

Managing Blueprints

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

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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.

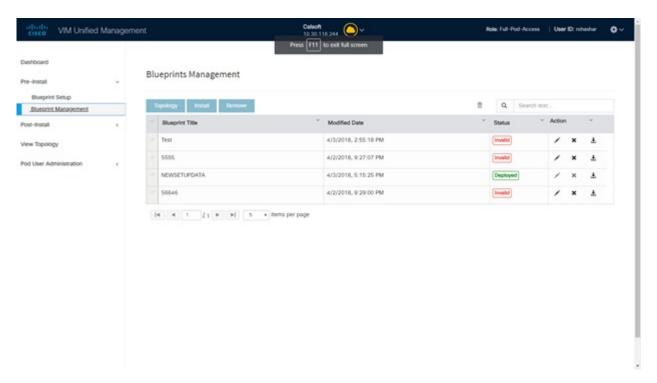
This is the same setup data which was used by ciscovimclient, to run the installation on the Management Node.

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.

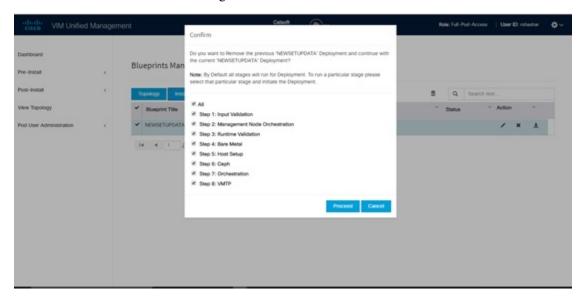
- Valid: Blueprint that is saved after offline validation success.
- Invalid: Blueprint that is saved after Offline Validation failure.
- Inprogress: Blueprint that is saved without running Offline Validation.
- Deployed: Blueprint that is used to bring up cloud without failures.
- Installing: Blueprint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

Typically, you create the blueprint when you create the Cisco VIM pod. Follow the instructions below to create an additional blueprint for a pod that uses B-Series servers.

Before you begin

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** 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	
Tenant Network drop-down list	Choose one of the following tenant network types:	
	Linux Bridge/VXLAN	
	• OVS/VLAN	
Ceph Mode drop-down list	Choose one of the following Ceph types:	
	Dedicated	
	Central (By Default) (not supported in production)	
Pod Type drop-down list	Fullon (By default).	
Optional Features and Services checkbox	Syslog Export Settings, Swiftstack, Nfvbench, VMTP, LDAP, Pod Name, TOR Switch Information, TLS, Heat, Vim Admins, Auto Backup, NFVI Monitoring, Install Mode, Keystone v3, Enable Esc Priv.	
	If any one is selected, the corresponding section is visible in various Blueprint sections.	
	By default all options are disabled.	
Import Existing YAML file field	If you have an existing B Series YAML file you can use this feature to upload the file.	
	Insight will automatically fill in the fields and if any mandatory fields are missed then the respective section will be highlighted.	

Step 5 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 mandatory fields are filled the Validation Check Registry page will be changed to a Green Tick.

Step 6 Click **UCSM Common** tab and fill the following fields:

Name	Description	
User name disabled field	By default 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 field	Enter the resource prefix (Mandatory)	
QOS Policy Type drop-down list	Choose one of the following types: • NFVI (Default) • Media	
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/VLA.	
Enable QoS Policy optional checkbox	Visible only when UCSM Plugin is enabled. If UCSM Plugin is disabled then this option will be set to False.	
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 like Add, Delete, Edit and Multiple Delete.	

Step 7 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.

Name	Description
IP Tables on Management Pods	
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
Network table	

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.	
	• Click Add to enter new	entries (networks) to the table.
	• Specify the following fields in the Edit Entry to Networks dialog:	
	VALN field	Enter the VLAN ID. For Segment - Provider, the VLAN ID value is always none.
	Segment drop-down list	You can select any of one segment from dropdown list
		• API
		Management Provision
		• Tenant
		• CIMC
		• Storage
		• External
		• Provider (optional)
		Note Depending upon the segment not all entries listed below are needed
	Subnet field	Enter the IPv4 address for the subnet.
	IPv6 Subnet field	Enter IPv6 Subnet Address. This field will be 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 only available for the

Name	Description	
		Management Provision and API .
	Pool field	Pool can be defined with single IP, range of IP or discontinuous pool. Enter the pool information in the required format:
		Single IP: Example: 10.30.118.101
		Range of IP: Example: 10.30.118.98 to 10.30.118.105
		Discontinuous IP: Example: 10.30.118.101, 10.30.118.98 to 10.30.118.105
	IPv6 Pool field	Enter the pool information in the required format. For Example: 10.1.1.5-10.1.1.10,10.2.1.5-10.2.1.10
		This field is available only for Management Provision.
Click Save.	1	

Step 8 On the Servers and Roles page of the Cisco VIM Suite wizard, click Add (+) to add a new entry in the table, and complete the following fields:

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

Name	Description	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.	
	Cobbler Admin Username field	Enter the admin username of the Cobbler.	

Name	Description	
Add Entry to Servers and Roles.	Click Edit or + to add a new server and role to the table.	
	Server Name	Enter a server name.
	Server Type drop-down list.	Choose Blade or Rack from the drop-down list.
	Rack ID field.	The Rack ID for the server.
	Chassis ID field	Enter a Chassis ID.
	If Rack is chosen, the Rack Unit ID field is displayed.	Enter a Rack Unit ID.
	If Blade is chosen, the Blade ID field is displayed.	Enter a Blade ID.
	Select the Role from the drop down list.	If Server type is Blade then Control and Compute. If Rack is selected then Block Storage.
	Management IP field.	It is an optional field but if provided for one server then it is mandatory to provide it for other Servers as well.
	Management IPv6 field.	Enter Management Ipv6 address.
Click Save or Add.	Clicking Save or Add , adds and Roles.	all information for Servers

Step 9 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
L	If you enable this checkbox, the Configure ToR section will change from false to true.

Name	Description	
ToR Switch Information mandatory table if you want to enter ToR information.	Click + to add information for ToR Switch.	
	Name	Description
	Name	ToR switch name.
	Username	ToR switch username.
	Password	ToR switch Password.
	SSH IP	ToR switch SSH IP Address.
	SSN Num	ToR switch ssn num. output of show license host-id.
	VPC Peer Keepalive	Peer Management IP. You need not define if there is no peer as it is optional but it will become mandatory when the ToR is in VPC.
	VPC Domain	Need not define if there is no peer.
	VPC Peer port	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.
On clicking Save , Add ToR Info connected to Fabric field will be visible.	Port Channel field.	Enter the port channel input.
	Switch Name field.	Enter the switch name.

Step 10 Click OpenStack Setup tab to advance to the OpenStack Setup Configuration page.

Step 11 On the **OpenStack Setup** page of the Cisco VIM Insight wizard, complete the following fields:

Name	Description	
HA Proxy	Fill in the mandatory fields:	
	External VIP Address	Enter IP address of External VIP.
	External VIP Address IPv6	Enter IPv6 address of External VIP.
	Virtual Router ID	Enter the Router ID for HA.
	Internal VIP Address IPv6	Enter IPv6 address.
	Internal VIP Address	Enter IP address of Internal VIP.
Keystone	Mandatory fields are pre-popula	ated. This option is always true.
	Admin Username	admin.
	Admin Tenant Name	admin.

Name	Description	
LDAP on Keystone. Note: this option is only available with Keystone v3	This is available only when Ke enabled under Optional Feature Initial Setup.	
	Domain Name field	Enter name for Domain name.
	Object Class for Users field	Enter a string as input.
	Object Class for Groups	Enter a string.
	Domain Name Tree for Users	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 with ending port number.
	Domain Name for 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 Attributefield	Enter a string.
	Group Name Attribute field	Enter a string.

Name	Description		
Neutron		Neutron fields change on the basis of Tenant Network Type Selection from Blueprint Initial Setup page.	
	Following are the options avail OVS/VLAN:	Following are the options available for Neutron for OVS/VLAN:	
	Tenant Network Type	Auto Filled based on the Tenant Network Type selected in the Blueprint Initial Setup page.	
	Mechanism Drivers	Auto Filled based on the Tenant Network Type selected in Blueprint Initial Setup page.	
	NFV Hosts	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	List of ranges separated by comma of form start:end.	
	Provider VLAN Ranges	List of ranges separated by comma of form start:end.	
	VM Hugh Page Size (available for NFV_HOSTS option)	2M or 1G	
	Enable Jumbo Frames	Check Box	
	For Tenant Network Type Linux the same except Tenant VLA removed.	x Bridge, everything will remain N Ranges which will be	
СЕРН	Ceph has two pre-populated fi		
	• CEPH Mode: By default		
	• NOVA Boot from: From or local.	the drop-down, choose Ceph	

Name	Description	
GLANCE	By default Populated for CE Backend value as CEPH.	EPH Dedicated with Store
CINDER	By default Populated for CF Driver value as CEPH.	EPH Dedicated with Volume
VMTP optional section will only be visible once VMTP is selected from Blueprint Initial Setup.	Check one of the check box • Provider Network • External Network	es to specify a VMTP network:
	For the Provider Network co	omplete the following:
	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.
	Segmentation ID field.	Enter the segmentation ID.
	Subnet	Enter the Subnet for Provider Network.
	For External Network fill i	n the following details:
	Network Name field.	Enter the name for the external network.
	Network IP Start field.	Enter the starting floating IPv4 address.
	Network IP End field.	Enter the ending floating IPv4 address.
	Network Gateway field	Enter the IPv4 address for the Gateway.
	DNS Server field.	Enter the DNS server IPv4 address.
	Subnet	Enter the Subnet for External Network.

Name	Description		
TLS section will be visible if TLS is selected from Blueprint Initial Setup Page.	TLS has two options: • External LB VIP F • External LB VIP T option is false.	QDN - Text Field. LS - True/False. By default this	
SwiftStack optional section will be visible if	Following are the options	Following are the options that needs to be filled for SwiftStack:	
SwiftStack is selected from Blueprint Initial Setup Page. SwiftStack is only supported with KeyStonev2 . If you select Keystonev3 , swiftstack cannot be configured.	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	
Under the openstack setup tab, the Vim_admins tab will only be visible once Vim_admins is selected from the Optional Features & Services under the Blueprint InitialSetup tab.	Admins: • Username - Text Fi	rd field. Admin hash password should	

Step 12 If Syslog Export or NFVBENCH is selected in Blueprint Initial Setup Page, then Services Setup page would be enabled for user to view. Following are the options under Services Setup Tab:

Name	Description		
Syslog Export.	Following are the opt	Following are the options for Syslog Settings:	
	Remote Host	Enter Syslog IP Address	
	Facility	Defaults to local5	
	Severity	Defaults to debug	
	Clients	Defaults to ELK	
	Port	Defaults to 514 but can be modified by the User.	
NFVBENCH	Add Tor information • Select a TOR So • Enter the port no VLANS (manda) 2 different VLA • NIC Ports: INT1 port numbers of	ch by default is False . connected to switch: witch and Enter the Switch name. Imber. For example: eth1/5. VTEP tory and needed only for VXLAN): Enter Ns for VLAN1 and VLAN2. and INT2 optional input. Enter the 2 the 4-port 10G Intel NIC at the de used for NFVBench.	

- **Step 13** Click **Offline validation** to initiate an offline Blueprint validation.
- Step 14 Once the Offline validation is successful, Save option will be enabled which will redirect you to the Blueprint Management page.

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** 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	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
Pod Type drop-down list	Choose one of the following pod type:
	• Fullon(By Default)
	• Micro
	• UMHC
	Note UMHC pod type is only supported for OVS/VLAN tenant type.
	Note 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 (Is not supported in production)
Optional Features and Services checkbox.	Swiftstack, LDAP, Syslog Export Settings, Install Mode, TorSwitch Information, TLS, Nfvmon, Pod Name, VMTP, Nfvbench, 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 options are disabled.
Import Existing YAML file	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 if any mandatory field is missed then would highlight it in the respective section.

Step 5 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 Mandatory fields are filled, the Validation Check Registry page will indicate a green tick.

Step 6 Click **CIMC Common** tab and complete the following fields:

Name	Description
User Name disabled field	By default value is Admin.
Password text field	Enter Password for UCSM Common (Mandatory).

Step 7 Click **Networking** to advance to the networking section of the Blueprint.

Name	Description	
Domain Name field.	Enter the domain name (Mandatory).	
NTP Servers field.	Enter a maximum of four and minimum of one IPv4 and/o IPv6 addresses in the table.	
Domain Name Servers field	Enter a maximum of three and minimum of one IPv4 and/or IPv6 addresses	
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.	

Name	Description
Networks table	

me	Description		
	Networks you can either chall or click Edit icon for eadetails.	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.		
	Name	Description	
	VLAN field	Enter the VLAN ID. For Segment - Provider, the VLAN ID value is always	
	Segment drop-down list	"none". You can select any one segment from the dropdown list.	
		• API	
		Management/Provision	
		• Tenant	
		• CIMC	
		• Storage	
		• External	
		• Provider (optional)	
		Note Some segments do not need some of the values listed in the preceding points.	
	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.	
	IPv6 Gateway field	Enter IPv6 gateway. This field will only available only for Management	

me	Description	Description	
	Name	Description	
		provision and API network.	
	Pool field	Enter the pool information in the required format, for example: 10.30.1.1 or 10.30.1.12	
	IPv6 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 only available for the Mgmt/Provision.	

Step 8 On the Servers and Roles page of the Cisco VIM Suite wizard, click Add (+) to add a new entry in the table, and complete the following fields:

You can edit or delete existing entries in the Server and Roles table.

Name	Description
Server User Name	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 fo	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.		
	Cobbler Admin Username field	Enter the admin username of the Cobbler.		

Block Storage **Server 1 **Server 2 **Server 3 **Control **Server 1 **Server 2 **Server 3 **Compute **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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 field **Switch Name field** CIMC IP field Enter a IP address. CIMC Username field Enter a Password for CIMC Choose Control or Compute of the drop-down list. It is an optional field but if provided for one server then in mandatory to provide it for othe servers. **One clicking Save or Add all information related to Servers and Roles gets saved. **One clicking Save or Add all information related to Servers and Roles gets saved. **Port Channel field** **Enter the port channel inp.** **Enter the switch name.**	Name		Description		
all the three servers will be associated with control, compute and block storage role. For Example: Roles Block Storage Server 1 Server 2 Server 3 Control Server 3 Control Server 3 Compute Server 1 Server 2 Server 3 Compute Server 3 Compute Server 3 Compute Server 3 Compute Server 1 Server 2 Server 3 Compute Server 3 Compute Server 3 Compute Server 3 Compute Server 1 Server 3 Compute Server 4 Server 5 Compute Server 6 Server 7 Server 9 Server 1 Server 9 Server 1 Server 1 Server 1 Server 1 Server 1 Server 2 Server 3 Compute Server Add all information related to Servers and Roles gets saved. Click Save or Add . Con clicking Save or Add all information related to Servers and Roles gets saved. Fort Channel field Switch Name field Server hamic The rack ID for the server. This is optional field. Enter Ip format address CIMC IP field Enter a Username. Click Pfield Enter a Username. Click Pfield Enter a Password for CIMC Choose Control or Compute of Block Storage from the drop-down list. Management IP It is an optional field but if provided for one server then i mandatory to provide it for otl servers and roles level is not allowed to be entered. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. Fort Channel field Enter a VIC Slot. This is optional field Enter Ip format address CIMC IP field Enter a IP address. CimC IP field CimC IP field CimC IP field CimC IP field It is an optional field but if provided for one server then in mandatory to provide it for otl servers and roles level is not allowed to be entered. Cimc IP field Cimc IP field C	Add Entry to Servers and Roles .		Click Edit or + to add a new server and role to the table.		
with control, compute and block storage role. For Example: Roles Block Storage Server 1 Server 2 Server 3 Control Server 1 Server 2 Server 1 Server 3 Control Management IPv6field Enter a IP address. CIMC IP field Enter a Password for CIMC Select the Role from the drop down list Management IP Choose Control or Compute of Block Storage from the drop-down list. Management IP It is an optional field but if provided for one server then i mandatory to provide it for otles server and roles level is not allowed to be entered. Click Save or Add On clicking Save or Add all information related to Servers and Roles gets saved. 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	Note		Server Name	Entry the server name .	
For Example: Roles Block StorageServer 1Server 2Server 3 CIMC IP field Enter a IP address. CIMC Password field Enter a Username. CIMC Password field Enter a Password for CIMC Select the Role from the drop down list Management IP ControlServer 2Server 3 ComputeServer 3 ComputeServer 1Server 3 ComputeServer 3 ComputeServer 1Server 3 ComputeServer 1Server 3 ComputeServer 3 ComputeServer 1Server 3 ComputeServer 3 ComputeServer 3 ComputeServer 3 ComputeServer 1Server 3 ComputeServer 4Server 5 ComputeServer 9Server 9Server 1Server 9Server 1Server 9Server 1Server 9Server 1Server 1Server 1Server 1Server 2Server 3 Compute Choose Control or Compute of Delock Storage from the drop down list Compute The Role Role from the drop down list Compute The Role Role from the drop down list Compute The Role Role from the drop down list Compute The Role Role from the drop down list Compute The Role Role from the drop down list Compute The Role Role from the drop down list Compute The Role Role Free The Server and Role Servers an		with control, compute and block	Rack ID field	The rack ID for the server.	
Roles Block StorageServer 1Server 2Server 3 CIMC IP field Enter a IP address. CIMC Username field Enter a Username. CIMC Password field Enter a Password for CIMC Select the Role from the drop down list Choose Control or Compute of Block Storage from the drop-down list. Management IP It is an optional field but if provided for one server then if mandatory to provide it for otl servers. ComputeServer 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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Switch Name field - Enter the port channel inp - Enter the switch name.		_	VIC Slot field	Enter a VIC Slot.	
Block Storage Server 1 Server 2 Server 3 CIMC IP field Enter a IP address. CIMC Username field Enter a Username. CIMC Password field Enter a Password for CIMC Control Select the Role from the drop down list Management IP It is an optional field but if provided for one server then i mandatory to provide it for oth servers. Compute Server 1 Server 2 Server 3 Compute Server 1 Server 3 Compute Server 1 Server 3 Compute Server 1 Server 2 Server 3 Compute Server 1 Server 1 Server 3 Compute Server 1 Server 3 Choose Control or Compute of Dros down list Management IP It is an optional field but if provided for one server then i mandatory to provide it for oth servers. Compute Server 1 Choose Control or Compute of Dros down list Done Server then i mandatory to provide it for oth servers. Compute Server 3 Compute Select the Role from the drop down list Management IP It is an optional field but if provided for one server then i mandatory to provide it for oth servers. Compute Server 3 Compute Server 3 Compute Select the Role from the drop down list. Management IP It is an optional field but if provided for one server then i mandatory to provide it for oth servers. Compute Server 3 Compute Select the Role from the drop down list. Done of the drop down list. Select the Role from the drop down list. Cloose Control or Compute of Dros and server and server and server and server and server and roles gets saved. Port Channel field Select the Role from the drop down list. Cloose Control or Compute of Dros and server and server and server and server and server and server and roles gets saved. Port Channel field Select the Role from the drop down list. Choose Control or Compute of Dros and server and roles gets saved. Port Channel field Select the Role from the drop down list.		imple:	Management IPv6field	This is optional field. Enter Ipv6	
- Server 1 - Server 2 - Server 3 Control - Server 1 - Server 1 - Server 2 - Server 3 CIMC Username field		ock Storage			
- Server 2 - Server 3 Control - Server 1 - Server 2 - Server 3 Compute - Server 4 - Server 5 Compute - Server 9	ы	-	CIMC IP field	Enter a IP address.	
• -Server 3 • Control • -Server 1 • -Server 2 • -Server 3 • Compute • -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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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			CIMC Username field	Enter a Username.	
Control			CIMC Password field	Enter a Password for CIMC	
- Server 2 - Server 3 Compute - 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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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	• Co	ontrol			
- Server 3 - Compute - 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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Switch Name field Provided for one server then in mandatory to provide it for oth servers. Port Channel field Enter the port channel inp Enter the switch name.			Management IP	It is an optional field but if	
Compute - 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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Switch Name field - Enter the port channel inp - Enter the switch name.				provided for one server then it is	
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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Switch Name field • Enter the port channel inp • Enter the switch name.		• -Server 3			
• -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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Click Save or Add . • Port Channel field • Switch Name field • Enter the port channel inp	• Co	ompute			
• -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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 Switch Name field • Enter the port channel input. • Enter the switch name.		• -Server 1			
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. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 On clicking Save or Add all information related to Servers and Roles gets saved. • Port Channel field • Enter the port channel inport of the Name field • Switch Name field		• -Server 2			
then auto ToR configuration is not supported and the ToR info at server and roles level is not allowed to be entered. Click Save or Add . On clicking Save or Add all information related to Servers and Roles gets saved. 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 On clicking Save or Add all information related to Servers and Roles gets saved. • Port Channel field • Enter the port channel inp • Enter the switch name.		• -Server 3			
information related to Servers and Roles gets saved. 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 One of the Lorentz and the server and the	Note	then auto ToR configuration is not supported and the ToR info at server and roles level is not allowed to be			
one switch detail, these fields will be displayed for each server and this is similar to DP Tor: Port Switch Name field • Enter the switch name.	Click S	ave or Add .	information related to Servers		
for each server and this is similar to DP Tor: Port • Switch Name field • Enter the switch name.		9	• Port Channel field	Enter the port channel input.	
CI 1 10 1/1 N /M 1/ 10			• Switch Name field	• Enter the switch name.	
Configure ToR is true) information.	Channe	el and Switch Name (Mandatory if	• Switch Port Info field	• Enter the switch port information.	

Name	Description	
DP ToR (Only for Control and Compute): Mandatory if Intel NIC and Configure TOR is True.	 Port Channel field Switch Name field Switch Port Info field 	 Enter the port channel input. Enter the switch name. Enter the switch port information.
SRIOV TOR INFO (Only for Compute Nodes). It is mandatory in server and roles if Intel NIC and Configure TOR is True. 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	Enter the switch name. Enter the switch port information.
Intel SRIOV VFS (valid for Intel NIC testbeds) and can be integer.	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)	
INTEL_SRIOV_PHYS_PORTS (valid for Intel NIC test beds) and can be of value 2 or 4 (default is 2)	In some cases the # of Physical SRIOV port needed is 4; to meet that requirement, define the following: # this is optional, if nothing is defined code will assume it to be 2; the only 2 integer values this parameter # takes is 2 or 4 and is true when INTEL_NIC_SUPPORT is True and INTEL_SRIOV_VFS is valid	
Click Save or Add.	On clicking Save or Add all information related to Servers and Roles gets saved.	

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.

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.

Step 9 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, it becomes a part of the Blueprint.

Name		Descrip	otion
Configu	ure TOR optional checkbox.	1 -	enable this checkbox configure tor section would be changed
Note	If UMHC is selected as podtype, configure TOR is not allowed.	Note	Configure tor is true then ToR switch info maps in servers

Name	Description		
TOR Switch Information mandatory table if	Click + to add information for ToR Switch.		
you want to enter ToR information.	Name	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. Do not define if there is no peer	
	VPC Domain	Do not 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	
Click Save.			

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

Name	Description
Configure ToR	Is not checked, as by default ACI will configure the ToRs

Click + to add information for ToR Switch	
Name	Description
Host Name	ToR switch name.
VPC Peerkeep alive	Peer info must exist in pair
VPC Domain	Enter an Integer.
	Enter Br management port info eg. Eth1/19, must hav a pair in the peer switch.
	Entered Integer must be unique.

Note If TOR_TYPE is selected as NCS-5500, the TOR switch information table differs and is mandatory

Name	Description
Configure ToR optional checkbox. Note If NSC-5500 is selected as TOR_TYPE, configure TOR is set as mandatory.	Enabling this checkbox, changes the configure ToR section from false to true. Note Configure TOR is true then ToR switchinfo maps in servers.

Name	Description	
If you want to enter Fretta details fill in the NCS-5500	Click (+) to add information for Fretta Switch.	
Information table.	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 IP Address.
	VPC Peer Link	Peer management IP.
	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	Integer between 1 to 65535.
ISIS Area Tag	A valid string.
Loopback Interface name	Loopback Interface name.
API bundle ID	Integer between 1 to 65535.

Name	Description
API bridge domain	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	A valid string (user pre-provisions physical, bundle interface, sub-interface and external BD for external uplink and provides external BD info setup_data).

Step 10 Click OpenStack Setup Tab to advance to the OpenStack Setup page.

Step 11 In the **OpenStack Setup** page of the Cisco VIM Insight wizard, complete the following fields:

Name	Description		
Neutron	Type Selection from Bluepri	Neutron fields would change on the basis of Tenant Network Type Selection from Blueprint Initial Setup . Following are the options available for Neutron:	
	Tenant Network Type	Auto Filled based on the Tenant Network Type selection in Blueprint Initial Setup page.	
	Mechanism Drivers	Auto Filled based on the Tenant Network Type selection in Blueprint Initial Setup page.	
		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 else you can select particular computes as well for eg: NFV_HOSTS: "compute-server-1, compute-server-2"	
	Tenant VLAN Ranges	Allowed with VTS/VLAN VPP/VLAN, OVS/VLAN, ACI/VLAN	
	Enable Jumbo Frames	Check Box default is false.	
	Huge page size Note:. This is available only when Compute node is present in NFV host	The following are the drop-downs: • 2M • 1G	
	For Tenant Network Type Lin the same but Tenant VLAN	ux Bridge everything will remain Ranges will be removed.	

Name	Description	Description	
СЕРН	Ceph has two pre-populated fi	Ceph has two pre-populated fields	
	• CEPH Mode: By defau	It Dedicated.	
	• NOVA Boot from: Drop choose Ceph or local.	Down selection. You can	
GLANCE	By default populated for CEPH value as CEPH.	I Dedicated with Store Backend	
CINDER	By default Populated for CEP Driver value as CEPH.	By default Populated for CEPH Dedicated with Volume Driver value as CEPH .	
HA Proxy	Enter the Mandatory fields:	Enter the Mandatory fields:	
	External VIP Address	Enter IP Address of External VIP.	
	External VIP Address IPv6	Enter IP v6 Address of External VIP .	
	Virtual Router ID	Enter the Router ID for HA.	
	Internal VIP Address	Enter IP Address of Internal VIP.	
	Internal VIP Address IPv6	Enter IP v6 Address for Internal VIP.	
Keystone	Admin Username	admin	
	Admin Tenant Name	admin	
	Aumin Tenant Name	admin	

Name	Description	
LDAP	This is available only when Ke enabled under Optional Featur Initial Setup.	
	Domain Name field	Enter name for Domain name.
	Object Class for Users field	Enter a string as input.
	Object Class for Groups	Enter a string.
	Domain Name Tree for Users	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 with ending port number.
	Domain Name for Bind User field	Enter a string.
	Password field	Enter Password as string format.
	User Filter	Enter filter name as string.
	User ID Attribute	Enter a string.
	User Name Attribute	Enter a string.
	User Mail Attribute	Enter a string.
	Group Name Attribute	Enter a string.

	Description	
optional section will only be visible once is selected from Blueprint Initial Setup. For VTS, Provider network is only supported	Check one of the check boxes to specify a VMTP network: • Provider Network • External Network For the Provider Network complete the following:	
	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.
	Segmentation ID field	Enter the segmentation ID.
	Subnet	Enter the Subnet for Provider Network.
	For External Network fill in	n the following details:
	Network Name field	Enter the name for the external network.
	Network IP Start field	Enter the starting floating IPv4 address.
	Network IP End field	Enter the ending floating IPv4 address.
	Network Gateway field	Enter the IPv4 address for the Gateway.
	DNS Server field	Enter the DNS server IPv4 address.
	Subnet	Enter the Subnet for External Network.
	is selected from Blueprint Initial Setup. For VTS, Provider network is only	optional section will only be visible once is selected from Blueprint Initial Setup. For VTS, Provider network is only supported Check one of the check boxe. Provider Network External Network Network Name field IP Start field IP End field Gateway field DNS Server field Segmentation ID field Subnet For External Network fill i Network Name field Network IP Start field Network IP End field Network Gateway field DNS Server field

Name	Description	
TLS This optional section will only be visible once TLS is selected from Blueprint Initial Setup Page.	 TLS has two options: External LB VIP FQDN - Text Field. External LB VIP TLS - True/False. By default this option is false. 	
SwiftStack optional section will be visible once	Following are the options t	hat needs to be filled for SwiftStack:
SwiftStack is selected from Blueprint Initial Setup Page. SwiftStack is only supported with KeyStonev2 . If you select Keystonev3, swiftstack will not be available for configuration.	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. Protocol that swiftstack is running on top

Note When tenant type ACI/VLAN is selected then ACI INFO tab is available in blueprint setup.

Note When ACI/VLAN is selected then Tor switch from initial setup is mandatory.

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 10.0.0.0/16	
multiclass_address_pool field	Allowed only 225.0.0.0/15	
apic_pod_id field	Enter integer(1- 65535)	

Name	Description
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

Note When Tenant Type is VTS/VLAN then VTS tab is available in blueprint setup.

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

Note If vts day0 is enabled then SSH username and SSH password is mandatory.

If SSH_username is input present then SSH password is mandatory vice-versa

Under the openstack setup tab, the Vim_admins tab will only be visible once Vim_admins is selected from the Optional Features & Services under the Blueprint InitialSetup tab.

Following are the options that needs to be filled for Vim Admins:

• Username - Text Field
• Password - Password field. Admin hash password should always start with \$6

Step 12 If Syslog Export ,NFVBENCH, ENABLE_ESC_PRIV 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	Description	
Syslog Export	Following are the option	Following are the options for Syslog Settings:	
	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.	

NFVBENCH	Enable checkbox which by default is false . Add ToR info connected to switch: • Select a TOR Switch. Switch- (switch name)	
	Enter the port number. For Example: eth1/5 . VTEP VLANS (mandatory and needed only for VTS/VXLAN,): Enter 2 different VLANs for VLAN1 and VLAN2.	
	NIC Ports: INT1 & INT2 Optional input, enter the 2 port numbers of the 4-port 10G Intel NIC at the management node used for NFVBench.	
ENABLE_ESC_PRIV	Enable the checkbox to set it as True . By default it is False .	

- **Step 13** Click **Offline validation** button to initiate an offline validation of the Blueprint.
- Step 14 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).

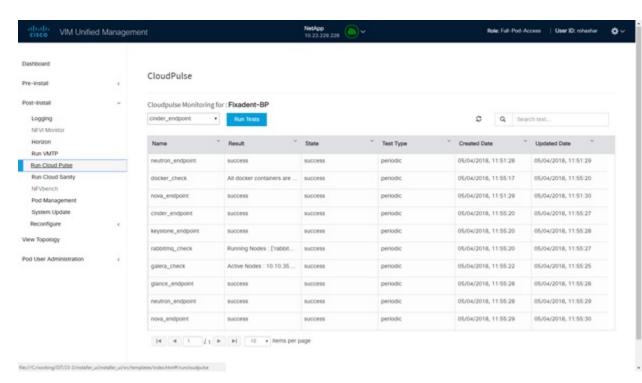
Following are the tests which are supported in CloudPulse:

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.

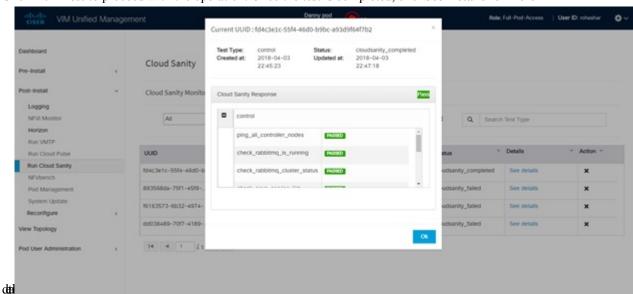
Run Cloud Sanity

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 Run NDR/PDR test . 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 CIMC-COMMON 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.

Reconfiguring CIMC Password Through Unified Management