

# **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 99

# **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 Insight 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 Insight 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.

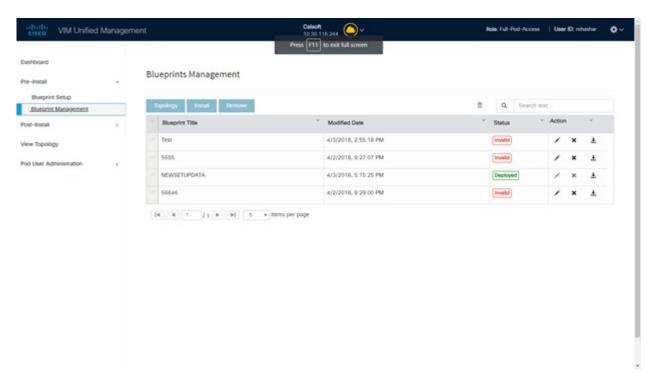
This is the same setup data which was used by ciscovimclient, to run the installation on the Management Node.

## **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.



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.

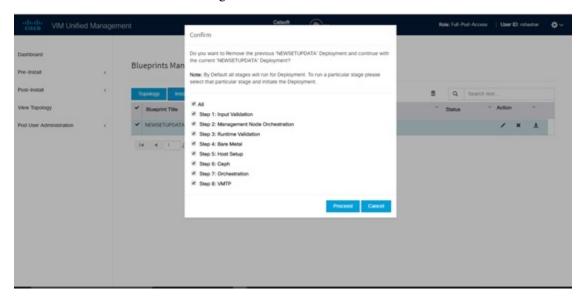
- Valid: Blueprint that is saved after offline validation success.
- Invalid: Blueprint that is saved after Offline Validation failure.
- Inprogress: Blueprint that is saved without running Offline Validation.
- Deployed: Blueprint that is used to bring up cloud without failures.
- Installing: Blueprint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



#### **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, then you can choose another Valid Blueprint but Insight asks you to remove the previous deployment before proceeding.
- If there is a Blueprint in Deployed state, then you can choose another Valid Blueprint but Insight 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.



Note

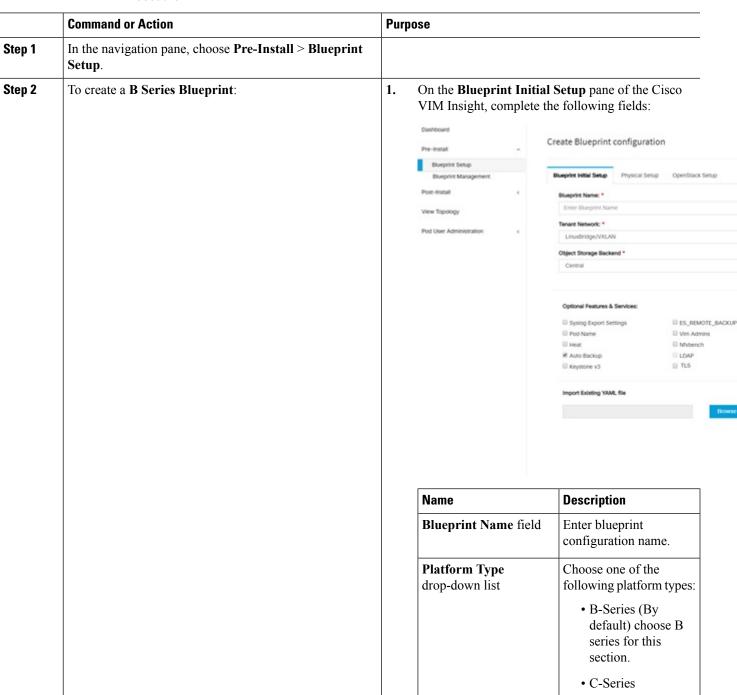
During the various operations across the application the cloud icon in the center of the header changes its color which is based on the following table.

#### 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

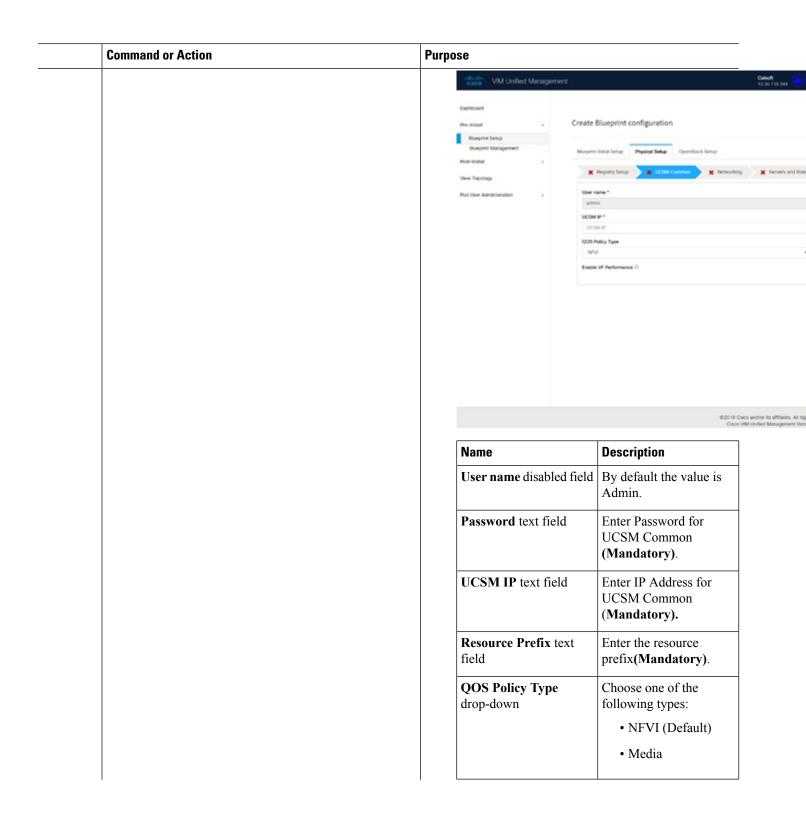
## **Creating a Blueprint for B-Series Server Platform**

#### **Procedure**

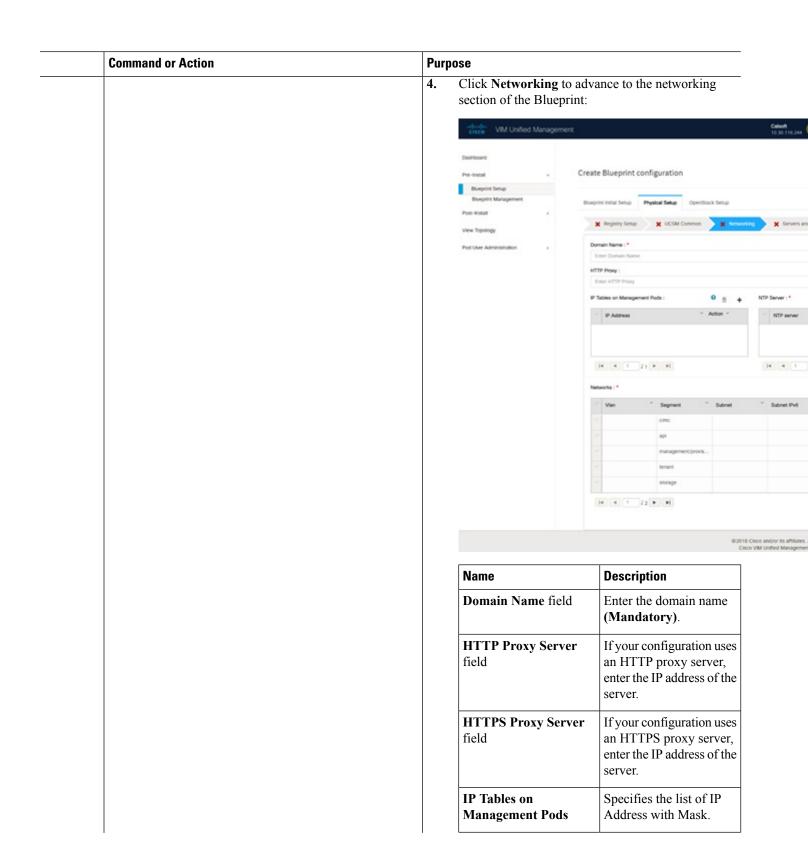


Command or Action	Purpose	
	Name	Description
	Tenant Network drop-down list	Choose one of the following tenant network types:
		Linuxbridge/VXLAN     OVS/VLAN
	Pod Type drop-down list	Choose one of the following pod types:  • Fullon(By Default)
	Ceph Mode drop-down list	Choose one of the following Ceph types:
		Dedicated     Central (By Default)     Not supported in     Production
	Optional Features and Services Checkbox	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.

mand or Action	Purpose	e	
	N	Name	Description
		mport Existing YAML ile	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.
	Se	lick Physical Setup to neetup configuration page etails for Registry Setup:	. Fill in the following
		Oliver VIM Unified Management	
	Cor.	shiboard	
	Pre		lueprint configuration
		Blueprint Setup  Blueprint Management  Blueprint is disstall	Physical Setup OpenStack Setup
			CMC Common X Networking
	Pox	0 User Auministration (	User Name * registry Username
		Registry	Email * registry email
		Name	Description
		Registry User Name text ĭeld	Enter the User-Name for Registry (Mandatory).
		Registry Password text ield	Enter the Password for Registry (Mandatory).
	F	Registry Email text field	Enter the Email ID for Registry (Mandatory).
			are filled the Validation



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.
	Enable VF Performance 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.
	Enable UCSM Plugin 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	
	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.

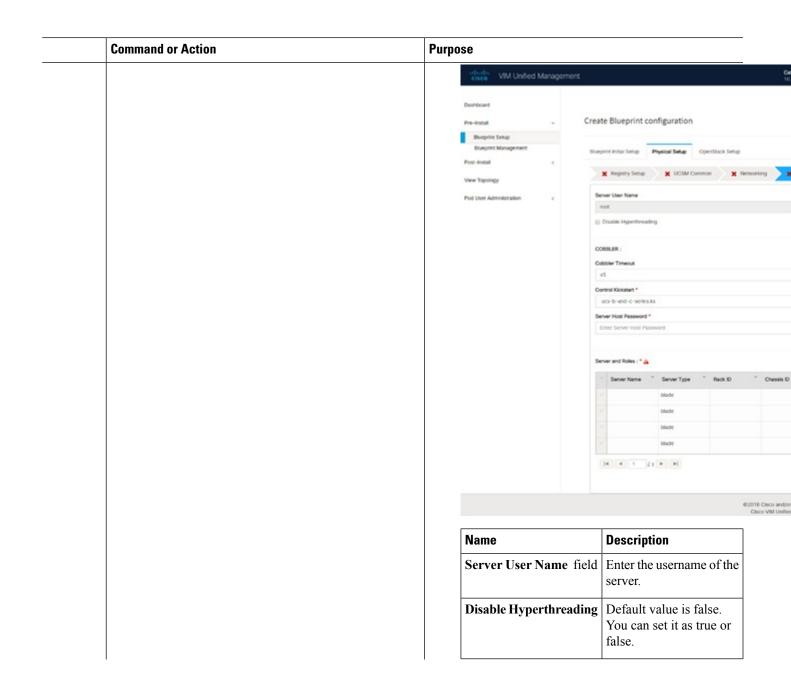
Command or Action	Purpose		
		Name	Description
		Network table	

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
		Segment : * None Selected •
		Subnet: *
		Enter Subnet
		Pv6 Subnet :
		Enter Subnet IPv6
		Geterway : *  Enter Caneway Address
		Pv6 Gateway : Enter Gateway Address(IPv6)
		Podi: * (multiple poor verges should be comme appended)  Enter IP Podi
		Pv6 Pool: (https://ori.orges.shold be comme asymmet)
		Enter IPv6 Pool
		Save Cancel
		• Click + to enter new
		entries (networks) to
		the table.
		Specify the
		following fields in
		the Edit Entry to
		Notworks dialog
		Networks dialog
		box.
		Name Description
		VLAN Enter the
		field VLAN ID.
		For
		Segment -
		Provider,
		the VLAN

Command or Action	Purpose			
	Name	Description	Description	
		Name De	scription	
		ID	value is	
		drop-down sel	egment m the op-down  .	
			the pro po	
		field IPv	ter the 74 dress for subnet.	
		IPv6 Subnet field		

Command or Action	Puri	pose			
		Name	Description		
			Name	Description	
				Enter IPv6 address. This field is available only for Management provision and API.	
			Gateway field	Enter the IPv4 address for the Gateway.	
			IPv6 Gateway field	Enter IPv6 gateway. This field is available only for Management provision and API network.	
			Pool field	Enter the pool information in the following format. For example: 10.30.1.1 or 10.30.1.1 to 10.30.1.12	
			IPv6 Pool field		

 Command or Action	Purp	ose			
		Name	Description		
			Name	Description	
				Enter the pool information in the following format. For example: INSULOSSOID  This field is only available for the MentPovision	
			Click Save.		
	5.	On the Servers and Role Suite wizard, you see a pr Roles: Control, Compute CEPH Dedicated is select	e-populated ta and Block Sto	ble filled with brage (Only if	



Command or Action	Purpose		
		Name	Description
		Cobbler	

Command or Action	Purpose				
		Name	Description		
			Enter the Co		
			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	Password must 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	

Command or Action	Purpose		
	Name	Name Description	
		Name	Description
		<b>Kickstart</b> field	file for Control Node.
		Compute Kickstart field	Kickstart file for Compute Node.
		Cobbler Admin Username field	Enter the admin username of the Cobbler.

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

Purp	ose			
	Name	Description		
		Click <b>Edit</b> or + to a new server and role table.		
		Server And Roles		
		Server Name *		
		Enter Server	Name	
		VIC Slot		
		Enter VIC Slot		
		CIMC IP •		
		Erner CIMC II		
		Enter CIMC U		
		CIMC Passwor	d	
		Enter CIMC P	assword	
		Rack ID *  Enter Rack ID		
		Role *		
		Management IF		
			ement IP Address	
		Management IF	V6	
			ement IPv6 Address	
		Server	el .	
		Name	Enter a server name.	
		11	server	
		Server Type drop-down	choose Blade or Rack from the drop-down	
		Server Type drop-down list	choose Blade or Rack from the drop-down list. The Rack ID for the server.	

Command or Action Purpose				
		Name	Description	
			chosen, the land Rack Unit land IID field is displayed.	Rack Unit ID.
				Enter a Blade ID.
			Role from the drop-down list.	If Server type is Blade then select Control and Compute. If server is Rack then select Block Storage.
				it is an optional field but if or ovided for one server then t is mandatory to provide details for other Servers as well.
			IPv6	Enter the Management IPv6 Address.
			Click Save.	

Action	Purpose	
		s are filled it is a part of the
	Bueplin fetup	Terbular Setup Physical Setup Contract Setup  X Regions Setup  X Configure Total  Tordwelph Internation   Hostmann  User Name Persword SSH P  4 1 1 1 1 1 1 1
	Name	Description
	Configure ToR optional checkbox.	Enabling this checkbox, changes the configure ToR section from false to true.

Command or Action	Purpose	Purpose		
	N	lame	Description	
		oR Switch		
		nformation		
	m	nandatory table.		

Command or Action	Purp	ose		Purpose		
		Name	Description			
			Click (+) to a	ıdd		
			information f			
			Switch.			
			Switch Details			
			Hostname *			
			Enter Switch	Hostname		
			Username *			
			Enter Switch	Username		
			Password *			
			Enter Passv	vord		
			SSH-IP *			
			Enter IP Add	fress		
			SSN Num			
			Enter SSN N	lum		
			VPC Peer Kee	palive		
			Enter IP Add	fress		
			VPC Domain			
			Enter VPC I	omain		
			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		
			Username	ToR switch username.		
			Password	ToR switch		
			SSH IP	ToR swite		

imand 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 button, Add Connected field is visib	ToR Info Channel field.	Enter the Port Channel input.	
		Switch Name field.	Enter the name of the Switch.	

tab.

## **Command or Action** Purpose " Tor Info |4 | 4 | 1 | | | | | | | | | | | | | 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

mand or Action	Purpose	Purpose		
	Name	Description		
	Collector ToR Connections	1. Click on Add Col Connecti	lector ToR	
		2. Select th switches		
		3. It is optional available type NC	e for ToR	
		4. For now, adding o Collector Connection	nly one r ToR	
		Add Collector To	r Connections	
		Select Tor sw test-torhos	¥	
		Port Channel	Enter port channel.	
		Switch - {uSwithtonen}	Enter port number, E.g:eth1/15.	
		Click Save	•	
	Rabbit MQ User Nam	e Enter Rabbit username.	MQ	

Purpose		
Name	Description	
HA Proxy	Fill in the fo	llowing
	Create Bluep	orint configuration
	Enter IP Add	ress.
	External	Enter the IP address of
	Address	the External VIP.
	External   VIP	Enter the IPv6
	Address	address of
	IPv6 field	the External VIP.
	Virtual	Enter the
	Router ID	Router ID for the HA.
	Internal    VIP	Enter the IPv6
	Address	address of
	IPv6 field	the Internal IP.
	Internal	Enter the IP
	VIP	
	Address	address of the Internal
	Name	Name HA Proxy Fill in the fordetails:  Create Bluep  Unique to the fordetails:  Create Bluep  Unique to the fordetails:  External VIP Address field External VIP Address IPv6 field  Internal VIP Address IPv6 field

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
		Blueprint Initial Setup Physical Setup C
		X HA Proxy    Knystone  Admin Username *
		admin
		Enter VYSual Router ID
		Internal VIP IPv6 Address Enter IPv6 Address
		Admin admin Username field
		Admin admin Tenant Name field

Command or Action	Purpose	
	Name	Description
	LDAP (Only if Keystonev3 is enabled)	
	Note This option is only available with Keystone	

Command or Action	Purpose			
	Name	Description		
		This is available only when Keystone v3 and LDAP both are enabled under Optional Features and Services in Blueprint Initial Setup.  Create Blueprint configuration		
		(Rueprint Initial Setup Physical Setup	Ор	
		🗶 HA Proxy 🧈 Keystone	> ,	
		Domain Name *  Enter Domain specific name  Object Class for Groups *		
		Enter object/Class for Groups  Domain Name Tree for Groups *		
		Enter DN tree for Groups URL *		
		Enter URL Password *		
		Enter Password  User ID Attribute *		
		Enter User Mail Attribute  Enter User Mail Attribute		
		Domain Name field Domain name.		
		Object Enter a Class for string as Users field input.		
		Object Class for Groupsfield Enter a string.		
		Domain Name Tree for Users field  Enter a string.		
		Domain Name Tree for Groups  Enter a string.		

Command or Action	Purpo	Purpose			
	Name		Description	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.	
			Password field	Enter Password as string format.	
			User Filter field	Enter filter name as string.	
			User ID Attribute 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	Purpose		
		Name	Description
		Neutron	

Command or Action	Purpose	
	Name	Description
		Neutron fields change on the basis of <i>Tenant Network Type</i> selection from <b>Blueprint Initial Setup</b> . Following are the options available for Neutron for OVS/VLAN:  Create Blueprint configuration
		Tenant Network Type field  Type field  Type field  Tenant Network Typeselected in the Blueprint Initial Setup page.
		Mechanism Drivers field  Auto-filled based on the Tenant Network Type selected in Blueprint Initial Setup page.
		NFV Hosts It is field Auto-filled with the Compute you added

Command or Action		Purpose			
	Name		Description		
				in Server and Roles.	
				If you select All in this section NFV_HOSIS: ALL is added to the Blueprint or you can select one particular compute. For Example: NFV_HOSIS: computesaver-1, computesaver-2.	
			Tenant VLAN Ranges field	List of ranges separated by comma form start:end.	
			Provider VLAN Ranges field	List of ranges separated by 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
		Tenant VLAN Ranges is
		removed.

 Command or Action	Purpose		
		Name	Description
		СЕРН	

Command or Action	Purpose			
	Name	Des	cription	
		1.	selected a the bluep setup.	Backend is as Central in rint initial and configuration by September 2004
			CEPH Mode Cluster ID	By default Ceph Mod is Central. Enter the Cluster ID
				Enter the Monitor Host for CEPH
				Enter the Monitor Members for CEPH
			Secret UUID	Enter the Secret UUID for CEPH
			NOVA Boot from	You can choose CEPH or local from the drop-down list.
			NOVA RBD	Enter the NOVA

Command or Action	Purpose	
	Name	Description
		POOL RBD Pool (default's to vms)
		CEPH NAT  NAT is required for Central Ceph and when mgm network is not routable
		2. When Object Storage Backend is selected as <i>Dedicated</i> in the blueprint initial setup.
		Create Blueprint confliguration  (theprint total felip Physical felip Openda  X 194 Prony V Knystone X No Cept Mode * Dedicated
		CEPH Mode: By default Dedicated.
		NOVA Boot: From drop-down selection you can choose CEPH or local.
		<b>3.</b> When Object Storage Backend is selected as <i>NetApp</i> in the blueprint initial setup.
		Create Blueprint configuration
		Blueprint Initial Setup Physical Setup Ope
		★ MA Priory     ★ Knystone     ◆ Ceph Mode * netapp

Command or Action	Purpose	irpose	
	Name	Description	
	GLANCE	Backend is a Central in the initial setup	
		Create Blueprint con	figuration
		Bueprint Initial Setup Pr	ysical Serup OpenStack
		Store Backend * CEPH	Keystone V Neut
		Glance Client Key * Enter GLANCE Client Key	
		Store Backend	By default CEPH.
		Glance RBD Pool field	By default images.
		Glance Client Key	Enter GLANCE Client Key
		2. When Obje Backend is se Dedicated in initial setup.	elected as
		Create Blueprint co	nfiguration
		Blueprint Initial Setup I	hysical Setup OpenSt
		X HA.Proxy	✓ Keystone ✓ 1
		CEPH	
		By default Po CEPH Dedica Store Backen CEPH.	ated with

Command or Action	Purpose		
	Name	Description	
	CINDER	By default Populated for CEPH Dedicated with Volume Driver value as CEPH.	
		Brueprint Initial Setup Physical Setup OpenStack	
		🗶 HA Proxy 🧳 Keystone 🗸 🗸 Ne	
		Volume Driver * CEPH Cinder Client Key * Enter CINDER Client Kry	
		Volume By default CEPH.	
		Cinder By default volumes. field	
		Cinder Enter Cinder Client Key	
		Create Blueprint configuration	
		Blueprint Initial Setup Physical Setup OpenStack Set  X HA Proxy   Keystone   Neutron	
		Volume Driver *	

Command or Action	Purpose	
	Name	Description
	VMTP	
	VMTP optional swill only be visil once VMTP is so from Blueprint Is Setup.	ble elected

Command or Action	Purpose
	Name Description
	Check one of the check
	boxes to specify a VMT
	network:
	• Provider Network
	• External Network
	For the <b>Provider Netwo</b> complete the following:
	Create Blueprint configuration
	Blueprint Initial Serup Physical Serup Ope
	🗶 14A Priosy 🗸 Keystone 🗸
	Provider Network 🗓
	Network Name *
	Enter Network Name Network IP Start *
	Ener IP Address
	Network Contevery *
	Enter Network Gateway
	Segmentation ID ** Enter Segmentation ID from 2 to 4004
	Network Enter the
	Name field name for
	external network.
	Subnet Enter the
	field Subnet for
	Provider
	Network.
	Network IP Enter the
	Start field start of the
	floating
	IPv4
	address.
	Network IP Enter the
	End field end of the
	floating
	IPv4
	address.
	Network Enter the
	Gatewayfield IPv4
	address f

Command or Action	Purpose			
	Name	Description		
			the Gateway.	
		DNS Server field	Enter the DNS server IPv4 address.	
		Segmentation ID field	Enter the segmentation ID.	
			For <b>External Network</b> fill in the following details:	
		External Network II Network Name * Enter Network		
		Network IP Start		
		Enter IP Address Network Gateway		
		Enter Network	laneway	

Command or Action	Purpose					
		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.		
		section will only be visible once TLS is selected from Blueprint  • Exter FQD		I LB VIP Text field.		
		initial Setup 1 age.	• External LB VII  TLS True/False.  default this option false.			

Command or Action	Purpo	se		
		Name	Description	
		Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim admins is	Following are the field descriptions for VIM Admins:	
		selected from the  Optional Features &	Create Blueprint configuration	
		Services under the Blueprint Initial setup	Brueprint Initial Setup Physical Setup OpenStack Se	tup
		tab	🗶 HA Proxy 🗸 Keystone 🗸 Neutro	X CEPH
			Username*	Po
			• User Name - Text field. • Password -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 Blueprint Initial Setup	Following are that needs to SwiftStack:	be filled for	
	Page. SwiftStack is only supported with	Create Blueprint configuration		
	KeyStonev2 . If you	Blueprint Initial Setup Physical Setup OpenStack S  **X HA Proxy		
	select Keystonev3, swiftstack will not be available for configuration.	Cluster End Point *  Enter Cluster End Point P/Comain  Admin User *		
	Configuration.	Enter Admin User name  Admin Tenard *  Enter Admin Tenard name		
		Cluster End Point field	IP address of PAC (hy/AcmtOtin) endpoint.	
		Admin User field	Admin user for swift to authenticate in keystone.	
		Admin Tenant field	The service tenant corresponding to the AccurtCortier used by the Swiftstack.	
		Reseller Prefix field	Reseller_prefix as configured for Keysone AuthAuthToken support in Swiftstack. Example: KEY_	
		Admin Password field	svitik_adnin_pasvod	
		Protocol	http or https	

mand or Action	Purpose			
	9. For SolidFire, enter the	e following:		
	Name	Description	on	
	SolidFire is visible for configuration on days		rint configuration	
SolidFire is not as a day-2 deplooption  SolidFire is alw	SolidFire is not allow as a day-2 deployment	nt Blueprim initial S	Bruggini Initial Setup Physical Setup Open	
	SolidFire is always available with CEPH	Cluster MVP 1 172.23.105 Admin Userna carderstader	217 me *	
		Cluster 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.	

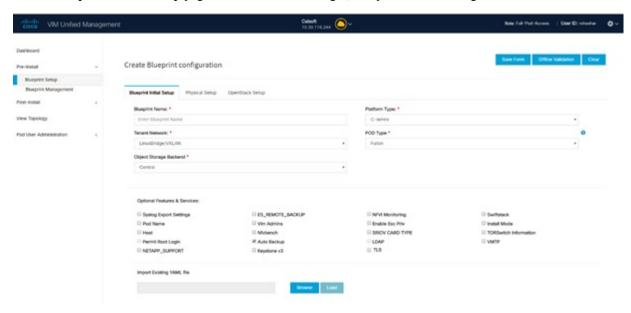
Command or Action	Purpose		
	Name	Description	
	Syslog Export	Following a Syslog Setti	re the options for ngs:
		Create Blueprint o	onfiguration
		Blueprint Initial Setup	Physical Setup - OpenStack Set
		₩ Sysleg Deport	■ NFVBENCH
		Remote Host *  Enter IP Address	
		Facility*	
		local5	
		Port *	
		514	
		Remote	Enter Syslog
		Host	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	NFVBENCH enable checkbox which by default is False.		
		Create Blueprint configuration		
		Blueprint Initial Setup Physical Setup OpenState		
		X Syslog Export X NEVBENCH		
		□ Enable TORSWITCH details are empty, Add TORSWITCH detail		
		NIC Ports:		
		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		
		• NIC Ports: INT1 and INT2 optional input. Enter the 2 port numbers of the 4-port 10G Intel NIC at the management node used		
	ENABLE_ESC_PRIV	for the NFVBench.  / Enable the checkbox to set it		
		as True. By default it is False.		

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

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

- Step 1 Log-in to CISCO VIM Insight.
- 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 Insight, complete the following fields:

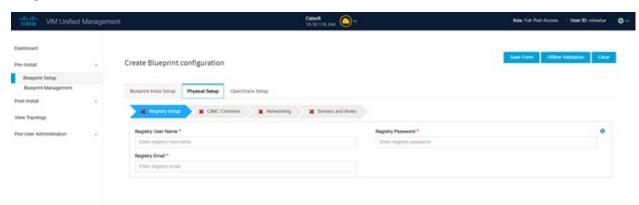


Name	Description
Blueprint Name field.	Enter the name for the blueprint configuration.
Platform Type drop-down list	Choose one of the following platform types:
	• B-Series (By default)
	• C-Series ( Select C Series)

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
	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:
	<ul><li>Dedicated (By Default)</li><li>Central. Central is not supported in Production</li></ul>
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
1	If you have an existing C Series YAML file you can use this feature to upload the file.
	Insight will automatically fill in the fields and any missed mandatory field will be highlighted in the respective section.

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

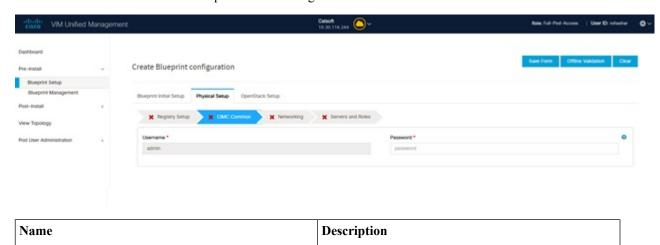


Name	Description
Registry User Name text field	User-Name for Registry (Mandatory).
Registry Password text field	Password for Registry (Mandatory).
Registry Email text field	Email ID for Registry (Mandatory).

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:

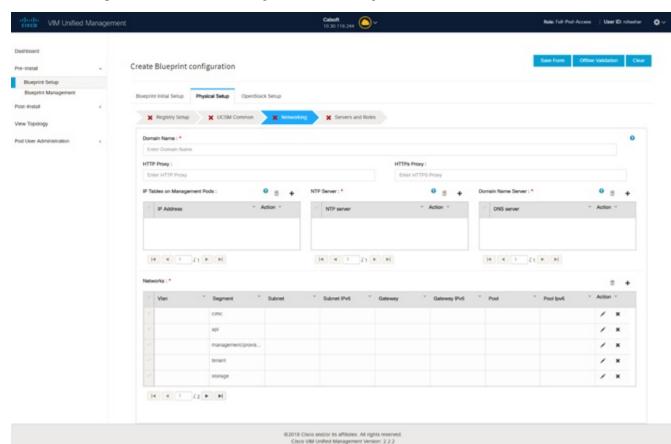
User Name disabled field



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.



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.

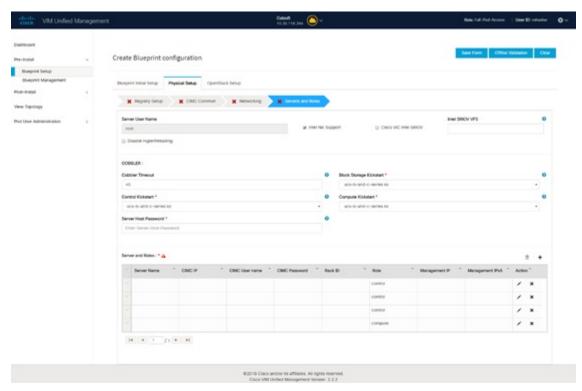
Name	Description
Networks table	

## Name **Description** Network table is pre-populated with Segments. To add Networks you can either clear all the table with **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. • Click Add (+) to add new entries (networks) to the table. • Specify the following fields in the Edit Entry to Networks dialog: 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

Name	Description	
		• Storage
		• External
		• Provider
		• ACIINFRA
		Note  Aciinfra segmen 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-configured in 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: 101.15-10.1.1.10,102.15-102.1.10 This field is available only for the Mgmt/Provision, Storage, and Tenant
	IPv6 Pool field	segments.

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.

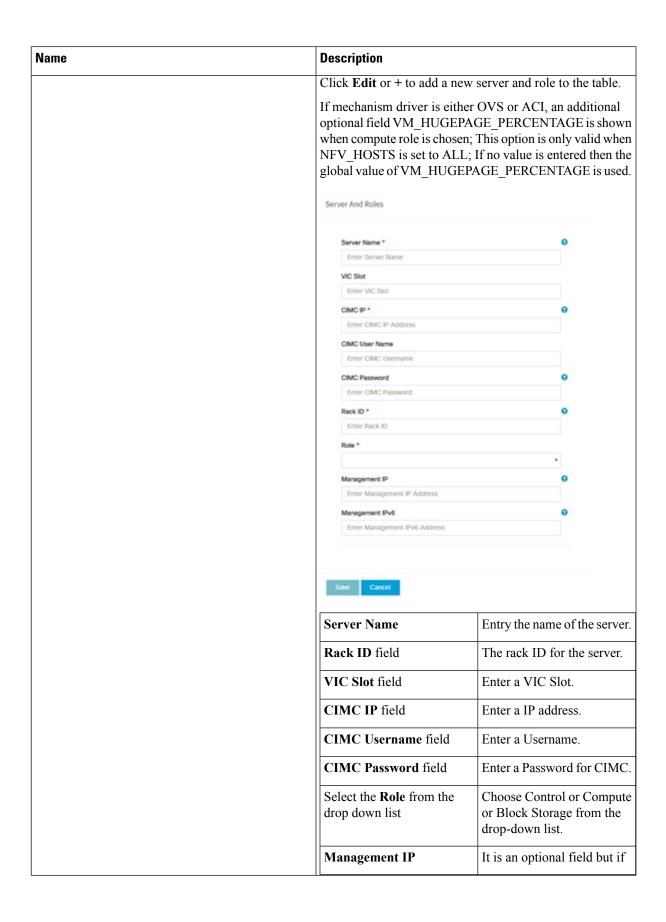


**Note** If you choose mechanism driver as OVS or ACI, VM\_HUGEPAGE\_PERCENTAGE field column is available for compute nodes, where you can fill values from 0 to 100%, when NFV\_HOSTS: ALL is chosen.

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 t	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.		
	Block Storage Kickstart 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.		
	Compute Kickstart field	Kickstart file for Compute Node.		
	<b>Cobbler Admin Username</b> field	Enter the admin username of the Cobbler.		

Name		Description
Add E	ntry to Servers and Roles	
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.	



Name	Description	
	Management IPv6	provided for one Server then it is mandatory to provide it for other Servers as well.  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 and Roles gets saved.	information related to Servers
If Configure ToR checkbox is Truewith at-least one switch detail, these fields will be displayed for each server and this is similar to DP Tor: Port Channel and Switch Name (Mandatory if 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>
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	Switch Name field     Switch Port Info field	<ul> <li>Enter the switch name.</li> <li>Enter the switch port information.</li> </ul>
Intel SRIOV VFS (valid for Intel NIC testbeds) and can be integer.	# * 1-32 when INTEL_NIC	le, define a value in the range _SUPPORT is set True (X710 a CISCO_VIC_INTEL_SRIOV
INTEL_SRIOV_PHYS_PORTS (valid for Intel NIC test beds) and can be of value 2 or 4 (default is 2)	meet that requirement, define optional, if nothing is define the only 2 integer values this is true when INTEL_NIC_S	ed code will assume it to be 2; parameter # takes is 2 or 4 and

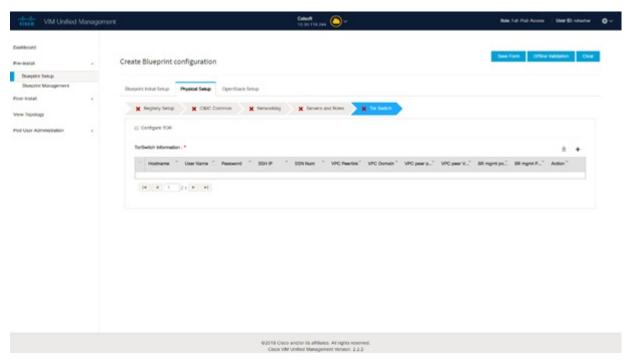
Name	Description
Click Save or Add.	If all mandatory fields are filled click <b>Save or Add</b> to add information on Servers and Roles.
Disable Hyperthreading	Default value is false. You can set it as true or false.
Click Save	

**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

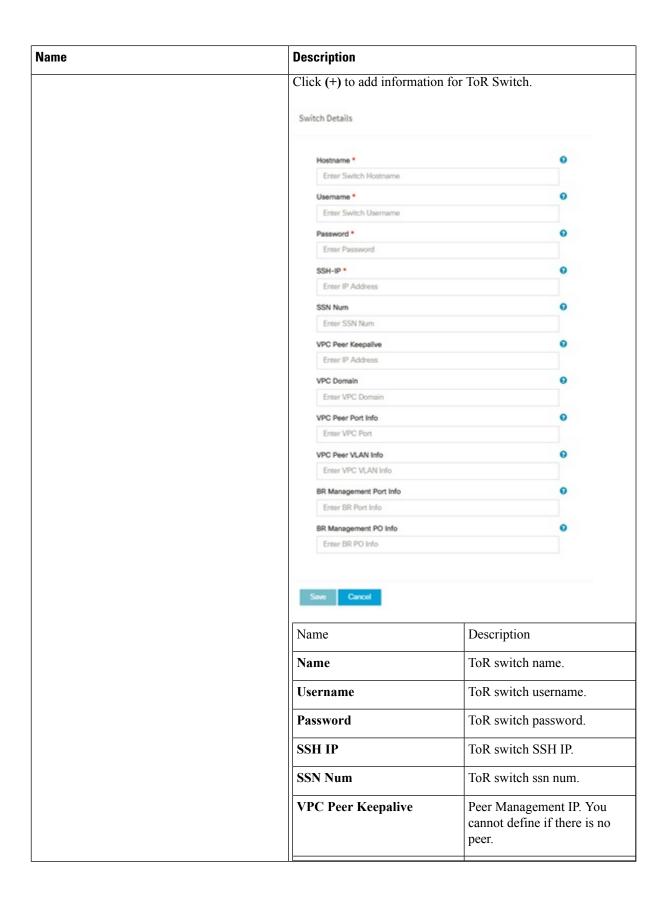
**Note** For Tenant type **ACI/VLAN**, port channel for each ToR port will not be available in servers and roles, as APIC will automatically assign port-channel numbers. Also, for ACI in full on mode you can select Intel NIC Support in the "Servers and Roles" section.

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.



Name		Description	
Configu Note	ure ToR optional checkbox.  If UMHC is selected as podtype,	Enabling false to	ng this checkbox, changes the configure ToR section from true.
note.	configure TOR is not allowed.	Note	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.	

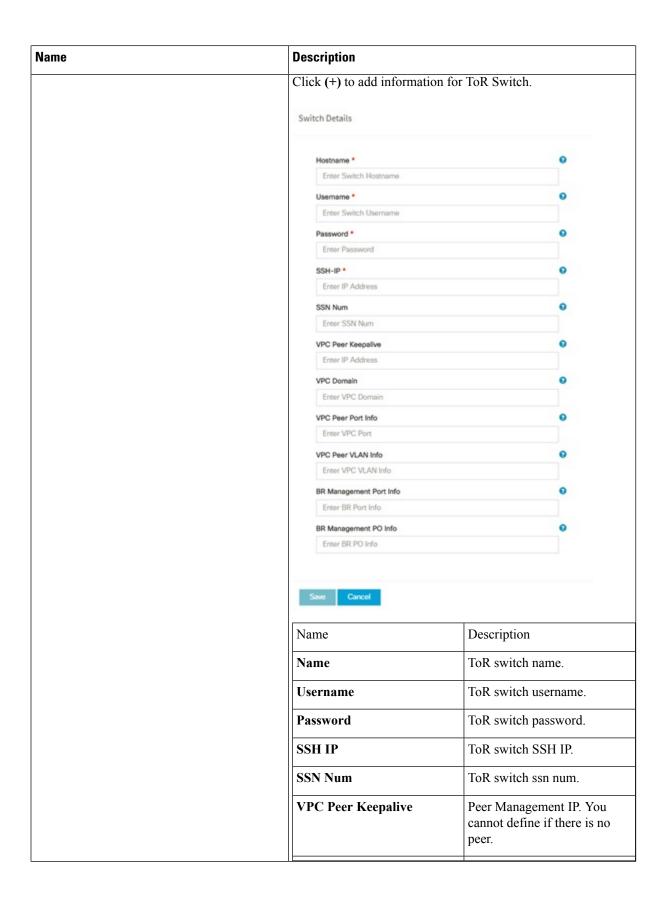


Description		
VPC Domain	Cannot define if there is no peer.	
VPC Peer Port Info	Interface for vpc peer ports.	
VPC Peer VLAN Info	VLAN ids for vpc peer ports (optional).	
BR Management Port Info	Management interface of buil node.	
BR Management PO Info	Port channel number for management interface of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

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

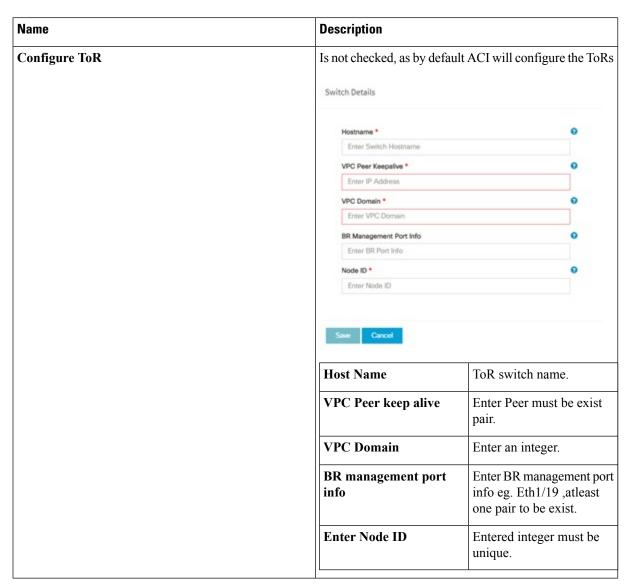
Name		Description	
Config Note	ure ToR optional checkbox.  If UMHC is selected as podtype,	Enabling false to	ng this checkbox, changes the configure ToR section from true.
	configure TOR is not allowed.	Note	Configure tor is true then ToR switch info maps in servers

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



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).		
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)		
	VPC Domain  VPC Peer Port Info  VPC Peer VLAN Info  BR Management Port Info		

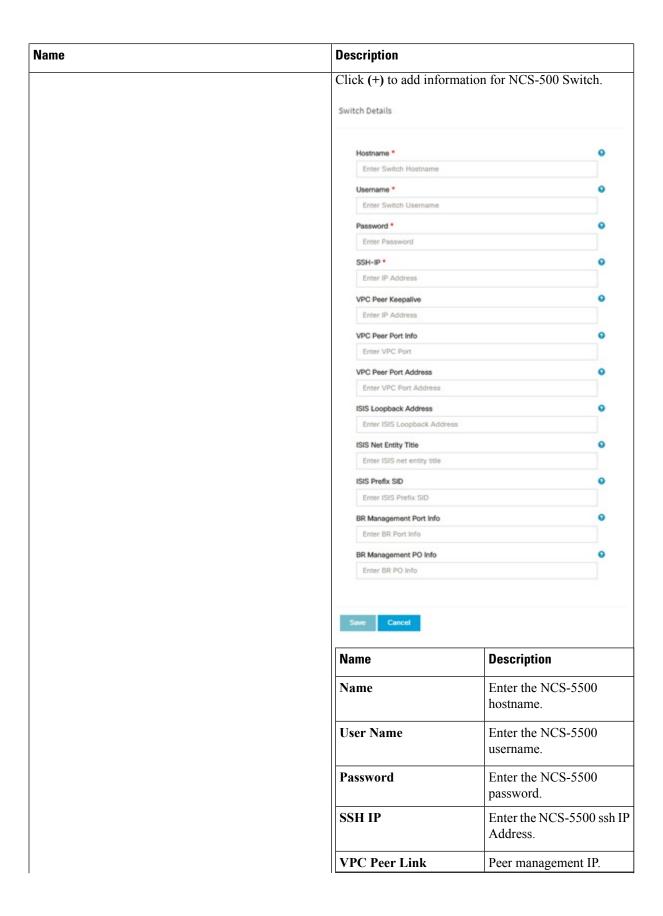
Note When the Tenant type ACI/VLAN is selected, the ToR switch information table differs and is mandatory.



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

Name		Descrip	tion
Configu	re ToR optional checkbox	1	g this checkbox, changes the configure ToR from false to true.
Note	If <b>NSC-5500</b> is selected as TOR_TYPE, configure TOR is set as mandatory.	Note	Configure TOR is true then ToR switchinfo maps in servers.

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

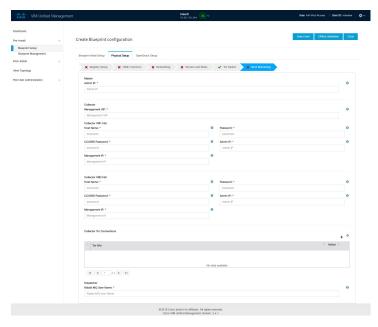


Name	Description	
	Name	Description
	BR Management PO Info	Port channel number for management interface of build node.
	BR Management VLAN info	VLAN id for management interface of build node (access).
	VPC Peer Port Info	Interface for vpc peer ports.
	VPC Peer Port Address	Address for ISIS exchange.
	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 no 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).	

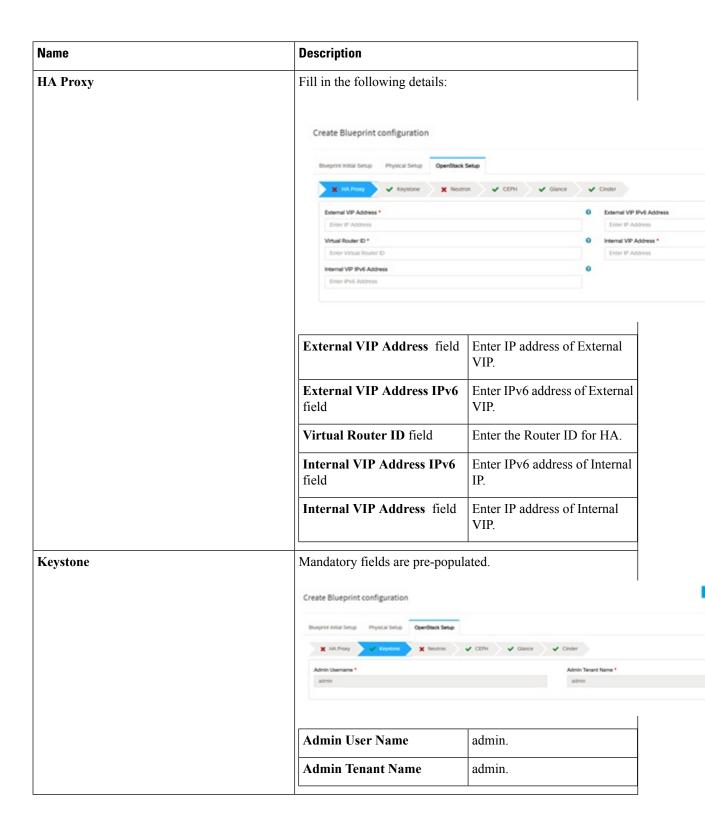
7. Click **NFVI Monitoring** checkbox in Blueprint Initial Setup to enable the NFVI Monitoring configuration tab.



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 Connection	
	2. Select the ToR switches from list to add the information.	
	3. It is optional and available for ToR type NCS-5500	
	<b>4.</b> For now, it supports adding only one Collector ToR Connection	
	Add Collector Tor Connections	
	Select Tor switch for connections  rest-torhostname  Port Channel *	
	Enter port channel	
	Switch- test-torhostname *   Enter Port information	
	Save Cancel	
	Port Channel Enter port channel.	
	Switch - 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 Insight wizard, complete the following fields:



Name	Description
LDAP	

ne	Description	Description		
	LDAP enable checkbox which enabled on keystone.	<b>LDAP enable checkbox</b> which by default is <b>false</b> , if LDAP is enabled on keystone.		
	Create Blueprint configuration	Create Blueprint configuration		
	thruspond Initial Setup Physical Setup OpenStack Setup			
	🗶 HA Prony 🗸 Keystone 💢 Neutron	✓ CEH ✓ Gance	✓ Cinder 💥 LDW	
	Domain Name *		O Object Class for Users *	
	Enter Comain specific name		Enter objectiClass for User	
	Object Class for Groups *  Enter obsectClass for Groups		<ul> <li>Domain Name Tree for Users</li> <li>Enter DIV tree for Users</li> </ul>	
	Domain Name Tree for Groups *		Suffix for Domain Name *	
	Enter DN tree for Groups		Enter suffix for DN	
	URL*		Domain Name of bind user	
	Enter URL		Enter DN of bind user	
	Password *		O User Filter *	
	Enter Password		Enter User Filter	
	User ID Attribute *  Enter User Id Attribute		<ul> <li>User Name Attribute *</li> <li>Enter User Name Attribute</li> </ul>	
	User Muli Amribute		Group Name Attribute*	
	Enser User Mail Ambuse		Erner Group Name Attribu	
	Domain Name field  Object Class for Users field		Enter name for Domain name	
		Enter a string as input.		
	Object Class for Groups field	Enter a suring.		
	<b>Domain Name Tree for Users</b> field	Enter a string.		
	Domain Name Tree for Groups field	Enter a string.		
	Suffix for Domain Name field	Enter a string.		
	URL field	Enter a URL w number.	rith ending port	
	Domain Name of Bind User field	Enter a string.		
	Password field	Enter Password format.	d as string	
	User Filter field	Enter filter nar	ne as string.	
	User ID Attribute field	Enter a string.		
	User Name Attribute field	Enter a string.		
	User Mail Attribute field	Enter a string.		

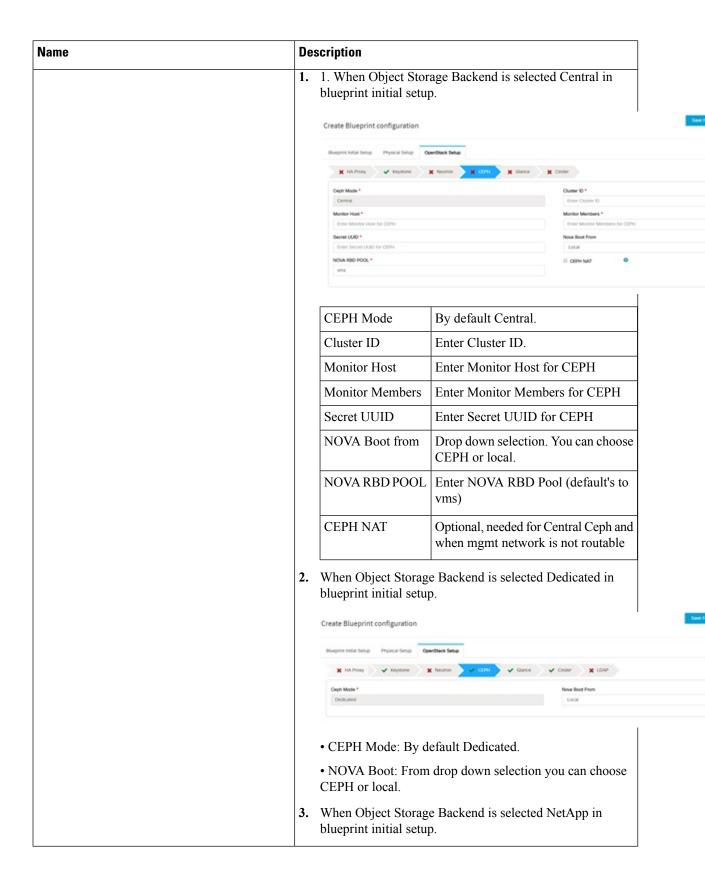
Name	Description	
	Group Name Attribute field Enter a string.	

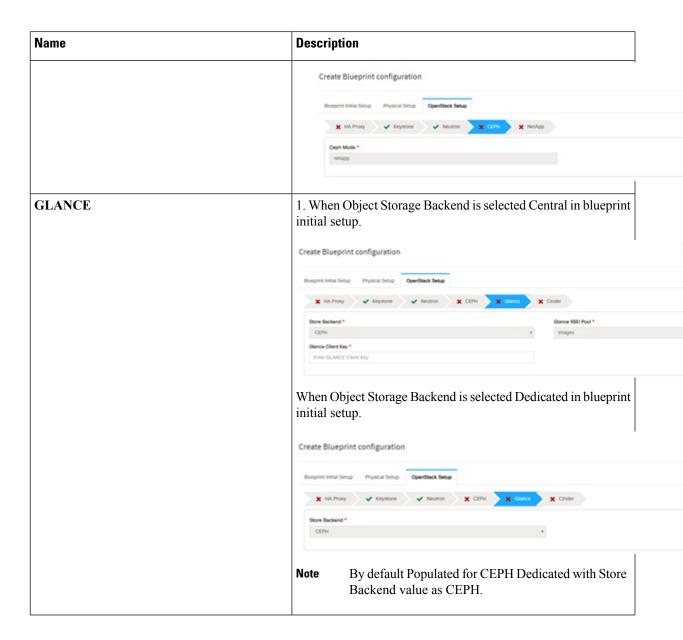
Name	Description
Neutron	

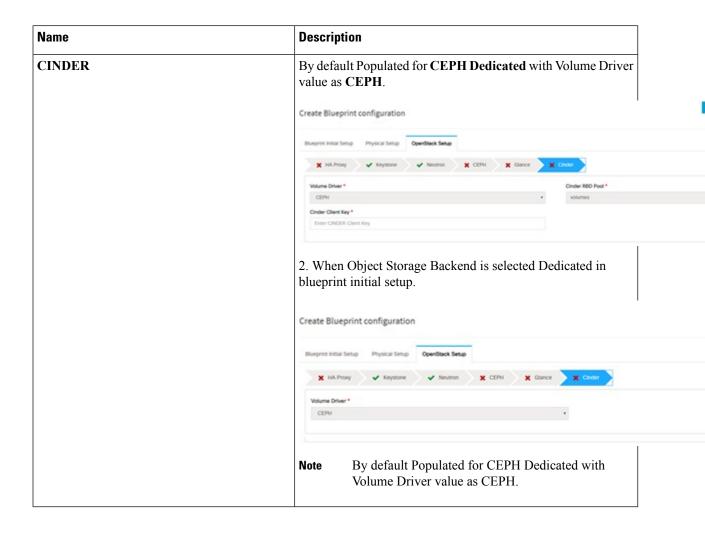
Name	Description	Description  Neutron fields would change on the basis of Tenant Network Type Selection from Blueprint Initial Setup. Following are the options available for Neutron for OVS/VLAN:	
	Type Selection from Blueprine		
	Create Blueprint configuration		
	Sturprist Initial Setup   Physical Setup   OpenStack Setup		
	🗶 HA Prony 🗸 Keystone 💢 Newton	✓ CEPH ✓ Glance ✓ Cinder 🗙 LDV	
	Tenant Network Type *	Mechanism Drivers *	
	VLAN NPV Hoots *	Vpp Tenant VLAN Range	
	Compute Name -	Enter Tenant VLAI	
		Provider VLAN Rang	
	Enable Jumbo Frames	Enter Provider VLA	
	Tenant Network Type field	Auto Filled based on the	
	Tenant Network Type Held	Tenant Network Type selected in the Blueprint Initial Setup page.	
	Mechanism Drivers field	Auto Filled based on the Tenant Network Type selected in Blueprint Initial Setup page.	
	NFV Hosts field	Auto filled with the Compute you added in Server and Roles	
		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.	
	Provider VLAN Ranges field	List of ranges separated by comma form start:end.	
	VM Hugh Page Size (available for NFV_HOSTS option) field	2M or 1G (optional, defaults to 2M)	
	VM_HUGHPAGE_PERCENTAGE	Optional, defaults to 100%; car range between 0 and 100	

Name	Description	
	NR_RESERVED_VSWICH_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 Range</b>	

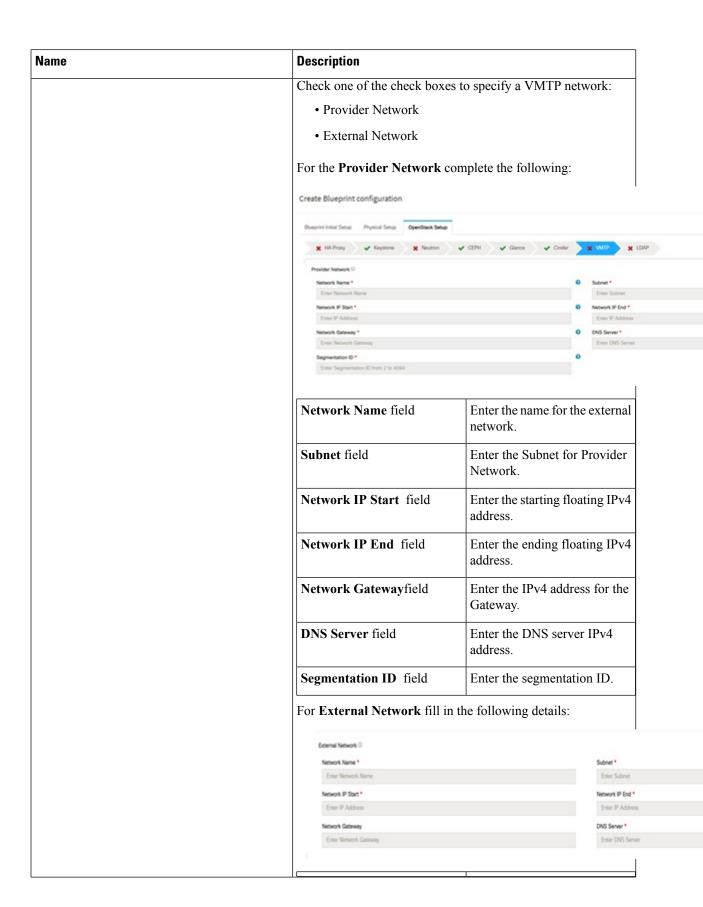
Name	Description
СЕРН	





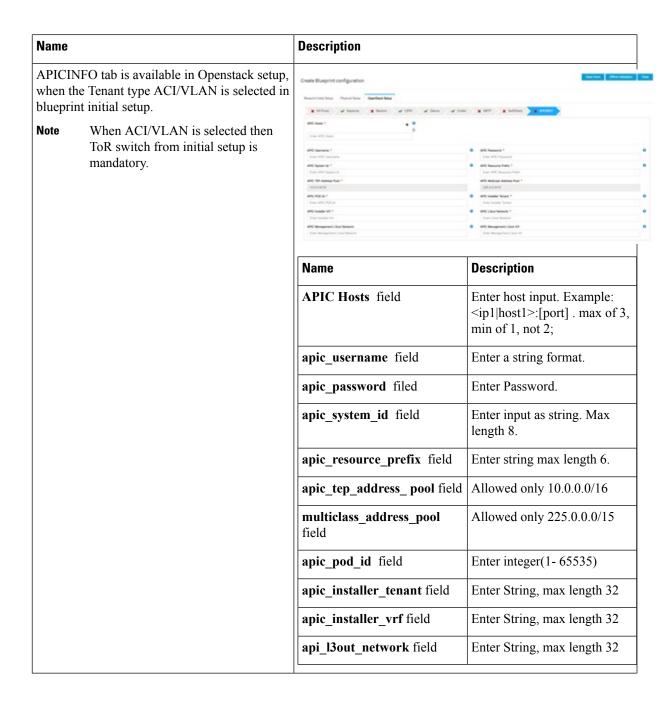


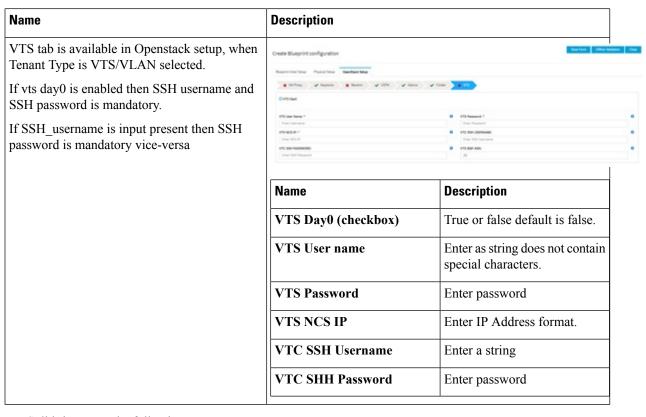
Name	Description
VMTP optional section, this will be visible only if VMTP is selected from Blueprint Initial Setup. For VTS tenant type Provider network is only supported.	



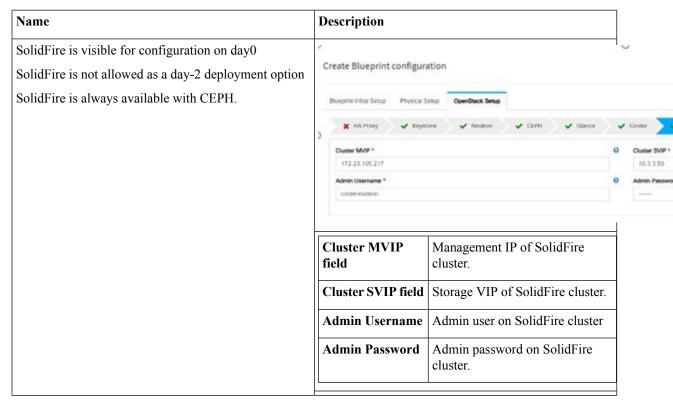
Name	Description	Description	
	Network Name field	Enter the name for the external network.	
	IP Start field	Enter the starting floating IPv4 address.	
	IP End field	Enter the ending floating IPv4 address.	
	Gateway field	Enter the IPv4 address for the Gateway.	
	DNS Server field	Enter the DNS server IPv4 address.	
	Subnet field	Enter the Subnet for External Network.	
TLS optional section, this will be visible only if TLS is selected from Blueprint Initial Setup Page.	<ul> <li>TLS has two options:</li> <li>External LB VIP FQDN - Text Field.</li> <li>External LB VIP TLS - True/False. By default this option is false.</li> </ul>		
1 agc.			
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the	is false. Following are the field des		
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected	is false.  Following are the field des  Create Blueprint configuration	S - True/False. By default this option scriptions for VIM Admins:	
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the	is false.  Following are the field des  Create Blueprint configuration  Dueprint Initial Setup Physical Setup OpenSet	S - True/False. By default this option scriptions for VIM Admins:	
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the	is false.  Following are the field des  Create Blueprint configuration  Blueprint Initial Setup Physical Setup OpenSet	S - True/False. By default this option scriptions for VIM Admins:	
Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the	is false.  Following are the field des  Create Blueprint configuration  Discourse below Physical Setup OpenSix  X HA Proxy V Knystone V h	S - True/False. By default this option scriptions for VIM Admins:	

### Name **Description** SwiftStack optional section will be visible only Following are the options that needs to be filled for SwiftStack: if SwiftStack is selected from Blueprint Initial Setup Page. SwiftStack is only supported with Create Blueprint configuration KeyStonev2. If you select Keystonev3, swiftstack will not be available to configure. **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



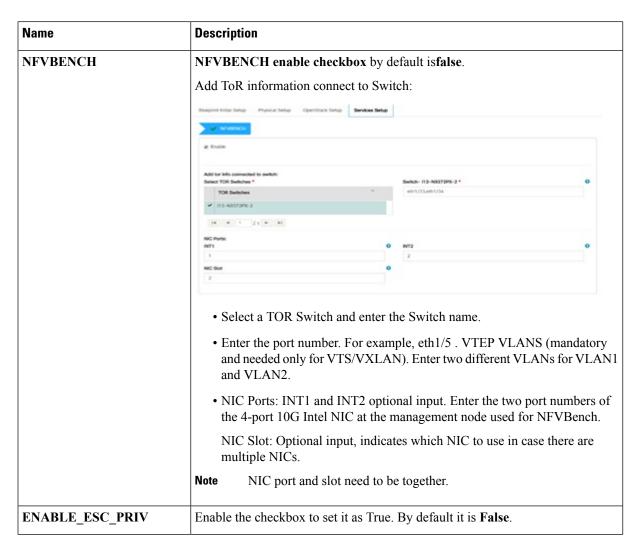


#### **9.** For SolidFire, enter the following:



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:

Name	Description				
Syslog Export	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.				
	Buygrist Initial Setup Physical Setup OpenStock Setup Services Setup				
	System Export  And System  And				
	Systog Seport  Bemote host " Protocol " Facility " Sewelty " Port " Clients " Action "				
	1.1.1.1 usp locals enoug 514 ELK / X				
	2222 vdp local5 debug 514 BLK / X				
	H 4 1 f1 F H				
	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.				



- **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.

## **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 Insight.
- **Step 2** In the navigation pane, expand the **Pre-Install Section**.
- Step 3 Click Blueprint Management.

- Step 4 Go-to **Download** for any Blueprint under Action title. (**Download Button** > **Downward Arrow** (with tooltip Preview & Download YAML).
- **Step 5** Click the **Download** icon.

A pop to view the Blueprint in the YAML format is displayed.

**Step 6** Click the **Download** button at the bottom left of the pop-up window.

YAML is saved locally with the same name of the Blueprint.

## **Validating Blueprint**

- Step 1 Log in to CISCO VIM Insight.
- **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 ClickOffline Validation.

Only, if the Validation is successful, the Insight 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 Insight 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:

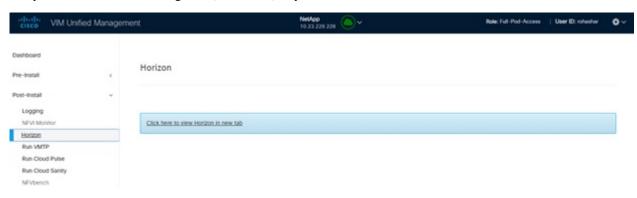
- **Step 1** In the navigation pane, click **Post-Install > Logging**.
- Step 2 Click Click here to view Kibana in new tab.
- **Step 3** Enter the **Username** as Admin.

**Step 4** Enter the Kibana\_PASSWORD password that is obtained from /root/installer-<tagid>/openstack-configs/secrets.yaml in the management node.



### **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.



- **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).

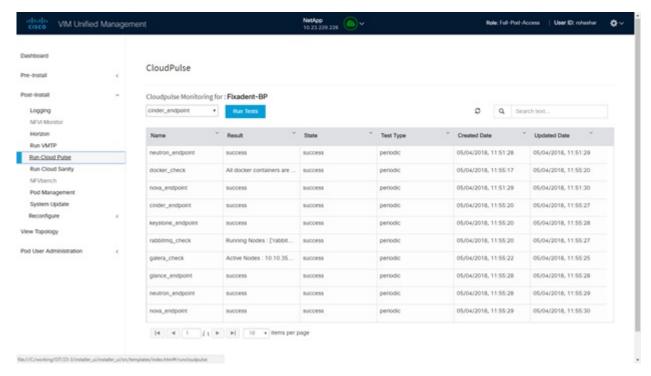
Following are the tests which are supported in CloudPulse:

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



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.

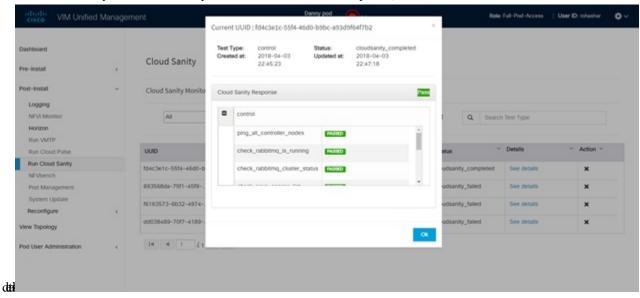
### **Run Cloud Sanity Test**

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 insight.

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

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



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 Insight. 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.

#### NDR/PDR Test

- Step 1 Log in to CISCO VIM Insight.
- 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
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 Insight.
- **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	CIMC_COMMON 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 CIMC-COMMON password can be updated with new CIMC-COMMON password.