *	• = + • Action •
	H C 1 II P H		0	4 4 1 <i>1</i> 1 <b>H</b>	
	Networks  *				= +
	Vian Segment Cimc	Subnet <sup>°</sup> Subnet IPv6 <sup>°</sup> Gateway	Gateway Pv5	Pool <sup>°</sup> Pool Ipv6	/ ×
	v api				/ x / x
	fenant storage				/ x
	storage				/ ×

	ind/or its			

Name	Description
Domain Name field	Enter the domain name. (Mandatory)
HTTP Proxy Server field	If your configuration uses an HTTP proxy server, enter the IP address of the server.
HTTPS Proxy Server field	If your configuration uses an HTTPS proxy server, enter the IP address of the server.
IP Tables on Management Pods	Specifies the list of IP Address with Mask.
NTP Servers field	Enter a maximum of four and minimum of one IPv4 and/or IPv6 addresses in the table.
Domain Name Servers field	Enter a maximum of three and minimum of one IPv4 and/or IPV6 addresses.

Name	Description
Networks table	

Description	
	ated with Segments. To add ear all the table with <b>Delete</b> ch segment and fill in the
You can add, edit, or delete table.	e network information in the
Edit Network	
VLAN: *	•
Segment : * None Science +	
Subnet : * Enter Subnet	
Pv6 Subnet : Enter Subnet IPv6	
Gateway (* Enter Caneway Address	
Pv6 Gateway : Enter Gateway Address@Pv(i)	
Pool : * (multiple pool angles should be commo appreciat) Enter IP Pool	•
Pv6 Pool : (http://.com/angaticatilite.com/angatimed) Enter (Pv6 Pool	•
table.	new entries (networks) to the fields in the Edit Entry to
Name	Description
VLAN field	Enter the VLAN ID.
	For Segment - Provider, the VLAN ID value is 'none'.
Segment drop-down list	When you add/edit new segment then following segments types are available in the form of dropdown list and you can select only one. • API • Management/provision
	Tenant

Description	
	• Storage
	• External
	• Provider
	• ACIINFRA
	Note Aciinfra segment is available only when ACI/VLAN tenant type is selected) Depending upon the segment some of the entries below are not needed. Please refer to the example file in openstack-configs dir for details.
Subnet field	Enter the IPv4 address for the subnet.
IPv6 Subnet field	Enter IPv6 Address. This field will be available only for Management provision and API
Gateway field	Enter the IPv4 address for the Gateway.
Gateway IPv6 field	Enter the IPv6 address for the gateway. This will support for API and management provision.
Pool field	Enter the pool information in the required format, for example: 10.1.1.5-10.1.1.10,102.1.5-102.1.10
	This field is available only for the Mgmt/Provision, Storage, and Tenant segments.
IPv6 Pool field	

Name	Description
	Enter the pool information in the required format. For example: 10.1.1.5-10.1.1.10,102.1.5-102.1.10
	Click Save.

5. On the Servers and Roles page of the Cisco VIM Suite wizard, a pre-populated table filled with Roles : Control, Compute and Block Storage (Only if CEPH Dedicated is selected in Blueprint Initial Setup is available.

cisco	VM Unified M	lanagemer	e .			Culture I	)~					Role: Full-Pool Access	User D.	and a	
bracches lateri-e			Create Blueprint co	onfiguration								Save Form Office	Inidator	Citer	
Burgetint 5	letup														
Bueprit N	Management		Burgerst Initial Setup	Provint Setue Co	perform femal										
total.															
Inprosp	,		X Repary Setup	CIMC Comm	or X Networking	🗶 Seven and Ro									
her Adre	and allow		Server User Name								interior in the second	SROV VF5			
			nont			A 110	NK SHO	port.	0.060	a VIC Intel SRIOV					
			Disible нуретичий	ng											
			COBBLER												
			Cubbler Timeout					Bio	ok Storage Köckstart *					•	
			45					17	cs-b-and-c-series to						
			Control Kickelart *				•	Cor	npute Kickstert*					•	
			903-0-310-0-series.					17	cs-b-and-c-series ks						
			Server Host Password *				•								
			Ermir Server Hold Pas	neord											
			Server and Roles 1* 🛦												
			Server Name	° OMC P	* CMC User name *	CBMC Password	Rack	æ	* 8a	" Marag	ement P	* Management Public	Action"		
									control				1 1		
									coreol				1 .		
									control				1.		
									compute				1 .		
						andror its affiliates. All r Unified Management Ve									

**Note** If you choose mechanism driver as OVS or ACI, VM\_HUGEPAGE\_PERCENTAGE field column is available for compute nodes, where you can fill values from 0 to 100%, when NFV\_HOSTS: ALL is chosen.

Name	Description
Server User Name field	Enter the username of the Server.
Disable Hyperthreading	Default value is false. You can set it as true or false.

Name	Description		
Cobbler	Enter the Cobbler details in the following fields:		
	Name	Description	
	Cobbler Timeout field	The default value is 45 min. This is an optional parameter. Timeout is displayed in minutes, and its value ranges from 30 to 120.	
	<b>Block Storage Kickstart</b> field	Kickstart file for Storage Node.	
	Admin Password Hash field	Enter the Admin Password. Password should be Alphanumeric. Password should contain minimum 8 characters and maximum of 32 characters.	
	Cobbler Username field	Enter the cobbler username to access the cobbler server.	
	Control Kickstart field	Kickstart file for Control Node.	
	<b>Compute Kickstart</b> field	Kickstart file for Compute Node.	
	<b>Cobbler Admin Username</b> field	Enter the admin username of the Cobbler.	

Name Add Entry to Servers and Roles		Description
Note	when Pod type micro is selected then all the three servers will be associated with control, compute and block storage role.	
For Exa	ample:	
Roles		
• Bl	ock Storage	
	• -Server 1	
	• -Server 2	
	• -Server 3	
• Co	ontrol	
	• -Server 1	
	• -Server 2	
	• -Server 3	
• Co	ompute	
	• -Server 1	
	• -Server 2	
	• -Server 3	
Note	When Pod type UMHC is selected then auto ToR configuration is not supported and the ToR info at server and roles level is not allowed to be entered.	

Description	
Click Edit or + to add a ne	w server and role to the table.
optional field VM_HUGEI when compute role is chose NFV_HOSTS is set to ALI	er OVS or ACI, an additional PAGE_PERCENTAGE is shown en; This option is only valid when L; If no value is entered then the EPAGE_PERCENTAGE is used.
Server Name *	0
Enter Server Name	
VIC Slot	
Enter VIC Slot	
CIMC IP *	0
Enter CIMC IP Address	
CIMC User Name Enter CIMC Username	
	~
CIMC Password Enter CIMC Password	U
Rack ID *	0
Enter Rack ID	
Role *	
Management IP	0
Enter Management IP Address	
Management IPv6	0
Enter Management IPv6 Address	
Save Cancel Server Name Rack ID field	Entry the name of the server. The rack ID for the server.
VIC Slot field	Enter a VIC Slot.
CIMC IP field	Enter a IP address.
CIMC Username field	Enter a Username.
CIMC Password field	Enter a Password for CIMC.
Select the <b>Role</b> from the drop down list	Choose Control or Compute or Block Storage from the drop-down list.
Management IP	It is an optional field but if
	11115 an optional new out II

Name	Description		
		provided for one Server then it is mandatory to provide it for other Servers as well.	
	Management IPv6	Routable and valid IPv6 address. It is an optional field but if provided for one server then it is mandatory for all other servers as well.	
Click Save or Add .	On clicking <b>Save or Add</b> all information related to Serve and Roles gets saved.		
If <b>Configure ToR</b> checkbox is <b>True</b> with at-least one switch detail, these fields will be displayed for each server and this is similar to DP Tor: <b>Port Channel</b> <b>and Switch Name (Mandatory if Configure ToR</b> <b>is true)</b>	<ul> <li>Port Channel field</li> <li>Switch Name field</li> <li>Switch Port Info field</li> </ul>	<ul> <li>Enter the port channel input.</li> <li>Enter the switch name.</li> <li>Enter the switch port information.</li> </ul>	
DP ToR (Only for Control and Compute) : Mandatory if Intel NIC and Configure TOR is True.	<ul> <li>Port Channel field</li> <li>Switch Name field</li> <li>Switch Port Info field</li> </ul>	<ul> <li>Enter the port channel input.</li> <li>Enter the switch name.</li> <li>Enter the switch port information.</li> </ul>	
SRIOV TOR INFO (Only for Compute Nodes). It is mandatory in server and roles if Intel NIC and Configure TOR is True. with TOR TYPE Nexus. For TOR TYPE NCS-5500 these fields are optional Switch Name (Mandatory if Configure ToR is true). This field appears only when Intel NIC support is true, as Auto TOR config is not supported in VIC_NIC combo		<ul> <li>Enter the switch name.</li> <li>Enter the switch port information.</li> </ul>	
<b>Intel SRIOV VFS</b> (valid for Intel NIC testbeds) and can be integer.	<pre>ind For SRIOV support for Intel NIC. By Default, SRIOV support is disabled. To enable, define a value in the range # * 1-32 when INTEL_NIC_SUPPORT is set True (X710 Max VFs = 32) # * 1-63 when CISCO_VIC_INTEL_SRIOV is set True (X520 Max VFs = 63)</pre>		
INTEL_SRIOV_PHYS_PORTS (valid for Intel NIC test beds) and can be of value 2 or 4 (default is 2)			

Name	Description
Click Save or Add .	If all mandatory fields are filled click <b>Save or Add</b> to add information on Servers and Roles.
Disable Hyperthreading	Default value is false. You can set it as true or false.
Click Save	

- **Note** Maximum two ToR info needs to be configured for each connection type on each node (control, compute and block\_storage node).
- **Note** If pod type UMHC is selected then CISCO\_VIC\_INTEL\_SRIOV is enabled to be TRUE. CISCO\_VIC\_INTEL\_SRIOV is also supported on Micro pod with expanded computes
- **Note** For Tenant type **ACI/VLAN**, port channel for each ToR port will not be available in servers and roles, as APIC will automatically assign port-channel numbers. Also, for ACI in full on mode you can select Intel NIC Support in the "Servers and Roles" section.
- 6. Click **ToR Switch** checkbox in **Blueprint Initial Setup** to enable the **TOR SWITCH** configuration page. It is an **Optional** section in Blueprint Setup but once all the fields are filled in then it will become a part of the Blueprint.

cisco VM Unife	ed Managemen	nt Cabut 0110.244	d Pad Acom	User ID: rohonhar	۰.
Dushboard Pre-Instal		Create Blueprint configuration	m Office V	aldaton Dear	1
Dueptint Setup					
Durprint Management		Ithurphite Initial Serup Physical Setup Controlack Serup			
Post-Install Vew Topology	*	K flegiony ferup K CARC Common K Networking K fervers and Boles K Tor Swetch			
Pod User Administration		(j) Contigues TOR			
		Tordisettet Networkelow (*			
		Hostname Uber Name — Password — SSH IP — SSN Num — VPC Peerlow — VPC Donein — VPC peer p., — VPC peer V., — SR mgmt ps., —	Minget P_"	Action	

Name		Descri	otion	
Config Note	<b>nfigure ToR</b> optional checkbox.		Enabling this checkbox, changes the configure ToR section from false to true.	
1010	If <b>UMHC</b> is selected as podtype, configure TOR is not allowed.	Note	Configure tor is true then ToR switch info maps in servers	

2218 Cisco and/or its affiliates. All rig

Name	Description
<b>ToR Switch Information</b> mandatory table if you want to enter ToR information.	

10	Description	Description		
	Click (+) to add information Switch Details	n for ToR Switch.		
	Hostname *	0		
	Enter Switch Hostname	0		
	Enter Switch Username			
	Password *	0		
	Enter Password			
	SSH-IP *	0		
	Enter IP Address			
	SSN Num Enter SSN Num	0		
	VPC Peer Keepalive	9		
	Enter IP Address			
	VPC Domain	0		
	Enter VPC Domain			
	VPC Peer Port Info	0		
	Enter VPC Port			
	VPC Peer VLAN Info	0		
	Enter VPC VLAN Info			
	BR Management Port Info	0		
	Enter BR Port Info			
	BR Management PO Info	0		
	Enter BR PO Info	Description		
	Name	ToR switch name.		
	Username	ToR switch username.		
	Password	ToR switch password.		
	SSH IP	ToR switch SSH IP.		
	SSN Num	ToR switch ssn num.		
	VPC Peer Keepalive	Peer Management IP. You cannot define if there is no peer.		

Name	ne Description	
	VPC Domain	Cannot define if there is no peer.
	VPC Peer Port Info	Interface for vpc peer ports.
	VPC Peer VLAN Info	VLAN ids for vpc peer ports (optional).
	BR Management Port Info	Management interface of build node.
	BR Management PO Info	Port channel number for management interface of build node.
	BR Management VLAN info	VLAN id for management interface of build node (access).
Click Save.		

Note When tenant type ACI/VLAN is selected, the TOR switch information table differs and is mandatory.

Name		Descri	ption
Config Note	<b>ure ToR</b> optional checkbox. If <b>UMHC</b> is selected as podtype, configure TOR is not allowed.	Enablin false to Note	ng this checkbox, changes the configure ToR section from o true. Configure tor is true then ToR switch info maps in servers

Name	Description
<b>ToR Switch Information</b> mandatory table if you want to enter ToR information.	

Name	Description		
	Click (+) to add information for ToR Switch. Switch Details		
	Hostname •		0
	Usemame *		0
	Enter Switch Username		
	Password *		0
	Enter Password		
	SSH-IP * Enter IP Address		0
			•
	SSN Num Enter SSN Num		0
	VPC Peer Keepalive		0
	Enter IP Address		
	VPC Domain		0
	Enter VPC Domain		
	VPC Peer Port Info		0
	Enter VPC Port		
	VPC Peer VLAN Info		0
	Enter VPC VLAN Info		
	BR Management Port Info		0
	Enter BR Port Info		
	BR Management PO Info		0
	Enter BR PO Info		
	Name	Description	
	Name	ToR switch name.         ToR switch username.         ToR switch password.         ToR switch SSH IP.         ToR switch ssn num.	
	Username		
	Password		
	SSH IP		
	SSN Num		
	VPC Peer Keepalive         Peer Management IP. You cannot define if there is no peer.		

Name	Description	Description		
	VPC Domain	Cannot define if there is no peer.		
	VPC Peer Port Info	Interface for vpc peer ports.		
	VPC Peer VLAN Info	VLAN ids for vpc peer ports (optional).		
	<b>BR Management Port Info</b>	Management interface of build node.		
	<b>BR Management PO Info</b>	Port channel number for management interface of build node.		
	BR Management VLAN info	VLAN id for management interface of build node (access).		
Click Save.				

Note When the Tenant type ACI/VLAN is selected, the ToR switch information table differs and is mandatory.

•	Description	
Configure ToR	Is not checked, as by defau	lt ACI will configure the ToRs
	Switch Details	
	Hostname *	0
	Enter Switch Hostname	
	VPC Peer Keepalive *	0
	Enter IP Address	
	VPC Domain *	0
	Enter VPC Domain	
	BR Management Port Info	0
	Enter BR Port Info	
	Node ID *	0
	Save Cancel	TaD switch yours
	Swe Carcol Host Name	ToR switch name.
		ToR switch name.         Enter Peer must be exist pair.
	Host Name	Enter Peer must be exist
	Host Name VPC Peer keep alive	Enter Peer must be exist pair.

**Note** If TOR\_TYPE is selected as NCS-5500, the TOR switch information table differs and is mandatory.

Name		Descri	ption
Configu Note	<b>Ire ToR</b> optional checkbox If <b>NSC-5500</b> is selected as TOR_TYPE, configure TOR is set as mandatory.		ng this checkbox, changes the configure ToR from false to true. Configure TOR is true then ToR switchinfo maps in servers.

Name	Description
If you want to enter NCS details fill in the <b>NCS-5500</b> Information table.	

Name

I

Description	
Click (+) to add infor	mation for NCS-500 Switch.
Switch Details	
Hostname *	0
Enter Switch Hostname	
Username *	0
Enter Switch Username	
Password *	0
Enter Password	
SSH-IP *	0
Enter IP Address	
VPC Peer Keepalive	0
Enter IP Address	
VPC Peer Port Info	0
Enter VPC Port	
VPC Peer Port Address	0
Enter VPC Port Address	
ISIS Loopback Address	0
Enter ISIS Loopback Addre	195
ISIS Net Entity Title	0
Enter ISIS net entity title	
ISIS Prefix SID	0
Enter ISIS Prefix SID	1
	0
BR Management Port Info	, in the second s
BR Management PO Info	0
Enter BR PO Info	· · · · · · · · · · · · · · · · · · ·
Save Cancel	
Name	Description
Name	Enter the NCS-5500 hostname.
User Name	Enter the NCS-5500 username.
Password	Enter the NCS-5500 password.
SSH IP	Enter the NCS-5500 ssh I Address.
VPC Peer Link	Peer management IP.

ne	Description	
	Name	Description
	BR Management PO Info	Port channel number for management interface of build node.
	BR Management VLAN info	VLAN id for management interface of build node (access).
	VPC Peer Port Info	Interface for vpc peer ports.
	VPC Peer Port Address	Address for ISIS exchange.
	ISIS Loopback Interface address	ISIS loopack IP Address.
	ISIS net entity title	Enter a String.
	ISIS prefix SID	Integer between 16000 to 1048575.

When TOR-TYPE selected as NCS-5500 and 2 NCS-5500 are configured it is mandatory to configure MULTI\_SEGMENT\_ROUTING\_INFO

Name	Description
BGP AS Number field	Integer between 1 to 65535.
ISIS Area Tag field	A valid string.
Loopback Interface name field	Loopback Interface name.
API bundle ID field	Integer between 1 to 65535.
API bridge domain field	String (Optional, only needed when br_api of mgmt node is also going through NCS-5500; this item and api_bundle_id are mutually exclusive).
EXT bridge domain field	A valid string (user pre-provisions physical, bundle interface, sub-interface and external BD for external uplink and provides external BD info setup_data).

7. Click NFVI Monitoring checkbox in Blueprint Initial Setup to enable the NFVI Monitoring configuration tab.

dialia cisco VIM Unified Manager	nent.	Calioft 10.30.116.244	Rolec Full-Pod-Access User ID: rohashar
hboard	Create Blueprint configuration		Save Form Offline Vandation Cloar
-Instal ~	Create Blueprint configuration		
Reeprint Settap Reeprint Management			
	Blaeprint Initial Setup Physical Setup OpenStack Setup		
-install c	X Registry Setup X CIMC Common X Network	ng 🗙 Servers and Roles 🗸 Tor Switch 🗙 NVVI Markortog	
Topology			
ser Administration c	Master Admin P: *		0
	Admin IP		
	Collector		
	Management VIP: *		Θ
	Management VIP		
	Collector VM1 Info		
	Host Name: *	Password: *	0
	nosmane	password	
	COUGER Password. *	Admin P: *	0
	password	Admin IP	
	Management IP: *	0	
	Management IP		
	Collector VM2 Info		
	Host Name: *	Ptsteword: *	0
		password	
	COUSER Password. *	Admin IP:*     Admin IP	0
	Management IP: *	0	
	and objection in		
	Collector Tor Connections		+ •
	Tor Info		+ - ~ Action ~
		No data avaliable	
		record analytic	
	Dispatcher		
	Robbit MQ User Name: *		0
	Rabbit MQ User Name		

Name	Description
Admin IP	IP Address of Control Center VM
Management VIP	VIP for ceilometer/dispatcher to use, must be unique across VIM Pod
Host Name	Hostname of Collector VM
Password	Password of Collector VM
CCUSER Password	Password of CCUSER
Admin IP	SSH IP of Collector VM
Management IP	Management IP of Collector VM

Name	Description
Collector ToR Connections	1. Click on (+) icon to Add Collector ToR Connections
	2. Select the ToR switches from list to add the information.
	<b>3.</b> It is optional and available for ToR type NCS-5500
	<ol> <li>For now, it supports adding only one Collector ToR Connection</li> </ol>
	Add Collector Tor Connections
	Select Tor switch for connections          test-torhostname       Port Channel *         Enter port channel       Switch- test-torhostname *         Enter Port Information
	Save Cancel Port Channel Enter port channel.
	Switch - {torSwitch-hostname}Enter port number, E.g:eth1/15.
	Click Save
Rabbit MQ User Name	Enter Rabbit MQ username.

8. Click **OpenStack Setup** Tab to advance to the **OpenStack Setup** Configuration page. On the **OpenStack Setup** Configuration page of the Cisco VIM Unified Management wizard, complete the following fields:

Name	Description			
HA Proxy	Fill in the following details:			
	Create Blueprint configuration			
	Elueprint Initial Setup Physical Setup OpenStack	Setup		
	🗙 HA Proxy 🗸 Keystone 🗙 Neutr	ron 🗸 CEPH 🗸 Glance	✓ Cinder	
	External VIP Address *		External VIP IPv6 Add	
	Enter IP Address		Enter IP Address	
	Virtual Router ID *		Internal VIP Address	
	Enter Virtual Router ID		Enter IP Address	
	Internal VIP IPv6 Address		0	
	Enter IPv6 Address			
	External VIP Address field	Enter IP address of VIP.	External	
	External VIP Address IPv6 field	Enter IPv6 address VIP.	of External	
	Virtual Router ID field	Enter the Router ID	for HA.	
	Internal VIP Address IPv6 field	Enter IPv6 address IP.	of Internal	
	Internal VIP Address field	Enter IP address of VIP.	Internal	
Keystone	Mandatory fields are pre-popul	ated.		
	Create Blueprint configuration		·	
	Brueprint Initial Setup Physical Setup OpenOtack Setup			
	🗙 HA.Prosy 🗸 Keystone 🗙 Neutron	🗸 CEPH 🔰 🖌 Glance 🔍 🖌 Cente		
	Admin Username *		nin Tenant Name *	
	Admin Username * admin		nin Tenant Name *	
	Admin User Name	admin.		

Name	Description
LDAP	

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ne	Description	Description		
	<b>LDAP enable checkbox</b> which by default is <b>false</b> , if LDAP is enabled on keystone.			
	Create Blueprint configuration	I		
	Burgrant Initial Setup Physical Setup OpenStack Setup			
	🗙 HA Proxy 🗸 Keystone 🗙 Neutron	✓ CEHH > ✓ Gance >	Cinter	
	Domain Name * Enter Contain specific name		Object Class for Users *     Enter objectClass for Users	
	Object Class for Groups * Enter object/Class for Groups		Domain Name Tree for Users *     Enter DV tree for Users	
	Domain Name Tiree for Groups *		Suffix for Domain Name *	
	Enter DN tree for Groups		Enter suffix for DN	
	(.8), *		Domain Name of bind user*	
	Enter URL		Enter DN of bind user	
	Password * Enter Password		User Filter     Enter User Filter	
	User ID Attribute *		User Name Attribute *	
	Enter User Id Attribute		Enter User Name Attribute	
	User Mail Attribute		Group Name Attribute *	
	Enter User Mal Attribute		Enter Group Name Attribute	
	Domain Name field	Enter name for	Domain name.	
	Object Class for Users field Enter a string as		s input.	
	<b>Object Class for Groups</b> field	Enter a string.		
	<b>Domain Name Tree for Users</b> Enter a string. field			
	Domain Name Tree for Groups field	E E		
	Suffix for Domain Name field	Enter a string.		
	URL field	Enter a URL w number.	ith ending port	
	<b>Domain Name of Bind User</b> field			
	Password field	Enter Password format.	l as string	
	User Filter field	User Filter field Enter filter nam		
	User ID Attribute field	Enter a string.		
	User Name Attribute field	Enter a string.		
	User Mail Attribute field	Enter a string.		

Name	Description	
	Group Name Attribute field Enter a string.	

Name	Description
Neutron	

Name Description	
Neutron fields would change on the basis of <b>Tenant Networ</b> <b>Type</b> Selection from <b>Blueprint Initial Setup</b> . Following are the options available for Neutron for OVS/VLAN:	
Create Blueprint configuration	1
Bueprint Initial Setup Physical Setup OpenStack Setup	
🗙 HA Prony 🗸 Knystone 🔀 Incurron 🗸 CEPH 🗸 Gance 🗸 Cinder 🗶	LDAP
Tenant Network Type *     Mechanism Drive       VLAN     *       NBV Hoots *     *       Compute Name =     Enter Tenant VLAN Rational Computer Name       Id Id It 1 () () () () () () () () () () () () ()	nges * LAN Ranges anges
Tenant Network Type         field         Auto Filled based on the           Tenant Network Type         Tenant Network Type select	ed
in the Blueprint Initial Setup page.	,
Mechanism Drivers field       Auto Filled based on the         Tenant Network Type select       in Blueprint Initial Setup page	
NFV Hosts field         Auto filled with the Compu- you added in Server and Role	
If you select All in this section NFV_HOSTS: ALL will be added to the Blueprint or you can select one particular compute. For Eg:	;
NFV_HOSTS: compute-server-1, compute-server-2.	
Tenant VLAN Ranges field         List of ranges separated by comma form start:end.	
<b>Provider VLAN Ranges</b> field List of ranges separated by comma form start:end.	
VM Hugh Page Size (available for NFV_HOSTS option) field2M or 1G (optional, defaults 2M)	to
VM_HUGHPAGE_PERCENTAGE Optional, defaults to 100%; c range between 0 and 100	an

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Name	Description	
	VSWITCH_WORKER_PROFILE	Allowed only for VPP
		Optionally available options: numa_zero and even
		• numa_zero: Reserved cores will always reside in NUMA node 0.
		• Even : Reserved cores will be evenly distributed across all NUMA.
	NR_RESERVED_VSWITCH_PCORES	Allowed only for VPP
		Number of cores associated to VPP, defaults to 2.
	Enable Jumbo Frames field	Enable the checkbox
	For Tenant Network Type Linux same but <b>Tenant VLAN Rang</b>	x Bridge everything remains the es will be removed.

Name	Description
СЕРН	

Save

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Name	Description			
	<ol> <li>1. When Object Storage Backend is selected Central in blueprint initial setup.</li> <li>Create Blueprint configuration</li> <li>Bregers tests Setup</li> <li>Y Horsey</li> </ol>			
		Kingstone     Ceeph Mode *     Ceema     Ceema     Monitor Hoat *     Enter Monitor Hoat for CDPH     Secure UAD *     Enter Societ UAD for CDPH     Notal RBD POOL *     wms	x meanon x Garce X	Cruter 10 * Enter Chanter 10 Machter Manbers * Enter Manter Manbers for CEPH Noae Boot Fram Local CEPH: NAT
		CEPH Mode	By default Central.	
		Cluster ID	Enter Cluster ID.	
		Monitor Host	Enter Monitor Host fo	or CEPH
		Monitor Members	Enter Monitor Membe	ers for CEPH
		Secret UUID	Enter Secret UUID for	r CEPH
		NOVA Boot from	Drop down selection. CEPH or local.	You can choose
		NOVA RBD POOL	Enter NOVA RBD Po vms)	ol (default's to
		CEPH NAT	Optional, needed for C when mgmt network i	
	2.	When Object Storag blueprint initial setup	e Backend is selected I p.	Dedicated in
		Create Blueprint configuration		
		Brueprist Initial Setup Physical Setup Qe	erditeik Setue K. Neutron	Conder X LDAP
		Ceph Mode * Dedicated		Nove Boot From Local
		<ul> <li>CEPH Mode: By d</li> <li>NOVA Boot: From CEPH or local.</li> </ul>	efault Dedicated. drop down selection y	ou can choose
	3.	When Object Storag blueprint initial setu	e Backend is selected N p.	JetApp in

Name	Description
	Create Blueprint configuration  Burphi Initial Strup Physical Strup Qeeditack Setup  X NA Proxy Keystone X Neuron X Neuron X Neurop  Ceeph Mode *  neupp
GLANCE	1. When Object Storage Backend is selected Central in blueprint initial setup. Create Blueprint configuration
	Store Backend * Glance RBD Pool * Images CEPH * Images Clance Clance Key * Enter GLANCE Clant Key
	When Object Storage Backend is selected Dedicated in blueprint initial setup. Create Blueprint configuration
	Buegnint Initial Setup Physical Setup OpenStack Setup X HA Prony  Koystone  V Neutron X CEPH X Clauxe X Cinder Store Backend * CEPH
	<b>Note</b> By default Populated for CEPH Dedicated with Store Backend value as CEPH.

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Name	Description
CINDER	By default Populated for <b>CEPH Dedicated</b> with Volume Driver value as <b>CEPH</b> .
	Create Blueprint configuration
	Brueprint Initial Setup Physical Setup
	🗙 HA Proxy 🗸 Kayatone 🖌 Neutron 🗶 CEPH 🗶 Gance 🗶 Croder
	Volume Driver * Cinder RID Pool *
	CEPH • volumes
	Cinder Client Key*
	Enter GNDER Gient Key
	Create Blueprint configuration
	Burprint Initial Setup Physical Setup OperStack Setup
	X HA Prony V Keystone V Neutron X CEPH X Glance X Center
	Volume Driver *
	CDPH ·
	<b>Note</b> By default Populated for CEPH Dedicated with Volume Driver value as CEPH.

Name	Description
<b>VMTP</b> optional section, this will be visible only if VMTP is selected from Blueprint Initial Setup. For VTS tenant type Provider network is only supported.	

Description		
Check one of the check box	es to specify a VMTP network:	
Provider Network		
External Network		
For the <b>Provider Network</b>	complete the following:	
Create Blueprint configuration		
Bueprint Initial Senio Physical Senio OpenStank Senio		
🗙 HA Proxy 🖌 Keystone 🗙 Neutron	🗸 CEPH 🗸 Gance 🗸 Cinder 📐 🗙 Witt 🗙	
Provider Network		
Network Name *	O Subnet*	
Enter Network Name	Enter Subnet	
Network IP Start *	O Network IP End *	
Enter IP Address	Erner P Address	
Network Gateway *	O DNS Server*	
Enter Network Gateway	Enter DNS Serve	
Segmentation ID *	0	
Enter Segmentation ID from 2 to 4094		
Network Name field	Enter the name for the external network.	
Subnet field	Enter the Subnet for Provider Network.	
Network IP Start field	Enter the starting floating IPv4 address.	
Network IP End field	Enter the ending floating IPv4 address.	
Network IP End field Network Gatewayfield		
	address. Enter the IPv4 address for the	
Network Gatewayfield DNS Server field	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.	
Network Gatewayfield	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.	
Network GatewayfieldDNS Server fieldSegmentation ID field	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill in	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill in Network 0         Network Network 0	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill in	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill in Network 0         Network Network 0	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill in         Enered Network Comment         Enered Network Networ	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	
Network Gatewayfield         DNS Server field         Segmentation ID field         For External Network fill i         Enered Network ©         Network Plant*	address.         Enter the IPv4 address for the Gateway.         Enter the DNS server IPv4 address.         Enter the segmentation ID.         n the following details:	

Name	Description			
	Network Name field	Enter the name for the external network.		
	IP Start field	Enter the starting floating IPv4 address.		
	IP End field	Enter the ending floating IPv4 address.		
	Gateway field	Enter the IPv4 address for the Gateway.		
	DNS Server field	Enter the DNS server IPv4 address.		
	Subnet field	Enter the Subnet for External Network.		
<b>TLS</b> optional section, this will be visible only if TLS is selected from Blueprint Initial Setup Page.	• External LB VIP FQ	-		
	• External LB VIP TL is false.	S - True/False. By default this option		
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the Blueprint Initial setup tab	Following are the field des Create Blueprint configurat	scriptions for VIM Admins:		
	Blueprint Initial Setup Physical Set	Upp OpenStack Setup		
	🗙 HA Proxy 🖌 🖌 Keystor	ne 🖌 Neutron 🗙 CEPH 🗙 Glance 🗙		
	Username*	Password Public key		
	Note: Remove empty records before validation.			
	Permit root login			
	User Name	Enter username		
	Password	Password field. Admin hash password should always start with \$6.		

Name	Description							
<b>SwiftStack</b> optional section will be visible only if SwiftStack is selected from Blueprint Initial	Following are the options that needs to be filled for SwiftStack:							
Setup Page. SwiftStack is only supported with <b>KeyStonev2</b> . If you select <b>Keystonev3</b> ,	Create Blueprint configuration							
swiftstack will not be available to configure.	Bioeprint Initial Serup Physical Serup OpenStack Setup							
swittstack will not be available to configure.	🗙 HA Proxy 🗸 Keystone 🗶 Neutron ✔ 1	CEPH V Garce V Grder X VMTP V TLS						
	Cluster End Point * Enter Cluster End Point IP/Domain	Reseller Prefix *     Enseller Prefix						
	Admin User *	Deter research mens     Admin Password *						
	Enter Admin Uber name	Enter Password						
	Admin Tenant *	Protocol *						
	Enter Admin Tenant name	http:						
	Cluster End Point	IP address of PAC (proxy-account-container) endpoint.						
	Admin User	Admin user for swift to authenticate in keystone.						
	Admin Tenant	The service tenant corresponding to the Account-Container used by Swiftstack.						
	Reseller Prefix	Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack E.g KEY_						
	Admin Password	swiftstack_admin_password						
	Protocol	http or https						

Name		Description	
when th	NFO tab is available in Openstack setup, ne Tenant type ACI/VLAN is selected in nt initial setup.	Create Blueprint configuration Reservices free Paper free Conflict free grant of the State of the State of the State of the	X MP X MORE FREE
Note	When ACI/VLAN is selected then ToR switch from initial setup is	All Hames 1 all all all all all all all all all a	APC Parametel 1
	mandatory.	Gan All Ganada All Ganada Gan All Ganada All Q Assessed All Q Assessed	Cons Mill Annuel     Market Hub, *     Son Mill Annuel Hub, *     Son Mill Annuel Annuel Hub *     Annuel Annuel Hub *     Databased Hub *
	mandatory.	Tensor APR Page 1 Tensor APR Page 1 APP Page	Artic and "Inner"     Artic and "Inner"     Inner transfer Texas     T
		APC (Response) (Just Reserve (Still Weingement (Just Reserve)	ANG Messagement class (M     Ense Messagement) (M
		Name	Description
		APIC Hosts field	Enter host input. Example: <ip1 host1>:[port] . max of 3, min of 1, not 2;</ip1 host1>
		apic_username field	Enter a string format.
		apic_password filed	Enter Password.
		apic_system_id field	Enter input as string. Max length 8.
		apic_resource_prefix field	Enter string max length 6.
		apic_tep_address_ pool field	Allowed only 10.0.0/16
		multiclass_address_pool field	Allowed only 225.0.0.0/15
		apic_pod_id field	Enter integer(1-65535)
		apic_installer_tenant field	Enter String, max length 32
		apic_installer_vrf field	Enter String, max length 32
		api_l3out_network field	Enter String, max length 32

Name	Description		
VTS tab is available in Openstack setup, when Tenant Type is VTS/VLAN selected.	Create Biusprint configuration	Sector Office States	-
If vts day0 is enabled then SSH username and SSH password is mandatory.	★ Million y Report A States of CENT of States Grant States	e for and	
If SSH_username is input present then SSH password is mandatory vice-versa	Env Terrene VEALER * * Env KC P VE DA-MERCE Env TOR Person	Sour Farment     Vite Star-Additional     the Star Additional     Vite Star-Addition     Vite Star Addit      Z1	•
	Name	Description	
	VTS Day0 (checkbox)	True or false default is false.	
	VTS User name	Enter as string does not contain special characters.	
	VTS Password	Enter password	
	VTS NCS IP	Enter IP Address format.	
	VTC SSH Username	Enter a string	
	VTC SHH Password	Enter password	

#### **9.** For SolidFire, enter the following:

Name	D	escription						
SolidFire is visible for configuration on day0 SolidFire is not allowed as a day-2 deployment option	0	Create Blueprint c	onfigurat	ion				6
SolidFire is always available with CEPH.		Bueprini Initial Setup	Physical Sen		🖌 Сарн	✓ Garos	~	Cinder 🔽
		Cluster MMP * 172.23.105.217 Admin Username * onderstadmin					0	Cluster SVIP • 10.3.3.50 Admin Password
	y0 nent option	Cluster MVI ïeld		Management cluster.	IP of So	lidFire		
		Cluster SVIP	field	Storage VIP of	of SolidF	Fire cluster.		
	A	Admin Userr	ame	Admin user o	n SolidF	Fire cluster		
	A	Admin Passv		Admin passw cluster.	ord on S	SolidFire	_	

**10.** If **Syslog Export** or **NFVBENCH** is selected in **Blueprint Initial Setup** Page, then **Services Setup** page will be enabled for user to view. Following are the options under **Services Setup** Tab:

Description										
Following are the options for Syslog Settings:										
User can add maximum of three entries.										
To add new SysLog information, click on Add SysLog button, fill all the required information listed below and hit Save button.										
Burgenet Initial Setup Physical Setup OpenStack Setup										
Systog Export O										
Remote host "Protocol " Facility " Sevenity " Port " Clients " Action "										
11.1.1         udp         local5         debug         514         ELK         X           22.2.2         udp         local5         debug         514         ELK         X										
Remote Host         Enter Syslog IP address.										
Protocol Only UDP is supported.										
Facility   Defaults to local5.										
Severity Defaults to debug.										
Clients Defaults to ELK.										
Port         Defaults to 514 but can be modified by the User.										

Name	Description									
NFVBENCH	NFVBENCH enable checkbox by default isfalse.									
	Add ToR information	Add ToR information connect to Switch:								
	Blueprint Initial Setup Physical Setup O	enduce Services Service								
	NEVERNOL									
	i frutir									
	Add tor info connected to switch: Select TOR Switches *	Swhch- 113-NR0729X-2 *	•							
	TOR Buildens	* #851/33/#851/34								
	NIC Ports	0 NT2	0							
	1	2								
	NRC Skyt									
	<ul> <li>Select a TOR Switch and enter the Switch name.</li> <li>Enter the port number. For example, eth1/5 . VTEP VLANS (mandatory and needed only for VTS/VXLAN). Enter two different VLANs for VLAN1 and VLAN2.</li> <li>NIC Ports: INT1 and INT2 optional input. Enter the two port numbers of the 4-port 10G Intel NIC at the management node used for NFVBench.</li> </ul>									
	NIC Slot: Optional input, indicates which NIC to use in case there are multiple NICs.									
	Note NIC port at	nd slot need to be together.								
ENABLE_ESC_PRIV	Enable the checkbox	to set it as True. By default it is Fa	lse.							

- **Step 5** Click **Offline validation** button to initiate an offline validation of the Blueprint.
- **Step 6** Once the **Offline validation** is successful, **Save** option will be enabled for you which when clicked would redirect you to the **Blueprint Management** Page.

# Redeploy Multiple Install Stages during Cisco VIM Installation using Unified Management

You can redeploy Cisco VIM in multiple stages during blueprint installation using the Cisco VIM Unified Management dashboard.

**Step 1** When the blueprint installation status is in Active/failed/Installation failed and stage install status as Failed/NotRun/Skipped., the redeployed icon is displayed.

cisco VIM Unified	i Managerr	nent	Calsoft TB 10.30.116.244	<b>•</b>	Role: Full-Pod-Access	User ID: rohashar	
Dashboard		Dashboard					
e-Install	e.	Blueprint : NEWSETUPD	ATA Status : 😕	InstallationFailed			
tet-instat							
ew Topology		Host Setup	CEPH	Orchestration	VMTP		
Pod User Administration	¢	<ul> <li>Success</li> </ul>	Failed	NotRun	Skipped		
		Deployed Blueprint	Details	POD Operation Det	ails	o	
		Deployment Status :	CEPH InstallationFailed	Current Operation : in	nstall_op Validation		
		Operation Started At	1/16/2018, 4:40:45 PM	POD Operation State	us : PowerOffFailed		
		Last Updated At : 1/1	7/2018, 5:19:55 PM	Operation Started A	t : 1/17/2018, 5:19:30 PM		
		Click HERE to check t	he logs	Last Updated At : 1/	17/2018, 5:19:55 PM		

Proceed

Cancel

**Step 2** Click **Reployed** icon to redeploy multiple stages during installation. A confirmation dialogue box appears.

## Confirm

Do you want to Deploy the 'NEWSETUPDATA' Blueprint?

#### Note:

Stages which are successfully installed will be disabled for selection.

1	Step 1: Input Validation
4	Step 2: Management Node Orchestration
4	Step 3: Runtime Validation
4	Step 4: Bare Metal
4	Step 5: Host Setup
•	Step 6: Ceph
1	Step 7: Orchestration
	Step 8: VMTP

**Step 3** Select the stages to be installed.

**Step 5** Click **Proceed** to run the installation.

# **Downloading Blueprint**

#### Before you begin

You must have atleast one blueprint (In any state Active/In-Active or In-progress), in the **Blueprint** Management Page.

- **Step 1** Log in to **CISCO VIM Unified Management**.
- **Step 2** In the navigation pane, expand the **Pre-Install Section**.
- Step 3 Click Blueprint Management.
- Step 4Go-to Download for any Blueprint under Action title. (Download Button > Downward Arrow (with tooltip Preview & Download YAML).
- Step 5Click the Download icon.A pop to view the Blueprint in the YAML format is displayed.
- Step 6Click the Download button at the bottom left of the pop-up window.<br/>YAML is saved locally with the same name of the Blueprint.

# **Validating Blueprint**

Step 1	Log in to CISCO VIM Unified Management.
Step 2	In the Navigation pane, expand the Pre-Install Section.
Step 3	Click Blueprint Creation.
Step 4	Upload an existing YAML, or create a New Blueprint.
	Fill all the mandatory fields so that all Red Cross changes to Green Tick.
Step 5	Enter the name of the Blueprint.
Step 6	Click <b>Offline Validation.</b> Only, if the Validation is successful, the Unified Management allows you to save the blueprint.

#### What to do next

If you see any errors, a hyperlink is created for those errors. Click the link to be navigated to the page where error has been encountered.

# **Managing Post Install Features**

Cisco VIM provides an orchestration that helps in lifecycle management of a cloud. VIM is responsible for pod management activities which includes fixing both hardware and software issues with one-touch automation. VIM Unified Management provides the visualization of the stated goal. As a result, it integrates with POST install features that Cisco VIM offers through its Rest API. These features are enabled only if there is an active Blueprint deployment on the pod.

## **Monitoring the Pod**

Cisco VIM uses EFK (Elasticsearch, Fluentd, and Kibana) to monitor the OpenStack services, by cross-launching the Kibana dashboard.

To cross launch Kibana, complete the following instructions:

- **Step 1** In the navigation pane, click **Post-Install** > **Logging**.
- Step 2 Click Click here to view Kibana in new tab.
- **Step 3** Enter the Username as Admin.
- **Step 4** Enter the Kibana\_PASSWORD password that is obtained from /root/installer-<tagid>/openstack-configs/secrets.yaml in the management node.

cisco VIM Unifie	d Manager	ment	NetAcp 10.23.229.228	Role: Full-Pod-Access   User ID: rohushar 🏼 🚫 🗸
Dashboard Pre-Install Post-Install	~ 7	Kibana		
Logging NFVI Monitor Horizon Run VMTP Run Cloud Pulse Run Cloud Sanity NFVbench		Click here to view Kibana in new tak		

## **Cross Launching Horizon**

Horizon is the canonical implementation of OpenStack's Dashboard, which provides a web-based user interface to OpenStack services including Nova, Swift and, Keystone.

cisco VIM Unifi	ed Manager	nent	NetApp 10.23.229.228	Role: Full-Pod-Access User ID: rohashar	۰~
Dashboard		Horizon			
Pre-Install	4	101201			
Post-Install	~				
Logging					
NEVI Monitor		Click here to view Horizon in new tab			
Horizon					
Run VMTP					
Run Cloud Pulse					
Run Cloud Sanity					
NFVbench					

- **Step 1** In the navigation pane, click **Post-Install** > **Horizon**.
- Step 2 Click the link Click here to view Horizon logs in new tab. You will be redirected to Horizon landing page in a new tab.
- **Step 3** Enter the ADMIN\_USER\_PASSWORD obtained from /root/installer-<tagid>/openstack-configs/secrets.yaml in the management node.

## **NFVI Monitoring**

NFVI monitoring is the Cross launch browser same as Horizon. NFVI monitoring link is available in the post install only if the setupdata has NFVI Monitoring configuration during the cloud deployment. NFVI Monitoring checks the status of **Collector VM1 Info** and **Collector VM2 Info**.

- **Step 1** In the navigation pane, click **Post-Install > NFVI Monitoring**.
- **Step 2** Click the link **Click here to view NFVI monitoring.**

You will be redirected to NFVI Monitoring page.

## **Run VMTP**

Run VMTP is divided in two sections:

- **Results for Auto Run**: This shows the results of VMTP which was run during the cloud deployment (Blueprint Installation).
- Results for Manual Run: Run the VMTP on demand. To run VMTP on demand, click Run VMTP.



**Note** If VMTP stage was skipped or has not-run during Blueprint Installation, this section of POST Install would be disabled for the user.

## **Run CloudPulse**

In VIM 2.0 and later, we provide an integrated tool, called Cloud Pulse, that periodically checks the cloud services endpoint. The results of these tests are reflected under the Cloud Pulse link. Also, you can run these API endpoint tests on demand, and fetch the result of these tests by refreshing the table.

OpenStack CloudPulse tool is used to verify Cisco NFVI health. CloudPulse servers are installed in containers on all Cisco NFVI control nodes and CloudPulse clients are installed on the management node.

CloudPulse has two test sets: endpoint scenario (runs as a cron or manually) and operator test (run manually).

Following are the tests which are supported in CloudPulse:

Endpoint tests include

- cinder\_endpoint
- glace\_endpoint
- keystone\_endpoint
- nova\_endpoint
- neutron\_endpoint

Operator tests include

- ceph\_check
- docker\_check
- galera\_check
- node\_check
- rabbitmq\_check

Dashboard													
re-Install	4	CloudPulse											
Post-Install	~	Cloudpulse Monitori	Cloudpulse Monitoring for: Fbadent-BP										
Logging NEVI Monitor		cinder_endpoint   Run Tests						c	Q Search text		ot		
Horizon		Name	٧	Result	State	└ Test Type	Ť	Created Date		~ u	Ipdated Date		
Run Cloud Pulse		neutron_endpoint		success	success	periodic		05/04/2018,	11:51:28	05	5/04/2018, 11:51:29		
Run Cloud Sanity		docker_check		All docker containers are	success	periodic		05/04/2018,	11:55:17	05	5/04/2018, 11:55:20		
NFVbench Pod Management		nova_endpoint		success	success	periodic		05/04/2018,	11:51:29	05	5/04/2018, 11:51:30		
System Update		cinder_endpoint		success	success	periodic		05/04/2018,	11.55.20	05	5/04/2018, 11:55:27		
Reconfigure Vew Topology	×.	keystone_endpoint		success	success	periodic		05/04/2018,	11.55:20	05	5/04/2018, 11:55:28		
		rabbitmq_check		Running Nodes : [rabbit	success	periodic		05/04/2018,	11:55:20	01	5/04/2018, 11:55:27		
Pod User Administration	۴	galera_check		Active Nodes : 10.10.35	success	periodic		05/04/2018,	11:55:22	05	5/04/2018, 11:55:25		
		glance_endpoint		success	success	periodic		05/04/2018,	11:55:28	05	5/04/2018, 11:55:28		
		neutron_endpoint		success	success	periodic		05/04/2018,	11:55:28	05	5/04/2018, 11:55:29		
		nova_endpoint		success	success	periodic		05/04/2018,	11:55:29	05	5/04/2018, 11:55:30		

To run a cloud pulse test, choose a particular test from the dropdown and click **Run Test**. Once the test is in progress, Click (**Spin/refresh**) icon to fetch the latest result. This grid does not fetch the latest result automatically.

## **Run Cloud Sanity Test**

You can use the cloud sanity tool to test the Cisco NFVI pod and cloud infrastructure (host connectivity, basic mraiadb, rabbit, ceph cluster check, and RAID disks).

Following are the test available to run from Unified Management.

- Control
- Compute
- Cephmon
- Cephosd
- Management
- All

**Step 1** To run a Cloud sanity test choose a particular test from the dropdown.

Dashboard Pre-Install	¢	Cloud Sanity	Test T Create		Status: Updated at:	cloudsanity_completed 2018-04-03 22:47:18			
Post-Install	÷	Cloud Sanity Monito	Cloud	Sanity Response		Pass			
Logging NFVI Monitor		All	۰	control			Q, Searc	h Test Type	
Horizon Run VMTP Run Cloud Pulse		UUID		ping_all_controller_nodes	PASED	i i	the .	Details	~ Act
Run Cloud Sanity		104c3e1c-55f4-46d0-b		check_rabbitmq_cluster_st			udsanity_completed	See details	×
Pod Management		893568da-75f1-45f9		sheet as a contra the			odsanity_failed	See details	×
System Update Reconfigure		16163573-6032-4974-					odsanity_failed	See details	×
View Topology		00038489-7077-4189-				a	udsanity_failed	See details	×
Pod User Administration	. 4	14 4 1 11				CK.			

Step 2 Click Run Test to proceed with the operation. Once the test is completed, clickSee Details for more

## **Run NFV Bench**

You can **Run NFV Bench** for **B** and **C** series Pod, through Cisco VIM Unified Management. On a pod running with CVIM, choose a *NFVbench* link on the NAV-Menu.

You can run either fixed rate test or NDR/PDR test. As the settings and results for the test types differ, the options to run these tests are presented in two tabs, with its own settings and results. To run a particular test, you can either select a particular hypervisor from the available list or allow the system to select any hypervisor.

#### NDR/PDR Test

- Step 1 Log in to CISCO VIM Unified Management.
- **Step 2** In the Navigation pane, click **Post-Install** >Run NFV Bench.
- **Step 3** Click NDR/PDR test and complete the following fields

Name	Description
Select a hypervisor (Optional)	Select any hypervisor to run the NDR/PDR. By default, the option <b>Use any hypervisor</b> is selected.
Iteration Duration	Choose duration from 10 to 60 sec. Default is 20 sec.
Frame Size	Choose the correct frame size to run.
Run NDR/PDR test	Click <b>Run NDR/PDR test</b> . After, completion it displays each type of test with its own settings and results.

# **Reconfiguring CIMC Password Through Unified Management**

Update the cimc\_password in the CIMC-COMMON section, or the individual cimc\_password for each server and then run the update password option.

To update a password, you have to follow the password rules:

- Must contain at least one lower-case letter.
- Must contain at least one upper-case letter.
- Must contain at least one digit between 0 to 9.
- One of these special characters !\$#@%^-\_+=\*&
- Your password has to be 8 to 14 characters long.

#### Before you begin

You must have a C-series pod up and running with Cisco VIM to reconfigure CIMC password.



**Note** Reconfigure CIMC password section is disabled if the pod is in failed state as indicated by ciscovim install-status.

#### Step 1 Log in to CISCO VIM Unified Management.

**Step 2** In the navigation pane, choose **Post-Install** 

#### Step 3 Click Reconfigure CIMC Password.

**Step 4** On the Reconfigure CIMC Password page of the Cisco VIM UM, complete the following fields:

Name	Description
CIMC_COMMON old Password	<b>CIMC_COMMON</b> old password field cannot be edited.
CIMC-COMMON new Password	Enter the <b>CIMC-COMMON</b> password. Password has to be alphanumeric according to the password rule.
Click Update	Old <b>CIMC-COMMON</b> password can be updated with new <b>CIMC-COMMON</b> password.