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 109

Blueprints

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

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

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

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

Blueprint Activation

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

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

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

Viewing Blueprint Details

To view blueprint details:

Step 1 Log in to Cisco VIM Unified Management as pod user.

Step 2 Choose the Cisco VIM pod with the blueprint that you want to view.

Step 3 Click **Menu** at the top left corner to expand the navigation pane.

Step 4 Choose **Pre-Install** > **Blueprint Management.**

Step 5 Choose a blueprint from the list.

Step 6 Click **Preview and Download YAML.**

Creating a Blueprint Using Upload Functionality

Before you begin

- You must have a YAML file (B series or C Series) on your system.
- Only one blueprint can be uploaded at a time. To create a blueprint off-line, refer to the setup_data.yaml.B_Series_EXAMPLE or setup_data.yaml.C_Series_EXAMPLE.
- The respective keys in the sample YAML have to match or the corresponding pane does not get populated during the upload.

Step 1 Log in to **Cisco VIM UM**.

Step 2 In the navigation pane, expand the**Pre-Install** section and click **Blueprint** setup.

Step 3 Click the**Browse** in the **Blueprint Initial Setup**.

Step 4 Click**Select**.

Step 5 Click**Load** in the **Unified Management UI Application**.
All the fields present in the YAML file is uploaded to the respective fields in the UI.

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

While saving the blueprint name has to be unique.

Step 7 Click **Offline Validation**.

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

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

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

Activating a Blueprint in an Existing Pod with OpenStack Installed

Before you begin

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

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

Step 2 Click **Register Management Node**.

Step 3 Enter the following details:

- Management Node IP Address.
- Management Node Name (Any friendly Name).
- REST API Password (/opt/cisco/ui_config.json).
- Description about the Management Node.
- POD Admin's Email ID.

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

Step 4 Log in using the same email id and password.

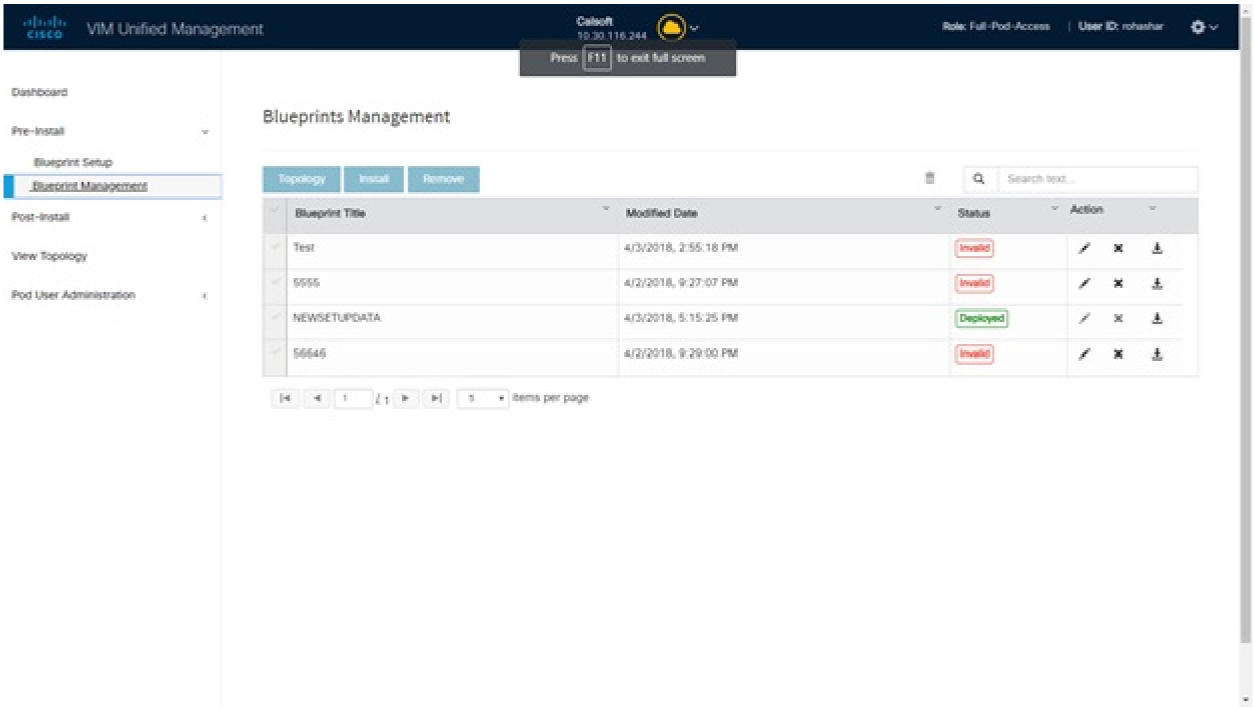
Step 5 In the navigation pane, click **Pre-Install** > **Blueprint Management**.

Choose the **NEWSETUPDATA** from the **Blueprint Management** pane.

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

Blueprint Management

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


cisco
VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Press F11 to exit full screen
Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Blueprints Management
Topology
Install
Remove
Search text...
items per page

Blueprint Title	Modified Date	Status	Action
Test	4/3/2018, 2:55:18 PM	Invalid	
5555	4/2/2018, 9:27:07 PM	Invalid	
NEWSETUPDATA	4/3/2018, 5:15:25 PM	Deployed	
56646	4/2/2018, 9:29:00 PM	Invalid	

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

Blueprint Management table provides the following information:

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

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

Note No two blueprints can have the same Blueprint name.

Modified Date: This shows when blueprint was last modified.

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

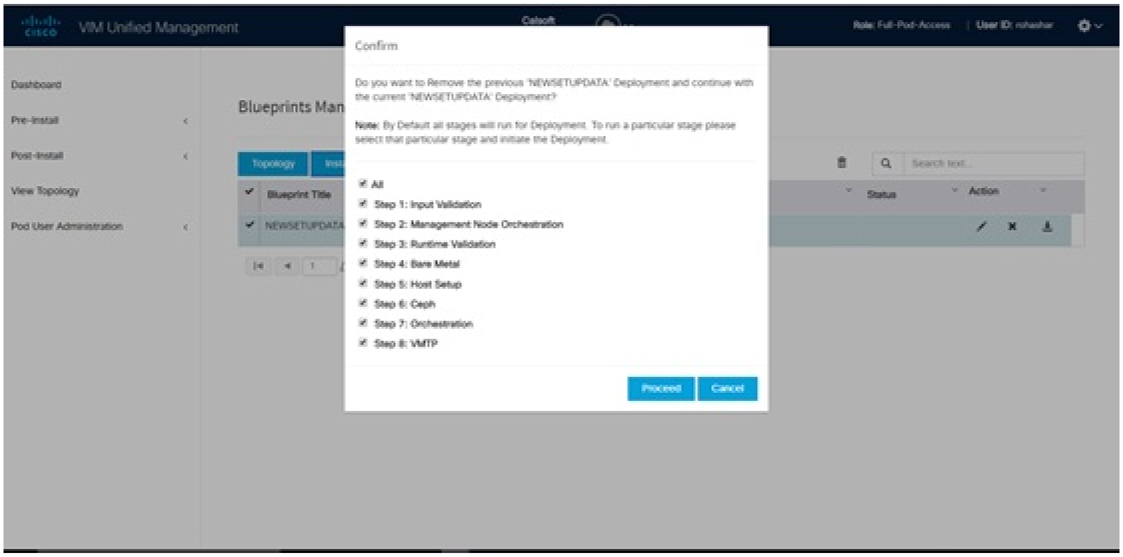
- Valid: Blueprint that is saved after offline validation success.
- Invalid: Blueprint that is saved after Offline Validation failure.
- Inprogress: Blueprint that is saved without running Offline Validation.
- Deployed: Blueprint that is used to bring up cloud without failures.
- Installing: Blueprint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

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

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

Topology

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



Confirm

Do you want to Remove the previous 'NEWSETUPDATA' Deployment and continue with the current 'NEWSETUPDATA' Deployment?

Note: By Default all stages will run for Deployment. To run a particular stage please select that particular stage and initiate the Deployment.

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

Install Button

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

Remove Button

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

Edit, Remove, and Download Blueprint

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

Following are the ways to deploy a Blueprint:

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

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

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

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

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.

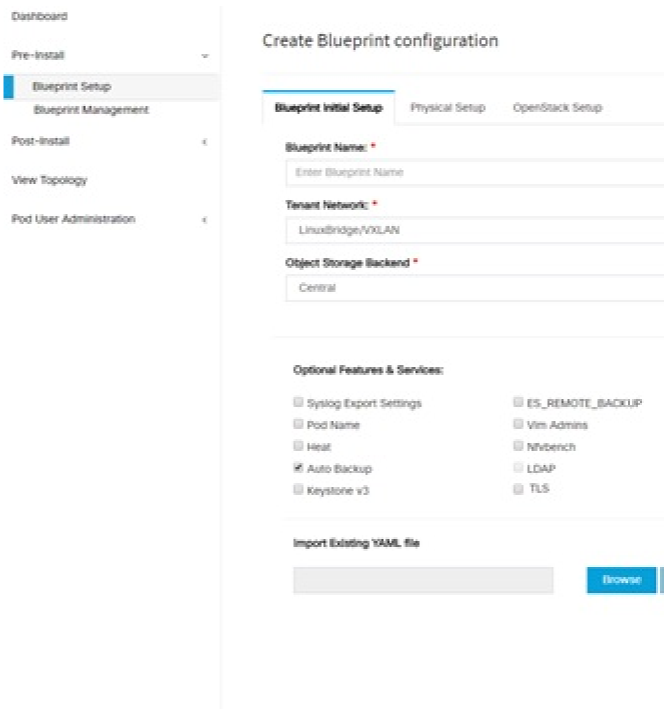
Table 1:

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

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td>Step 1</td><td>In the navigation pane, choose Pre-Install > Blueprint Setup.</td><td></td></tr>
<tr><td>Step 2</td><td>To create a B Series Blueprint:</td><td>
1. On the Blueprint Initial Setup pane of the Cisco VIM Unified Management, complete the following fields:


Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Import Existing YAML file
Browse

Blueprint Name: * Enter Blueprint Name
Tenant Network: * LinuxBridge/VXLAN
Object Storage Backend * Central
Optional Features & Services:
☐ Syslog Export Settings ☐ ES_REMOTE_BACKUP
☐ Pod Name ☐ Vim Admins
☐ Heat ☐ NFVbench
☑ Auto Backup ☐ LDAP
☐ Keystone v3 ☐ TLS

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Blueprint Name field</td><td>Enter blueprint configuration name.</td></tr>
<tr><td>Platform Type drop-down list</td><td>Choose one of the following platform types:
• B-Series (By default) choose B series for this section.
• C-Series</td></tr>
</table>
</td></tr>
</table>

	Command or Action	Purpose

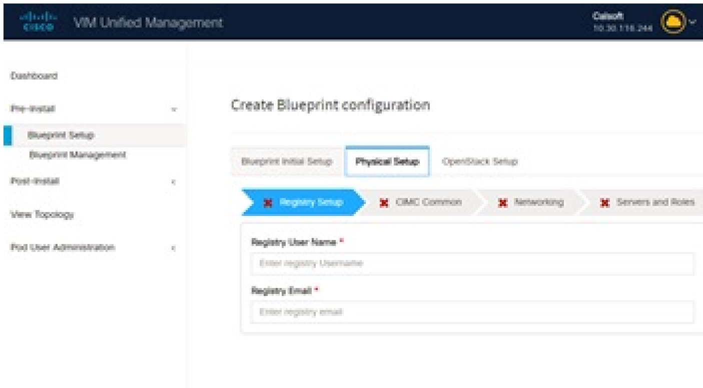
Name	Description
Tenant Network drop-down list	Choose one of the following tenant network types: • Linuxbridge/VXLAN • OVS/VLAN
Pod Type drop-down list	Choose one of the following pod types: • Fullon(By Default)
Ceph Mode drop-down list	Choose one of the following Ceph types: • Dedicated • Central (By Default) - Not supported in Production
SSH Banner	An optional parameter `ssh_banner` is available in the setup_data, to accept a string or message that is to be displayed before the login prompt. This message indicates a warning consistent with a company's IT policies.

	Command or Action	Purpose

Name	Description
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.
Import Existing YAML file	Click **Browse** 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.

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

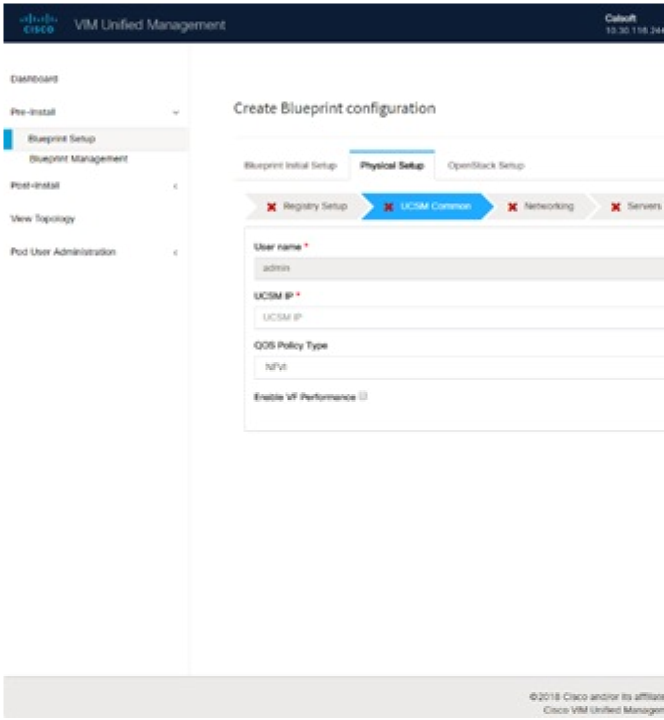
	Command or Action	Purpose


VIM Unified Management
Calsoft
10.30.116.244
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Registry User Name *
Enter registry Username
Registry Email *
Enter registry email

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

Once all mandatory fields are filled the **Validation Check Registry Pane** shows a Green Tick.

3. Click **UCSM Common Tab** and complete the following fields:

	Command or Action	Purpose
		

VIM Unified Management
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
UCSM Common
Networking
Servers

Create Blueprint configuration

User name * admin

UCSM IP * UCSM IP

QOS Policy Type NFVI

Enable VF Performance ☐

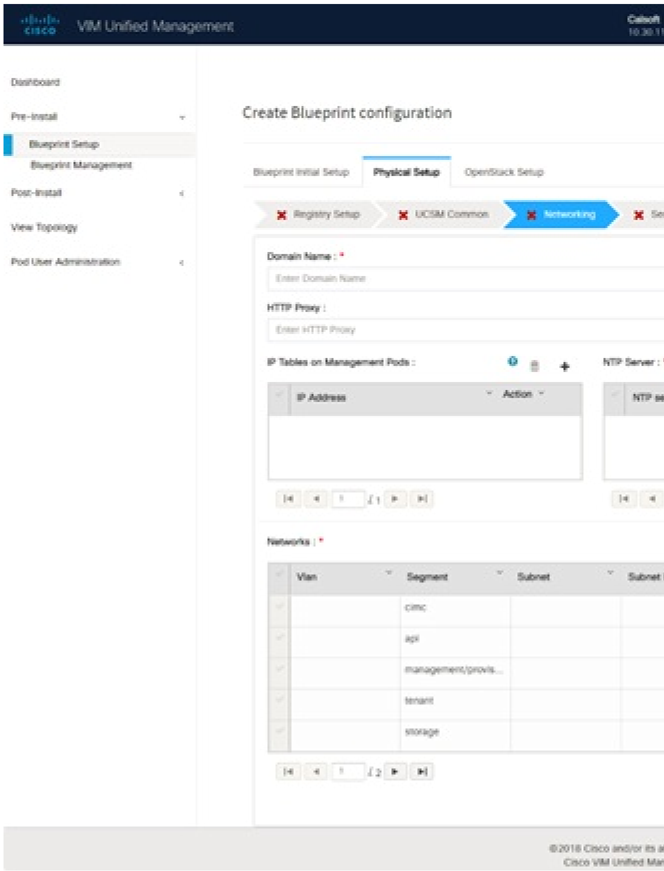
Name	Description
User name disabled field	By default the value is Admin.
Password text field	Enter Password for UCSM Common **(Mandatory)**.
UCSM IP text field	Enter IP Address for UCSM Common (**Mandatory).**
Resource Prefix text field	Enter the resource prefix**(Mandatory)**.
QOS Policy Type drop-down	Choose one of the following types: • NFVI (Default) • Media

	Command 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

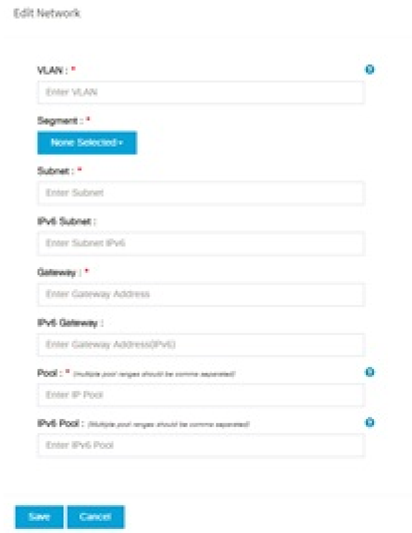
4. Click **Networking** to advance to the networking section of the Blueprint:


cisco
VIM Unified Management
Calsoft
10.30.11
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
UCSM Common
Networking
Se
Domain Name : *
Enter Domain Name
HTTP Proxy :
Enter HTTP Proxy
IP Tables on Management Pods :
IP Address
Action
NTP Server :
NTP se
Networks : *
Vlan
Segment
Subnet
Subnet
cimc
api
management/provis...
tenant
storage
©2018 Cisco and/or its a
Cisco VIM Unified Man

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.

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>NTP Server</td><td>Enter a maximum of four and minimum of one IPv4 and /or IPv6 addresses in the table.</td></tr>
<tr><td>Domain Name Server</td><td>Enter a maximum of three and minimum of one IPv4 and/or IPv6 addresses.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th colspan="2">Purpose</th></tr>
<tr><td></td><td></td><td colspan="2"><table><tr><th>Name</th><th>Description</th></tr><tr><td>Network table</td><td></td></tr></table></td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
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
IPv6 Subnet :
Enter Subnet IPv6
Gateway : *
Enter Gateway Address
IPv6 Gateway :
Enter Gateway Address(IPv6)
Pool : * (multiple pool ranges should be comma separated)
Enter IP Pool
IPv6 Pool : (Multiple pool ranges should be comma separated)
Enter IPv6 Pool
Save
Cancel

Click + to enter new entries (networks) to the table.
Specify the following fields in the Edit Entry to Networks dialog box.

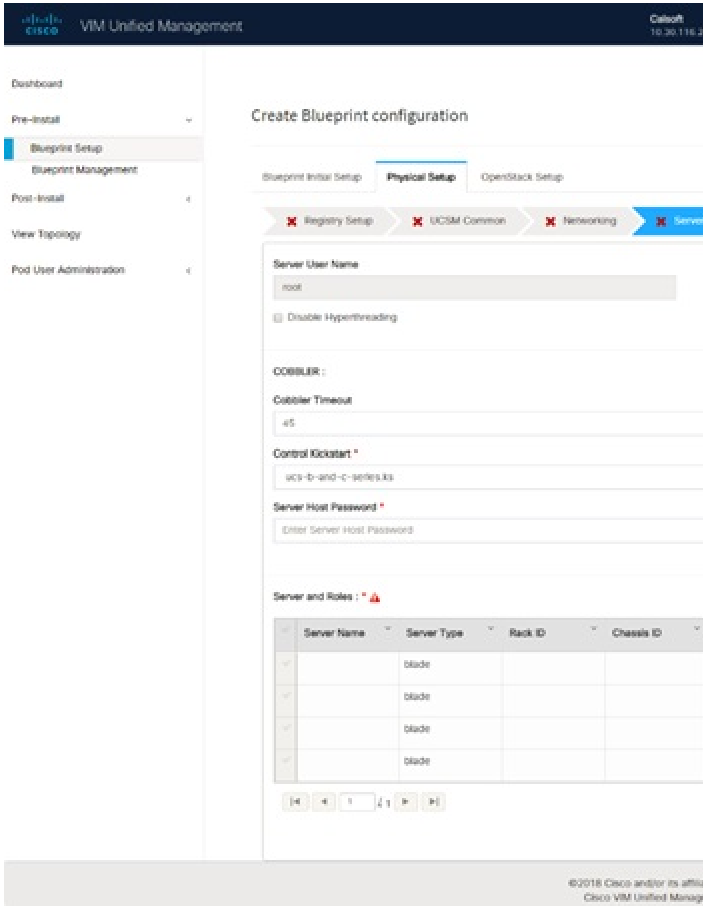
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>VLAN field</td><td>Enter the VLAN ID.
For Segment - Provider, the VLAN</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>ID value is always <i>none</i>.</td></tr>
<tr><td>Segment drop-down list</td><td>You can select any one segment from the drop-down 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.</td></tr>
<tr><td>Subnet field</td><td>Enter the IPv4 address for the subnet.</td></tr>
<tr><td>IPv6 Subnet field</td><td></td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>Enter IPv6 address. This field is available only for Management provision and API.</td></tr>
<tr><td>**Gateway** field</td><td>Enter the IPv4 address for the Gateway.</td></tr>
<tr><td>**IPv6 Gateway** field</td><td>Enter IPv6 gateway. This field is available only for Management provision and API network.</td></tr>
<tr><td>**Pool** field</td><td>Enter the pool information in the following format. For example: 10.30.1.1 or 10.30.1.1 to 10.30.1.12</td></tr>
<tr><td>**IPv6 Pool** field</td><td></td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>Enter the pool information in the following format. For example: 10.1.1.5-10.1.1.10,10.2.1.5-10.2.1.10
This field is only available for the Mgmt/Provision.</td></tr>
</table>
Click Save.</td></tr>
</table>
5. On the Servers and Roles page of the Cisco VIM Suite wizard, you see a pre-populated table filled with Roles: Control, Compute and Block Storage (Only if CEPH Dedicated is selected in Blueprint Initial Setup.
</td></tr>
</table>

	Command or Action	Purpose



Create Blueprint configuration

Server User Name: root

☐ Disable Hyperthreading

COBBLER :

Cobbler Timeout: 45

Control Kickstart *: ucs-b-and-c-series.ks

Server Host Password *: Enter Server Host Password

Server and Roles : *

Server Name	Server Type	Rack ID	Chassis ID
	blade		
	blade		
	blade		
	blade		

VIM Unified Management
Calsoft
10.30.116.2
Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
UCSM Common
Networking
Server
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Cisco VIM Unified Manag

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.
Vendor	Set vendor type at the global level
Roles	Set Vendor type at per role level in the roles table

	Command or Action	Purpose
		<table><tr><th>Name</th><th>Description</th></tr><tr><td>Cobbler</td><td></td></tr></table>

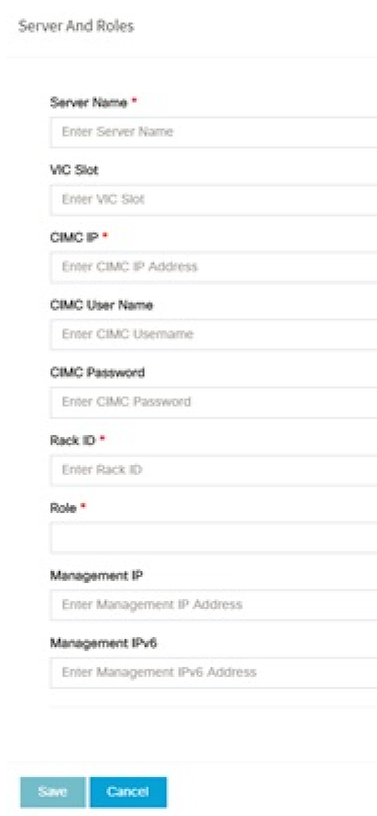
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>Enter the Cobbler details in the following fields:
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Cobbler Timeout field</td>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

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

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td><table><tr><th>Name</th><th>Description</th></tr><tr><td>Add Entry to Servers and Roles</td><td></td></tr></table></td></tr>
</table>

	Command or Action	Purpose

Name	Description
	Click **Edit** or **+** to add a new server and role to the table.


Server And Roles

Server Name *
Enter Server Name

VIC Slot
Enter VIC Slot

CIMC IP *
Enter CIMC IP Address

CIMC User Name
Enter CIMC Username

CIMC Password
Enter CIMC Password

Rack ID *
Enter Rack ID

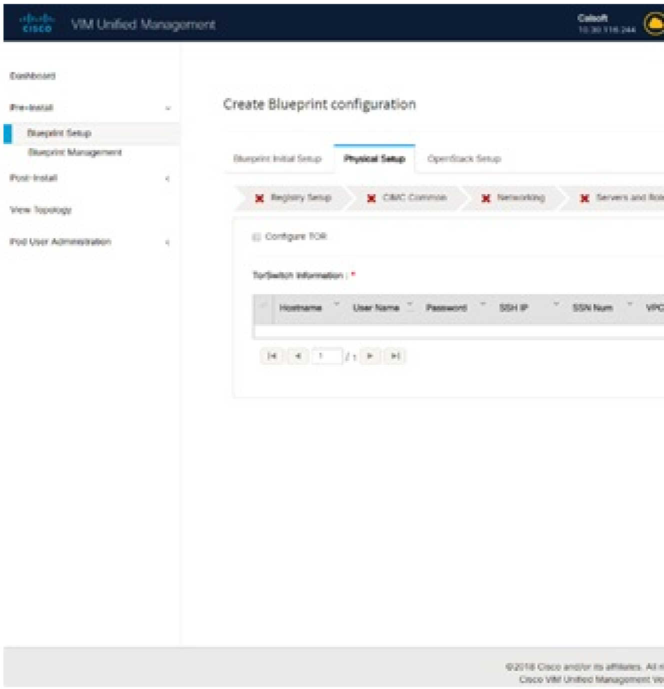
Role *

Management IP
Enter Management IP Address

Management IPv6
Enter Management IPv6 Address

Server Name	Enter a server name.
Server Type drop-down list	Choose Blade or Rack from the drop-down list.
Rack ID	The Rack ID for the server.
Chassis ID	Enter a Chassis ID.
If Rack is	Enter a

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>chosen, the Rack Unit ID field is displayed.</td><td>Rack Unit ID.</td></tr>
<tr><td>If Blade is chosen, the Blade ID field is displayed.</td><td>Enter a Blade ID.</td></tr>
<tr><td>Select the Role from the drop-down list.</td><td>If Server type is Blade then select Control and Compute. If server is Rack then select Block Storage.</td></tr>
<tr><td>Management IP</td><td>It is an optional field but if provided for one server then it is mandatory to provide details for other Servers as well.</td></tr>
<tr><td>Management IPv6</td><td>Enter the Management IPv6 Address.</td></tr>
</table>
Click Save.
</td></tr>
</table>
6. Click ToR Switch checkbox in Blueprint Initial Setup to enable the TOR SWITCH configuration page. It is an Optional section in Blueprint Setup,
</td></tr>
</table>

	Command or Action	Purpose
		but when all the fields are filled it is a part of the Blueprint. 

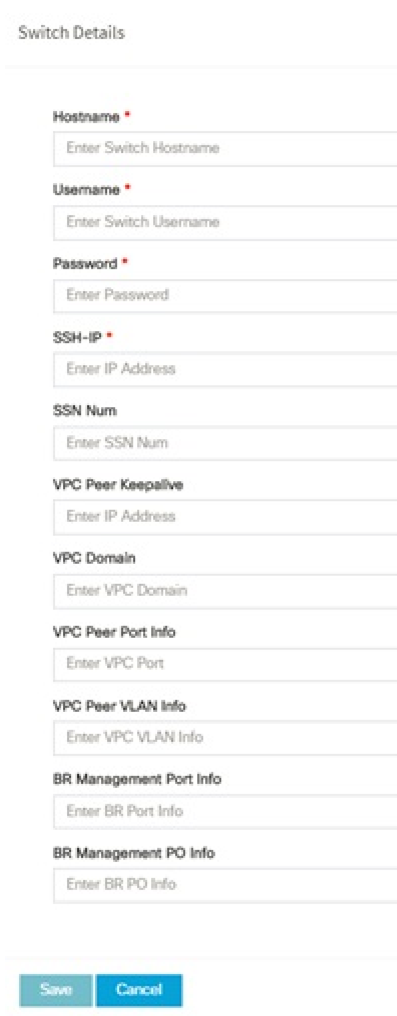
VIM Unified Management
Calsoft
10.30.116.244
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Ro
Configure TOR
TorSwitch Information : *
Hostname
User Name
Password
SSH IP
SSN Num
VPC
©2018 Cisco and/or its affiliates. All r
Cisco VIM Unified Management Ve

Name	Description
Configure ToR optional checkbox.	Enabling this checkbox, changes the configure ToR section from false to true.

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td><table><tr><th>Name</th><th>Description</th></tr><tr><td>ToR Switch Information mandatory table.</td><td></td></tr></table></td></tr>
</table>

	Command or Action	Purpose

Name	Description
	Click **(+)** to add information for ToR Switch.

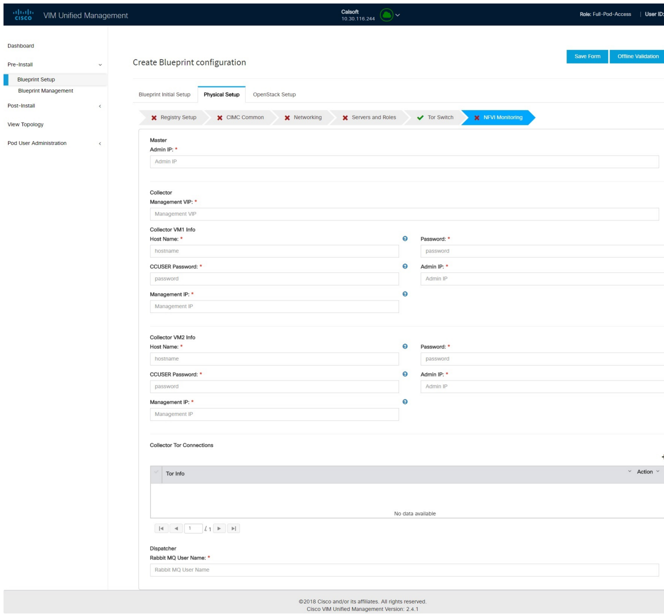

Switch Details
Hostname *
Enter Switch Hostname
Username *
Enter Switch Username
Password *
Enter Password
SSH-IP *
Enter IP Address
SSN Num
Enter SSN Num
VPC Peer Keepalive
Enter IP Address
VPC Domain
Enter VPC Domain
VPC Peer Port Info
Enter VPC Port
VPC Peer VLAN Info
Enter VPC VLAN Info
BR Management Port Info
Enter BR Port Info
BR Management PO Info
Enter BR PO Info
Save
Cancel

Name	Description
Hostname	ToR switch hostname.
Username	ToR switch username.
Password	ToR switch password.
SSH IP	ToR switch

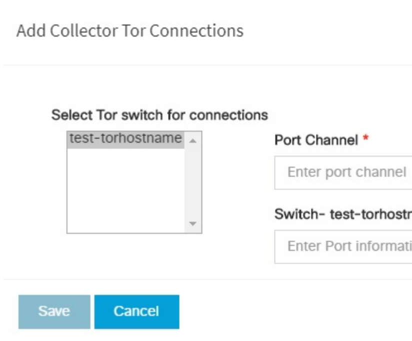
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th colspan="2">Description</th></tr>
<tr><td></td><td colspan="2">
<table>
<tr><td></td><td>SSH IP Address.</td></tr>
<tr><td>SSN Num</td><td>ToR switch ssn num.</td></tr>
<tr><td>VPC Peer Keepalive</td><td>Peer Management IP. You do not define if there is no peer.</td></tr>
<tr><td>VPC Domain</td><td>Do not define if peer is absent.</td></tr>
<tr><td>VPC Peer Port Info</td><td>Interface for vpc peer ports.</td></tr>
<tr><td>BR Management Port Info</td><td>Management interface of the management node.</td></tr>
<tr><td>BR Management PO Info</td><td>Port channel number for management interface of the management node.</td></tr>
</table>
ClickSave.</td></tr>
<tr><td>On clicking save button, Add ToR Info Connected to Fabric field is visible.</td><td>Port Channel field.</td><td>Enter the Port Channel input.</td></tr>
<tr><td></td><td>Switch Name field.</td><td>Enter the name of the Switch.</td></tr>
</table>

7. Click NFVI Monitoring checkbox in Blueprint Initial Setup to enable the NFVI Monitoring configuration tab.
</td></tr>
</table>

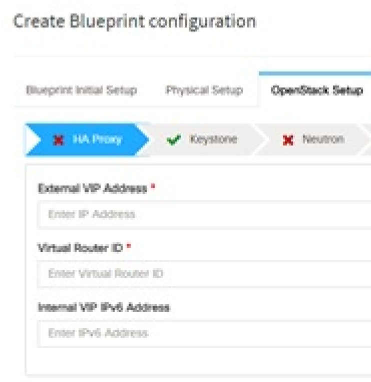
	Command or Action	Purpose

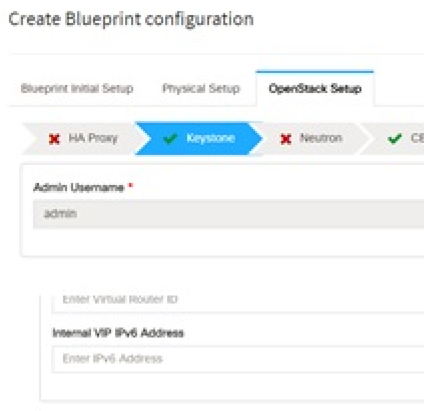

VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID:
Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Tor Switch
NFVI Monitoring
Master
Admin IP: *
Admin IP
Collector
Management VIP: *
Management VIP
Collector VM1 Info
Host Name: *
hostname
Password: *
password
CCUSER Password: *
password
Admin IP: *
Admin IP
Management IP: *
Management IP
Collector VM2 Info
Host Name: *
hostname
Password: *
password
CCUSER Password: *
password
Admin IP: *
Admin IP
Management IP: *
Management IP
Collector Tor Connections
Tor Info
Action
No data available
1
/ 1
Dispatcher
Rabbit MQ User Name: *
Rabbit MQ User Name
©2018 Cisco and/or its affiliates. All rights reserved.
Cisco VIM Unified Management Version: 2.4.1

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

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>**Collector ToR Connections**</td><td>
1. Click on (+) icon to Add Collector ToR Connections.
2. Select the ToR switches from list to add the information.
3. It is optional and available for ToR type NCS-5500
4. For now, it supports adding only one Collector ToR Connection

Add Collector Tor Connections
Select Tor switch for connections
test-torhostname
Port Channel *
Enter port channel
Switch- test-torhostr
Enter Port informati
Save
Cancel
<table>
<tr><td>**Port Channel**</td><td>Enter port channel.</td></tr>
<tr><td>**Switch - {torSwitch-hostname}**</td><td>Enter port number, E.g:eth1/15.</td></tr>
</table>
Click **Save**
</td></tr>
<tr><td>**Rabbit MQ User Name**</td><td>Enter Rabbit MQ username.</td></tr>
</table>

8. Click **OpenStack Setup** tab to advance to the OpenStack Setup Configuration page. On the **OpenStack Setup** page of the Cisco VIM Unified Management wizard, complete the following fields:
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>HA Proxy</td><td>Fill in the following details:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
External VIP Address *
Enter IP Address
Virtual Router ID *
Enter Virtual Router ID
Internal VIP IPv6 Address
Enter IPv6 Address
<table>
<tr><td>External VIP Address field</td><td>Enter the IP address of the External VIP.</td></tr>
<tr><td>External VIP Address IPv6 field</td><td>Enter the IPv6 address of the External VIP.</td></tr>
<tr><td>Virtual Router ID field</td><td>Enter the Router ID for the HA.</td></tr>
<tr><td>Internal VIP Address IPv6 field</td><td>Enter the IPv6 address of the Internal IP.</td></tr>
<tr><td>Internal VIP Address field</td><td>Enter the IP address of the Internal VIP.</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

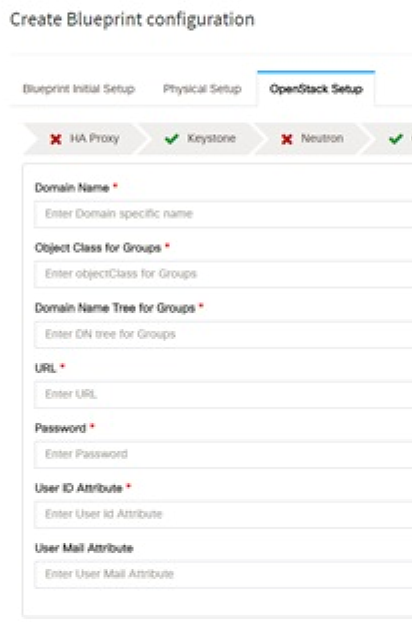
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Keystone</td><td>The following are the Pre-populated field values. This option is always set to be true.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CE
Internal VIP IPv6 Address
Enter IPv6 Address
Enter Virtual Router ID

Admin Username * admin
<table>
<tr><th></th><th></th></tr>
<tr><td>Admin Username field</td><td>admin</td></tr>
<tr><td>Admin Tenant Name field</td><td>admin</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

	Command or Action	Purpose	
		Name	Description
		LDAP (Only if Keystonev3 is enabled) **Note** This option is only available with Keystone v3	

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>This is available only when Keystone v3 and LDAP both are enabled under Optional Features and Services in Blueprint Initial Setup.

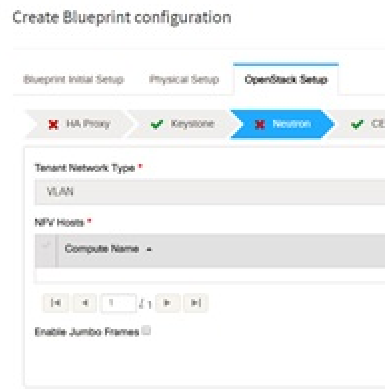


Create Blueprint configuration
Blueprint Initial Setup | Physical Setup | OpenStack Setup
✗ HA Proxy ✓ Keystone ✗ Neutron ✓
Domain Name * : Enter Domain specific name
Object Class for Groups * : Enter objectClass for Groups
Domain Name Tree for Groups * : Enter DN tree for Groups
URL * : Enter URL
Password * : Enter Password
User ID Attribute * : Enter User Id Attribute
User Mail Attribute : Enter User Mail Attribute

<table>
<tr><td>Domain Name field</td><td>Enter the Domain name.</td></tr>
<tr><td>Object Class for Users field</td><td>Enter a string as input.</td></tr>
<tr><td>Object Class for Groupsfield</td><td>Enter a string.</td></tr>
<tr><td>Domain Name Tree for Users field</td><td>Enter a string.</td></tr>
<tr><td>Domain Name Tree for Groups</td><td>Enter a string.</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

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

	Command or Action	Purpose
		<table><tr><th>Name</th><th>Description</th></tr><tr><td>Neutron</td><td></td></tr></table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>Neutron fields change on the basis of <i>Tenant Network Type</i> selection from Blueprint Initial Setup. Following are the options available for Neutron for OVS/VLAN:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CE
Compute Name
/ 1
Enable Jumbo Frames

Tenant Network Type *: VLAN
NFV Hosts *
<table>
<tr><td>Tenant Network Type field</td><td>It is Auto-filled based on the <i>Tenant Network Type</i>selected in the Blueprint Initial Setup page.</td></tr>
<tr><td>Mechanism Drivers field</td><td>It is Auto-filled based on the <i>Tenant Network Type</i> selected in Blueprint Initial Setup page.</td></tr>
<tr><td>NFV Hosts field</td><td>It is Auto-filled with the Compute you added</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

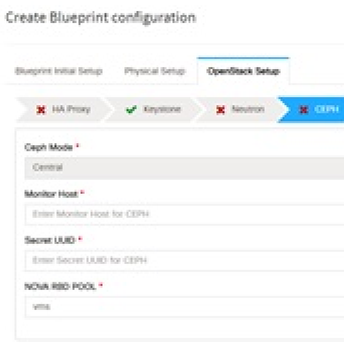
	Command or Action	Purpose		
		Name	Description	
				in Server and Roles. If you select All in this section NFV_HOSTS: **ALL** is added to the Blueprint or you can select one particular compute. For Example: NFV_HOSTS: compute-server-1, compute-server-2.
			Tenant VLAN Ranges field	List of ranges separated 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
			Enable Jumbo Frames field	Enable the checkbox.

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

	Command or Action	Purpose
		<table><tr><th>Name</th><th>Description</th></tr><tr><td>CEPH</td><td></td></tr></table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>

1. 1. When Object Storage Backend is selected as *Central* in the blueprint initial setup.

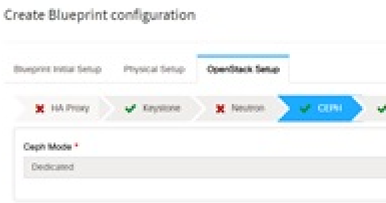

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Ceph Mode * Central
Monitor Host * Enter Monitor Host for CEPH
Secret UUID * Enter Secret UUID for CEPH
NOVA RBD POOL * vms

<table>
<tr><td>CEPH Mode</td><td>By default Ceph Mode is Central.</td></tr>
<tr><td>Cluster ID</td><td>Enter the Cluster ID.</td></tr>
<tr><td>Monitor Host</td><td>Enter the Monitor Host for CEPH</td></tr>
<tr><td>Monitor Members</td><td>Enter the Monitor Members for CEPH</td></tr>
<tr><td>Secret UUID</td><td>Enter the Secret UUID for CEPH</td></tr>
<tr><td>NOVA Boot from</td><td>You can choose CEPH or local from the drop-down list.</td></tr>
<tr><td>NOVA RBD</td><td>Enter the NOVA</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>POOL</td><td>RBD Pool (default's to vms)</td></tr>
<tr><td>CEPH NAT</td><td>CEPH NAT is required for Central Ceph and when mgmt network is not routable.</td></tr>
</table>

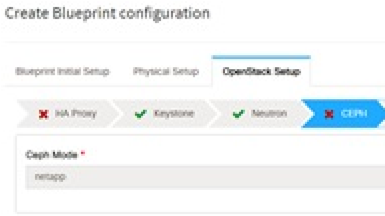
2. When Object Storage Backend is selected as *Dedicated* in the blueprint initial setup.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Ceph Mode *
Dedicated

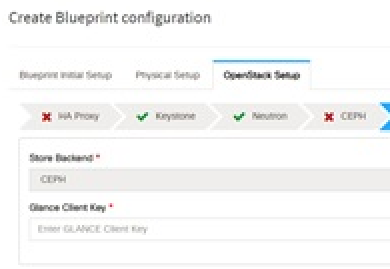
- CEPH Mode: By default Dedicated.
- NOVA Boot: From drop-down selection you can choose CEPH or local.

3. When Object Storage Backend is selected as *NetApp* in the blueprint initial setup.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Ceph Mode *
netapp
</td></tr>
</table>
</td></tr>
</table>

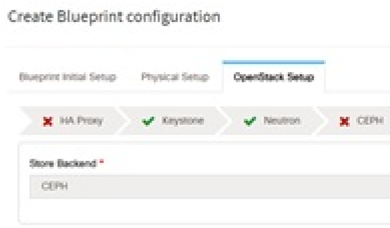
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>**GLANCE**</td><td>
1. When Object Storage Backend is selected as *Central* in the blueprint initial setup.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Store Backend *
CEPH
Glance Client Key *
Enter GLANCE Client Key

<table>
<tr><td>**Store Backend**</td><td>By default CEPH.</td></tr>
<tr><td>**Glance RBD Pool** field</td><td>By default images.</td></tr>
<tr><td>**Glance Client Key**</td><td>Enter GLANCE Client Key</td></tr>
</table>

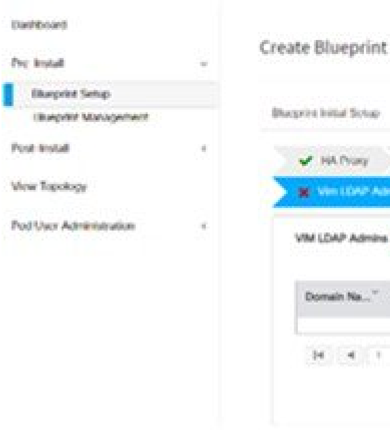
2. When Object Storage Backend is selected as *Dedicated* in the blueprint initial setup.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Store Backend *
CEPH

By default Populated for CEPH Dedicated with Store Backend value as CEPH.
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Vim LDAP Admins</td><td></td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
Optional entry to support LDAP for Admin access to management node. TLS must be enabled for the external api (i.e. external_lb_vip_tls: True).
Following are the values to be filled to add vim LDAP admins:

Dashboard
Pre Install
Blueprint Setup
Blueprint Management
Post Install
View Topology
Pod User Administration
Create Blueprint
Blueprint Initial Setup
HA Proxy
Vim LDAP Ad
VIM LDAP Admins
Domain Na...

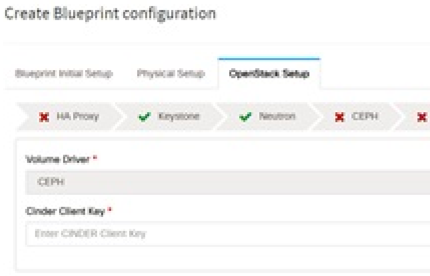
domain_name: Mandatory to define vim LDAP admins.
ldap_uri : The ldap_uris must be secured over ldaps. It is mandatory field
.
ldap_search_base: It is mandatory. Enter search base
ldap_schema: Optional. Enter the schema.
ldap_user_object_class: Optional. Indicates the posixAccount.
ldap_user_uid_number: Optional. Enter the user id number.

</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>

- **ldap_user_gid_number**: Optional. Enter the group id number.
- **ldap_group_member**: Optional. Enter the group member.

</td></tr>
<tr><td>**CINDER**</td><td>
By default Populated for *CEPH Dedicated* with Volume Driver value as **CEPH**.

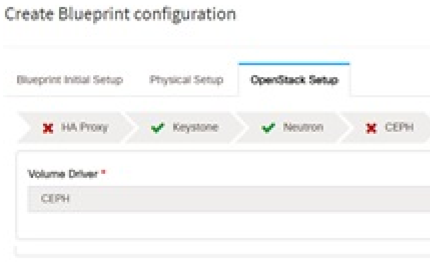


Create Blueprint configuration

Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

Volume Driver *
CEPH
Cinder Client Key *
Enter CINDER Client Key

<table>
<tr><td>**Volume Driver**</td><td>By default CEPH.</td></tr>
<tr><td>**Cinder RBD Pool** field</td><td>By default volumes.</td></tr>
<tr><td>**Cinder Client Key**</td><td>Enter Cinder Client Key</td></tr>
</table>



Create Blueprint configuration

Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH

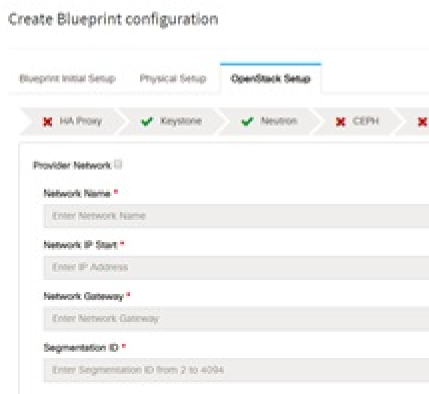
Volume Driver *
CEPH
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>VMTP
VMTP optional section will only be visible once VMTP is selected from Blueprint Initial Setup.</td><td></td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
Check one of the check boxes to specify a VMTP network:

- Provider Network
- External Network

For the **Provider Network** complete the following:



Create Blueprint configuration

Blueprint Initial Setup | Physical Setup | OpenStack Setup

✗ HA Proxy ✓ Keystone ✓ Neutron ✗ CEPH ✗

Provider Network ☐

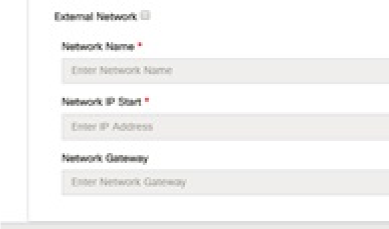
Network Name *
Enter Network Name

Network IP Start *
Enter IP Address

Network Gateway *
Enter Network Gateway

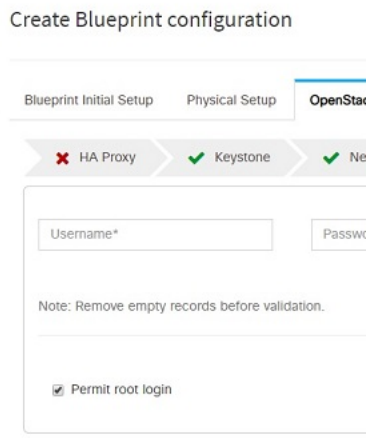
Segmentation ID *
Enter Segmentation ID from 2 to 4094

<table>
<tr><td>Network Name field</td><td>Enter the name for the external network.</td></tr>
<tr><td>Subnet field</td><td>Enter the Subnet for Provider Network.</td></tr>
<tr><td>Network IP Start field</td><td>Enter the start of the floating IPv4 address.</td></tr>
<tr><td>Network IP End field</td><td>Enter the end of the floating IPv4 address.</td></tr>
<tr><td>Network Gatewayfield</td><td>Enter the IPv4 address for</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

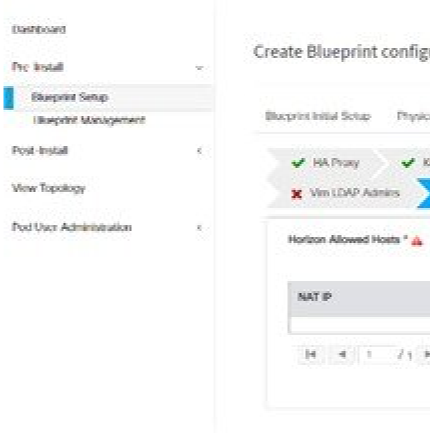
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td></td><td>the Gateway.</td></tr>
<tr><td>DNS Server field</td><td>Enter the DNS server IPv4 address.</td></tr>
<tr><td>Segmentation ID field</td><td>Enter the segmentation ID.</td></tr>
</table>
For External Network fill in the following details:

External Network ☐
Network Name *
Enter Network Name
Network IP Start *
Enter IP Address
Network Gateway
Enter Network Gateway
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>Network Name field</td><td>Enter the name for the external network.</td></tr>
<tr><td>Subnet field</td><td>Enter the Subnet for the external Network.</td></tr>
<tr><td>Network IP Start field</td><td>Enter the start of the floating IPv4 address.</td></tr>
<tr><td>Network IP End field</td><td>Enter the endof the floating IPv4 address.</td></tr>
<tr><td>Network Gateway field</td><td>Enter the IPv4 address for the Gateway.</td></tr>
<tr><td>DNS Server field</td><td>Enter the DNS server IPv4 address.</td></tr>
</table>
</td></tr>
<tr><td>TLS This optional section will only be visible once TLS is selected from Blueprint Initial Setup Page.</td><td>TLS has two options:
• External LB VIP FQDN - -Text field.
• External LB VIP TLS True/False. By default this option is false.</td></tr>
</table>
</td></tr>
</table>

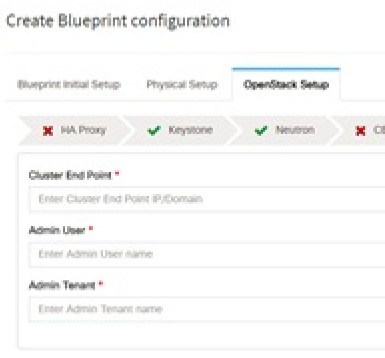
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Under the OpenStack setup tab, **Vim_admins** tab will be visible only when Vim_admins is selected from the **Optional Features & Services** under the Blueprint Initial setup tab</td><td>Following are the field descriptions for VIM Admins:


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStac
HA Proxy
Keystone
Ne
Username*
Passw
Note: Remove empty records before validation.
☑ Permit root login

- **User Name** - Text field.
- **Password** -Password field. Admin hash password should always start with $6.</td></tr>
</table>
</td></tr>
</table>

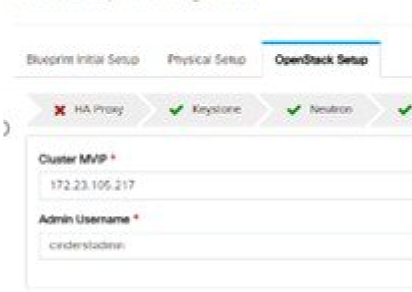
<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Horizon Aliases</td><td>If the external_lb_vip is behind a NAT router or has a DNS alias, provide a list of those addresses.
Horizon Allowed Hosts uses comma separated list of IP addresses and/or DNS names for horizon hosting.

Dashboard
Pre Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Create Blueprint config
Blueprint Initial Setup
Physic
HA Proxy
Vim LDAP Admins
Horizon Allowed Hosts *
NAT IP
1
/ 1

</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>SwiftStack optional section will be visible once 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.</td><td>Following are the options that needs to be filled for SwiftStack:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
Cluster End Point *
Enter Cluster End Point IP/Domain
Admin User *
Enter Admin User name
Admin Tenant *
Enter Admin Tenant name
<table>
<tr><td>Cluster End Point field</td><td>IP address of PAC (Proxy-Account-Container) endpoint.</td></tr>
<tr><td>Admin User field</td><td>Admin user for swift to authenticate in keystone.</td></tr>
<tr><td>Admin Tenant field</td><td>The service tenant corresponding to the Account-Container used by the Swiftstack.</td></tr>
<tr><td>Reseller Prefix field</td><td>Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack. Example: KEY_</td></tr>
<tr><td>Admin Password field</td><td>swiftstack_admin_password</td></tr>
<tr><td>Protocol</td><td>http or https</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

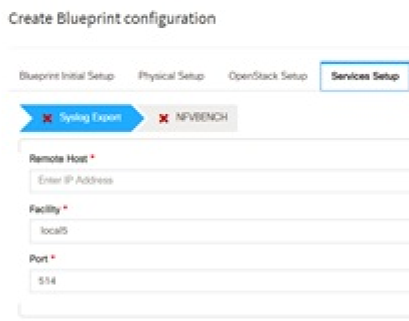
	Command or Action	Purpose

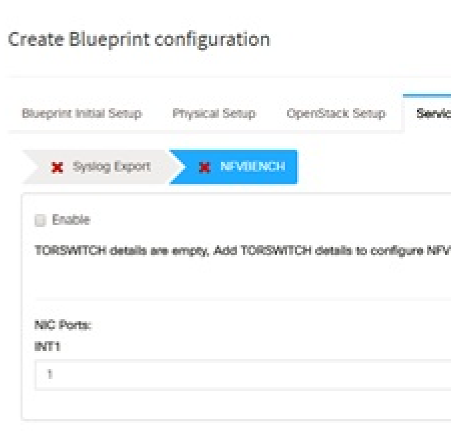
9. For SolidFire, enter the following:

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>SolidFire is visible for configuration on day0
SolidFire is not allowed as a day-2 deployment option
SolidFire is always available with CEPH.</td><td>
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
Cluster MVIP * 172.23.105.217
Admin Username *
<table>
<tr><td>Cluster MVIP field</td><td>Management IP of SolidFire cluster.</td></tr>
<tr><td>Cluster SVIP field</td><td>Storage VIP of SolidFire cluster.</td></tr>
<tr><td>Admin Username</td><td>Admin user on SolidFire cluster</td></tr>
<tr><td>Admin Password</td><td>Admin password on SolidFire cluster.</td></tr>
</table></td></tr>
</table>

10. If **Syslog Export** or **NFVBENCH** is selected in **Blueprint Initial Setup**, the **Services Setup** pane is enabled for the user to view.

    Following are the options under **Services Setup** Tab:

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Syslog Export</td><td>Following are the options for Syslog Settings:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Services Setup
Syslog Export
NFVBENCH
Remote Host *
Enter IP Address
Facility *
local5
Port *
514
<table>
<tr><td>Remote Host</td><td>Enter Syslog IP address.</td></tr>
<tr><td>Protocol</td><td>Only UDP is supported.</td></tr>
<tr><td>Facility</td><td>Defaults to local5.</td></tr>
<tr><td>Severity</td><td>Defaults to debug.</td></tr>
<tr><td>Clients</td><td>Defaults to ELK.</td></tr>
<tr><td>Port</td><td>Defaults to 514 but can be modified by the User.</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th></th><th>Command or Action</th><th>Purpose</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>NFVBENCH</td><td>NFVBENCH enable checkbox which by default is <i>False</i>.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Servic
Syslog Export
NFVBENCH
☐ Enable

TORSWITCH details are empty, Add TORSWITCH details to configure NFV
NIC Ports:
INT1
1
Add ToR information connected to switch:
Select a TOR Switch and enter the Switch name.
Enter the port number. For example:eth1/5. VTEP VLANS (mandatory and needed only for VXLAN): Enter 2 different VLANs for VLAN1 and VLAN2
NIC Ports: INT1 and INT2 optional input. Enter the 2 port numbers of the 4-port 10G Intel NIC at the management node used for the NFVBench.</td></tr>
<tr><td>ENABLE_ESC_PRIV</td><td>Enable the checkbox to set it as True. By default it is <i>False</i>.</td></tr>
</table>
</td></tr>
</table>

Creating Blueprint for C-Series Server Platform

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

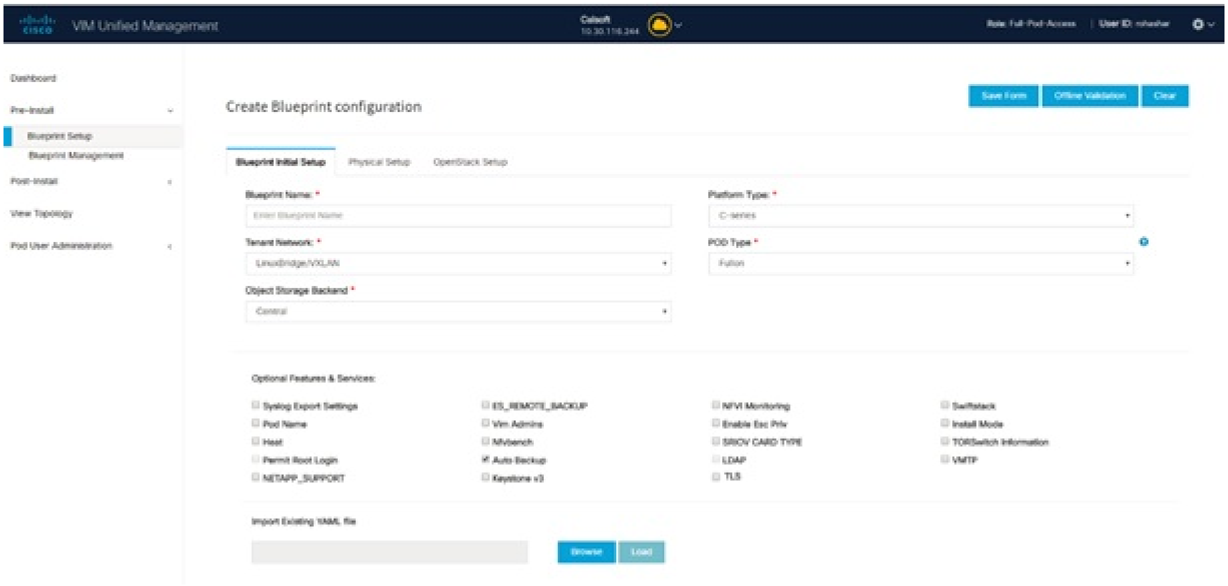
Step 1 Log into **CISCO VIM Unified Management**.

Step 2 In the **Navigation** pane, expand the **Pre-Install Section**.

Step 3 Click **Blueprint Setup**.

Step 4 To create a **C Series Blueprint**:

1. On the **Blueprint Initial Setup** page of the Cisco VIM Unified Management, complete the following fields:


VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Optional Features & Services:
Import Existing YAML file
Browse
Load

Blueprint Name: * Enter Blueprint Name

Platform Type: * C-series

Tenant Network: * LinuxBridge/VXLAN

POD Type * Fullon

Object Storage Backend * Central

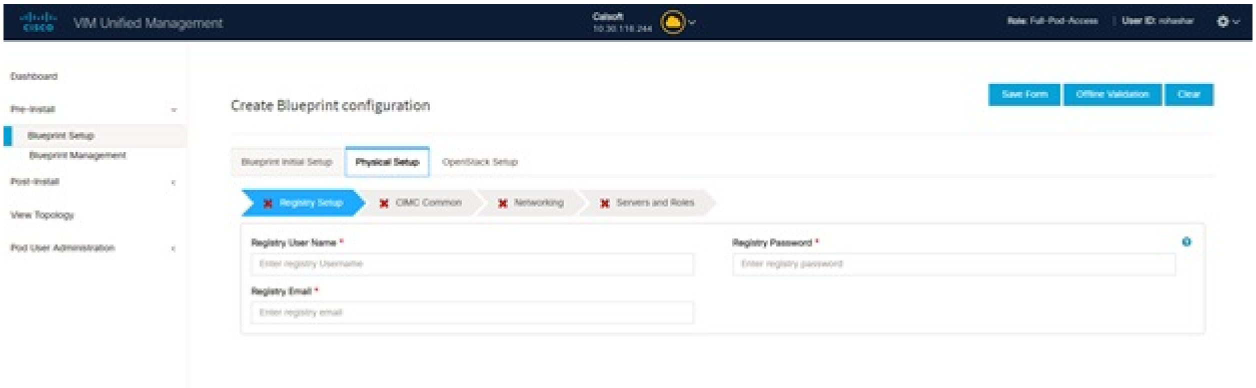
☐ Syslog Export Settings
☐ Pod Name
☐ Heat
☐ Permit Root Login
☐ NETAPP_SUPPORT
☐ ES_REMOTE_BACKUP
☐ Vim Admins
☐ NFVbench
☑ Auto Backup
☐ Keystone v3
☐ NFVI Monitoring
☐ Enable Esc Priv
☐ SRIOV CARD TYPE
☐ LDAP
☐ TLS
☐ Swiftstack
☐ Install Mode
☐ TORSwitch Information
☐ VMTP

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

Name	Description
Tenant Network drop-down list	Choose one of the following tenant network types: • Linux Bridge/VXLAN • OVS/VLAN • VTS/VLAN • VPP/VLAN • ACI/VLAN **Note** when VTS/VLAN or ACI/VLAN is selected then respective tabs are available on Blueprint setup. When Mechanism driver OVS or ACI is selected, VM_HUGEPAGE_PERCENTAGE field is enabled for all standalone compute nodes, when NFV_HOSTS is enabled.
Pod Type drop-down list	Choose one of the following pod type : • Fullon(By Default) • Micro • UMHC • NGENAHC **Note** • UMHC pod type is only supported for OVS/VLAN tenant type. • NGENAHC is supported for VPP/VLAN tenant type with no SRIOV • Pod type micro is supported for OVS/VLAN, ACI/VLAN,VPP/VLAN.
Ceph Mode drop-down list	Choose one of the following Ceph types: • Dedicated (By Default) • Central. Central is not supported in Production
SSH Banner	Optional parameter `ssh_banner` is available in the setup_data, to accept a string or message that is to be displayed before the login prompt. This message indicates a warning in consistent with company's IT policies.

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

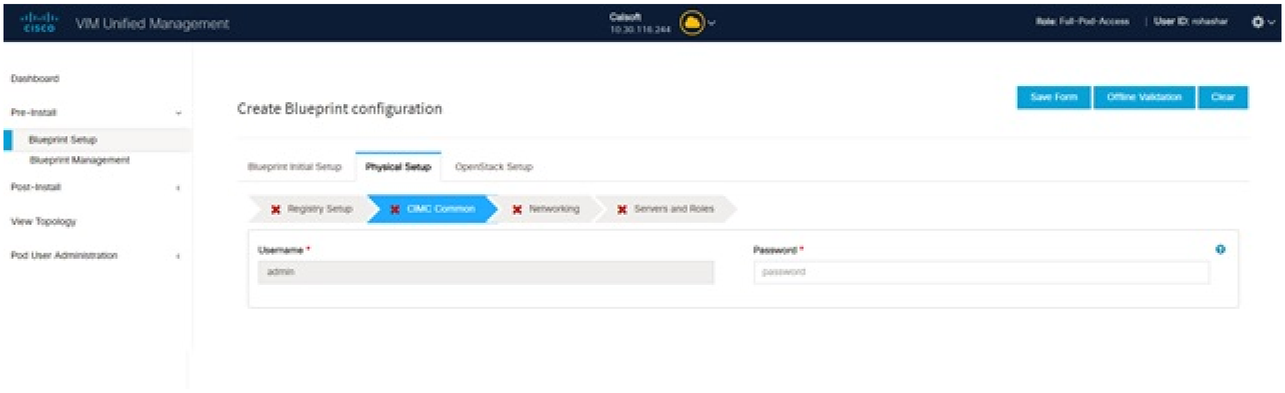
2. Click **Physical Setup** to advance to the **Registry Setup** configuration page. Fill in the following details for Registry Setup:


VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Registry User Name *
Enter registry Username
Registry Password *
Enter registry password
Registry Email *
Enter registry email

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)**.

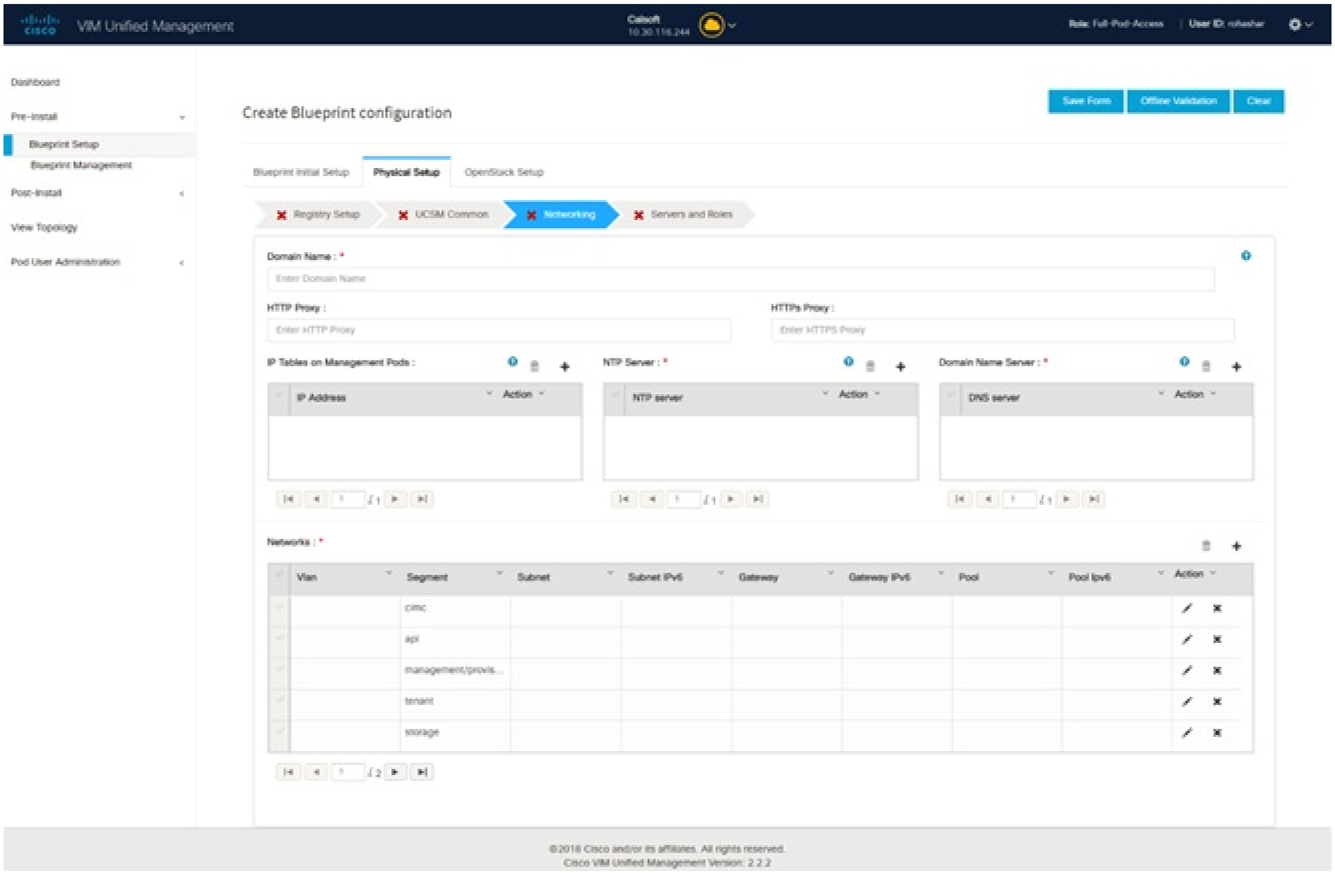
Once all the mandatory fields are filled the **Validation Check Registry Page** will be changed to a Green Tick.

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


VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Username *
admin
Password *
password

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

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


VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
UCSM Common
Networking
Servers and Roles
Domain Name : *
Enter Domain Name
HTTP Proxy :
Enter HTTP Proxy
HTTPs Proxy :
Enter HTTPS Proxy
IP Tables on Management Pods :
IP Address
Action
NTP Server : *
NTP server
Action
Domain Name Server : *
DNS server
Action
Networks : *
Vlan
Segment
Subnet
Subnet IPv6
Gateway
Gateway IPv6
Pool
Pool Ipv6
Action
cimc
api
management/provis...
tenant
storage
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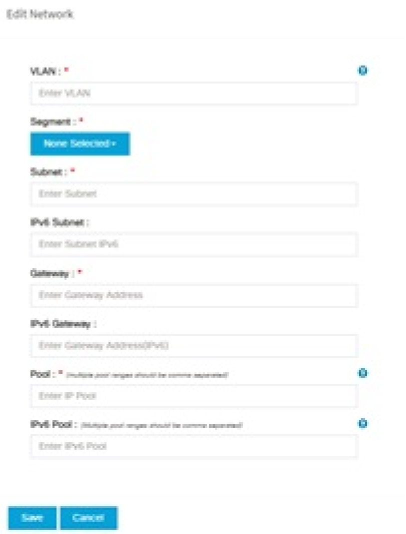
Cisco VIM Unified Management Version: 2.2.2

Name	Description
Domain Name field	Enter the domain name. **(Mandatory)**

Name	Description
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	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<p>Network table is pre-populated with Segments. To add Networks you either clear all the table with Delete all or click edit icon for each segment and fill in the details.</p>
<p>You can add, edit, or delete network information in the table.</p>

Edit Network
VLAN : *
Enter VLAN
Segment : *
None Selected ▾
Subnet : *
Enter Subnet
IPv6 Subnet :
Enter Subnet IPv6
Gateway : *
Enter Gateway Address
IPv6 Gateway :
Enter Gateway Address(IPV6)
Pool : *
Enter IP Pool
IPv6 Pool :
Enter IPv6 Pool
Save
Cancel

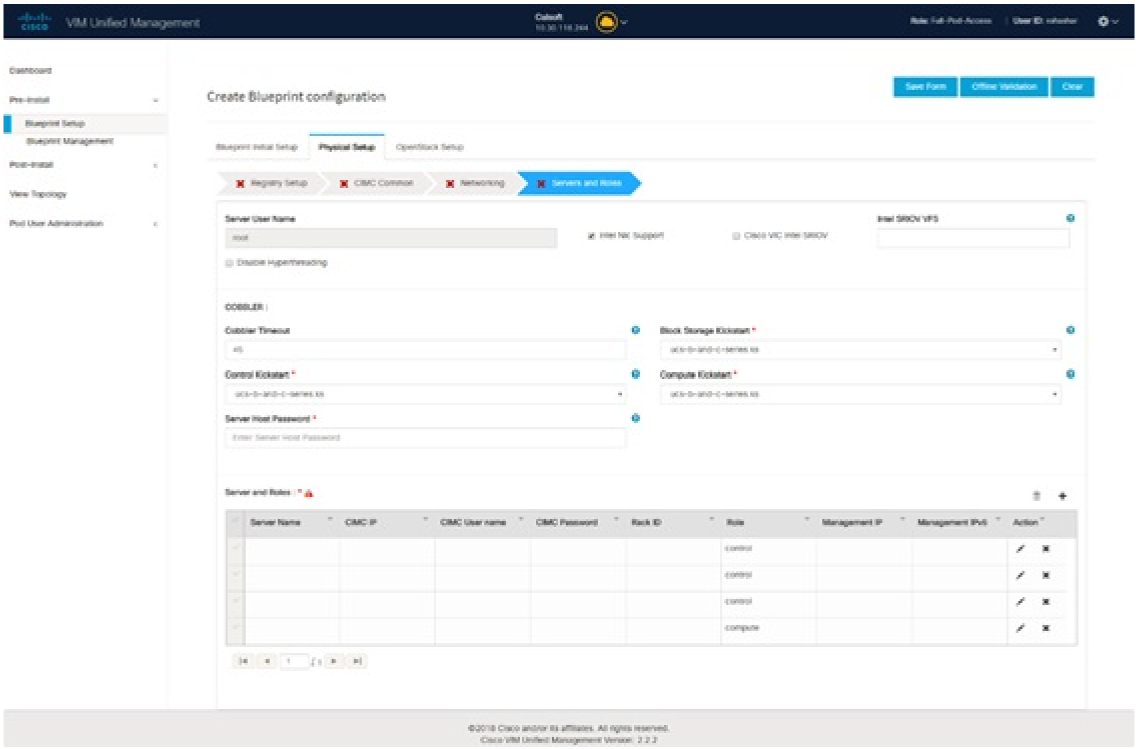
Click Add (+) to add new entries (networks) to the table.
Specify the following fields in the Edit Entry to Networks dialog:

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>VLAN field</td><td><p>Enter the VLAN ID.</p><p>For Segment - Provider, the VLAN ID value is 'none'.</p></td></tr>
<tr><td>Segment drop-down list</td><td><p>When you add/edit new segment then following segments types are available in the form of dropdown list and you can select only one.</p>
API
Management/provision
Tenant</td></tr>
</table>
</td></tr>
</table>

Name	Description	
		• Storage • External • Provider • ACIINFRA **Note** **Aciinfra** segment is available only when ACI/VLAN tenant type is selected) Depending upon the segment some of the entries below are not needed. Please refer to the example file in openstack-configs dir for details.
	Subnet field	Enter the IPv4 address for the subnet.
	IPv6 Subnet field	Enter IPv6 Address. This field will be available only for Management provision and API
	Gateway field	Enter the IPv4 address for the Gateway.
	Gateway IPv6 field	Enter the IPv6 address for the gateway. This will support for API and management provision.
	Pool field	Enter the pool information in the required format, for example: 10.1.1.5-10.1.1.10,10.2.1.5-10.2.1.10 This field is available only for the Mgmt/Provision, Storage, and Tenant segments.
	IPv6 Pool field	

Name	Description	
		Enter the pool information in the required format. For example: 10.1.1.5-10.1.1.10,10.2.1.5-10.2.1.10
		Allowed only when ToR is NCS-5500 Can only be defined for management/provision, storage, and tenant segments
	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.


VIM Unified Management
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Server User Name
Intel Nic Support
Cisco VIC Intel SRIOV
Intel SRIOV VFS
Disable Hyperthreading
COBBLER :
Cobbler Timeout
Block Storage Kickstart *
Control Kickstart *
Compute Kickstart *
Server Host Password *
Server and Roles : *
Server Name
CIMC IP
CIMC User name
CIMC Password
Rack ID
Role
Management IP
Management IPv6
Action
control
control
control
compute

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.

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

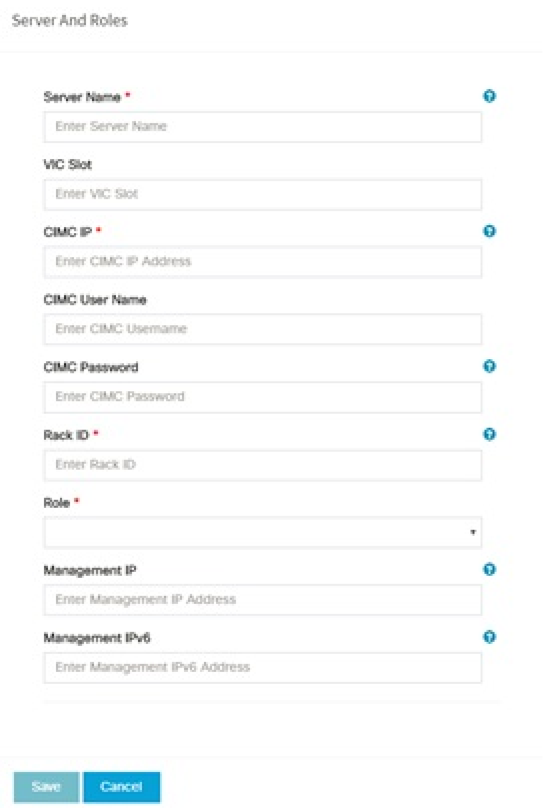
Name	Description

Add Entry 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 Example:
Roles
• Block Storage
  • -Server 1
  • -Server 2
  • -Server 3
• Control
  • -Server 1
  • -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.	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>

Click **Edit** or + to add a new server and role to the table.

If mechanism driver is either OVS or ACI, an additional optional field VM_HUGEPAGE_PERCENTAGE is shown when compute role is chosen; This option is only valid when NFV_HOSTS is set to ALL; If no value is entered then the global value of VM_HUGEPAGE_PERCENTAGE is used.


Server And Roles
Server Name *
Enter Server Name
VIC Slot
Enter VIC Slot
CIMC IP *
Enter CIMC IP Address
CIMC User Name
Enter CIMC Username
CIMC Password
Enter CIMC Password
Rack ID *
Enter Rack ID
Role *
Management IP
Enter Management IP Address
Management IPv6
Enter Management IPv6 Address
Save
Cancel

<table>
<tr><td>Server Name</td><td>Entry the name of the server.</td></tr>
<tr><td>Rack ID field</td><td>The rack ID for the server.</td></tr>
<tr><td>VIC Slot field</td><td>Enter a VIC slot.</td></tr>
<tr><td></td><td>Enter an IP address. Both IPv4 and IPv6 supported.</td></tr>
<tr><td>CIMC Username field</td><td>Enter a Username.</td></tr>
<tr><td>CIMC Password field</td><td>Enter a Password for CIMC.</td></tr>
<tr><td>Select the Role from the drop down list</td><td>Choose Control or Compute or Block Storage from the drop-down list.</td></tr>
<tr><td></td><td></td></tr>
</table>

</td></tr>
</table>

Name	Description	
	Management IP	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	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 **Save or Add** all information related to Servers and Roles gets saved.	
If **Configure ToR** checkbox is **True**with 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)**	• **Port Channel** field • **Switch Name** field • **Switch Port Info** field	• Enter the port channel input. • Enter the switch name. • Enter the switch port information.
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. 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	• 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)	

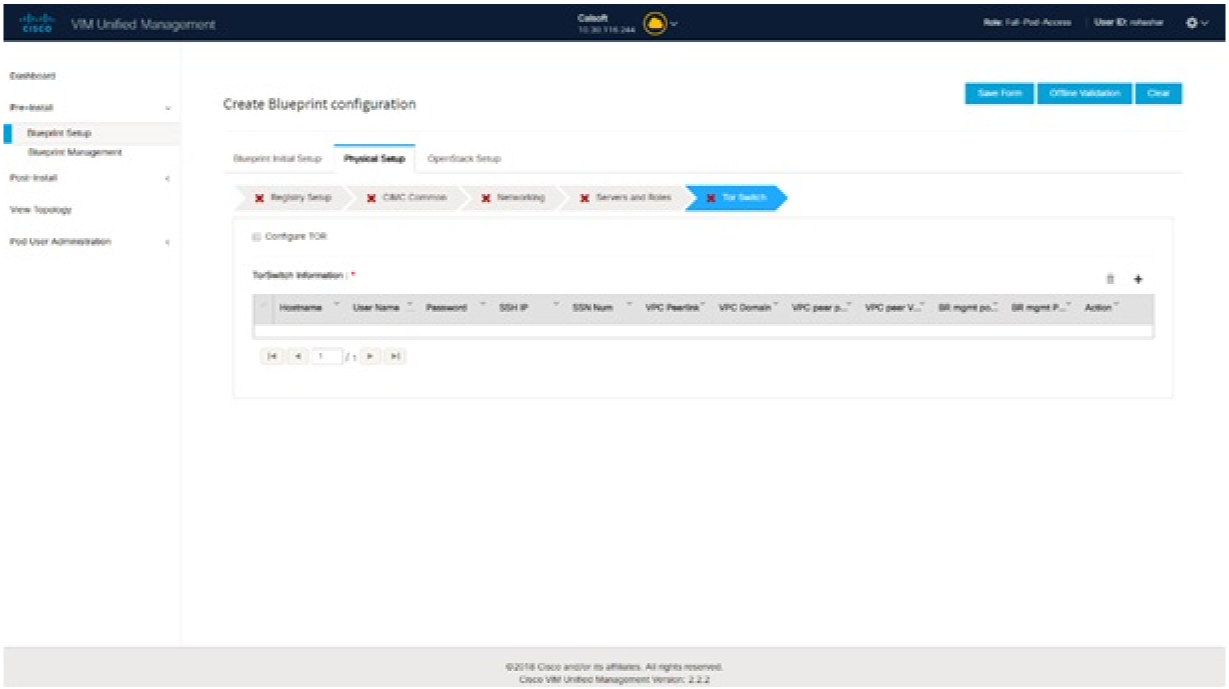
Name	Description
INTEL_SRIOV_PHYS_PORTS (valid for Intel NIC test beds) and can be of value 2 or 4 (default is 2)	In some cases the # of Physical SRIOV port needed is 4; to meet that requirement, define the following: # this is optional, if nothing is defined code will assume it to be 2; the only 2 integer values this parameter # takes is 2 or 4 and is true when INTEL_NIC_SUPPORT is True and INTEL_SRIOV_VFS is valid.. For Cisco NCS 5500 this value is set to 4 and is non-editable.
Click **Save or Add** .	If all mandatory fields are filled click **Save or Add** 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.


VIM Unified Management
Dashboard
Pre-install
Blueprint Setup
Blueprint Management
Post-install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Tor Switch
Configure TOR
TorSwitch Information : *
Hostname
User Name
Password
SSH IP
SSN Num
VPC Peerlink
VPC Domain
VPC peer p...
VPC peer V...
BR mgmt po...
BR mgmt P...
Action
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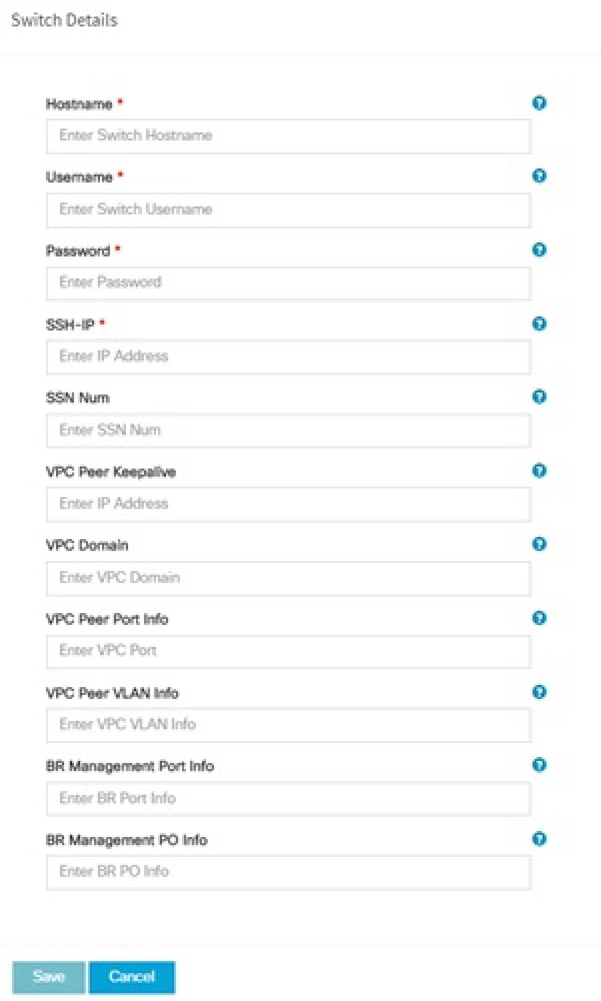
Cisco VIM Unified Management Version: 2.2.2

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

Name	Description
ToR Switch Information mandatory table if you want to enter ToR information.	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
Click **(+)** to add information for ToR Switch.


Switch Details
Hostname *
Enter Switch Hostname
Username *
Enter Switch Username
Password *
Enter Password
SSH-IP *
Enter IP Address
SSN Num
Enter SSN Num
VPC Peer Keepalive
Enter IP Address
VPC Domain
Enter VPC Domain
VPC Peer Port Info
Enter VPC Port
VPC Peer VLAN Info
Enter VPC VLAN Info
BR Management Port Info
Enter BR Port Info
BR Management PO Info
Enter BR PO Info
Save
Cancel

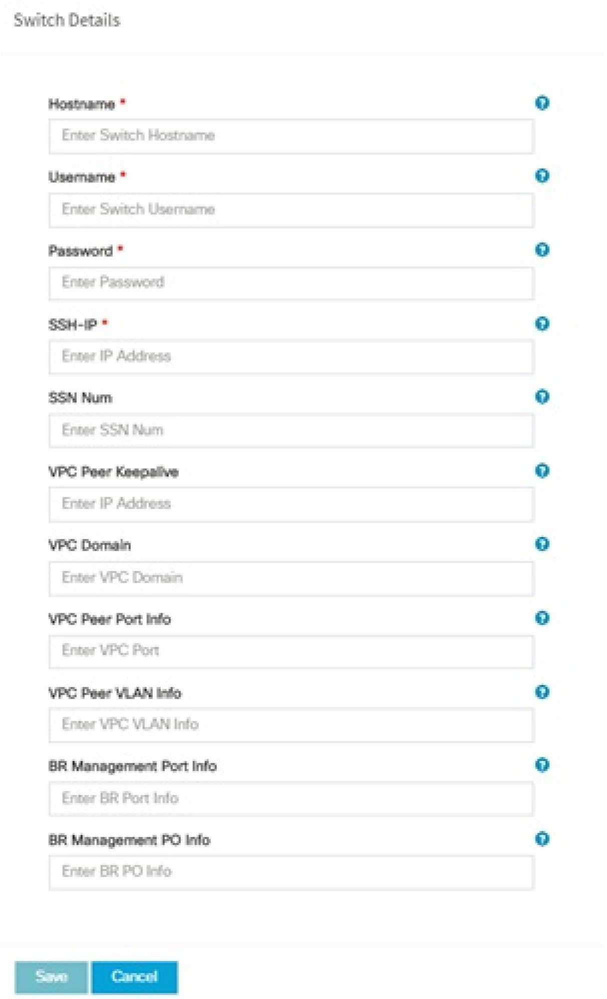
<table>
<tr><td>Name</td><td>Description</td></tr>
<tr><td>Name</td><td>ToR switch name.</td></tr>
<tr><td>Username</td><td>ToR switch username.</td></tr>
<tr><td>Password</td><td>ToR switch password.</td></tr>
<tr><td>SSH IP</td><td>ToR switch SSH IP.</td></tr>
<tr><td>SSN Num</td><td>ToR switch ssn num.</td></tr>
<tr><td>VPC Peer Keepalive</td><td>Peer Management IP. You cannot define if there is no peer.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>VPC Domain</td><td>Cannot define if there is no peer.</td></tr>
<tr><td>VPC Peer Port Info</td><td>Interface for vpc peer ports.</td></tr>
<tr><td>VPC Peer VLAN Info</td><td>VLAN ids for vpc peer ports (optional).</td></tr>
<tr><td>BR Management Port Info</td><td>Management interface of build node.</td></tr>
<tr><td>BR Management PO Info</td><td>Port channel number for management interface of build node.</td></tr>
<tr><td>BR Management VLAN info</td><td>VLAN id for management interface of build node (access).</td></tr>
</table>
</td></tr>
<tr><td colspan="2">Click Save.</td></tr>
</table>

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

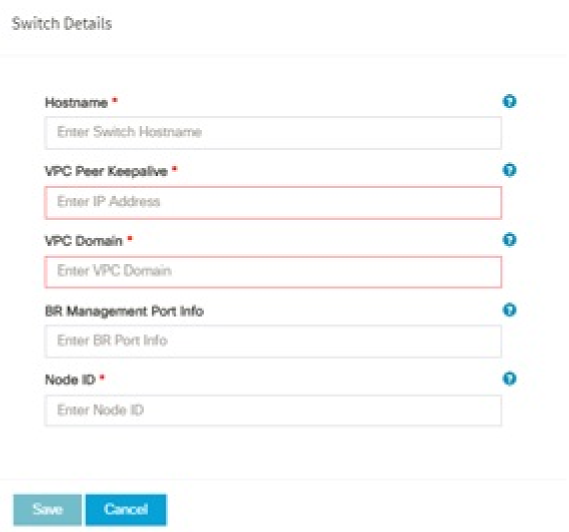
Name	Description
Configure ToR optional checkbox. **Note** If **UMHC** is selected as podtype, configure TOR is not allowed.	Enabling this checkbox, changes the configure ToR section from false to true. **Note** Configure tor is true then ToR switch info maps in servers

Name	Description
ToR Switch Information mandatory table if you want to enter ToR information.	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>Click (+) to add information for ToR Switch.

Switch Details
Hostname *
Enter Switch Hostname
Username *
Enter Switch Username
Password *
Enter Password
SSH-IP *
Enter IP Address
SSN Num
Enter SSN Num
VPC Peer Keepalive
Enter IP Address
VPC Domain
Enter VPC Domain
VPC Peer Port Info
Enter VPC Port
VPC Peer VLAN Info
Enter VPC VLAN Info
BR Management Port Info
Enter BR Port Info
BR Management PO Info
Enter BR PO Info
Save
Cancel
<table>
<tr><td>Name</td><td>Description</td></tr>
<tr><td>Name</td><td>ToR switch name.</td></tr>
<tr><td>Username</td><td>ToR switch username.</td></tr>
<tr><td>Password</td><td>ToR switch password.</td></tr>
<tr><td>SSH IP</td><td>ToR switch SSH IP.</td></tr>
<tr><td>SSN Num</td><td>ToR switch ssn num.</td></tr>
<tr><td>VPC Peer Keepalive</td><td>Peer Management IP. You cannot define if there is no peer.</td></tr>
</table>
</td></tr>
</table>

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

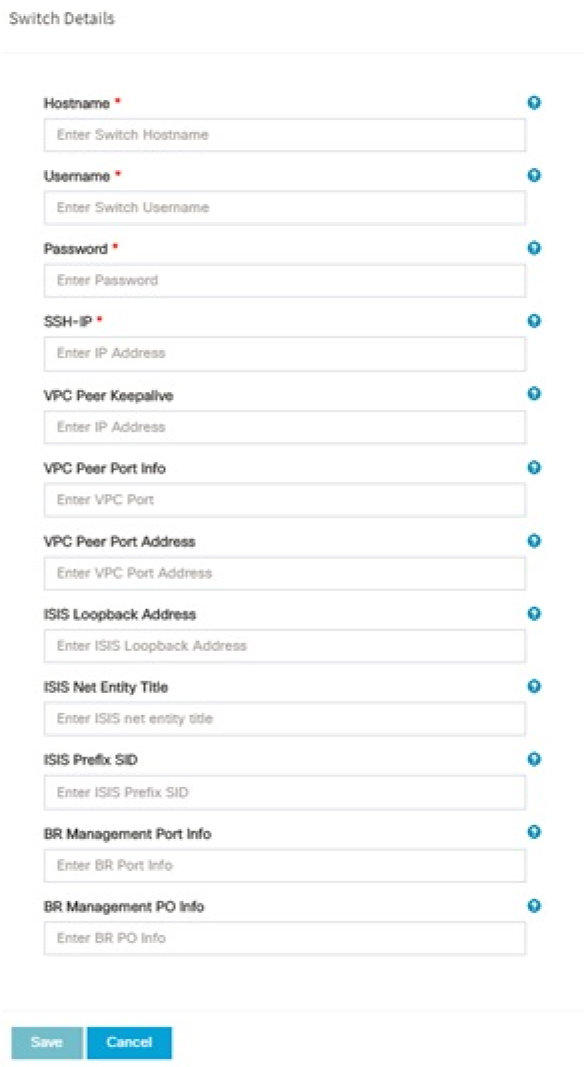
Note When the Tenant type ACI/VLAN is selected, the ToR switch information table differs and is mandatory.

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Configure ToR</td><td>Is not checked, as by default ACI will configure the ToRs

Switch Details
Hostname *
Enter Switch Hostname
VPC Peer Keepalive *
Enter IP Address
VPC Domain *
Enter VPC Domain
BR Management Port Info
Enter BR Port Info
Node ID *
Enter Node ID
Save
Cancel
<table>
<tr><td>Host Name</td><td>ToR switch name.</td></tr>
<tr><td>VPC Peer keep alive</td><td>Enter Peer must be exist pair.</td></tr>
<tr><td>VPC Domain</td><td>Enter an integer.</td></tr>
<tr><td>BR management port info</td><td>Enter BR management port info eg. Eth1/19 ,atleast one pair to be exist.</td></tr>
<tr><td>Enter Node ID</td><td>Entered integer must be unique.</td></tr>
</table>
</td></tr>
</table>

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 NCS details fill in the **NCS-5500 Information** table.	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
Click (+) to add information for NCS-500 Switch.

Switch Details
Hostname *
Enter Switch Hostname
Username *
Enter Switch Username
Password *
Enter Password
SSH-IP *
Enter IP Address
VPC Peer Keepalive
Enter IP Address
VPC Peer Port Info
Enter VPC Port
VPC Peer Port Address
Enter VPC Port Address
ISIS Loopback Address
Enter ISIS Loopback Address
ISIS Net Entity Title
Enter ISIS net entity title
ISIS Prefix SID
Enter ISIS Prefix SID
BR Management Port Info
Enter BR Port Info
BR Management PO Info
Enter BR PO Info
Save
Cancel
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Name</td><td>Enter the NCS-5500 hostname.</td></tr>
<tr><td>User Name</td><td>Enter the NCS-5500 username.</td></tr>
<tr><td>Password</td><td>Enter the NCS-5500 password.</td></tr>
<tr><td>SSH IP</td><td>Enter the NCS-5500 ssh IP Address.</td></tr>
<tr><td>VPC Peer Link</td><td>Peer management IP.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>BR Management PO Info</td><td>Port channel number for management interface of build node.</td></tr>
<tr><td>BR Management VLAN info</td><td>VLAN id for management interface of build node (access).</td></tr>
<tr><td>VPC Peer Port Info</td><td>Interface for vpc peer ports.</td></tr>
<tr><td>VPC Peer Port Address</td><td>Address for ISIS exchange.</td></tr>
<tr><td>ISIS Loopback Interface address</td><td>ISIS loopack IP Address.</td></tr>
<tr><td>ISIS net entity title</td><td>Enter a String.</td></tr>
<tr><td>ISIS prefix SID</td><td>Integer between 16000 to 1048575.
Optional, if TOR-TYPE is NCS-5500.
Entry not allowed when ESI_PREFIX is defined.</td></tr>
</table>
</td></tr>
</table>

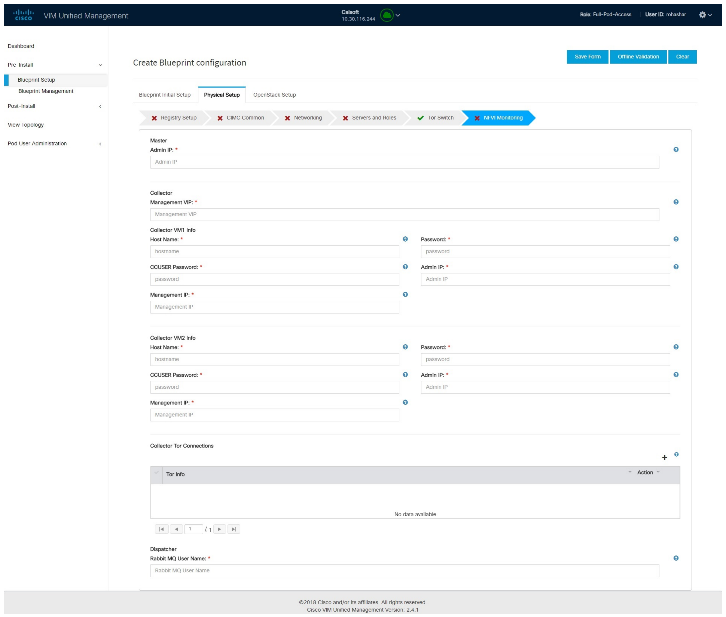
When TOR-TYPE selected as NCS-5500 and 2 NCS-5500 are configured, it is mandatory to configure MULTI_SEGMENT_ROUTING_INFO

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

When TOR-TYPE is NCS-5500, you can optionally define ESI_PREFIX field.

Name	Description
ESI_PREFIX	Ethernet-segment identifier type Example: 91.<Pod_number>.<pod_region_number>.00.00.00.00.

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


VIM Unified Management
Calsoft
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Blueprint Setup
Blueprint Management
Post-Install
View Topology
Pod User Administration
Create Blueprint configuration
Save Form
Offline Validation
Clear
Blueprint Initial Setup
Physical Setup
OpenStack Setup
Registry Setup
CIMC Common
Networking
Servers and Roles
Tor Switch
NFVI Monitoring
Master
Admin IP: *
Collector
Management VIP: *
Collector VM1 Info
Host Name: *
Password: *
CCUSER Password: *
Admin IP: *
Management IP: *
Collector VM2 Info
Host Name: *
Password: *
CCUSER Password: *
Admin IP: *
Management IP: *
Collector Tor Connections
Tor Info
Action
No data available
Dispatcher
Rabbit MQ User Name: *
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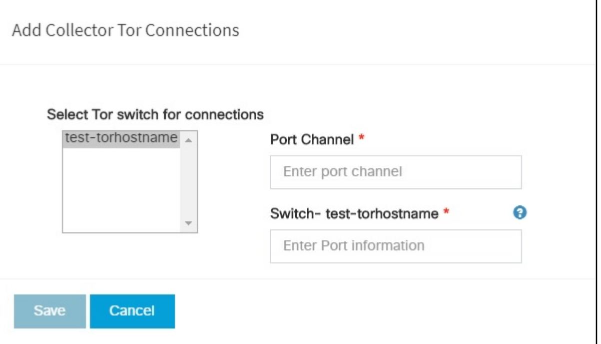
Cisco VIM Unified Management Version: 2.4.1

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

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Collector ToR Connections</td><td>

1. Click on (+) icon to Add Collector ToR Connections.
2. Select the ToR switches from list to add the information.
3. It is optional and available for ToR type NCS-5500
4. For now, it supports adding only one Collector ToR Connection

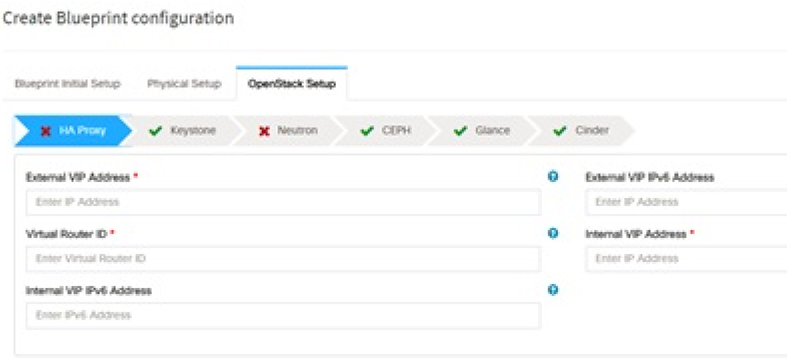

Add Collector Tor Connections
Select Tor switch for connections
test-torhostname
Port Channel *
Enter port channel
Switch- test-torhostname *
Enter Port information
Save
Cancel

<table>
<tr><td>Port Channel</td><td>Enter port channel.</td></tr>
<tr><td>Switch - {torSwitch-hostname}</td><td>Enter port number, E.g:eth1/15.</td></tr>
</table>

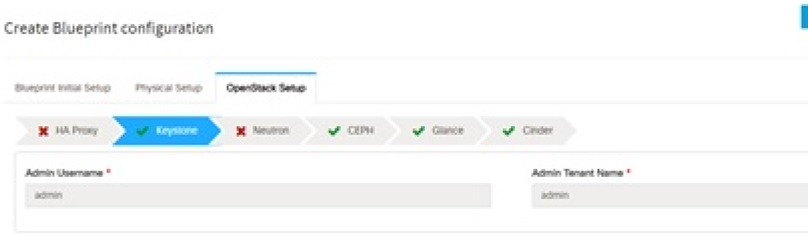
Click Save
</td></tr>
<tr><td>Rabbit MQ User Name</td><td>Enter Rabbit MQ username.</td></tr>
</table>

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

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>HA Proxy</td><td>Fill in the following details:

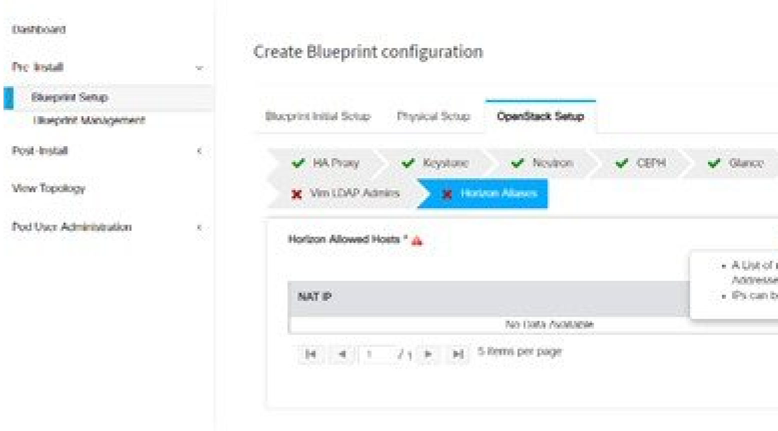

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
✗ HA Proxy
✓ Keystone
✗ Neutron
✓ CEPH
✓ Glance
✓ Cinder
External VIP Address *
Enter IP Address
External VIP IPv6 Address
Enter IP Address
Virtual Router ID *
Enter Virtual Router ID
Internal VIP Address *
Enter IP Address
Internal VIP IPv6 Address
Enter IPv6 Address

<table>
<tr><td>External VIP Address field</td><td>Enter IP address of External VIP.</td></tr>
<tr><td>External VIP Address IPv6 field</td><td>Enter IPv6 address of External VIP.</td></tr>
<tr><td>Virtual Router ID field</td><td>Enter the Router ID for HA.</td></tr>
<tr><td>Internal VIP Address IPv6 field</td><td>Enter IPv6 address of Internal IP.</td></tr>
<tr><td>Internal VIP Address field</td><td>Enter IP address of Internal VIP.</td></tr>
</table>
</td></tr>
<tr><td>Keystone</td><td>Mandatory fields are pre-populated.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
✗ HA Proxy
✓ Keystone
✗ Neutron
✓ CEPH
✓ Glance
✓ Cinder

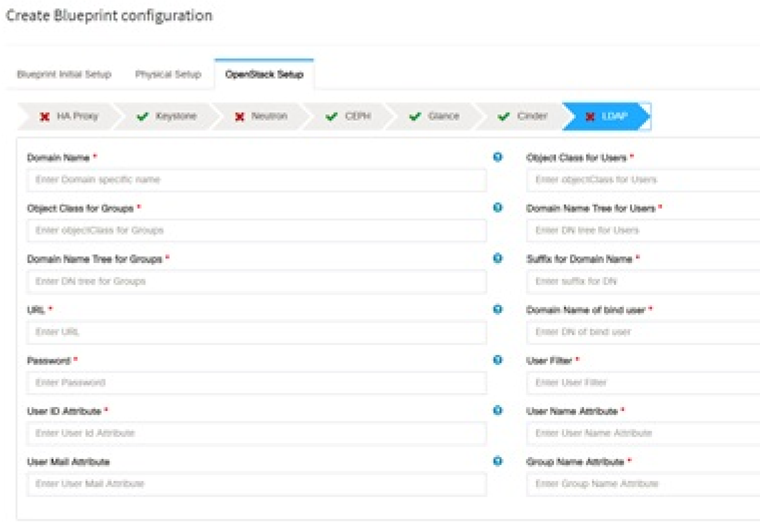
Admin Username * admin
Admin Tenant Name * admin

<table>
<tr><td>Admin User Name</td><td>admin.</td></tr>
<tr><td>Admin Tenant Name</td><td>admin.</td></tr>
</table>
</td></tr>
</table>

Name	Description
Horizon Aliases	If the external_lb_vip is behind a NAT router or with a DNS alias, provide a list of those addresses.  Dashboard Pre-Install Blueprint Setup Blueprint Management Post-Install View Topology Pod User Administration Create Blueprint configuration Blueprint Initial Setup Physical Setup OpenStack Setup HA Proxy Keystone Neutron CEPH Glance Vim LDAP Admins Horizon Aliases Horizon Allowed Hosts * NAT IP No Data Available 1 / 1 5 items per page **Horizon Allowed hosts– NAT IP** : Uses comma separated list of IP addresses and/or DNS names

Name	Description
LDAP	

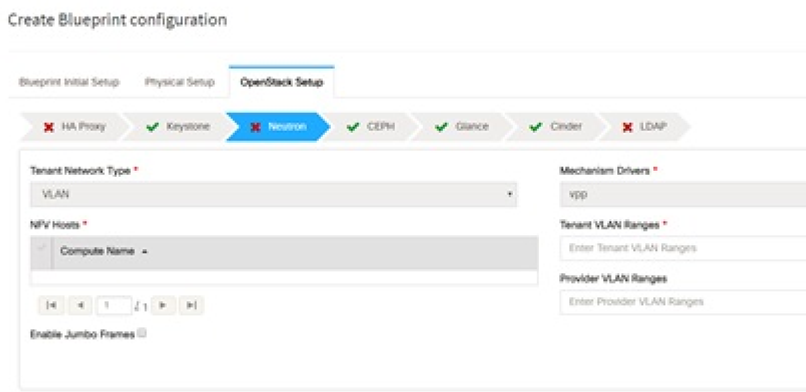
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
LDAP enable checkbox which by default is false, if LDAP is enabled on keystone.


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
LDAP
Domain Name *
Enter Domain specific name
Object Class for Users *
Enter objectClass for Users
Object Class for Groups *
Enter objectClass for Groups
Domain Name Tree for Users *
Enter DN tree for Users
Domain Name Tree for Groups *
Enter DN tree for Groups
Suffix for Domain Name *
Enter suffix for DN
URL *
Enter URL
Domain Name of bind user *
Enter DN of bind user
Password *
Enter Password
User Filter *
Enter User Filter
User ID Attribute *
Enter User Id Attribute
User Name Attribute *
Enter User Name Attribute
User Mail Attribute
Enter User Mail Attribute
Group Name Attribute *
Enter Group Name Attribute

<table>
<tr><td>Domain Name field</td><td>Enter name for Domain name.</td></tr>
<tr><td>Object Class for Users field</td><td>Enter a string as input.</td></tr>
<tr><td>Object Class for Groups field</td><td>Enter a string.</td></tr>
<tr><td>Domain Name Tree for Users field</td><td>Enter a string.</td></tr>
<tr><td>Domain Name Tree for Groups field</td><td>Enter a string.</td></tr>
<tr><td>Suffix for Domain Name field</td><td>Enter a string.</td></tr>
<tr><td>URL field</td><td>Enter a URL with ending port number.</td></tr>
<tr><td>Domain Name of Bind User field</td><td>Enter a string.</td></tr>
<tr><td>Password field</td><td>Enter Password as string format.</td></tr>
<tr><td>User Filter field</td><td>Enter filter name as string.</td></tr>
<tr><td>User ID Attribute field</td><td>Enter a string.</td></tr>
<tr><td>User Name Attribute field</td><td>Enter a string.</td></tr>
<tr><td>User Mail Attribute field</td><td>Enter a string.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td><table><tr><td>Group Name Attribute field</td><td>Enter a string.</td></tr></table></td></tr>
</table>

Name	Description
Neutron	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>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:


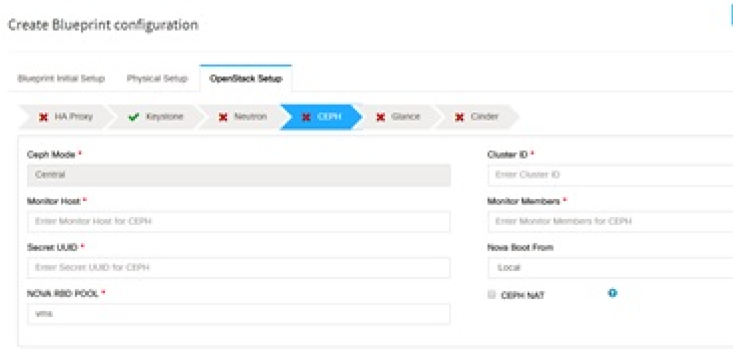
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
LDAP
Compute Name
Enter Tenant VLAN Ranges
Enter Provider VLAN Ranges
1 / 1

Tenant Network Type *: VLAN
Mechanism Drivers *: vpp
NFV Hosts *
Tenant VLAN Ranges *
Provider VLAN Ranges
Enable Jumbo Frames ☐
<table>
<tr><td>Tenant Network Type field</td><td>Auto Filled based on the Tenant Network Type selected in the Blueprint Initial Setup page.</td></tr>
<tr><td>Mechanism Drivers field</td><td>Auto Filled based on the Tenant Network Type selected in Blueprint Initial Setup page.</td></tr>
<tr><td>NFV Hosts field</td><td>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.</td></tr>
<tr><td>Tenant VLAN Ranges field</td><td>List of ranges separated by comma form start:end.</td></tr>
<tr><td>Provider VLAN Ranges field</td><td>List of ranges separated by comma form start:end.</td></tr>
<tr><td>VM Hugh Page Size (available for NFV_HOSTS option) field</td><td>2M or 1G (optional, defaults to 2M)</td></tr>
<tr><td>VM_HUGHPAGE_PERCENTAGE</td><td>Optional, defaults to 100%; can range between 0 and 100</td></tr>
</table>
</td></tr>
</table>

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

Name	Description
CEPH	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
1. 1. When Object Storage Backend is selected Central in blueprint initial setup.

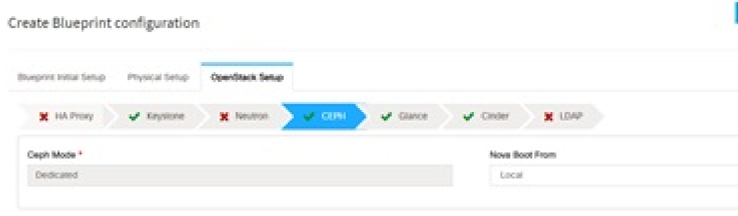


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
Enter Cluster ID
Enter Monitor Host for CEPH
Enter Monitor Members for CEPH
Enter Secret UUID for CEPH
CEPH NAT

Ceph Mode *: Central
Cluster ID *
Monitor Host *
Monitor Members *
Secret UUID *
Nova Boot From: Local
NOVA RBD POOL *: vms

<table>
<tr><td>CEPH Mode</td><td>By default Central.</td></tr>
<tr><td>Cluster ID</td><td>Enter Cluster ID.</td></tr>
<tr><td>Monitor Host</td><td>Enter Monitor Host for CEPH</td></tr>
<tr><td>Monitor Members</td><td>Enter Monitor Members for CEPH</td></tr>
<tr><td>Secret UUID</td><td>Enter Secret UUID for CEPH</td></tr>
<tr><td>NOVA Boot from</td><td>Drop down selection. You can choose CEPH or local.</td></tr>
<tr><td>NOVA RBD POOL</td><td>Enter NOVA RBD Pool (default's to vms)</td></tr>
<tr><td>CEPH NAT</td><td>Optional, needed for Central Ceph and when mgmt network is not routable</td></tr>
</table>

2. When Object Storage Backend is selected Dedicated in blueprint initial setup.



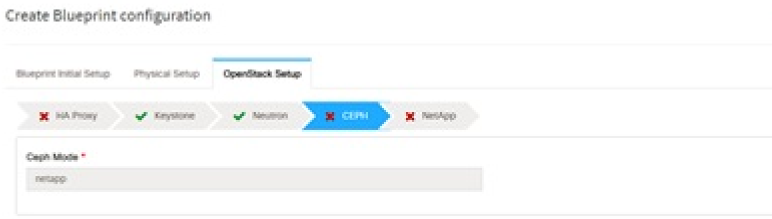
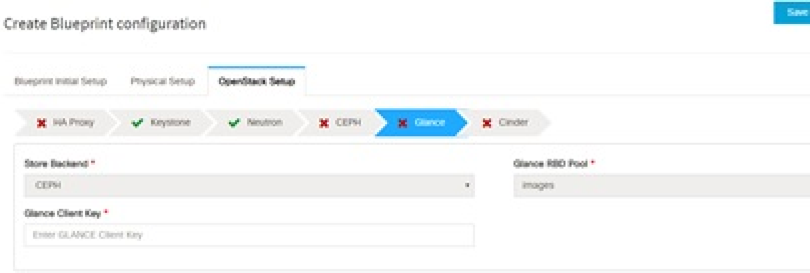
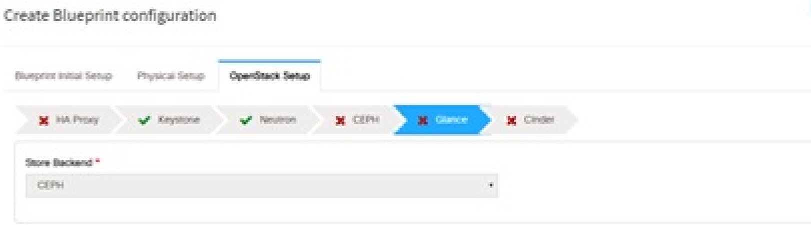
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
LDAP

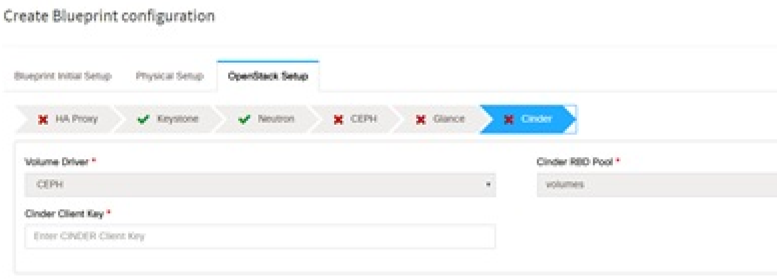
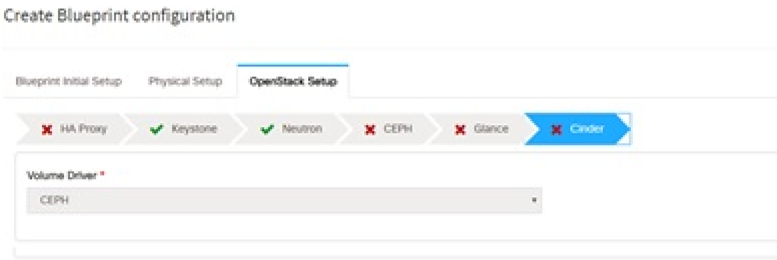
Ceph Mode *: Dedicated
Nova Boot From: Local

• CEPH Mode: By default Dedicated.

• NOVA Boot: From drop down selection you can choose CEPH or local.

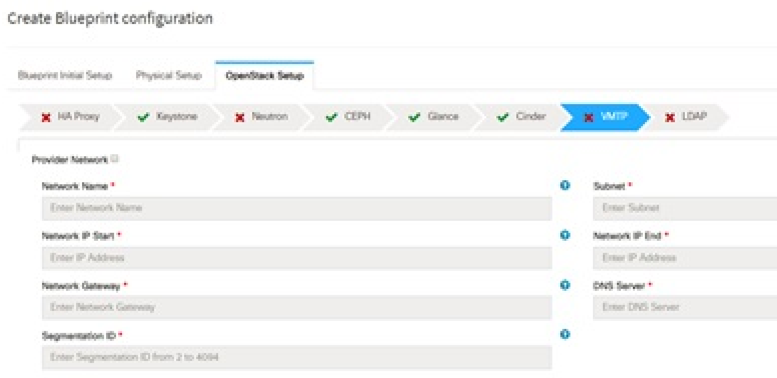
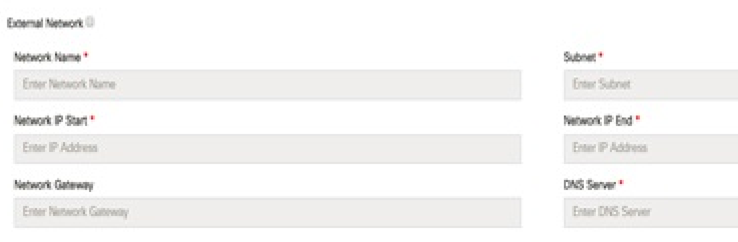
3. When Object Storage Backend is selected NetApp in blueprint initial setup.
</td></tr>
</table>

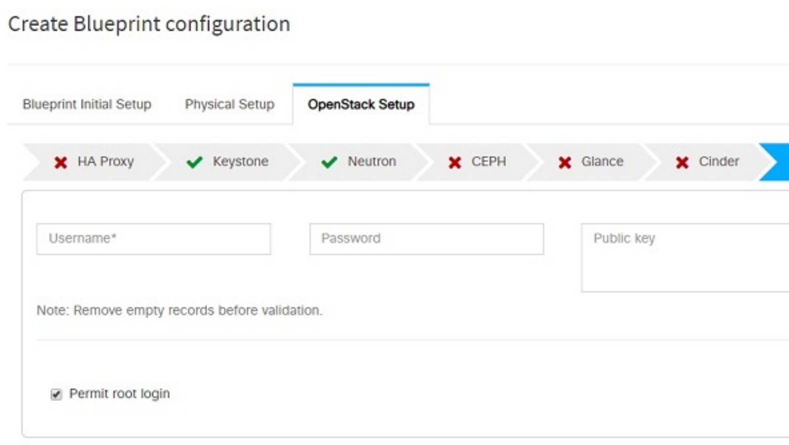
Name	Description
	 Create Blueprint configuration Blueprint Initial Setup Physical Setup OpenStack Setup ✗ HA Proxy ✓ Keystone ✓ Neutron ✗ CEPH ✗ NetApp Ceph Mode * netapp
GLANCE	1. When Object Storage Backend is selected Central in blueprint initial setup.  Create Blueprint configuration Save Blueprint Initial Setup Physical Setup OpenStack Setup ✗ HA Proxy ✓ Keystone ✓ Neutron ✗ CEPH ✗ Glance ✗ Cinder Store Backend * CEPH Glance RBD Pool * images Glance Client Key * Enter GLANCE Client Key When Object Storage Backend is selected Dedicated in blueprint initial setup.  Create Blueprint configuration Blueprint Initial Setup Physical Setup OpenStack Setup ✗ HA Proxy ✓ Keystone ✓ Neutron ✗ CEPH ✗ Glance ✗ Cinder Store Backend * CEPH **Note** By default Populated for CEPH Dedicated with Store Backend value as CEPH.

Name	Description
CINDER	By default Populated for **CEPH Dedicated** with Volume Driver value as **CEPH**.  Create Blueprint configuration Blueprint Initial Setup Physical Setup OpenStack Setup HA Proxy Keystone Neutron CEPH Glance Cinder Volume Driver *: CEPH Cinder RBD Pool *: volumes Cinder Client Key *: Enter CINDER Client Key 2. When Object Storage Backend is selected Dedicated in blueprint initial setup.  Create Blueprint configuration Blueprint Initial Setup Physical Setup OpenStack Setup HA Proxy Keystone Neutron CEPH Glance Cinder Volume Driver *: CEPH **Note** By default Populated for CEPH Dedicated with Volume Driver value as CEPH.

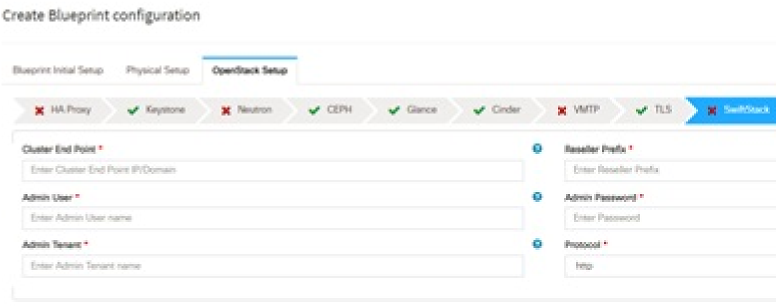
Name	Description
VMTP optional section, this will be visible only if VMTP is selected from Blueprint Initial Setup. For VTS tenant type Provider network is only supported.	

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
Check one of the check boxes to specify a VMTP network:
• Provider Network
• External Network

For the Provider Network complete the following:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
✗ HA Proxy
✓ Keystone
✗ Neutron
✓ CEPH
✓ Glance
✓ Cinder
✗ VMTP
✗ LDAP
Provider Network ☐
Network Name *
Enter Network Name
Subnet *
Enter Subnet
Network IP Start *
Enter IP Address
Network IP End *
Enter IP Address
Network Gateway *
Enter Network Gateway
DNS Server *
Enter DNS Server
Segmentation ID *
Enter Segmentation ID from 2 to 4094
<table>
<tr><td>Network Name field</td><td>Enter the name for the external network.</td></tr>
<tr><td>Subnet field</td><td>Enter the Subnet for Provider Network.</td></tr>
<tr><td>Network IP Start field</td><td>Enter the starting floating IPv4 address.</td></tr>
<tr><td>Network IP End field</td><td>Enter the ending floating IPv4 address.</td></tr>
<tr><td>Network Gatewayfield</td><td>Enter the IPv4 address for the Gateway.</td></tr>
<tr><td>DNS Server field</td><td>Enter the DNS server IPv4 address.</td></tr>
<tr><td>Segmentation ID field</td><td>Enter the segmentation ID.</td></tr>
</table>
For External Network fill in the following details:

External Network ☐
Network Name *
Enter Network Name
Subnet *
Enter Subnet
Network IP Start *
Enter IP Address
Network IP End *
Enter IP Address
Network Gateway
Enter Network Gateway
DNS Server *
Enter DNS Server
</td></tr>
</table>

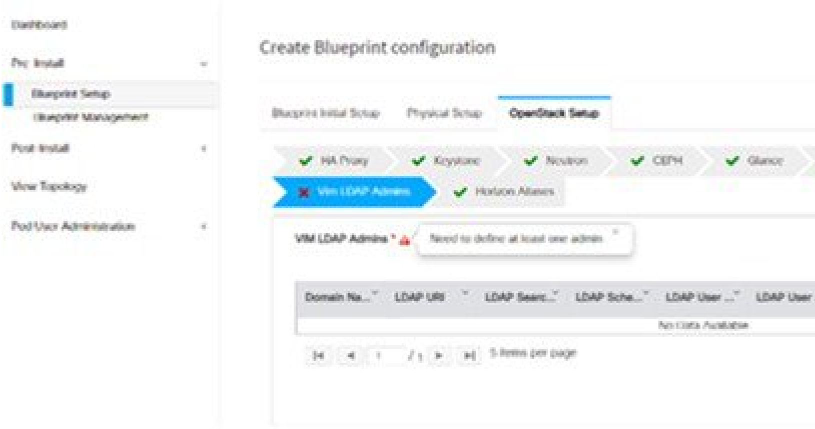
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>Network Name field</td><td>Enter the name for the external network.</td></tr>
<tr><td>IP Start field</td><td>Enter the starting floating IPv4 address.</td></tr>
<tr><td>IP End field</td><td>Enter the ending floating IPv4 address.</td></tr>
<tr><td>Gateway field</td><td>Enter the IPv4 address for the Gateway.</td></tr>
<tr><td>DNS Server field</td><td>Enter the DNS server IPv4 address.</td></tr>
<tr><td>Subnet field</td><td>Enter the Subnet for External Network.</td></tr>
</table>
</td></tr>
<tr><td>TLS optional section, this will be visible only if TLS is selected from Blueprint Initial Setup Page.</td><td>TLS has two options:
• External LB VIP FQDN - Text Field.
• External LB VIP TLS - True/False. By default this option is false.</td></tr>
<tr><td>Under the OpenStack setup tab, Vim_admins tab will be visible only when Vim_admins is selected from the Optional Features & Services under the Blueprint Initial setup tab</td><td>Following are the field descriptions for VIM Admins:

Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
Username*
Password
Public key
Permit root login
Note: Remove empty records before validation.
<table>
<tr><td>User Name</td><td>Enter username</td></tr>
<tr><td>Password</td><td>Password field. Admin hash password should always start with $6.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr>
<td>SwiftStack optional section will be visible only if SwiftStack is selected from Blueprint Initial Setup Page. SwiftStack is only supported with KeyStonev2. If you select Keystonev3, swiftstack will not be available to configure.</td>
<td>Following are the options that needs to be filled for SwiftStack:


Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Cinder
VMTP
TLS
SwiftStack
Cluster End Point *
Enter Cluster End Point IP/Domain
Admin User *
Enter Admin User name
Admin Tenant *
Enter Admin Tenant name
Reseller Prefix *
Enter Reseller Prefix
Admin Password *
Enter Password
Protocol *
http

<table>
<tr><td>Cluster End Point</td><td>IP address of PAC (proxy-account-container) endpoint.</td></tr>
<tr><td>Admin User</td><td>Admin user for swift to authenticate in keystone.</td></tr>
<tr><td>Admin Tenant</td><td>The service tenant corresponding to the Account-Container used by Swiftstack.</td></tr>
<tr><td>Reseller Prefix</td><td>Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack E.g KEY_</td></tr>
<tr><td>Admin Password</td><td>swiftstack_admin_password</td></tr>
<tr><td>Protocol</td><td>http or https</td></tr>
</table>
</td>
</tr>
</table>

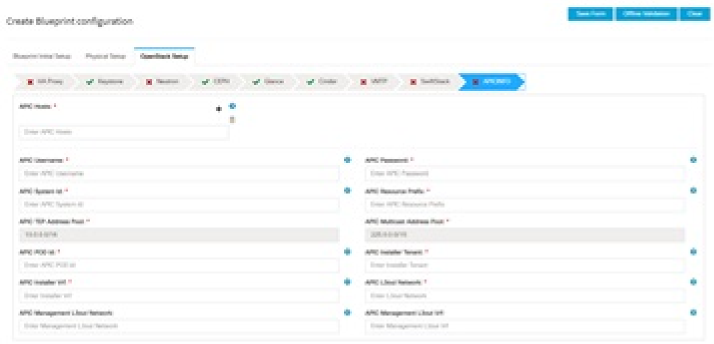
Name	Description
Vim LDAP Admins: Optional entry to support LDAP for admin access to management node. For this feature, TLS has to be enabled for the external api (i.e. external_lb_vip_tls: True).	Following are the values to be filled to add vim LDAP admins:

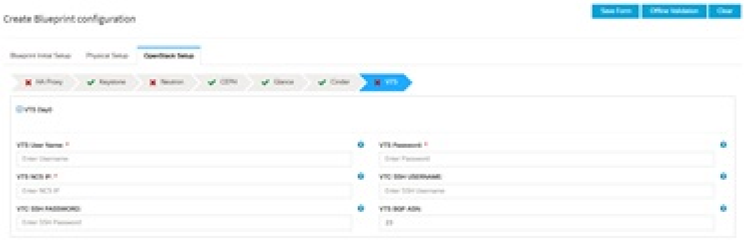

Dashboard
Pre Install
Blueprint Setup
Blueprint Management
Post Install
View Topology
Pod User Administration
Create Blueprint configuration
Blueprint Initial Setup
Physical Setup
OpenStack Setup
HA Proxy
Keystone
Neutron
CEPH
Glance
Vim LDAP Admins
Horizon Aliases
VIM LDAP Admins *
Domain Na...
LDAP URI
LDAP Searc...
LDAP Sche...
LDAP User ...
LDAP User
/ 1
5 items per page

Need to define at least one admin

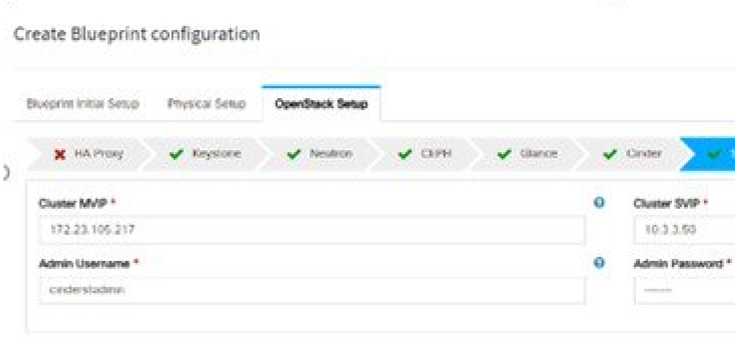
No Data Available

domain_name	Mandatory field. Indicates the domain name to define vim LDAP admins.
ldap_uri	Mandatory. Ensure that ldap_uri is secured over ldaps.
ldap_search_base	Mandatory. Enter search base.
ldap_schema	Optional. Enter the schema.
ldap_user_object_class	Optional. Indicates the posix account.
ldap_user_uid_number	Optional. Indicates the user ID.
ldap_user_gid_number	Optional. Indicates the group ID.
ldap_group_member	Optional. It is the group member ID.

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr>
<td>APICINFO tab is available in Openstack setup, when the Tenant type ACI/VLAN is selected in blueprint initial setup.
Note When ACI/VLAN is selected then ToR switch from initial setup is mandatory.</td>
<td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>APIC Hosts field</td><td>Enter host input. Example: <ip1|host1>:[port] . max of 3, min of 1, not 2;</td></tr>
<tr><td>apic_username field</td><td>Enter a string format.</td></tr>
<tr><td>apic_password filed</td><td>Enter Password.</td></tr>
<tr><td>apic_system_id field</td><td>Enter input as string. Max length 8.</td></tr>
<tr><td>apic_resource_prefix field</td><td>Enter string max length 6.</td></tr>
<tr><td>apic_tep_address_ pool field</td><td>Allowed only 10.0.0.0/16</td></tr>
<tr><td>multiclass_address_pool field</td><td>Allowed only 225.0.0.0/15</td></tr>
<tr><td>apic_pod_id field</td><td>Enter integer(1- 65535)</td></tr>
<tr><td>apic_installer_tenant field</td><td>Enter String, max length 32</td></tr>
<tr><td>apic_installer_vrf field</td><td>Enter String, max length 32</td></tr>
<tr><td>api_l3out_network field</td><td>Enter String, max length 32</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>VTS tab is available in Openstack setup, when Tenant Type is VTS/VLAN selected.
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</td><td>
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>VTS Day0 (checkbox)</td><td>True or false default is false.</td></tr>
<tr><td>VTS User name</td><td>Enter as string does not contain special characters.</td></tr>
<tr><td>VTS Password</td><td>Enter password</td></tr>
<tr><td>VTS NCS IP</td><td>Enter IP Address format.</td></tr>
<tr><td>VTC SSH Username</td><td>Enter a string</td></tr>
<tr><td>VTC SHH Password</td><td>Enter password</td></tr>
</table></td></tr>
</table>

9. For SolidFire, enter the following:

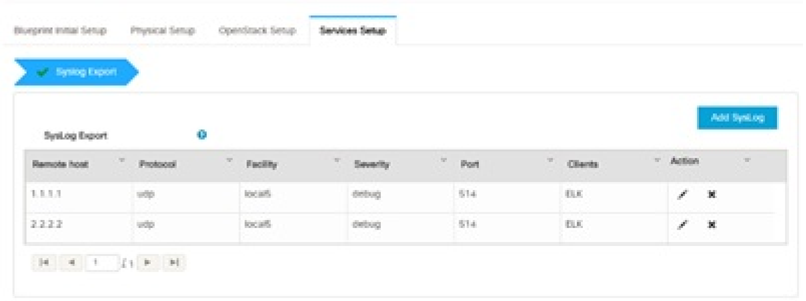
<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>SolidFire is visible for configuration on day0
SolidFire is not allowed as a day-2 deployment option
SolidFire is always available with CEPH.</td><td>
Create Blueprint configuration
Cluster MVIP * 172.23.105.217
Cluster SVIP * 10.3.3.50
Admin Username *
Admin Password *
<table>
<tr><td>Cluster MVIP field</td><td>Management IP of SolidFire cluster.</td></tr>
<tr><td>Cluster SVIP field</td><td>Storage VIP of SolidFire cluster.</td></tr>
<tr><td>Admin Username</td><td>Admin user on SolidFire cluster</td></tr>
<tr><td>Admin Password</td><td>Admin password on SolidFire cluster.</td></tr>
</table></td></tr>
</table>

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:

<table>
<tr><th>Name</th><th>Description</th></tr>
<tr><td>Syslog Export</td><td>
Following are the options for Syslog Settings:

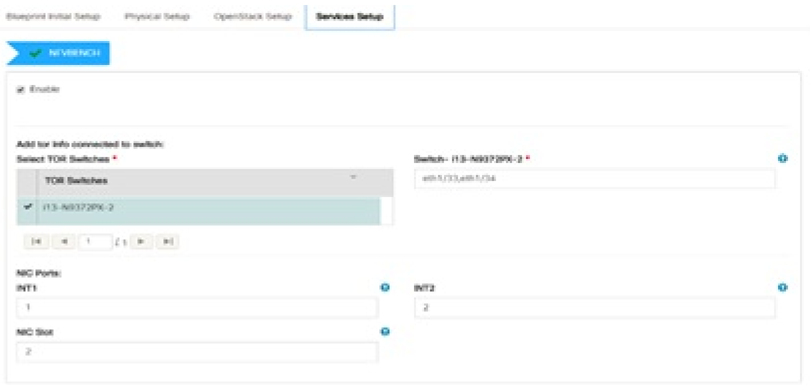
User can add maximum of three entries.

To add new SysLog information, click on Add SysLog button, fill all the required information listed below and hit Save button.


Blueprint Initial Setup
Physical Setup
OpenStack Setup
Services Setup
Syslog Export
Add SysLog
SysLog Export

Remote host	Protocol	Facility	Severity	Port	Clients	Action
1.1.1.1	udp	local5	debug	514	ELK	
2.2.2.2	udp	local5	debug	514	ELK	

<table>
<tr><td>Remote Host</td><td>Enter Syslog IP address.</td></tr>
<tr><td>Protocol</td><td>Only UDP is supported.</td></tr>
<tr><td>Facility</td><td>Defaults to local5.</td></tr>
<tr><td>Severity</td><td>Defaults to debug.</td></tr>
<tr><td>Clients</td><td>Defaults to ELK.</td></tr>
<tr><td>Port</td><td>Defaults to 514 but can be modified by the User.</td></tr>
</table>
</td></tr>
</table>

Name	Description
NFVBENCH	**NFVBENCH enable checkbox** by default is**false**. Add ToR information connect to Switch:  Blueprint Initial Setup Physical Setup OpenStack Setup Services Setup NFVBENCH TOR Switches ☑ Enable Add tor info connected to switch: Select TOR Switches *: i13-N9372PX-2 Switch- i13-N9372PX-2 *: eth1/33,eth1/34 NIC Ports: INT1: 1 INT2: 2 NIC Slot: 2 • Select a TOR Switch and enter the Switch name. • Enter the port number. For example, eth1/5 . VTEP VLANS (mandatory and needed only for VTS/VXLAN). Enter two different VLANs for VLAN1 and VLAN2. • NIC Ports: INT1 and INT2 optional input. Enter the two port numbers of the 4-port 10G Intel NIC at the management node used for NFVBench. NIC Slot: Optional input, indicates which NIC to use in case there are multiple NICs. **Note** NIC port and slot need to be together.
ENABLE_ESC_PRIV	Enable the checkbox to set it as True. By default it is **False**.

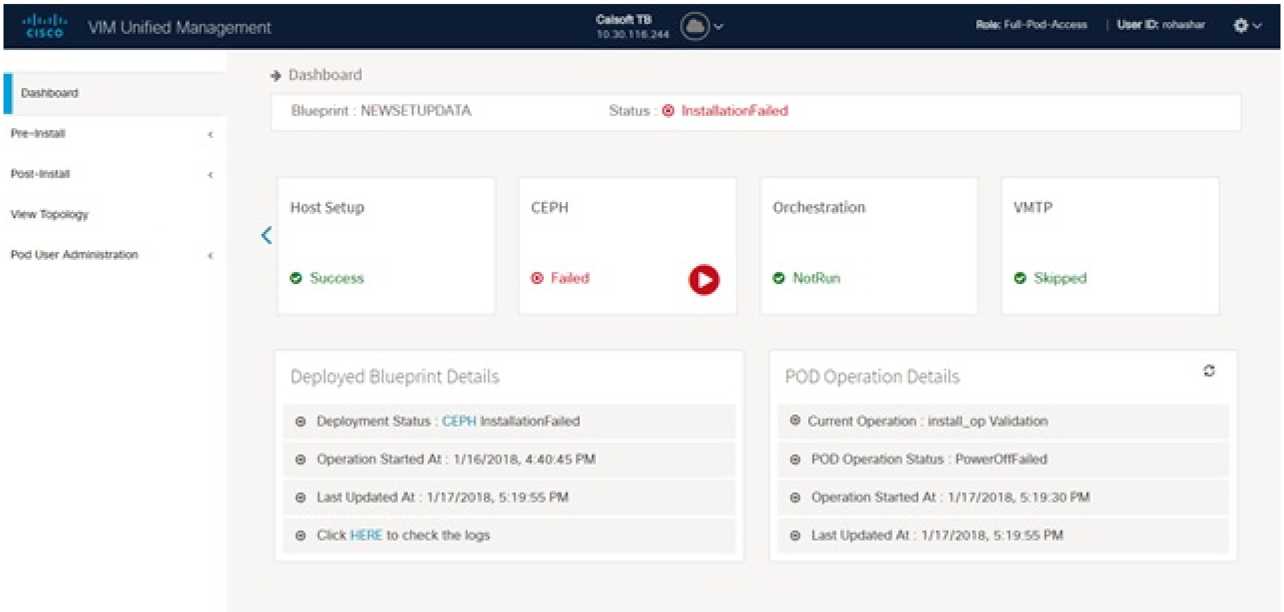
Step 5 Click **Offline validation** button to initiate an offline validation of the Blueprint.

Step 6 Once the **Offline validation** is successful, **Save** option will be enabled for you which when clicked would redirect you to the **Blueprint Management** Page.

Redeploy Multiple Install Stages during Cisco VIM Installation using Unified Management

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

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


VIM Unified Management
Calsoft TB
10.30.116.244
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Post-Install
View Topology
Pod User Administration
Dashboard

Blueprint : NEWSETUPDATA Status : InstallationFailed

Host Setup: Success

CEPH: Failed

Orchestration: NotRun

VMTP: Skipped

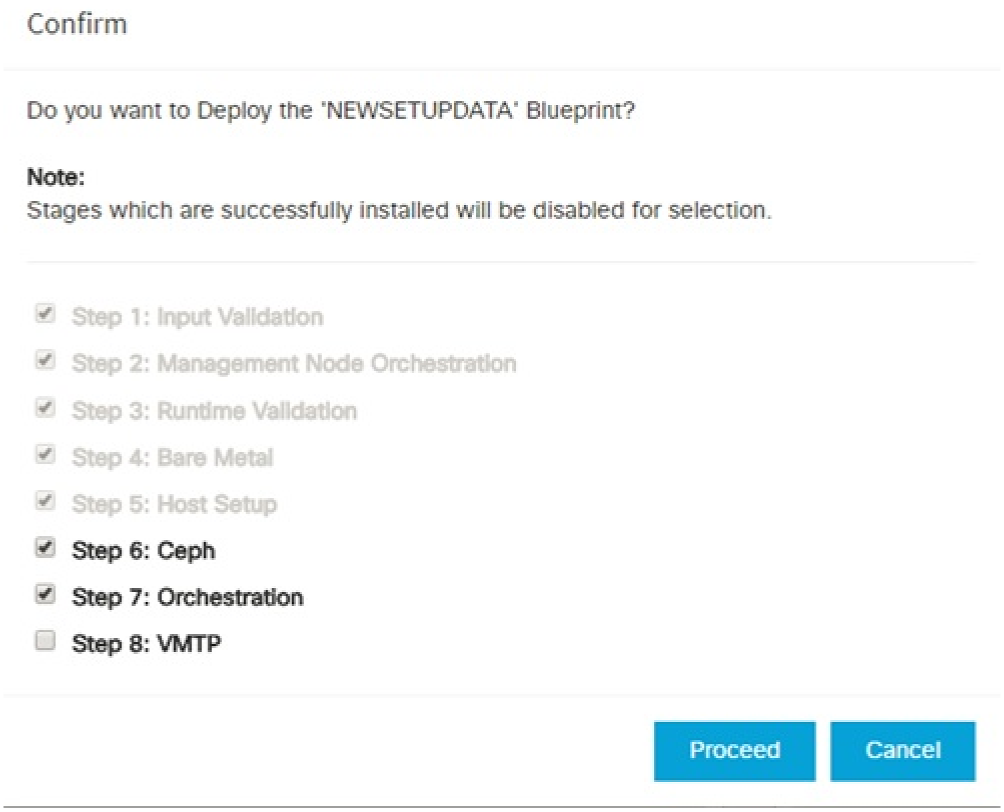
Deployed Blueprint Details

- Deployment Status : CEPH InstallationFailed
- Operation Started At : 1/16/2018, 4:40:45 PM
- Last Updated At : 1/17/2018, 5:19:55 PM
- Click HERE to check the logs

POD Operation Details

- Current Operation : install_op Validation
- POD Operation Status : PowerOffFailed
- Operation Started At : 1/17/2018, 5:19:30 PM
- Last Updated At : 1/17/2018, 5:19:55 PM

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



Confirm

Do you want to Deploy the 'NEWSETUPDATA' Blueprint?

Note:
Stages which are successfully installed will be disabled for selection.

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

Proceed
Cancel

Step 3 Select the stages to be installed.

Step 4 You can select the stages only in sequence. For example,you can select the VMTP stage (current) stage only if the Orchestration (previous) stage is selected for blueprint installation (assuming Orchestration was in Failed/NotRun state)

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

Downloading Blueprint

Before you begin

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

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

Step 2 In the navigation pane, expand the **Pre-Install Section**.

Step 3 Click **Blueprint Management**.

Step 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 Unified Management**.

Step 2 In the **Navigation** pane, expand the **Pre-Install Section**.

Step 3 Click **Blueprint Creation**.

Step 4 Upload an existing YAML, or create a **New Blueprint**.

Fill all the mandatory fields so that all Red Cross changes to **Green Tick**.

Step 5 Enter the name of the Blueprint.

Step 6 Click**Offline Validation.**
Only, if the Validation is successful, the Unified Management allows you to save the blueprint.

What to do next

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

Managing Post Install Features

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

Monitoring the Pod

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

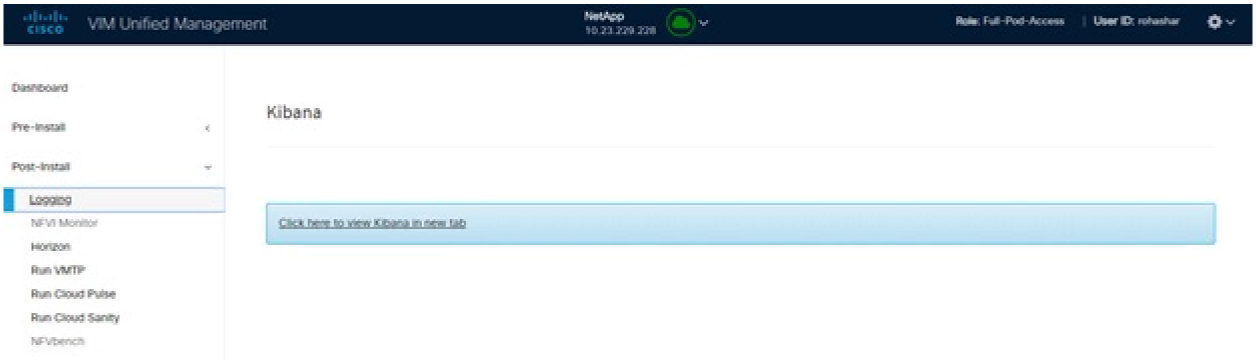
To cross launch Kibana, complete the following instructions:

Step 1 In the navigation pane, click **Post-Install** > **Logging**.

Step 2 Click **Click here to view Kibana in new tab.**

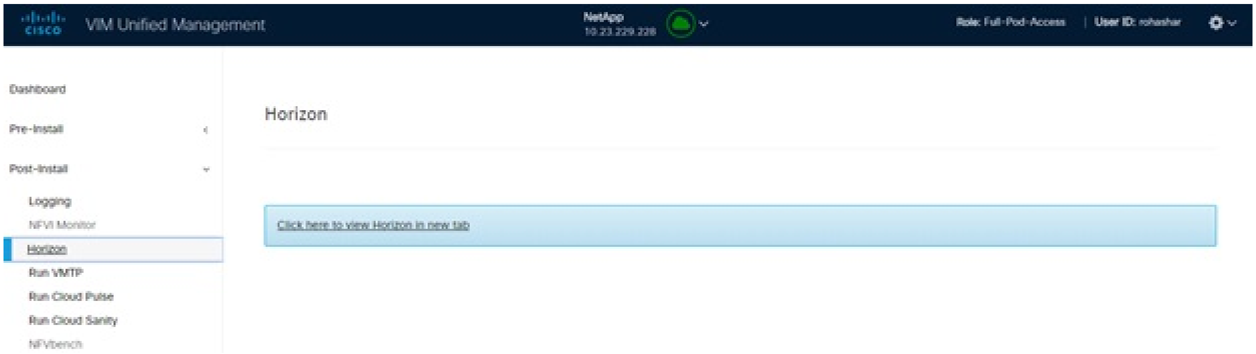
Step 3 Enter the **Username** as Admin.

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


VIM Unified Management
NetApp
10.23.229.228
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Post-Install
Logging
NFVI Monitor
Horizon
Run VMTP
Run Cloud Pulse
Run Cloud Sanity
NFVbench
Kibana
Click here to view Kibana in new tab

Cross Launching Horizon

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


cisco
VIM Unified Management
NetApp
10.23.229.228
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Post-Install
Logging
NFVI Monitor
Horizon
Run VMTP
Run Cloud Pulse
Run Cloud Sanity
NFVbench
Horizon
Click here to view Horizon in new tab

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).

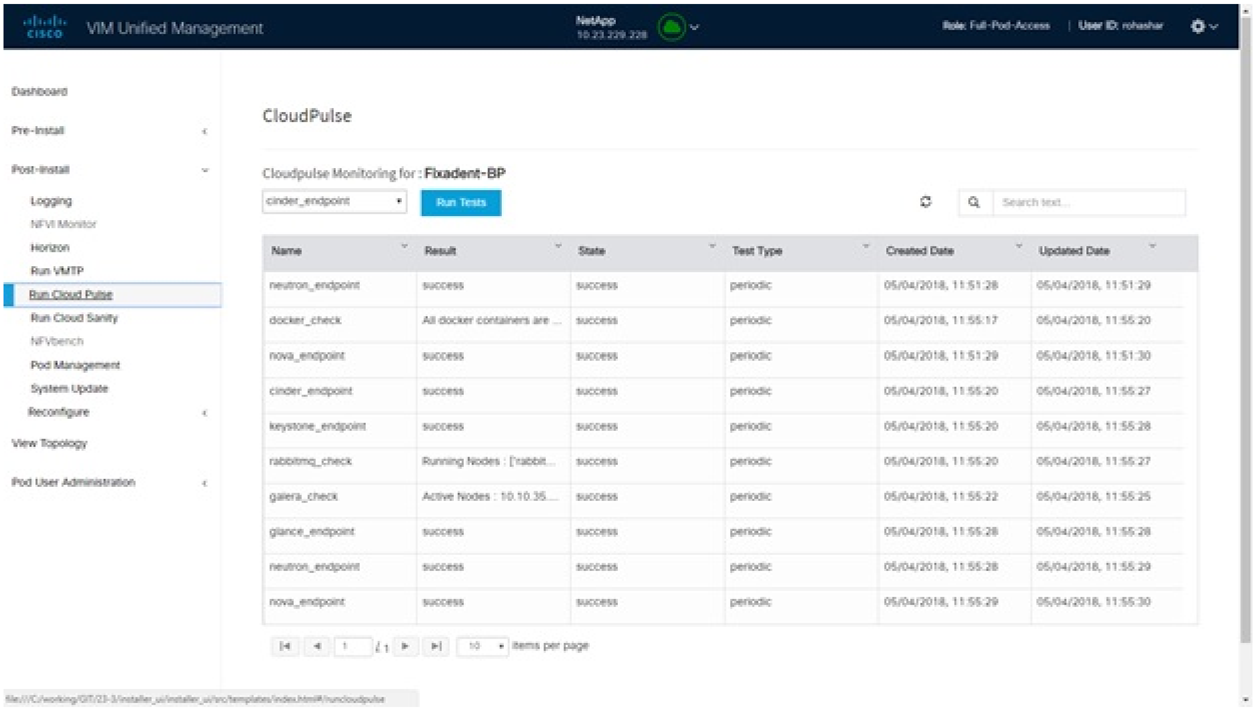
Following are the tests which are supported in CloudPulse:

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


VIM Unified Management
NetApp
10.23.229.228
Role: Full-Pod-Access
User ID: rohashar
Dashboard
Pre-Install
Post-Install
Logging
NFVI Monitor
Horizon
Run VMTP
Run Cloud Pulse
Run Cloud Sanity
NFVbench
Pod Management
System Update
Reconfigure
View Topology
Pod User Administration
CloudPulse
Run Tests
Search text...
items per page

Cloudpulse Monitoring for : Fixadent-BP

cinder_endpoint

Name	Result	State	Test Type	Created Date	Updated Date
neutron_endpoint	success	success	periodic	05/04/2018, 11:51:28	05/04/2018, 11:51:29
docker_check	All docker containers are ...	success	periodic	05/04/2018, 11:55:17	05/04/2018, 11:55:20
nova_endpoint	success	success	periodic	05/04/2018, 11:51:29	05/04/2018, 11:51:30
cinder_endpoint	success	success	periodic	05/04/2018, 11:55:20	05/04/2018, 11:55:27
keystone_endpoint	success	success	periodic	05/04/2018, 11:55:20	05/04/2018, 11:55:28
rabbitmq_check	Running Nodes : ['rabbit...	success	periodic	05/04/2018, 11:55:20	05/04/2018, 11:55:27
galera_check	Active Nodes : 10.10.35....	success	periodic	05/04/2018, 11:55:22	05/04/2018, 11:55:25
glance_endpoint	success	success	periodic	05/04/2018, 11:55:28	05/04/2018, 11:55:28
neutron_endpoint	success	success	periodic	05/04/2018, 11:55:28	05/04/2018, 11:55:29
nova_endpoint	success	success	periodic	05/04/2018, 11:55:29	05/04/2018, 11:55:30

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

Run Cloud Sanity Test

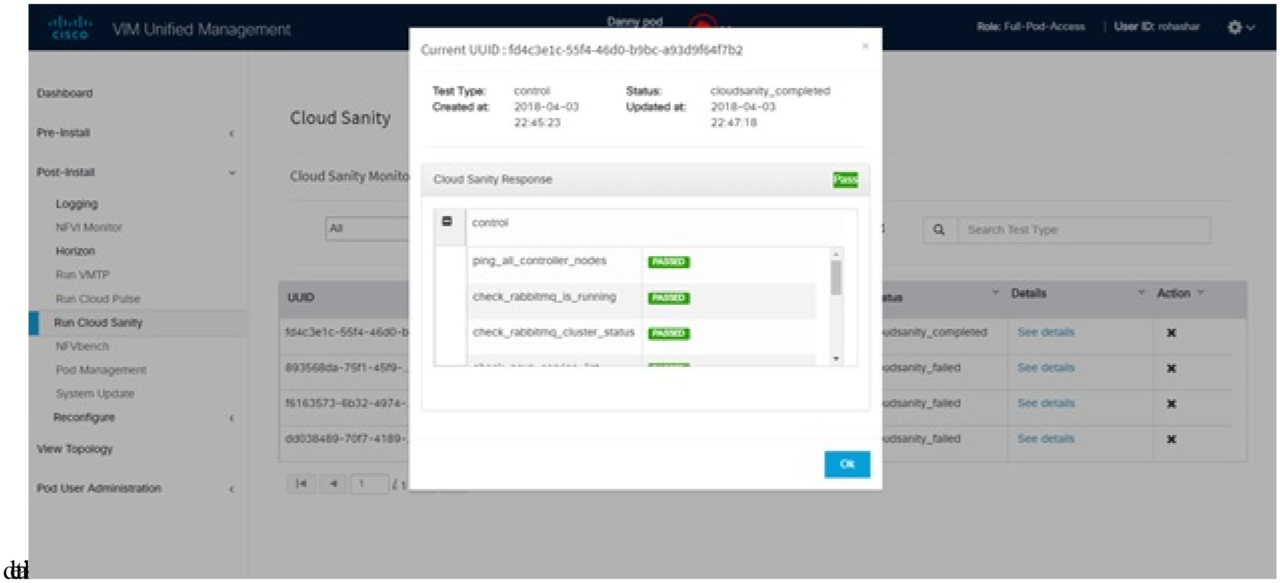
You can use the cloud sanity tool to test the Cisco NFVI pod and cloud infrastructure (host connectivity, basic mraiadb, rabbit, ceph cluster check, and RAID disks).

Following are the test available to run from Unified Management.

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

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

Step 2 Click **Run Test** to proceed with the operation. Once the test is completed, click**See Details** for more details


VIM Unified Management
Danny pod
Role: Full-Pod-Access
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Dashboard
Pre-Install
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NFVI Monitor
Horizon
Run VMTP
Run Cloud Pulse
Run Cloud Sanity
NFVbench
Pod Management
System Update
Reconfigure
View Topology
Pod User Administration
Cloud Sanity
Cloud Sanity Monito
All
Search Test Type
UUID
Details
Action
See details
Ok

Current UUID : fd4c3e1c-55f4-46d0-b9bc-a93d9f64f7b2

Test Type: control
Created at: 2018-04-03 22:45:23
Status: cloudsanity_completed
Updated at: 2018-04-03 22:47:18

Cloud Sanity Response Pass

control

ping_all_controller_nodes	PASSED
check_rabbitmq_is_running	PASSED
check_rabbitmq_cluster_status	PASSED

UUID	Status	Details	Action
fd4c3e1c-55f4-46d0-b	cloudsanity_completed	See details	✖
893568da-75f1-45f9-.	cloudsanity_failed	See details	✖
f6163573-6b32-4974-.	cloudsanity_failed	See details	✖
dd038489-70f7-4189-.	cloudsanity_failed	See details	✖

Run NFV Bench

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

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

NDR/PDR Test

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

Step 2 In the Navigation pane, click **Post-Install** >Run NFV Bench.

Step 3 Click NDR/PDR test and complete the following fields

Name	Description
Select a hypervisor (Optional)	Select any hypervisor to run the NDR/PDR. By default, the option **Use any hypervisor** is selected.
Iteration Duration	Choose duration from 10 to 60 sec. Default is 20 sec.
Frame Size	Choose the correct frame size to run.
VXLAN	Enable VXLAN encapsulation, only if VXLAN is enabled.
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 Unified Management**.

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

Step 3 Click **Reconfigure CIMC Password**.

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

Name	Description
CIMC_COMMON old Password	**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.