



Installing Cisco VIM through Cisco VIM Unified Management

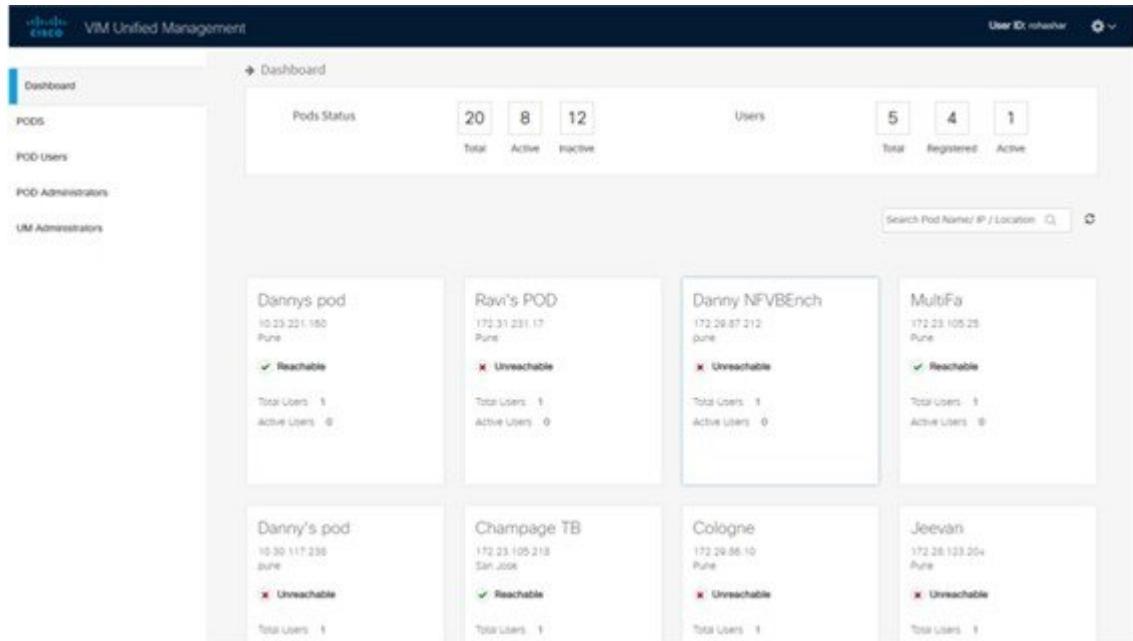
The VIM UM has an UI admin, who has the privilege to manage the UI offering. The Insight UI admin, has the rights to add the right users as Pod administrators. Post bootstrap, the URL for the UI will be: https://br_api:9000.

The following topics helps you to install and configure Cisco Virtual Infrastructure Manager with VIM Insight:

- [Unified Management Dashboard, on page 1](#)
- [Pods, on page 2](#)
- [Pod Administrator, on page 4](#)
- [Unified Management \(UM\) Administrator, on page 5](#)
- [Registering New Pod to Insight , on page 6](#)
- [Configuring OpenStack Installation, on page 7](#)
- [Post Installation Features for Active Blueprint, on page 110](#)

Unified Management Dashboard

When you login as UM admin, you will be redirected to the UM admin Dashboard.



The UM dashboard displays the following information about the pods it is currently managing:

Pod Status

- Active - Number of Pods which has health status OK (Example: Mgmt Node health of the pod is good).
- Inactive - Number of Pods whose health status is not good (Example: Mgmt Node health of the pod is not good).
- Total number of Pods - Number of Pods registered in the system.

Pod Users

- Total – Total number of users registered who are associated with at-least one Pod.
- Registered – Number of users who have completed the registration process and are associated with at-least one Pod.
- Active – Number of Online users who are associated with at-least one Pod.

You can see the list of Pod with its Pod name, description, IP address, location, Pod status along with the Total users and Active users of each pod. You can search for a Pod using Name, IP and location in the search option.

If you click **Get health of current nodes icon (spin)** it does the health check of the Pod.

Pods

Pods allows you to check the health status (indicated through green and red dot) of the pod respectively.

To fetch the latest health status, click **Refresh** which is at the upper right corner.

- Green dot – Pod is reachable and health is good.

- Red dot – Pod is not reachable.

Pod Users

The Pod Users page, gives you the details associated the pod, status (Online or Offline) and their Roles.

UM admin has the right to manage all Pod users in the system. The user with UM admin access can manage the following actions:

- Revoke User's permission from a specific Pod.
- Delete User from the system.

The screenshot shows the Cisco VIM Unified Management interface. The left sidebar contains navigation options: Dashboard, PODS, **POD Users**, POD Administrators, and UM Administrators. The main content area is titled 'Registered POD Users' and displays a table with the following data:

User Name	Email	IP Address	Role Name	Online	Action
Rohan R	rohashar@cisco.com	10.30.116.244	Full-Pod-Access	Online	ⓘ
Rohan R	rohashar@cisco.com	172.28.123.204	Full-Pod-Access	Offline	ⓘ
Rohan R	rohashar@cisco.com	10.30.117.238	Full-Pod-Access	Offline	ⓘ
Rohan R	rohashar@cisco.com	10.23.229.228	Full-Pod-Access	Offline	ⓘ

At the bottom of the table, there is a pagination control showing '5 items per page'.

Revoking User

UM admin revokes the user's permission from a Pod by clicking **(undo)** icon. If the user is the only user with a Full-Pod-Access role for that particular Pod, then the revoke operation is not permitted. In this case, another user is granted with a Full-Pod-Access role for that Pod and then proceeds with revoking the old user.



Note If the user is revoked from the last associated Pod, then the user is deleted from the system.

Deleting Users

UM admin can delete any user from the system by clicking **X** from an Action column. The delete operation is not permitted if the user has Full-Pod-Access. In, such case another user is granted with *Full-Pod-Access* role for that Pod and then proceed with deleting the old user. UM admin must revoke respective permission first and then proceed further.

Pod Administrator

Pod admins are the users who has the permission to register new Pods in the system. UM admin can add any number of Pod admins in the system.

The screenshot shows the 'POD Administrators' page in the Cisco VIM Unified Management interface. The page title is 'POD Administrators' and it includes a 'Refresh' button and an 'Add Pod Administrator' button. Below the buttons, there is a table with the following data:

User Name	Email	Action
Rohan R	rohanshar@cisco.com	⊞
Aniket C	achoth@cisco.com	⊞

At the bottom of the table, there are pagination controls showing '5 items per page'.

Adding Pod Admin

-
- Step 1** Log in as **UI Admin** and navigate to POD Administrator page.
- Step 2** Click **Add Pod Administrator** .
- Step 3** Select User auth for the new user. This option is enabled only if LDAP mode is true.
- Step 4** Enter the Email ID/LDAP user id (if LDAP user attribute is set to uid) of the user.
- If the email is already registered, the **Username** gets populated automatically.
 - If the email is not registered, an email is sent to the user email ID with the verification token. If User auth is set as LDAP, no verification token email is sent.
- Step 5** Navigate to `https://br_api :9000`.
- Step 6** Enter the **Email ID** and **Password** of the Pod Admin
- Step 7** Click **Login as Pod User**. It redirects to the landing page where the Pod admin can register a new Pod.
-

Revoking Pod Admin

UM admin can revoke Pod admin's permission anytime. To revoke Pod admin permission for the user, click **undo** icon.



Note You cannot revoke self permission.

Unified Management (UM) Administrator

UM admins have the access to the UM profile. Only a UM admin can add another UM admin in the system. There should be at least one UM admin in the system.

The screenshot shows the Cisco VIM Unified Management interface. The top navigation bar includes the Cisco logo and the text 'VIM Unified Management'. On the right, it shows 'User ID: rohashar'. The left sidebar contains a menu with items: Dashboard, PODS, POD Users, POD Administrators, and UM Administrators (which is highlighted). The main content area is titled 'UM Administrators' and features a table with the following data:

User Name	Email	Online	Action
Rohan R	rohashar@cisco.com	Online	

Below the table, there are pagination controls showing '1' items per page. In the top right corner of the main area, there are buttons for 'Refresh' and 'Add UM Administrator', along with a timestamp: 'Record last updated at: 04/04/2016, 16:18:48'.

Adding UM Admin

To add a UM admin perform the following steps.

-
- Step 1** Log in as **UI Admin** and navigate to UM Administrator page.
 - Step 2** Click **Add UM Administrator**.
 - Step 3** Select User auth for the new user. This option is enabled only if LDAP mode is true.
 - Step 4** Enter the Email ID/ LDAP user id (if LDAP user attribute is set to uid) of the user.
 - If email is already registered, the **Username** gets populated automatically.
 - If email is not registered, an email is sent to the user email ID with the verification token. If User auth is set as LDAP, no verification token email is sent.
 - Step 5** Navigate to `https://br_api: 9000`.
 - Step 6** Enter the Email ID and Password of the UM Admin.
 - Step 7** Click **Log in as UM admin** to view the UM dashboard.
-

Revoking UM Admin

UM admin can revoke another UM admin's permission. To revoke UM Admin permission for any user, click **undo** icon.



Note You cannot revoke a self's permission. You can revoke a user if the user is not associated with any pod. After, revoking the user is deleted from the system.

Registering New Pod to Insight

Following are the steps that are required for UI Admin to register a Pod Admin:

Before you begin

UI Admin has to register a Pod Admin to allow the user to access a pod.

- Step 1** Log in as **UM Administrator**.
- Step 2** Navigate to Pod Administrator and click **Add Pod Admin**.
- Step 3** Enter the Email ID and the Password of the Pod Admin and click **Login as Pod User**. Then, you will be redirected to the landing page.
- Step 4** Click **Add New Pod** to register a Pod. The **Add New Pod** popup window appears on the screen.

- Step 5** Enter the `br_api` of the pod management node as the **Endpoint IP Address** and **Rest Server Password** from the file `/opt/cisco/ui_config.json`.

- Step 6** Enter the values for the remaining fields in **Add New Pod**.

- Step 7** Click **Browse** to select the Root CA certificate.

For more information on Root CA certificate, see [Managing Root CA Certificate](#)

- Step 8** Click **Upload Certificate** to upload the selected Root CA certificate.

- Step 9** Click **Register** to start the Pod registration.

Note You can edit or delete pods, and update Rest API password from the landing page if the logged-in user has Pod Admin access.

The newly created Pod appears on the landing page.

Configuring OpenStack Installation

Before you begin

You need to create a Blueprint (B or C Series) to initiate OpenStack Installation through the VIM.

Step 1 In the navigation pane, choose **Pre-Install > Blueprint Setup**.

Step 2 To create a **B Series Blueprint**:

- a. On the **Blueprint Initial Setup** pane of the Cisco VIM Insight, complete the following fields:

Name	Description
Blueprint Name field	Enter blueprint configuration name.
Platform Type drop-down list	Choose one of the following platform types: <ul style="list-style-type: none"> • B-Series (By default) choose B series for this section. • C-Series
Tenant Network drop-down list	Choose tenant network type: OVS/VLAN

Name	Description
Pod Type drop-down list	Choose one of the following pod types: <ul style="list-style-type: none"> • Fullon(By Default)
Ceph Mode drop-down list	Choose one of the following Ceph types: <ul style="list-style-type: none"> • Dedicated • Central (By Default) - Not supported in Production
Optional Features and Services Checkbox	Swiftstack, LDAP, Syslog Export Settings, Install Mode, ToR Switch Information, TLS, NFVMON, Pod Name, VMTP, NFV Bench, Auto-backup, Heat, Ceilometer, Keystone v3, Enable Esc Priv, Enable TTY logging, SNMP, ManagementNode_CloudAPI_Reachability. If any one is selected, the corresponding section is visible in various Blueprint sections. SNMP requires CVIM-MON to be enabled. By default, all features are disabled except Auto-backup and Management Node_CloudAPI_Reachability. Select Enable Read-only OpenStack Admins to add a custom role with read-only admin privileges to OpenStack resources.
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.

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

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is selected, and the 'Registry Setup' step is highlighted in blue. The 'Registry Setup' step is currently active, and the 'Registry User Name', 'Registry Password', and 'Registry Email' fields are visible. The 'Registry User Name' field contains 'Enter registry Username', the 'Registry Password' field contains 'Enter registry password', and the 'Registry Email' field contains 'Enter registry email'. The 'Registry Setup' step is marked with a red 'X' icon, indicating it is not yet completed. The 'CIMC Common', 'Networking', and 'Servers and Roles' steps are also marked with red 'X' icons, indicating they are not yet completed. The 'Blueprint Initial Setup' and 'OpenStack Setup' steps are marked with green checkmarks, indicating they are completed. The 'Save Form', 'Offline Validation', and 'Clear' buttons are visible at the top right of the configuration page.

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.

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

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is active, and the 'UCSM Common' sub-tab is selected. The form contains several fields: 'User name' (disabled, value 'admin'), 'UCSM IP' (text field), 'QOS Policy Type' (drop-down menu with 'NFVI' selected), 'Enable VF Performance' (checkbox), 'Password' (text field), 'Resource Prefix' (text field), 'Max VF Count' (text field with value '20'), and 'Enable Pro R PNs' (checkbox). A progress bar at the top shows 'Registry Setup' (failed), 'UCSM Common' (current), 'Networking' (failed), and 'Servers and Roles' (failed). Buttons for 'Save Form', 'Offline Validation', and 'Clear' are visible.

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: <ul style="list-style-type: none"> • NFVI (Default) • Media

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.

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

© 2018 Cisco and/or its affiliates. All rights reserved.
Cisco VIM Unified Management Version: 2.2.2

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

Name	Description
<p>Network options</p>	<p>This section is accessible only if ToR type is Cisco NCS 5500.</p> <p>vxlan-tenant:</p> <ul style="list-style-type: none"> • Provider network name: It is a unique name. • BGP AS num: Takes value between 1 and 65535. • BGP Peers: Enter the peer route reflector IPs (IPs to be comma separated) • BGP router ID: The router ID is used for local GoBGP cluster. • Head-end replication (Optional) : You can add VTEP IP address and comma separated VNI IDs. Multiple entries are allowed. <p>Note VXLAN-TENANT is allowed only when NETWORK_OPTIONS is vxlan network. The IPs defined belong to the vxlan-tenant network, but are not part of the vxlan-tenant network pool.</p> <p>VXLAN-ECN:</p> <ul style="list-style-type: none"> • Provider network name: It is the unique name. • BGP AS num: It takes the value between 1 and 65535. • BGP Peers: Enter the peer route reflector IPs. (IPs to be comma separated) • BGP router ID: The router ID is used for local GoBGP cluster. • Head-end replication (Optional) : You can add VTEP IP address and comma separated VNI IDs. Multiple entries are allowed. <p>Note</p> <ul style="list-style-type: none"> • You cannot have VXLAN-ECN without vxlan-tenant segment defined, however vxlan-tenant can be defined standalone. • Ensure that you take care while choosing single or multi-VXLAN (two-VXLAN) option as this is a day-0 configuration. • VXLAN_ECEN is allowed only when NETWORK_OPTIONS is vxlan network. The IPs defined belong to the vxlan-ecn network, but are not part of the vxlan-ecn network pool.

Name	Description
Network table	

Name	Description
	<p>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.</p> <p>You can add, edit, or delete network information in the table:</p> <div data-bbox="889 516 1284 1041" style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p>Edit Network</p> <p>VLAN : * + <input type="text" value="Enter VLAN"/></p> <p>Segment : * None Selected</p> <p>Subnet : * <input type="text" value="Enter Subnet"/></p> <p>IPv6 Subnet : <input type="text" value="Enter Subnet IPv6"/></p> <p>Gateway : * <input type="text" value="Enter Gateway Address"/></p> <p>IPv6 Gateway : <input type="text" value="Enter Gateway Address(IPv6)"/></p> <p>Pool : * (multiple pool ranges should be comma separated) + <input type="text" value="Enter IP Pool"/></p> <p>IPv6 Pool : (multiple pool ranges should be comma separated) + <input type="text" value="Enter IPv6 Pool"/></p> <p style="text-align: right;">Save Cancel</p> </div> <ul style="list-style-type: none"> Click + to enter new entries (networks) to the table. Specify the following fields in the Edit Entry to Networks dialog box.
Name	Description
VLAN field	Enter the VLAN ID. For Segment - Provider, the VLAN ID value is always <i>none</i> .
Segment drop-down list	You can select any one segment from the drop-down list. <ul style="list-style-type: none"> API Management/Provision Tenant CIMC Storage External

Name	Description	
	Name	Description
		<ul style="list-style-type: none"> • Provider (optional) <p>Note Some segments do not need some of the values listed in the preceding points.</p>
	Subnet field	Enter the IPv4 address for the subnet.
	IPv6 Subnet field	Enter IPv6 address. This field is available only for Management provision and API.
	Gateway field	Enter the IPv4 address for the Gateway.
	IPv6 Gateway field	Enter IPv6 gateway. This field is available only for Management provision and API network.
	Pool field	Enter the pool information in the following format. For example: 10.30.1.1 or 10.30.1.1 to 10.30.1.12
	IPv6 Pool field	Enter the pool information in the following format. For example: 10.1.15-10.1.1.10,102.15-102.1.10 This field is only available for the Mgmt/Provision.
Click Save .		

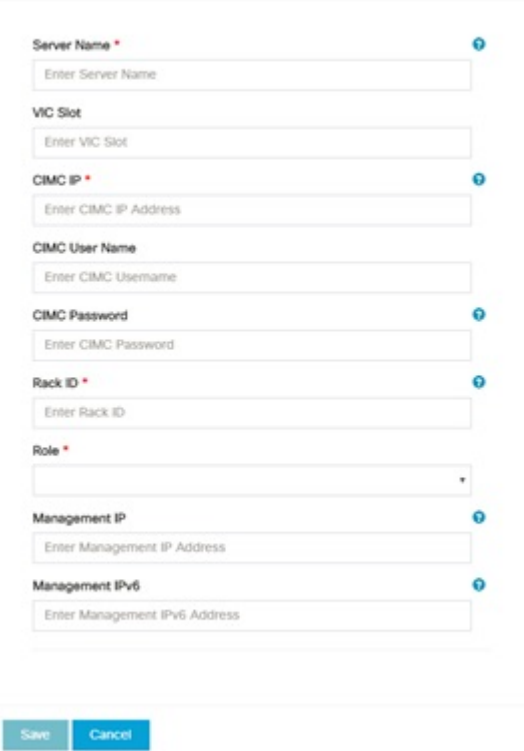
- e. On the **Servers and Roles** page of the Cisco VIM Suite wizard, you see a pre-populated table filled with Roles: Control, Compute and Block Storage (Only if CEPH Dedicated is selected in Blueprint Initial Setup).

©2018 Cisco and/or its affiliates. All rights reserved.
Cisco VIM Unified Management Version: 2.2.2

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

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

Name	Description
Add Entry to Servers and Roles	

Name	Description		
	<p>Click Edit or + to add a new server and role to the table.</p> <p>Server And Roles</p> 		
	<table border="1"> <tr> <td data-bbox="758 1171 1058 1224">Server Name</td> <td data-bbox="1058 1171 1518 1224">Enter a server name.</td> </tr> </table>	Server Name	Enter a server name.
Server Name	Enter a server name.		
	<table border="1"> <tr> <td data-bbox="758 1230 1058 1314">Server Type drop-down list</td> <td data-bbox="1058 1230 1518 1314">Choose Blade or Rack from the drop-down list.</td> </tr> </table>	Server Type drop-down list	Choose Blade or Rack from the drop-down list.
Server Type drop-down list	Choose Blade or Rack from the drop-down list.		
	<table border="1"> <tr> <td data-bbox="758 1320 1058 1373">Rack ID</td> <td data-bbox="1058 1320 1518 1373">The Rack ID for the server.</td> </tr> </table>	Rack ID	The Rack ID for the server.
Rack ID	The Rack ID for the server.		
	<table border="1"> <tr> <td data-bbox="758 1379 1058 1432">Chassis ID</td> <td data-bbox="1058 1379 1518 1432">Enter a Chassis ID.</td> </tr> </table>	Chassis ID	Enter a Chassis ID.
Chassis ID	Enter a Chassis ID.		
	<table border="1"> <tr> <td data-bbox="758 1438 1058 1522">If Rack is chosen, the Rack Unit ID field is displayed.</td> <td data-bbox="1058 1438 1518 1522">Enter a Rack Unit ID.</td> </tr> </table>	If Rack is chosen, the Rack Unit ID field is displayed.	Enter a Rack Unit ID.
If Rack is chosen, the Rack Unit ID field is displayed.	Enter a Rack Unit ID.		
	<table border="1"> <tr> <td data-bbox="758 1528 1058 1612">If Blade is chosen, the Blade ID field is displayed.</td> <td data-bbox="1058 1528 1518 1612">Enter a Blade ID.</td> </tr> </table>	If Blade is chosen, the Blade ID field is displayed.	Enter a Blade ID.
If Blade is chosen, the Blade ID field is displayed.	Enter a Blade ID.		
	<table border="1"> <tr> <td data-bbox="758 1619 1058 1732">Select the Role from the drop-down list.</td> <td data-bbox="1058 1619 1518 1732">If Server type is Blade then select Control and Compute. If server is Rack then select Block Storage.</td> </tr> </table>	Select the Role from the drop-down list.	If Server type is Blade then select Control and Compute . If server is Rack then select Block Storage .
Select the Role from the drop-down list.	If Server type is Blade then select Control and Compute . If server is Rack then select Block Storage .		
	<table border="1"> <tr> <td data-bbox="758 1738 1058 1848">VIC Admin FEC mode</td> <td data-bbox="1058 1738 1518 1848">Applicable only for Cisco VIC that supports to change the admin FEC mode. Can be auto/off/c174/c191</td> </tr> </table>	VIC Admin FEC mode	Applicable only for Cisco VIC that supports to change the admin FEC mode. Can be auto/off/c174/c191
VIC Admin FEC mode	Applicable only for Cisco VIC that supports to change the admin FEC mode. Can be auto/off/c174/c191		

Name	Description
	VIC Port Channel Enable Optional. By default, it is true. Can be either true or false.
	Secure Computing mode Optional. By default, it is set to 1, if not defined. Can be either 0 or 1.
	Nova CPU Allocation Ratio Optional. This configuration overrides the NOVA_CPU_ALLOCATION_RATIO configuration defined in the <code>openstack_config.yaml</code> file. The range is from 0.958 to 16.0.
	Nova RAM Allocation Ratio Optional. This configuration overrides the NOVA_RAM_ALLOCATION_RATIO configuration defined in the <code>openstack_config.yaml</code> file. The range is from 1.0 to 4.0.
	VM Hugepage Size Optional. From the drop-down list, choose 2M or 1G. This configuration overrides the global VM_HUGEPAGE_SIZE value when NFV_HOSTS is enabled.
	Disable Hyperthreading Optional. From the drop-down list, choose True or False. This configuration overrides the global hyper-threading configuration.
	Root Drive Type Optional . From the drop-down list, choose HDD, SSD or M.2_SATA internal SSD. You must choose M.2_SATA if booting off M.2 SATA SSD, however, this option is not valid for M4 platform.
	Management IP It is an optional field but if provided for one server then it is mandatory to provide details for other Servers as well.
	Storage IP It is an optional field, but if provided for one server then it is mandatory to provide details for other servers.
	Management IPv6 Enter the Management IPv6 Address.
	Vtep IPs Two input fields for vxlan-tenant and vxlan-ecn ips are available, for any node having compute role, vxlan-tenant and vxlan-ecn in network option.

Name	Description	
	BGP management addresses	Two input fields for vxlan-tenant and vxlan-ecn ips, are available for any node having control role and having vxlan-tenant and vxlan-ecn in network option. IPs must be from management subnet, but not from the pool.
	trusted_vf	Optional and not reconfigurable. Applicable only for SRIOV node with compute role for C-series pod.
Click Save .		

- f. Click **ToR Switch** checkbox in **Blueprint Initial Setup** to enable the **TOR SWITCH** configuration page. It is an **Optional** section in Blueprint Setup, but when all the fields are filled it is a part of the Blueprint.

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is selected, and the 'ToR Switch' checkbox is checked. The 'Configure ToR' section is visible, showing a table for 'ToSwitch information' with columns for Hostname, User Name, Password, SSH IP, SSN Num, VPC Peerlink, VPC Domain, VPC peer p., VPC peer V., BR mgmt po., BR mgmt P., and Action.

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

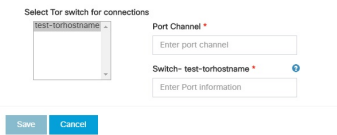
Name	Description
ToR Switch Information	

Name	Description
	<p>Click (+) to add information for ToR Switch.</p> <p>Switch Details</p> <div style="border: 1px solid #ccc; padding: 10px;"> <p>Hostname * ?</p> <input type="text" value="Enter Switch Hostname"/> <p>Username * ?</p> <input type="text" value="Enter Switch Username"/> <p>Password * ?</p> <input type="text" value="Enter Password"/> <p>SSH-IP * ?</p> <input type="text" value="Enter IP Address"/> <p>SSN Num ?</p> <input type="text" value="Enter SSN Num"/> <p>VPC Peer Keepalive ?</p> <input type="text" value="Enter IP Address"/> <p>VPC Domain ?</p> <input type="text" value="Enter VPC Domain"/> <p>VPC Peer Port Info ?</p> <input type="text" value="Enter VPC Port"/> <p>VPC Peer VLAN Info ?</p> <input type="text" value="Enter VPC VLAN Info"/> <p>BR Management Port Info ?</p> <input type="text" value="Enter BR Port Info"/> <p>BR Management PO Info ?</p> <input type="text" value="Enter BR PO Info"/> <p style="text-align: right;"> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </p> </div>
Name	Description
Hostname	ToR switch hostname.
Username	ToR switch username.
Password	ToR switch password.
SSH IP	ToR switch SSH IP Address.
SSN Num	ToR switch ssn num.
VPC Peer Keepalive	Peer Management IP. You do not define if there is no peer.
VPC Domain	Do not define if peer is absent.

Name	Description	
	VPC Peer Port Info	Interface for vpc peer ports.
	BR Management Port Info	Management interface of the management node.
	BR Management PO Info	Port channel number for management interface of the management node.
	ClickSave.	
On clicking save button, Add ToR Info Connected to Fabric field is visible.	Port Channel field.	Enter the Port Channel input.
	Switch Name field.	Enter the name of the Switch.

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

Name	Description
Master - Admin IP	IP Address of Control Center VM
Collector - Management VIP	VIP for ceilometer/dispatcher to use, must be unique across VIM Pod
Master 2	Optional, but becomes mandatory if collector 2 is defined. Must contain valid admin IP.
Collector 2	Collector 2 is secondary set of collector. All the properties must be present as collector. Optional, but becomes mandatory if Master 2 is defined. Contains management VIP and collector VM information.
NFVIMON ADMIN	Optional and reconfigurable to add/update user id. Once enabled, you must have only one admin.

Name	Description				
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				
Collector ToR Connections	<ol style="list-style-type: none"> 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 <p>Add Collector Tor Connections</p>  <table border="1"> <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> <p>Click Save</p>	Port Channel	Enter port channel.	Switch - {torSwitch-hostname}	Enter port number, E.g:eth1/15.
Port Channel	Enter port channel.				
Switch - {torSwitch-hostname}	Enter port number, E.g:eth1/15.				
Rabbit MQ User Name	Enter Rabbit MQ username.				

- h. Click CVIMMON option in Blueprint Initial Setup to enable the CVIMMON configuration tab.

Create Blueprint configuration

Save Form Offline Validation Clear

Blueprint Initial Setup **Physical Setup** OpenStack Setup

Registry Setup UCSM Common Networking Servers and Roles **CVIMMON**

Enable

UI Access: True

Polling Intervals

Low Frequency	1	m
Medium Frequency	30	s
High Frequency	15	s

CVIM-MON is a built-in infrastructure monitoring service based on telegraf/prometheus/grafana.

When enabled, the telegraf service will be deployed on every node on the pod to capture infrastructure level stats (CPU, memory, network, containers, and so on) and a Prometheus server will be installed on the management node to poll for these stats and store them in its time series database. The statistics can then be viewed using the grafana server that is accessible on the management node at port 3000 (password protected).

There are three levels of polling intervals which are used by different telegraf plugins:

- Low frequency interval is used to collect system level metrics like cpu, memory
- Medium frequency interval is used to collect docker metrics
- High frequency interval is used to collect rabbitmq metrics

Defining polling intervals in setup data is optional, if not defined the default values will be used

PODNAME is required when CVIM-MON is enabled

Name	Description
Enable	Default is False
UI-Access	Indicates either True or False. If this option is set in setupdata with a value, the same value is shown as selected in the drop-down list. If this option is not set in the setupdata, the default value of True is selected in the drop-down list.
Central	Optional, if not defined it will default to False; With this option enabled, User will get central CVIM-MON
Polling Intervals	
Low frequency - deprecated	<Integer following with time sign (s/m/h)> # min of 1 minute (1m) if not defined defaults to 1m, also it needs to be higher than medium interval.

Name	Description
Medium frequency - deprecated	<Integer following with time sign (s/m/h)> # min of 30 seconds (30s) if not defined defaults to 30s, also it needs to be higher than high interval.
High frequency	<Integer following with time sign (s/m/h)> # min of 10 seconds (10s) if not defined defaults to 10s.
External Servers	Optional. List of external server IPs (v4 or v6) that must be monitored by CVIM MON.
CVIMMON LDAP	If defined, the group mappings and domain mappings are mandatory.
group_mappings	Must contain at least one group with the org_role as Admin. Optionally, you can add a second group can with the org_role as Viewer.
domain_mappings	Must exactly contain one domain.
domain_name	The domain name must not be empty.
attributes	All subkeys are mandatory.
bind_dn	Describes the user who connects to the LDAP server to check credentials. It can be a read-only user or a group that matches all possible users.
bind_password	The password of the bind_dn user. You must omit this field when the bind_dn is a group.
ldap_uri	URI to connect to the LDAP servers. You must configure at least one. You can configure multiple URIs, separated by a comma.
search_base_dns	Base DNS name to use for all queries.
search_filter	Filter to use for the queries.

While CVIM-MON checkbox is checked in Blueprint Initial setup, there is a checkbox provided in the CVIM-MON tab area for enabling the SNMP feature. When user check this enable SNMP checkbox, Add a Manager button appears in the right area.

Clicking on this button shows various fields related to that manager. User can add up to three SNMP managers.

Name	Description
Address	IPv4 or IPv6 address of the remote SNMP manager, unique across all managers
Port	Port (1-65535) to sent the traps; default 162, unique across all managers
Version	SNMP version of the manager; default 'v2c'

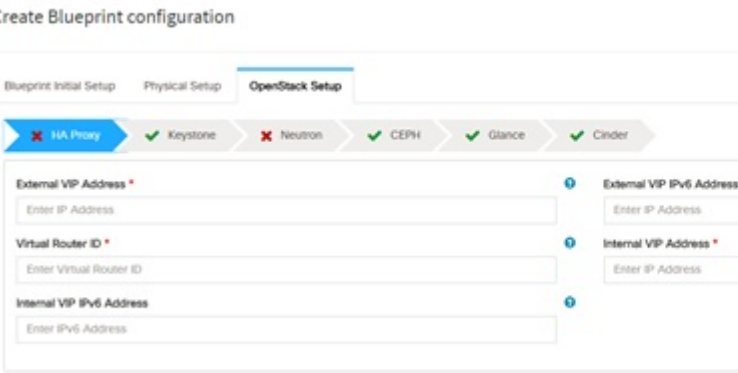
Name	Description
Community	For SNMPv2c. Community name; default 'public'
Engine_Id	For SNMPv3. ContextEngineId, min length of 5, max length of 32, unique across all managers; cannot be all 00s or FFs
Users	List of users; maximum: 3
Name	Username has to be unique across users for the same manager
auth_key	Need to be min of 8 chars
authentication	Authentication protocol; default: 'SHA'
privacy_key	Encryption password; by default uses the same as the authentication
encryption	Encryption protocol ; default: 'AES128'

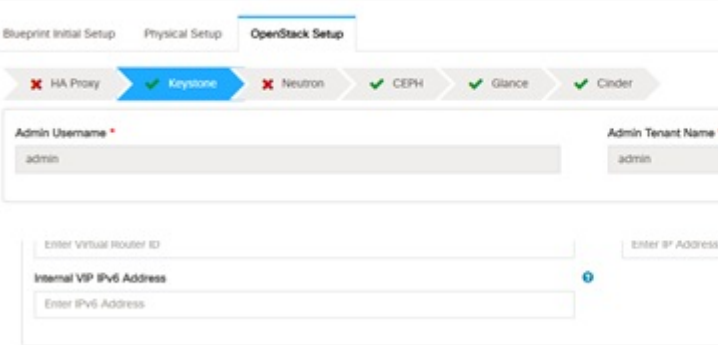
If CVIM-MON is enabled and Platform type is C, then an optional feature to get SNMP traps from Cisco CIMC is available in the CVIM-MON tab area. With this new feature SERVER_MON, there is a checkbox to enable or disable this feature and an input field to provide host information. You can either add comma separated server information or can have ALL to include all the servers.

Table 1:

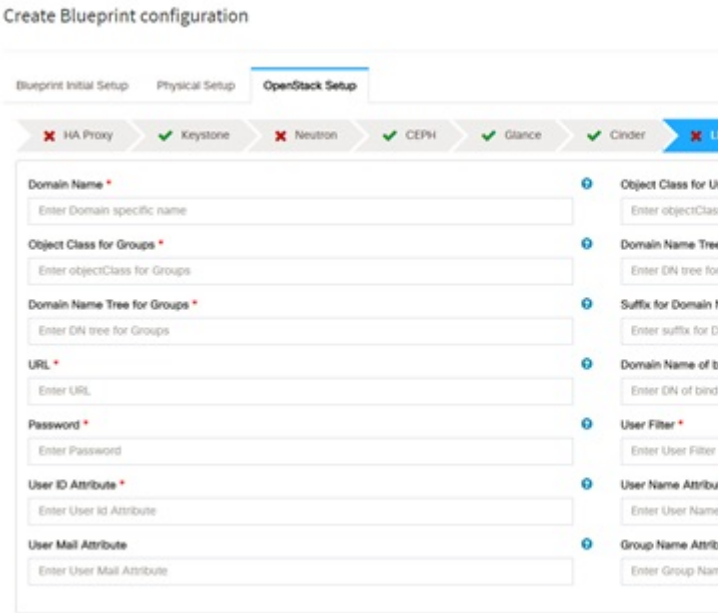
Name	Description
Enable	True/False
Host information	ALL or list of servers.
Remote syslog severity	Optional. Indicates if cimc is programmed to send rsyslog events with this minimum severity. Possible syslog severity values are: <'emergency' 'alert' 'critical' 'error' 'warning' 'notice' 'informational' 'debug'>. These are optional and values can be changed.

- i. Click **OpenStack Setup** tab to advance to the OpenStack Setup Configuration page. On the **OpenStack Setup** page of the Cisco VIM Insight wizard, complete the following fields:

Name	Description										
HA Proxy	<p data-bbox="846 289 1143 321">Fill in the following details:</p>  <table border="1" data-bbox="846 831 1489 1272"> <tbody> <tr> <td data-bbox="846 831 1166 919">External VIP Address field</td> <td data-bbox="1166 831 1489 919">Enter the IP address of the External VIP.</td> </tr> <tr> <td data-bbox="846 919 1166 1008">External VIP Address IPv6 field</td> <td data-bbox="1166 919 1489 1008">Enter the IPv6 address of the External VIP.</td> </tr> <tr> <td data-bbox="846 1008 1166 1096">Virtual Router ID field</td> <td data-bbox="1166 1008 1489 1096">Enter the Router ID for the HA.</td> </tr> <tr> <td data-bbox="846 1096 1166 1184">Internal VIP Address IPv6 field</td> <td data-bbox="1166 1096 1489 1184">Enter the IPv6 address of the Internal IP.</td> </tr> <tr> <td data-bbox="846 1184 1166 1272">Internal VIP Address field</td> <td data-bbox="1166 1184 1489 1272">Enter the IP address of the Internal VIP.</td> </tr> </tbody> </table>	External VIP Address field	Enter the IP address of the External VIP.	External VIP Address IPv6 field	Enter the IPv6 address of the External VIP.	Virtual Router ID field	Enter the Router ID for the HA.	Internal VIP Address IPv6 field	Enter the IPv6 address of the Internal IP.	Internal VIP Address field	Enter the IP address of the Internal VIP.
External VIP Address field	Enter the IP address of the External VIP.										
External VIP Address IPv6 field	Enter the IPv6 address of the External VIP.										
Virtual Router ID field	Enter the Router ID for the HA.										
Internal VIP Address IPv6 field	Enter the IPv6 address of the Internal IP.										
Internal VIP Address field	Enter the IP address of the Internal VIP.										

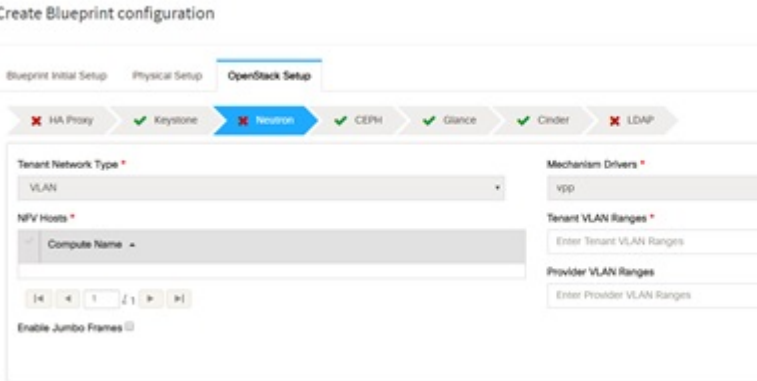
Name	Description				
<p>Keystone</p>	<p>The following are the Pre-populated field values. This option is always set to be true.</p> <p>Create Blueprint configuration</p>  <table border="1" data-bbox="883 863 1528 957"> <tbody> <tr> <td>Admin Username field</td> <td>admin</td> </tr> <tr> <td>Admin Tenant Name field</td> <td>admin</td> </tr> </tbody> </table>	Admin Username field	admin	Admin Tenant Name field	admin
Admin Username field	admin				
Admin Tenant Name field	admin				

Name	Description
LDAP (Only if Keystonev3 is enabled) Note This option is only available with Keystone v3	

Name	Description																				
	<p>This is available only when LDAP is enabled under <i>Optional Features and Services</i> in Blueprint Initial Setup.</p>  <p>The screenshot shows the 'OpenStack Setup' tab in the 'Create Blueprint configuration' wizard. It includes a progress bar with steps: HA Proxy (failed), Keystone (success), Neutron (failed), CEPH (success), Glance (success), Cinder (success), and LDAP (success). Below the progress bar are several input fields for LDAP configuration:</p> <ul style="list-style-type: none"> 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 Domain Name 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 User Mail Attribute *: Enter User Mail Attribute Group Name Attribute *: Enter Group Name <table border="1" data-bbox="885 1039 1526 1837"> <tbody> <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 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> </tbody> </table>	Domain Name field	Enter the Domain name.	Object Class for Users field	Enter a string as input.	Object Class for Groups field	Enter a string.	Domain Name Tree for Users field	Enter a string.	Domain Name Tree for Groups field	Enter a string.	Suffix for Domain Name field	Enter a string.	URL field	Enter a URL with ending port number.	Domain Name of bind user field	Enter a string.	Password field	Enter Password as string format.	User Filter field	Enter filter name as string.
Domain Name field	Enter the Domain name.																				
Object Class for Users field	Enter a string as input.																				
Object Class for Groups field	Enter a string.																				
Domain Name Tree for Users field	Enter a string.																				
Domain Name Tree for Groups field	Enter a string.																				
Suffix for Domain Name field	Enter a string.																				
URL field	Enter a URL with ending port number.																				
Domain Name of bind user field	Enter a string.																				
Password field	Enter Password as string format.																				
User Filter field	Enter filter name as string.																				

Name	Description	
	User ID Attribute field	Enter a string.
	User Name Attribute field	Enter a string.
	User Mail Attribute field	Enter a string.
	Group Name Attribute field	Enter a string.
	Group_filter field	It is optional. Enter a string.
	Group Member Attribute field.	It is optional. Enter a string.
	Group Id Attribute field	It is optional. Enter a string.
	Group Members Are Ids field.	It is optional. Enter True or False

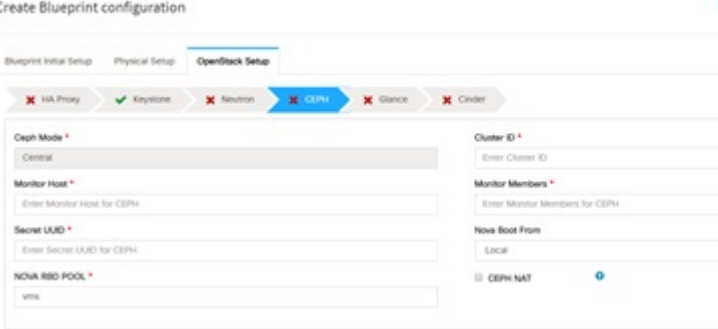
Name	Description
Neutron	

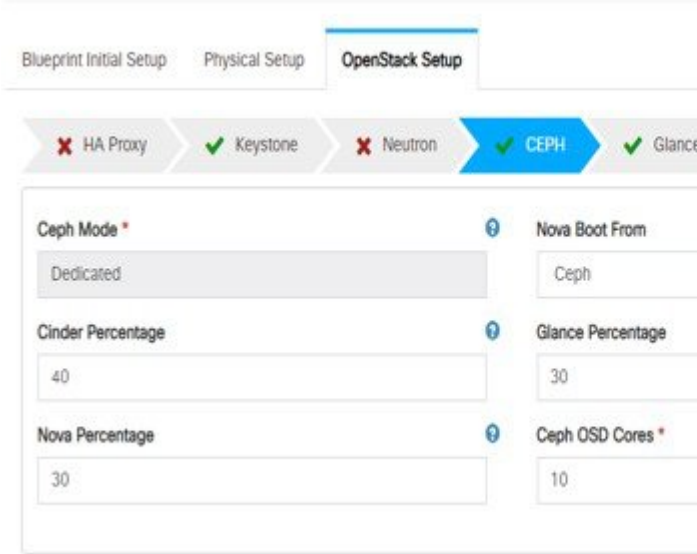
Name	Description
	<p>Neutron fields change on the basis of <i>Tenant Network Type</i> selection from Blueprint Initial Setup. Following are the options available for Neutron for OVS/VLAN:</p> 
	<p>Tenant Network Type field</p> <p>It is Auto-filled based on the <i>Tenant Network Type</i> selected in the Blueprint Initial Setup page.</p>
	<p>Mechanism Drivers field</p> <p>It is Auto-filled based on the <i>Tenant Network Type</i> selected in Blueprint Initial Setup page.</p>
	<p>NFV Hosts field</p> <p>It is auto-filled with the compute you added in Server and Roles.</p> <p>If you select All in this section NFV_HOSTS: ALL is added to the Blueprint or you can select one particular compute. For example:</p> <p>NFV_HOSTS: compute-server-1, compute-server-2.</p>
	<p>ENABLE_CAT</p> <p>Optional to enable Intel CAT. It is valid only when NFV Host is enabled. By default, it is set to false.</p>
	<p>RESERVED_CACHE_LINES_PER_SOCKET</p> <p>Allowed value of reserved cache lines per socket is between 1 and 32. It is valid only when ENABLE_CAT is set to True.</p>


Name	Description	
	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.
	Enable VM Emulator Pin	<ul style="list-style-type: none"> • Optional, when NFV_HOSTS is enabled. • When a VM is spawned with this parameter enabled, NOVA allocates additional vCPU on top of the vCPU count specified in the flavor, and pin vCPU0 to the pCPU that is reserved in the pool.
	VM Emulator PCORES Per Socket	<ul style="list-style-type: none"> • Optional, if ENABLE_VM_EMULATOR_PIN is enabled. • Enter the number of cores per socket. • Defaults to 1. Can be in the range of 1 to 4.
	Base MAC Address	

Name	Description	
		<p>Option for virtual machine MAC addresses. You can configure DHCP reservations for them so that they always get the same IP address regardless of the host hypervisor or operating system that is running.</p> <p>If the MAC address ends with 00:00,</p> <ul style="list-style-type: none"> • First entry of the first octet must be a Hex • Second entry of the first octet must be 2, 6, a or e <p>For example, [a-f][2,6,a,e]:yz:uv:ws:00:00</p>
	Nova Opt for low latency	<p>Optional. You can enable additional real time optimizations in OpenStack NOVA.</p> <p>By default, it is set to False</p>
<p>For Tenant Network Type, Linux Bridge everything remains the same but Tenant VLAN Ranges is removed.</p>		

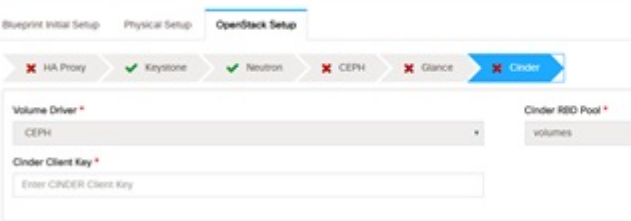
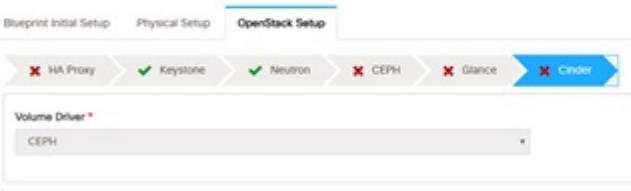
Name	Description
CEPH	

Name	Description																
	<p>1. 1. When Object Storage Backend is selected as <i>Central</i> in the blueprint initial setup.</p>  <table border="1" data-bbox="889 751 1485 1318"> <tbody> <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 POOL</td> <td>Enter the NOVA 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> </tbody> </table> <p>2. 2. When Object Storage Backend is selected as <i>Dedicated</i> in the blueprint initial setup for dedicated Ceph.</p>	Ceph Mode	By default Ceph Mode is Central.	Cluster ID	Enter the Cluster ID.	Monitor Host	Enter the Monitor Host for CEPH	Monitor Members	Enter the Monitor Members for CEPH	Secret UUID	Enter the Secret UUID for CEPH	NOVA Boot from	You can choose CEPH or local from the drop-down list.	NOVA RBD POOL	Enter the NOVA RBD Pool (default's to vms)	CEPH NAT	CEPH NAT is required for Central Ceph and when mgmt network is not routable.
Ceph Mode	By default Ceph Mode is Central.																
Cluster ID	Enter the Cluster ID.																
Monitor Host	Enter the Monitor Host for CEPH																
Monitor Members	Enter the Monitor Members for CEPH																
Secret UUID	Enter the Secret UUID for CEPH																
NOVA Boot from	You can choose CEPH or local from the drop-down list.																
NOVA RBD POOL	Enter the NOVA RBD Pool (default's to vms)																
CEPH NAT	CEPH NAT is required for Central Ceph and when mgmt network is not routable.																


Name	Description
	 <p>The screenshot shows the 'OpenStack Setup' tab in a configuration interface. At the top, there are three tabs: 'Blueprint Initial Setup', 'Physical Setup', and 'OpenStack Setup'. Below the tabs is a progress bar with five steps: 'HA Proxy' (failed), 'Keystone' (successful), 'Neutron' (failed), 'CEPH' (successful), and 'Glance' (successful). The main configuration area includes several fields:</p> <ul style="list-style-type: none"> Ceph Mode *: A dropdown menu set to 'Dedicated'. Nova Boot From: A dropdown menu set to 'Ceph'. Cinder Percentage: A text input field containing '40'. Glance Percentage: A text input field containing '30'. Nova Percentage: A text input field containing '30'. Ceph OSD Cores *: A text input field containing '10'. <p>Below the screenshot, there is a list of configuration options and their availability conditions:</p> <ul style="list-style-type: none"> • Ceph Mode: By default Dedicated. • NOVA Boot From: Can be <i>Ceph</i> or <i>local</i>. • Cinder Percentage: Available when Nova Boot From is <i>local</i> or <i>Ceph</i>. • Glance Percentage: Available when Nova Boot From is <i>local</i> or <i>Ceph</i>. • Nova Percentage: Available when Nova Boot From is <i>Ceph</i>. <p>Additional notes:</p> <ul style="list-style-type: none"> If NOVA Boot From is <i>local</i>, the total of Cinder Percentage and Glance Percentage must be 100. If NOVA Boot From is <i>Ceph</i>, the total of Cinder Percentage and Glance Percentage must be 100. CEPH OSD RESERVED PCORES: Default value is 2. Minimum value is 2 and Maximum value is 12 (only for Micropod and hyper-converged pods).


Name	Description
	<p>3. When Object Storage Backend is selected as <i>NetApp</i> in the blueprint initial setup, the</p>  <ul style="list-style-type: none"> • Ceph Mode: NetApp is selected by default. • Cinder Percentage: Enter Cinder percentage for Ceph. • Glance Percentage: Enter glance percentage for Ceph <p>Total of Cinder Percentage and Glance Percentage must be 100.</p>

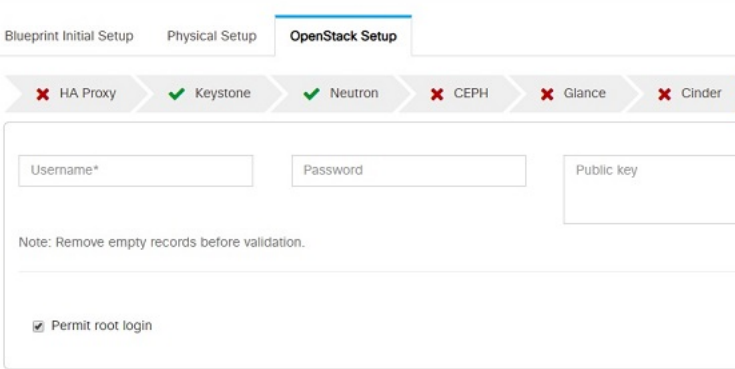
Name	Description						
<p>GLANCE</p>	<p>1. When Object Storage Backend is selected as <i>Central</i> in the blueprint initial setup.</p>  <table border="1" data-bbox="885 674 1523 827"> <tr> <td>Store Backend</td> <td>By default CEPH.</td> </tr> <tr> <td>Glance RBD Pool field</td> <td>By default images.</td> </tr> <tr> <td>Glance Client Key</td> <td>Enter GLANCE Client Key</td> </tr> </table>	Store Backend	By default CEPH.	Glance RBD Pool field	By default images.	Glance Client Key	Enter GLANCE Client Key
	Store Backend	By default CEPH.					
Glance RBD Pool field	By default images.						
Glance Client Key	Enter GLANCE Client Key						
<p>2. When Object Storage Backend is selected as <i>Dedicated</i> in the blueprint initial setup.</p>  <p>By default Populated for CEPH Dedicated with Store Backend value as CEPH.</p>							

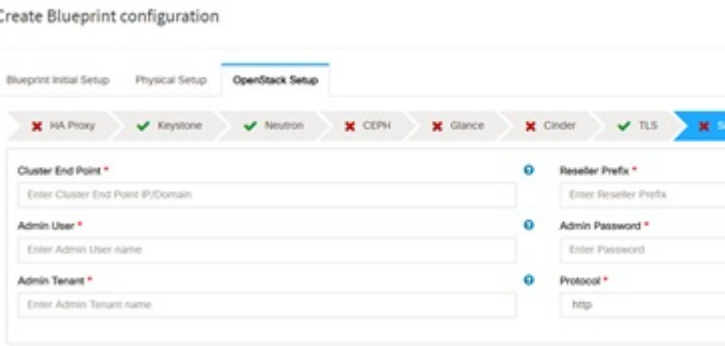
Name	Description	
<p>CINDER</p>	<p>By default Populated for <i>CEPH Dedicated</i> with Volume Driver value as CEPH.</p>	
	<p>Create Blueprint configuration</p> 	
	<p>Volume Driver</p>	<p>By default CEPH.</p>
	<p>Cinder RBD Pool field</p>	<p>By default volumes.</p>
<p>Cinder Client Key</p>	<p>Enter Cinder Client Key</p>	
	<p>Create Blueprint configuration</p> 	

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

Name	Description																				
	<p>Check one of the check boxes to specify a VMTP network:</p> <ul style="list-style-type: none"> • Provider Network • External Network <p>For the Provider Network complete the following:</p>  <table border="1" data-bbox="852 945 1477 1827"> <tr> <td>Network Name field</td> <td>Enter the name of the provider network.</td> </tr> <tr> <td>IPv4 Or IPv6 field</td> <td>Select either IPv4 or IPv6</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/IPv6 address.</td> </tr> <tr> <td>Network IP End field</td> <td>Enter the end of the floating IPv4/IPv6 address.</td> </tr> <tr> <td>Network Gatewayfield</td> <td>Enter the IPv4/IPv6 address for the Gateway.</td> </tr> <tr> <td>DNS Server field</td> <td>Enter the DNS server IPv4/IPv6 address.</td> </tr> <tr> <td>Segmentation ID field</td> <td>Enter the segmentation ID.</td> </tr> <tr> <td>IPv6 Mode field</td> <td>Enter the IPv6 address along with the prefix, if IPv6 option is selected.</td> </tr> <tr> <td>VNIC Type</td> <td>For B-series, Direct is default value. For C –series, it is either ‘Default’ or ‘Normal’</td> </tr> </table>	Network Name field	Enter the name of the provider network.	IPv4 Or IPv6 field	Select either IPv4 or IPv6	Subnet field	Enter the Subnet for Provider Network.	Network IP Start field	Enter the start of the floating IPv4/IPv6 address.	Network IP End field	Enter the end of the floating IPv4/IPv6 address.	Network Gateway field	Enter the IPv4/IPv6 address for the Gateway.	DNS Server field	Enter the DNS server IPv4/IPv6 address.	Segmentation ID field	Enter the segmentation ID.	IPv6 Mode field	Enter the IPv6 address along with the prefix, if IPv6 option is selected.	VNIC Type	For B-series, Direct is default value. For C –series, it is either ‘Default’ or ‘Normal’
Network Name field	Enter the name of the provider network.																				
IPv4 Or IPv6 field	Select either IPv4 or IPv6																				
Subnet field	Enter the Subnet for Provider Network.																				
Network IP Start field	Enter the start of the floating IPv4/IPv6 address.																				
Network IP End field	Enter the end of the floating IPv4/IPv6 address.																				
Network Gateway field	Enter the IPv4/IPv6 address for the Gateway.																				
DNS Server field	Enter the DNS server IPv4/IPv6 address.																				
Segmentation ID field	Enter the segmentation ID.																				
IPv6 Mode field	Enter the IPv6 address along with the prefix, if IPv6 option is selected.																				
VNIC Type	For B-series, Direct is default value. For C –series, it is either ‘Default’ or ‘Normal’																				

Name	Description												
	<p>PHYSNET NAME</p> <p>For B-series, the value is phys_prov_fia or phys_prov_fib.</p> <p>For C-series, value like phys_sriov_n is found, where n is number of ports.</p> <p>For External Network fill in the following details:</p>  <table border="1" data-bbox="885 976 1526 1512"> <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>	Network Name field	Enter the name for the external network.	Subnet field	Enter the Subnet for the external Network.	Network IP Start field	Enter the start of the floating IPv4 address.	Network IP End field	Enter the endof the floating IPv4 address.	Network Gateway field	Enter the IPv4 address for the Gateway.	DNS Server field	Enter the DNS server IPv4 address.
Network Name field	Enter the name for the external network.												
Subnet field	Enter the Subnet for the external Network.												
Network IP Start field	Enter the start of the floating IPv4 address.												
Network IP End field	Enter the endof the floating IPv4 address.												
Network Gateway field	Enter the IPv4 address for the Gateway.												
DNS Server field	Enter the DNS server IPv4 address.												
<p>TLS This optional section will only be visible once TLS is selected from Blueprint Initial Setup Page.</p>	<p>TLS has two options:</p> <ul style="list-style-type: none"> • External LB VIP FQDN - -Text field. • External LB VIP TLS True/False. By default this option is false. 												

Name	Description						
<p>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</p>	<p>Following are the field descriptions for VIM Admins:</p> <ul style="list-style-type: none"> • Add Username, Password, Public key or both for the non-root login. • At least one Vim Admin must be configured when Permit root login is false. <p>Create Blueprint configuration</p>  <table border="1" data-bbox="846 1052 1482 1381"> <tbody> <tr> <td data-bbox="846 1052 1166 1142">User Name</td> <td data-bbox="1166 1052 1482 1142">Enter username for Vim Admin.</td> </tr> <tr> <td data-bbox="846 1142 1166 1262">Password</td> <td data-bbox="1166 1142 1482 1262">Password field. Admin hash password should always start with \$6.</td> </tr> <tr> <td data-bbox="846 1262 1166 1381">Public Key</td> <td data-bbox="1166 1262 1482 1381">Public key for vim admin should always start with 'ssh-rsa AAAA....'</td> </tr> </tbody> </table>	User Name	Enter username for Vim Admin.	Password	Password field. Admin hash password should always start with \$6.	Public Key	Public key for vim admin should always start with 'ssh-rsa AAAA....'
User Name	Enter username for Vim Admin.						
Password	Password field. Admin hash password should always start with \$6.						
Public Key	Public key for vim admin should always start with 'ssh-rsa AAAA....'						

Name	Description												
<p>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.</p>	<p>Following are the options that needs to be filled for SwiftStack:</p>  <table border="1" data-bbox="883 772 1524 1352"> <tr> <td data-bbox="883 772 1203 884">Cluster End Point field</td> <td data-bbox="1208 772 1524 884">IP address of PAC (Proxy-Account-Container) endpoint.</td> </tr> <tr> <td data-bbox="883 890 1203 963">Admin User field</td> <td data-bbox="1208 890 1524 963">Admin user for swift to authenticate in keystone.</td> </tr> <tr> <td data-bbox="883 970 1203 1110">Admin Tenant field</td> <td data-bbox="1208 970 1524 1110">The service tenant corresponding to the Account-Container used by the Swiftstack.</td> </tr> <tr> <td data-bbox="883 1117 1203 1260">Reseller Prefix field</td> <td data-bbox="1208 1117 1524 1260">Reseller_prefix as configured for Keystone Auth,AuthToken support in Swiftstack. Example: KEY_</td> </tr> <tr> <td data-bbox="883 1266 1203 1304">Admin Password field</td> <td data-bbox="1208 1266 1524 1304">swiftstack_admin_password</td> </tr> <tr> <td data-bbox="883 1310 1203 1352">Protocol</td> <td data-bbox="1208 1310 1524 1352">http or https</td> </tr> </table>	Cluster End Point field	IP address of PAC (Proxy-Account-Container) endpoint.	Admin User field	Admin user for swift to authenticate in keystone.	Admin Tenant field	The service tenant corresponding to the Account-Container used by the Swiftstack.	Reseller Prefix field	Reseller_prefix as configured for Keystone Auth,AuthToken support in Swiftstack. Example: KEY_	Admin Password field	swiftstack_admin_password	Protocol	http or https
Cluster End Point field	IP address of PAC (Proxy-Account-Container) endpoint.												
Admin User field	Admin user for swift to authenticate in keystone.												
Admin Tenant field	The service tenant corresponding to the Account-Container used by the Swiftstack.												
Reseller Prefix field	Reseller_prefix as configured for Keystone Auth,AuthToken support in Swiftstack. Example: KEY_												
Admin Password field	swiftstack_admin_password												
Protocol	http or https												

j. For SolidFire, enter the following:

Name	Description

SolidFire is visible for configuration on day0
 SolidFire is not allowed as a day-2 deployment option
 SolidFire is always available with CEPH.

Create Blueprint configuration

Blueprint Initial Setup Physical Setup **OpenStack Setup**

HA Proxy	Keystone	Neutron	CLPM	Glbance	Cinder	OpenStack	
Cluster MVIP *	172.23.105.217	Cluster SVIP *	10.3.3.50	Admin Username *	admin	Admin Password *	

Cluster MVIP field	Management IP of SolidFire cluster.
Cluster SVIP field	Storage VIP of SolidFire cluster.
Admin Username	Admin user on SolidFire cluster
Admin Password	Admin password on SolidFire cluster.

k. For NetApp, enter the following:

Name	Description
NETAPP	Optional NETAPP configuration. No dedicated Ceph allowed.

Name	Description
	<ul style="list-style-type: none"> • Server Hostname: It is the IPv4/IPv6/Hostname/FQDN of NetApp management/API server. • Server Port: It is the port of NetApp management/API server. 80 for HTTP 443 for HTTPS. • Transport Type: It is HTTP or HTTPS. Server port depends on Transport type. • Username : It is the username of Netapp API Server. • Password: It is the password of NetApp API Server. • Cinder NFS Server: It is the data path IP of NFS Server. Provide the IPv4/IPv6/Hostname/FQDN • Cinder NFS Path: It is the path of NFS Server. • Nova NFS Server: It is the data path IP of NOVA NFS server. Provide the IPv4/IPv6/Hostname/FQDN. • Nova NFS Path: It is the path of NOVA NFS. • V Server: SVM for Cinder NFS volume. Provide the IPv4/IPv6/Hostname/FQDN. <p>Glance NFS Server : It is the data path of glance NFS server. Provide the IPv4/IPv6/Hostname/FQDN</p> <p>Glance NFS Path: It is the path of glance NFS server.</p>

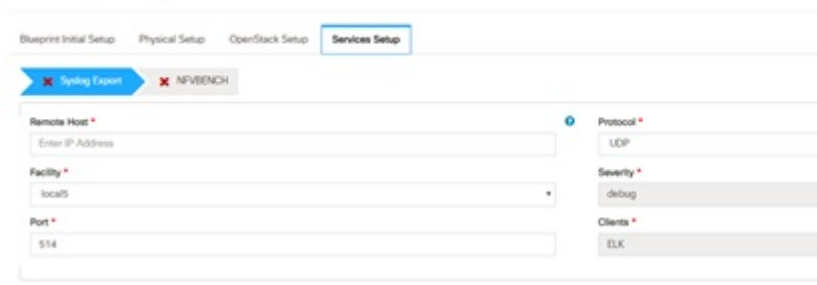
1. For **Cloud Settings** enter the following information:

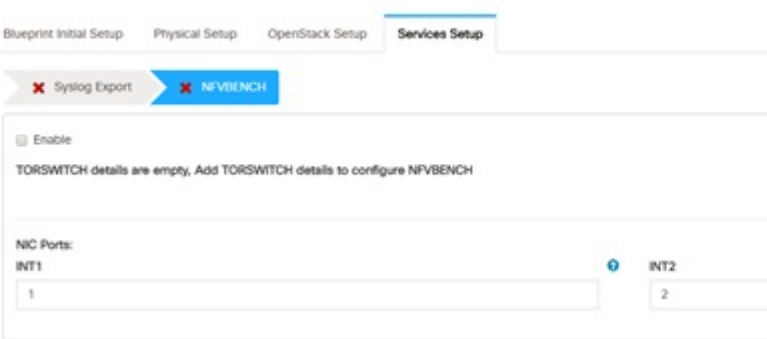
Name	Description
keystone_lockout_failure_attempts	Number of incorrect password attempts before the user is locked out. A default value of 0 indicates no lockout. The minimum value is 0 and maximum is 10
keystone_lockout_duration	Number of seconds a user is locked out. The default value is 1800 or 30 minutes. The minimum value is 300 or 5 minutes and maximum value is 86400 or 24 hours.
keystone_unique_last_password_count	Enforces users to change their password to a value not used before. A default value of 0 prevents any check. The minimum value is 0 and maximum is 10.
keystone_minimum_password_age	Enforces users to change their password after the configured number of days. A default value of 0 removes this restriction. The minimum value is 0 and maximum value is 2.

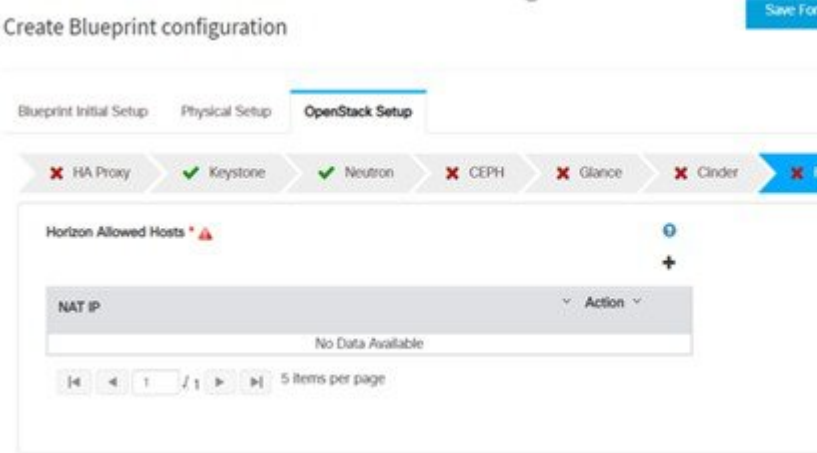
Name	Description
horizon_session_timeout	Number of seconds of inactivity before the Horizon dashboard logs out. The default value is 1800 or 30 minutes. The minimum value is 300 or 5 minutes and maximum value is 86400 or 24 hours.

- m. 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:

Name	Description												
Syslog Export	<p>Following are the options for Syslog Settings:</p>  <table border="1"> <tbody> <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> </tbody> </table>	Remote Host	Enter Syslog IP address.	Protocol	Only UDP is supported.	Facility	Defaults to local5.	Severity	Defaults to debug.	Clients	Defaults to ELK.	Port	Defaults to 514 but can be modified by the User.
Remote Host	Enter Syslog IP address.												
Protocol	Only UDP is supported.												
Facility	Defaults to local5.												
Severity	Defaults to debug.												
Clients	Defaults to ELK.												
Port	Defaults to 514 but can be modified by the User.												

Name	Description
<p>NFVBENCH</p>	<p>NFVBENCH enable checkbox which by default is <i>False</i>.</p>  <p>Create Blueprint configuration</p> <p>Blueprint Initial Setup Physical Setup OpenStack Setup Services Setup</p> <p>✘ Syslog Export ✘ NFVBENCH</p> <p><input type="checkbox"/> Enable</p> <p>TORSWITCH details are empty, Add TORSWITCH details to configure NFVBENCH</p> <p>NIC Ports:</p> <p>INT1 <input type="text" value="1"/> INT2 <input type="text" value="2"/></p> <p>Add ToR information connected to switch:</p> <ul style="list-style-type: none"> • 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. <p>For mechanism driver VPP, two optional fields are available if network option is present:</p> <ul style="list-style-type: none"> • VTEP IPs: It is mandatory for NFVbench with VXLAN. Comma separated IP pair in vxlan-tenant network, but not in the tenant pool. This option is not required. • VNIs: It is mandatory for NFVbench with VXLAN and must be comma separated vnid_id pairs. <p>For mechanism driver VTS:</p> <p>VTEP Ips: Mandatory only for VTS/VXLAN. Comma separated IP pair belongs to tenant network segment, but not in tenant network pool.</p>
<p>ENABLE_ESC_PRIV</p>	<p>Enable the checkbox to set it as True. By default it is <i>False</i>.</p>

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

Name	Description
Vim LDAP Admins.	

Name	Description
	<p>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).</p> <p>Following are the values to be filled to add vim LDAP admins:</p> <p>Add Vim LDAP Admins</p>  <ul style="list-style-type: none"> • domain_name: It is a mandatory field. Indicates the domain name to define vim LDAP admins. • ldap_uri : It is a mandatory field. The ldap_uris must be secured over Idaps.

Name	Description
	<ul style="list-style-type: none"> • 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. • ldap_user_gid_number: Optional. Enter the group id number. • ldap_group_member: Optional. Enter the group member ID. • ldap_default_bind_dn: Optional . Enter the default DN • ldap_default_authtok: Optional. Enter the default Auth token • ldap_default_authtok_type :Optional. Enter the default Auth token type • ldap_group_search_base: Optional. Enter the group search base • ldap_user_search_base:Optional. Enter the user search base • access_provider: Optional • simple_allow_groups: Optional • ldap_id_use_start_tls: Optional. Can be true or false • ldap_tls_reqcert: Optional, can be “never”/”allow”/”try”/”demand” • chpass_provider:Optional can be ‘ldap’ or ‘krb5’ or ‘ad’ or ‘none’

Step 3 To create a **C Series Blueprint**:

- a. On the **Blueprint Initial Setup** page of the Cisco VIM Insight, complete the following fields:

The screenshot shows the 'Create Blueprint configuration' interface in Cisco VIM Unified Management. The 'Blueprint Initial Setup' tab is active, displaying several configuration fields: 'Blueprint Name' (text input), 'Tenant Network' (dropdown menu), 'Object Storage Backend' (dropdown menu), 'Platform Type' (dropdown menu), and 'POD Type' (dropdown menu). Below these fields is a section for 'Optional Features & Services' with a grid of checkboxes for services such as 'Syslog Export Settings', 'ES_REMOTE_BACKUP', 'NFV Monitoring', 'Swiftstack', 'Pod Name', 'Vim Admins', 'Enable Esc Priv', 'Install Mode', 'Heat', 'Miybench', 'SRIOV CARD TYPE', 'TORSwitch Information', 'Permit Root Login', 'Auto Backup', 'LDAP', and 'VMTP'. At the bottom, there is an 'Import Existing VMM file' section with a text input and 'Browse' and 'Load' buttons. The top right corner contains 'Save Form', 'Offline Validation', and 'Clear' buttons.

Name	Description
Blueprint Name field.	Enter the name for the blueprint configuration.
Platform Type drop-down list	Choose one of the following platform types: <ul style="list-style-type: none"> • B-Series (By default) • C-Series (Select C Series)
Tenant Network drop-down list	Choose one of the following tenant network types: <ul style="list-style-type: none"> • Linux Bridge/VXLAN • OVS/VLAN • VTS/VLAN • VPP/VLAN <p>Note when VTS/VLAN is selected then respective tabs are available on Blueprint setup. When mechanism driver OVS is selected, VM_HUGEPAGE_PERCENTAGE field is enabled for all standalone compute nodes, when NFV_HOSTS is enabled.</p>

Name	Description
Pod Type drop-down list	Choose one of the following pod type : <ul style="list-style-type: none"> • Fullon(By Default) • Micro • UMHC • NGENAHC <p>Note</p> <ul style="list-style-type: none"> • 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 and VPP/VLAN.
Ceph Mode drop-down list	Choose one of the following Ceph types: <ul style="list-style-type: none"> • Dedicated (By Default) • Central. Central is not supported in Production
Optional and Services Features checkbox	Swiftstack, LDAP, Syslog Export Settings, Install Mode, TorSwitch Information, TLS, NFVMON, Pod Name, VMTP, NFVbench, Autbackup, Heat, Keystone v3, Enable Esc Priv. <p>If any one is selected, the corresponding section is visible in various Blueprint sections.</p> <p>By default all features are disabled except Auto Backup.</p>
Import Existing YAML file	If you have an existing C Series YAML file you can use this feature to upload the file. <p>Insight will automatically fill in the fields and any missed mandatory field will be highlighted in the respective section.</p>

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

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is selected, and the 'Registry Setup' step is highlighted with a green arrow. The form contains three text fields: 'Registry User Name', 'Registry Password', and 'Registry Email', all marked as mandatory with a red asterisk.

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.

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

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is selected, and the 'CIMC Common' step is highlighted with a blue arrow. The form contains two text fields: 'Username' and 'Password', both marked as mandatory with a red asterisk.

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

- d. Click **Networking** to advance to the networking section of the Blueprint.

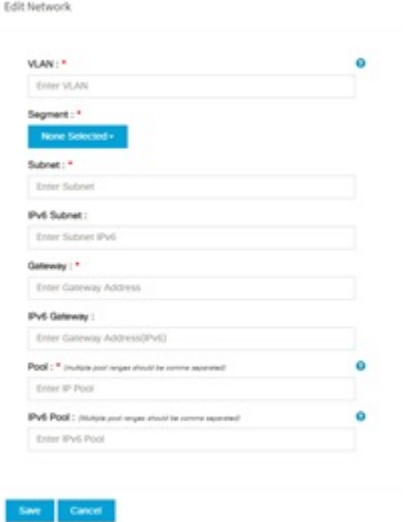
The screenshot displays the 'Create Blueprint configuration' interface in Cisco VIM Unified Management. The 'Networking' step is currently active in the configuration process. The interface includes several input fields and tables for defining network parameters:

- Domain Name:** A text input field for the domain name.
- HTTP Proxy:** A text input field for the HTTP proxy server IP.
- HTTPS Proxy:** A text input field for the HTTPS proxy server IP.
- IP Tables on Management Pods:** A table with columns for IP Address and Action.
- NTP Server:** A table with columns for NTP server and Action.
- Domain Name Server:** A table with columns for DNS server and Action.
- Networks:** A table with columns for Vlan, Segment, Subnet, Subnet IPv6, Gateway, Gateway IPv6, Pool, and Pool IPv6.

At the bottom of the page, the copyright notice reads: © 2018 Cisco and/or its affiliates. All rights reserved. Cisco VIM Unified Management Version: 2.2.2

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

Name	Description
Networks table	

Name	Description						
	<p>Network table is pre-populated with Segments. To add Networks you can either clear all the table with Delete all or click edit icon for each segment and fill in the details.</p> <p>You can add, edit, or delete network information in the table.</p>  <ul style="list-style-type: none"> • Click Add (+) to add new entries (networks) to the table. • Specify the following fields in the Edit Entry to Networks dialog: 						
	<table border="1"> <thead> <tr> <th data-bbox="920 1264 1224 1310">Name</th> <th data-bbox="1224 1264 1521 1310">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="920 1310 1224 1446"> <p>VLAN field</p> </td> <td data-bbox="1224 1310 1521 1446"> <p>Enter the VLAN ID. For Segment - Provider, the VLAN ID value is 'none'.</p> </td> </tr> <tr> <td data-bbox="920 1446 1224 1858"> <p>Segment drop-down list</p> </td> <td data-bbox="1224 1446 1521 1858"> <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> <ul style="list-style-type: none"> • API • Management/provision • Tenant • Storage </td> </tr> </tbody> </table>	Name	Description	<p>VLAN field</p>	<p>Enter the VLAN ID. For Segment - Provider, the VLAN ID value is 'none'.</p>	<p>Segment drop-down list</p>	<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> <ul style="list-style-type: none"> • API • Management/provision • Tenant • Storage
Name	Description						
<p>VLAN field</p>	<p>Enter the VLAN ID. For Segment - Provider, the VLAN ID value is 'none'.</p>						
<p>Segment drop-down list</p>	<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> <ul style="list-style-type: none"> • API • Management/provision • Tenant • Storage 						

Name	Description	
		<ul style="list-style-type: none"> • External • Provider
	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: 10.1.15-10.1.1.10,102.15-102.1.10 This field is available only for the Mgmt/Provision, Storage, and Tenant segments.
	IPv6 Pool field	Enter the pool information in the required format. For example: 10.1.15-10.1.1.10,102.15-102.1.10
Click Save .		

- e. 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).

©2018 Cisco and/or its affiliates. All rights reserved.
Cisco VIM Unified Management Version: 2.2.2

Note If you choose mechanism driver as OVS, `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. Also, option of NIC Level Redundancy appears only when Intel Nic Support is set to true. This is applicable only in the case of M5 based pods.

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

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

Name	Description
<p>Add Entry to Servers and Roles</p> <p>Note when Pod type micro is selected then all the three servers will be associated with control, compute and block storage role.</p> <p>For example:</p> <p>Roles</p> <ul style="list-style-type: none"> • Block Storage <ul style="list-style-type: none"> • -Server 1 • -Server 2 • -Server 3 • Control <ul style="list-style-type: none"> • -Server 1 • -Server 2 • -Server 3 • Compute <ul style="list-style-type: none"> • -Server 1 • -Server 2 • -Server 3 <p>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.</p>	

Name	Description		
	<p>Click Edit or + to add a new server and role to the table.</p> <p>If mechanism driver is either OVS, 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.</p> <div data-bbox="846 520 1482 1766"> <p>Server And Roles</p> <p>Server Name * <input type="text" value="Enter Server Name"/></p> <p>VIC Slot <input type="text" value="Enter VIC Slot"/></p> <p>CIMC IP * <input type="text" value="Enter CIMC IP Address"/></p> <p>CIMC User Name <input type="text" value="Enter CIMC Username"/></p> <p>CIMC Password <input type="text" value="Enter CIMC Password"/></p> <p>Rack ID * <input type="text" value="Enter Rack ID"/></p> <p>Role * <input type="text" value="CONTROL"/></p> <p>Disable Hyperthreading <input type="text"/></p> <p>Num Root Drive <input type="text"/></p> <p>Root Drive Type <input type="text"/></p> <p>VIC Admin FEC mode <input type="text"/></p> <p>VIC Port Channel Enable <input type="text"/></p> <p>Vendor <input type="text"/></p> <p>Secure Computing Mode <input type="text"/></p> <p>Management IP <input type="text" value="Enter Management IP Address"/></p> <p>Storage IP <input type="text" value="Enter Storage IP Address"/></p> <p>Management IPv6 <input type="text" value="Enter Management IPv6 Address"/></p> </div> <table border="1" data-bbox="846 1791 1482 1850"> <tr> <td data-bbox="846 1791 1166 1850">Server Name</td> <td data-bbox="1166 1791 1482 1850">Entry the name of the server.</td> </tr> </table>	Server Name	Entry the name of the server.
Server Name	Entry the name of the server.		

Name	Description	
	Rack ID field	The rack ID for the server.
	VIC Slot field	Enter a VIC Slot.
	CIMC IP field	Enter a IP address.
	CIMC Username field	Enter a Username.
	CIMC Password field	Enter a Password for CIMC.
	Select the Role from the drop down list	Choose Control or Compute or Block Storage from the drop-down list. If Podtype is fullon and selected role type is Block storage, an additional field <code>Osd_disk_type</code> is displayed where you can choose either HDD or SSD.
	VIC Admin FEC mode	Applicable only for Cisco VIC that supports to change the admin FEC mode. Can be auto/off/c174/c191.
	Root Drive Type	Optional. From the drop-down list, choose HDD, SSD or M.2_SATA internal SSD. You must choose M.2_SATA if booting off M.2 SATA SSD, however, this option is valid only for C series and not valid for M4 platform.
	VIC Port Channel Enable	Optional. Default is true. Can be either true or false.
	Secure Computing mode	Optional. By default, it is set to 1, if not defined. Can be either 0 or 1.
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.	
Storage IP	Optional, but if provided for one server then it is mandatory to provide details for other servers.	

Name	Description	
	Vendor	Allow static override value for platform vendor instead of dynamic discovery at runtime. Can be CISCO - Cisco Systems Inc/ QCT - Quanta Cloud Technology Inc/ HPE - Hewlett Packard Enterprise.
	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.
	BGP speaker addressees	Optional, only when NETWORK_OPTIONS is vxlan network, for controller node only, IP belongs to the vxlan-tenant network but not part of the pool.
	INTEL_SRIOV_VFS	Value range is 1 to 32. Can be defined globally and overridden at per compute level via add/remove or fresh installationI, if Intel N3000 card is installed for pod type edge.
	NUM GPU CARDS	Optional. This field is for having a server with GPU. Enter a value from 0 to 6.
	INTEL_FPGA_VFS	Value range is 1 to 8. Can be defined globally and overridden at per compute level via add/remove or fresh installationI, if Intel N3000 card is installed for pod type edge.
	INTEL_VC_SRIOV_VFS	Value range is 1 to 32. Can be defined globally and overridden at per compute level via add/remove or fresh installationI, if Intel N3000 card is installed for pod type edge.

Name	Description
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)	<ul style="list-style-type: none"> • Port Channel field • Switch Name field • Switch Port Info field <ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Port Channel field • Switch Name field • Switch Port Info field <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Switch Name field • Switch Port Info field <ul style="list-style-type: none"> • Enter the switch name. • Enter the switch port information.
Intel SRIOV VFS (valid for Intel NIC testbeds) and can be integer.	For SRIOV support for Intel NIC. By Default, SRIOV support is disabled. To enable, define a value in the range # * 1-32 when INTEL_NIC_SUPPORT is set True (X710 Max VFs = 32) # * 1-63 when CISCO_VIC_INTEL_SRIOV is set True (X520 Max VFs = 63)
INTEL_SRIOV_PHYS_PORTS (valid for Intel NIC test beds) and can be of value 2 or 4 (default is 2)	In some cases the # of Physical SRIOV port needed is 4; to meet that requirement, define the following: # this is optional, if nothing is defined code will assume it to be 2; the only 2 integer values this parameter # takes is 2 or 4 and is true when INTEL_NIC_SUPPORT is True and INTEL_SRIOV_VFS is valid. For 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

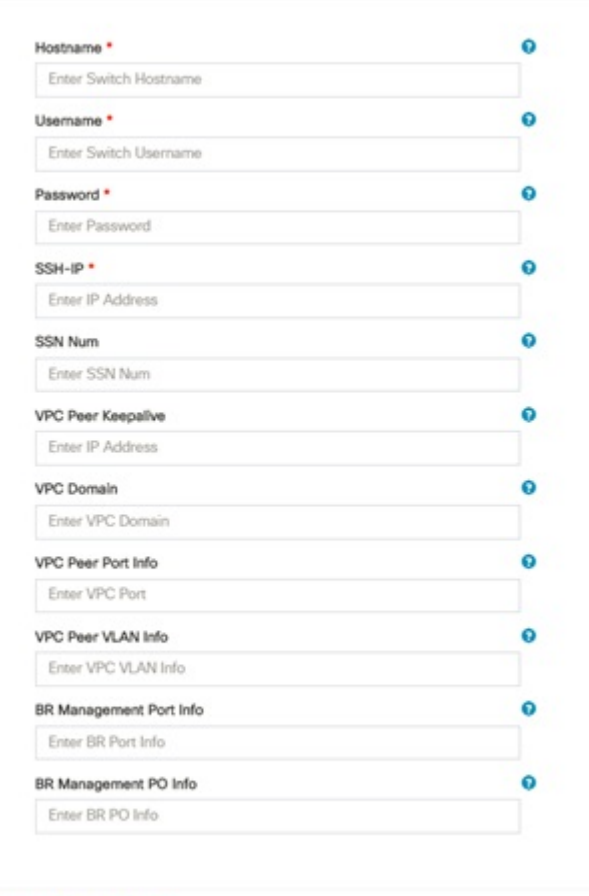
Note For Tenant type, port channel for each ToR port is not available in servers and roles, as APIC automatically assigns the port-channel numbers.

- f. 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.

The screenshot shows the 'Create Blueprint configuration' page in the Cisco VIM Unified Management interface. The 'Physical Setup' tab is selected, and the 'ToR Switch' checkbox is checked. The 'Configure ToR' section is visible, showing a table for 'ToR Switch Information' with columns for Hostname, User Name, Password, SSH IP, SSN Num, VPC Peerlink, VPC Domain, VPC peer p..., VPC peer v..., BR mgmt p..., BR mgmt P..., and Action. The table is currently empty.

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

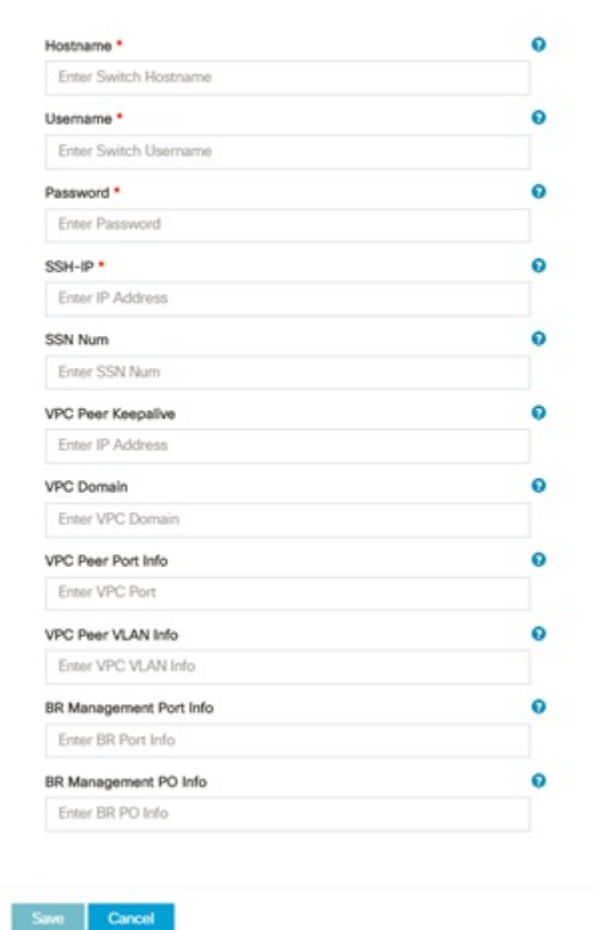
Name	Description
ToR Switch Information mandatory table if you want to enter ToR information.	

Name	Description
	<p>Click (+) to add information for ToR Switch.</p> <p>Switch Details</p> 
Name	Description
Name	ToR switch name.
Username	ToR switch username.
Password	ToR switch password.
SSH IP	ToR switch SSH IP.
SSN Num	ToR switch ssn num.
VPC Peer Keepalive	Peer Management IP. You cannot define if there is no peer.
VPC Domain	Cannot define if there is no

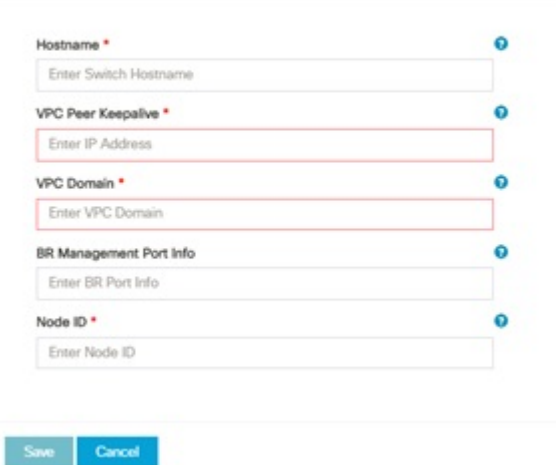
Name	Description	
		peer.
	VPC Peer Port Info	Interface for vpc peer ports.
	VPC Peer VLAN Info	VLAN ids for vpc peer ports (optional).
	BR Management Port Info	Management interface of build node.
	BR Management PO Info	Port channel number for management interface of build node.
	BR Management VLAN info	VLAN ID for management interface of build node (access).
Splitter Optic 4x10	For C Series platform type, Tenant Type is VPP/VLAN and Pod Type is either fullon or Micro, an additional choice will be provided to select the TOR Type. If selected TOR type is NCS-5500, then user can configure splitter cable parameters.	
Click Save .		

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.	

Name	Description																
	<p>Click (+) to add information for ToR Switch.</p> <p>Switch Details</p> 																
	<table border="1"> <thead> <tr> <th data-bbox="836 1381 1177 1430">Name</th> <th data-bbox="1177 1381 1515 1430">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="836 1430 1177 1486">Name</td> <td data-bbox="1177 1430 1515 1486">ToR switch name.</td> </tr> <tr> <td data-bbox="836 1486 1177 1543">Username</td> <td data-bbox="1177 1486 1515 1543">ToR switch username.</td> </tr> <tr> <td data-bbox="836 1543 1177 1600">Password</td> <td data-bbox="1177 1543 1515 1600">ToR switch password.</td> </tr> <tr> <td data-bbox="836 1600 1177 1656">SSH IP</td> <td data-bbox="1177 1600 1515 1656">ToR switch SSH IP.</td> </tr> <tr> <td data-bbox="836 1656 1177 1713">SSN Num</td> <td data-bbox="1177 1656 1515 1713">ToR switch ssn num.</td> </tr> <tr> <td data-bbox="836 1713 1177 1801">VPC Peer Keepalive</td> <td data-bbox="1177 1713 1515 1801">Peer Management IP. You cannot define if there is no peer.</td> </tr> <tr> <td data-bbox="836 1801 1177 1858">VPC Domain</td> <td data-bbox="1177 1801 1515 1858">Cannot define if there is no</td> </tr> </tbody> </table>	Name	Description	Name	ToR switch name.	Username	ToR switch username.	Password	ToR switch password.	SSH IP	ToR switch SSH IP.	SSN Num	ToR switch ssn num.	VPC Peer Keepalive	Peer Management IP. You cannot define if there is no peer.	VPC Domain	Cannot define if there is no
Name	Description																
Name	ToR switch name.																
Username	ToR switch username.																
Password	ToR switch password.																
SSH IP	ToR switch SSH IP.																
SSN Num	ToR switch ssn num.																
VPC Peer Keepalive	Peer Management IP. You cannot define if there is no peer.																
VPC Domain	Cannot define if there is no																

Name	Description	
		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 .		

Name	Description										
<p>Configure ToR</p>	<p>Is not checked, as by default ACI will configure the ToRs</p> <p>Switch Details</p>  <table border="1" data-bbox="922 913 1528 1318"> <tbody> <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> </tbody> </table>	Host Name	ToR switch name.	VPC Peer keep alive	Enter Peer must be exist pair.	VPC Domain	Enter an integer.	BR management port info	Enter BR management port info eg. Eth1/19 ,atleast one pair to be exist.	Enter Node ID	Entered integer must be unique.
Host Name	ToR switch name.										
VPC Peer keep alive	Enter Peer must be exist pair.										
VPC Domain	Enter an integer.										
BR management port info	Enter BR management port info eg. Eth1/19 ,atleast one pair to be exist.										
Enter Node ID	Entered integer must be unique.										

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

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

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

Name	Description
	<p>Click (+) to add information for NCS-5500 Switch.</p> <p>Switch Details</p> <div style="border: 1px solid #ccc; padding: 10px;"> <p>Hostname * +</p> <input type="text" value="Enter Switch Hostname"/> <p>Username * +</p> <input type="text" value="Enter Switch Username"/> <p>Password * +</p> <input type="text" value="Enter Password"/> <p>SSH-IP * +</p> <input type="text" value="Enter IP Address"/> <p>VPC Peer Keepalive +</p> <input type="text" value="Enter IP Address"/> <p>VPC Peer Port Info +</p> <input type="text" value="Enter VPC Port"/> <p>VPC Peer Port Address +</p> <input type="text" value="Enter VPC Port Address"/> <p>ISIS Loopback Address +</p> <input type="text" value="Enter ISIS Loopback Address"/> <p>ISIS Net Entity Title +</p> <input type="text" value="Enter ISIS net entity title"/> <p>ISIS Prefix SID +</p> <input type="text" value="Enter ISIS Prefix SID"/> <p>BR Management Port Info +</p> <input type="text" value="Enter BR Port Info"/> <p>BR Management PO Info +</p> <input type="text" value="Enter BR PO Info"/> <p style="text-align: right;"> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </p> </div>
Name	Description
Name	Enter the NCS-5500 hostname.
User Name	Enter the NCS-5500 username.
Password	Enter the NCS-5500 password.
SSH IP	Enter the NCS-5500 ssh IP Address.
VPC Peer Link	Peer management IP.

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

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

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

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

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

Name	Description				
Master 2	Optional, but becomes mandatory if collector 2 is defined. Must contain a valid Admin IP.				
Collector 2	Optional, but becomes mandatory if Master 2 is defined. Contains Management VIP and Collector VM information. Collector 2 is secondary set to collector, with all the properties of Collector.				
NFVIMON ADMIN	Optional and reconfigurable to add/update user id. Once enabled, you must have only one admin.				
Collector ToR Connections	<ol style="list-style-type: none"> 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 <div data-bbox="889 919 1221 1096" style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p style="font-size: small; margin: 0;">Add Collector Tor Connections</p> <p style="font-size: x-small; margin: 0;">Select Tor switch for connections</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="font-size: x-small; margin: 0;">test-torhostname</p> </div> <div style="width: 45%;"> <p style="font-size: x-small; margin: 0;">Port Channel *</p> <p style="font-size: x-small; margin: 0;">Enter port channel</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 45%;"> <p style="font-size: x-small; margin: 0;">Switch- test-torhostname *</p> <p style="font-size: x-small; margin: 0;">Enter Port Information</p> </div> <div style="width: 45%; text-align: right;"> <p style="font-size: x-small; margin: 0;">Save Cancel</p> </div> </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%;">Port Channel</td> <td>Enter port channel.</td> </tr> <tr> <td>Switch - {torSwitch-hostname}</td> <td>Enter port number, For example, eth1/15.</td> </tr> </table> <p>Click Save</p>	Port Channel	Enter port channel.	Switch - {torSwitch-hostname}	Enter port number, For example, eth1/15.
Port Channel	Enter port channel.				
Switch - {torSwitch-hostname}	Enter port number, For example, eth1/15.				
Rabbit MQ User Name	Enter Rabbit MQ username.				

- h. Click **CVIMMON** checkbox in Blueprint Initial Setup to enable the CVIMMON configuration tab.

Save Form Offline Validation Clear

Create Blueprint configuration

Blueprint Initial Setup **Physical Setup** OpenStack Setup

Registry Setup UCSM Common Networking Servers and Roles **CVIMMON**

Enable CVIMMON

Polling Intervals

Low Frequency	1	m	⊕
Medium Frequency	30	s	⊕
High Frequency	10	s	⊕

CVIM-MON is a built-in infrastructure monitoring service based on telegraf/prometheus/grafana.

When enabled, the telegraf service will be deployed on every node on the pod to capture infrastructure level stats (CPU, memory, network, containers, and so on.) and a Prometheus server will be installed on the management node to poll for these stats and store them in its time series database. The statistics can then be viewed using the grafana server that is accessible on the management node at port 3000 (password protected).

There are three levels of polling intervals which are used by different telegraf plugins:

- Low frequency interval is used to collect system level metrics like cpu, memory.
- Medium frequency interval is used to collect docker metrics.
- High frequency interval is used to collect rabbitmq metrics.

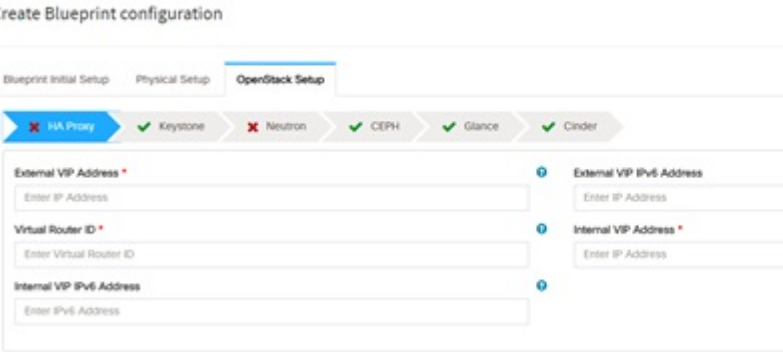

Defining polling intervals in setup data is optional. If not defined, the default values are used.

Prior to Cisco VIM 3.4.1, CVIM-MON is mutually exclusive to NFVIMON, however 3.4.1 both can run simultaneously on the same pod. This makes transitioning from NFVIMON to CVIM MON easier.

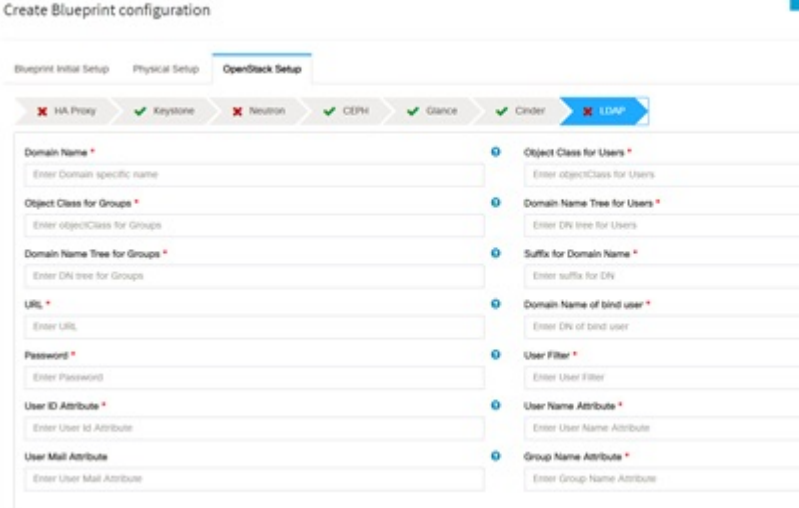
PODNAME is required when CVIM-MON is enabled.

Name	Description
Enable	Default is False
Polling Intervals	
Low frequency – deprecated	<Integer following with time sign (s/m/h)> # min of 1 minute (1m) if not defined defaults to 1m, also it needs to be higher than medium interval.
Medium frequency – deprecated	<Integer following with time sign (s/m/h)> # min of 30 seconds (30s) if not defined defaults to 30s, also it needs to be higher than high interval.
High frequency	<Integer following with time sign (s/m/h)> # min of 10 seconds (10s) if not defined defaults to 10s.

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

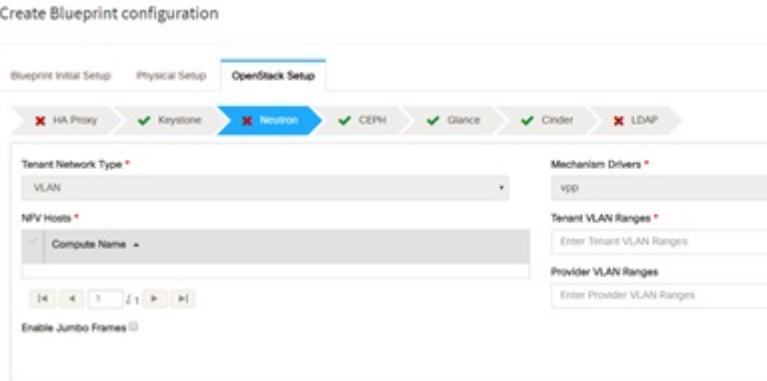
Name	Description										
<p>HA Proxy</p>	<p>Fill in the following details:</p>  <table border="1" data-bbox="802 806 1489 1220"> <tr> <td>External VIP Address field</td> <td>Enter IP address of External VIP.</td> </tr> <tr> <td>External VIP Address IPv6 field</td> <td>Enter IPv6 address of External 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>	External VIP Address field	Enter IP address of External VIP.	External VIP Address IPv6 field	Enter IPv6 address of External VIP.	Virtual Router ID field	Enter the Router ID for HA.	Internal VIP Address IPv6 field	Enter IPv6 address of Internal IP.	Internal VIP Address field	Enter IP address of Internal VIP.
External VIP Address field	Enter IP address of External VIP.										
External VIP Address IPv6 field	Enter IPv6 address of External VIP.										
Virtual Router ID field	Enter the Router ID for HA.										
Internal VIP Address IPv6 field	Enter IPv6 address of Internal IP.										
Internal VIP Address field	Enter IP address of Internal VIP.										
<p>Keystone</p>	<p>Mandatory fields are pre-populated.</p>  <table border="1" data-bbox="802 1591 1489 1703"> <tr> <td>Admin User Name</td> <td>admin.</td> </tr> <tr> <td>Admin Tenant Name</td> <td>admin.</td> </tr> </table>	Admin User Name	admin.	Admin Tenant Name	admin.						
Admin User Name	admin.										
Admin Tenant Name	admin.										

Name	Description
LDAP	

Name	Description																										
	<p>LDAP enable checkbox which by default is false, if LDAP is enabled on keystone.</p>  <table border="1" data-bbox="803 934 1477 1827"> <tbody> <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> </tbody> </table>	Domain Name field	Enter name for Domain name.	Object Class for Users field	Enter a string as input.	Object Class for Groups field	Enter a string.	Domain Name Tree for Users field	Enter a string.	Domain Name Tree for Groups field	Enter a string.	Suffix for Domain Name field	Enter a string.	URL field	Enter a URL with ending port number.	Domain Name of Bind User field	Enter a string.	Password field	Enter Password as string format.	User Filter field	Enter filter name as string.	User ID Attribute field	Enter a string.	User Name Attribute field	Enter a string.	User Mail Attribute field	Enter a string.
Domain Name field	Enter name for Domain name.																										
Object Class for Users field	Enter a string as input.																										
Object Class for Groups field	Enter a string.																										
Domain Name Tree for Users field	Enter a string.																										
Domain Name Tree for Groups field	Enter a string.																										
Suffix for Domain Name field	Enter a string.																										
URL field	Enter a URL with ending port number.																										
Domain Name of Bind User field	Enter a string.																										
Password field	Enter Password as string format.																										
User Filter field	Enter filter name as string.																										
User ID Attribute field	Enter a string.																										
User Name Attribute field	Enter a string.																										
User Mail Attribute field	Enter a string.																										

Name	Description		
	<table border="1"><tr><td data-bbox="841 281 1182 331">Group Name Attribute field</td><td data-bbox="1182 281 1516 331">Enter a string.</td></tr></table>	Group Name Attribute field	Enter a string.
Group Name Attribute field	Enter a string.		

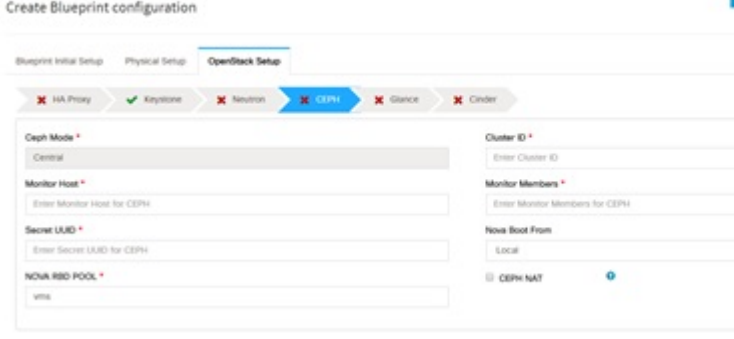

Name	Description
Neutron	

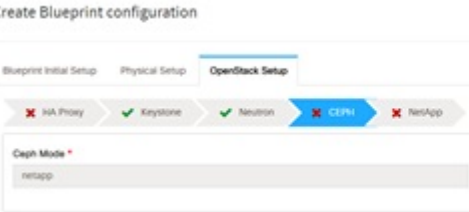
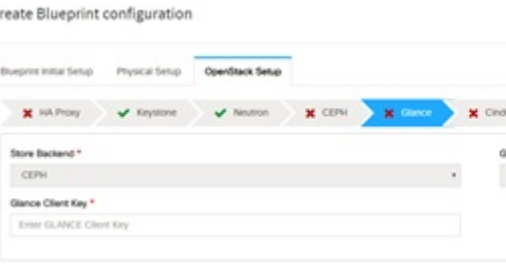
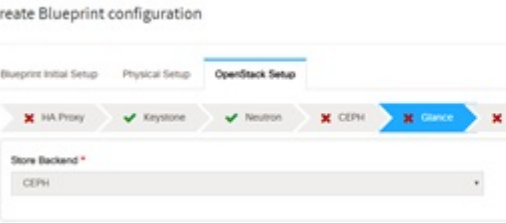
Name	Description
	<p>Neutron fields would change on the basis of Tenant Network Type Selection from Blueprint Initial Setup. Following are the options available for Neutron for OVS/VLAN:</p> 
Tenant Network Type field	Auto Filled based on the Tenant Network Type selected in the Blueprint Initial Setup page.
Mechanism Drivers field	Auto Filled based on the Tenant Network Type selected in Blueprint Initial Setup page.
NFV Hosts field	<p>Auto-filled with the Compute you added in Server and Roles.</p> <p>If you select All in this section NFV_HOSTS: ALL will be added to the Blueprint or you can select one particular compute. For example:</p> <p>NFV_HOSTS: compute-server-1, compute-server-2.</p>
ENABLE_CAT	Optional to enable Intel CAT. It is valid only when NFV Host is enabled. By default, it is set to false.
RESERVED_CACHE_LINES_PER_SOCKET	<p>Allowed value of reserved cache lines per socket is between 1 and 32. It is valid only when ENABLE_CAT is set to True</p> <p>.</p>
Tenant VLAN Ranges field	List of ranges separated by



Name	Description
	comma form start:end.
Provider VLAN Ranges field	List of ranges separated by comma form start:end.
VM Hugh Page Size (available for NFV_HOSTS option) field	2M or 1G (optional, defaults to 2M)
VM_HUGHPAGE_PERCENTAGE	Optional, defaults to 100%; can range between 0 and 100
VSWITCH_WORKER_PROFILE	<p>Allowed only for VPP</p> <p>Available options are:</p> <ul style="list-style-type: none"> • numa_zero: The reserved cores always reside in NUMA node 0. • Even : The reserved cores are evenly distributed across all NUMA
NR_RESERVED_VSWITCH_PCORES	<p>Allowed only for VPP</p> <p>Number of cores associated to VPP, defaults to 2. Takes value of 2 through 6.</p>
Enable Jumbo Frames field	Enable the checkbox
Enable VM Emulator Pin	<ul style="list-style-type: none"> • Optional, when NFV_HOSTS is enabled. • When a VM is spawned with this parameter enabled, NOVA allocates additional vCPU on top of the vCPU count specified in the flavor, and pin vCPU0 to the pCPU that is reserved in the pool.
VM Emulator PCORES Per Socket	<ul style="list-style-type: none"> • Optional, when ENABLE_VM_EMULATOR_PIN is enabled. • Enter the number of cores per socket. • Defaults to 1. Values can range from 1 to 4.

Name	Description	
	Nova Opt For Low Latency	<ul style="list-style-type: none">• Optional. Used to enable additional real-time optimizations in OpenStack NOVA.• Defaults to False.
For Tenant Network Type Linux Bridge everything remains the same but Tenant VLAN Ranges will be removed.		

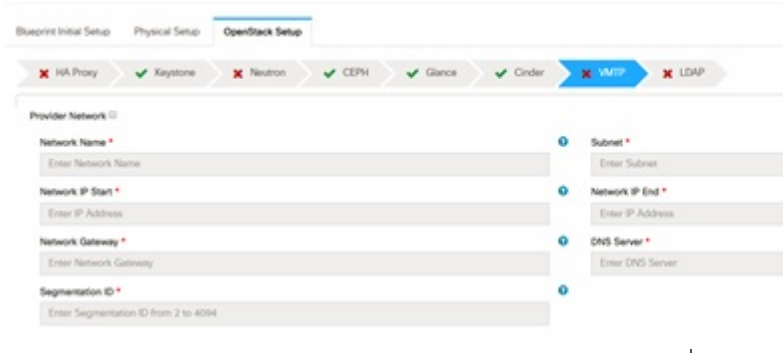

Name	Description
CEPH	

Name	Description																
	<p>1. 1. When Object Storage Backend is selected Central in blueprint initial setup.</p>  <p>The screenshot shows the 'OpenStack Setup' configuration page. The 'Ceph Mode' is set to 'Central'. Other fields include 'Monitor Host', 'Secret UUID', 'NOVA RBD POOL', 'Cluster ID', 'Monitor Members', 'Nova Boot From' (set to 'Local'), and 'CEPH NAT' (checked).</p> <table border="1" data-bbox="885 745 1524 1249"> <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> <p>2. 2. When Object Storage Backend is selected Dedicated in blueprint initial setup.</p>  <p>The screenshot shows the 'OpenStack Setup' configuration page. The 'Ceph Mode' is set to 'Dedicated'. The 'Nova Boot From' is set to 'Local'.</p> <ul style="list-style-type: none"> • CEPH Mode: By default Dedicated. • NOVA Boot: From drop down selection you can choose CEPH or local. <p>3. 3. When Object Storage Backend is selected NetApp in blueprint initial setup.</p>	CEPH Mode	By default Central.	Cluster ID	Enter Cluster ID.	Monitor Host	Enter Monitor Host for CEPH	Monitor Members	Enter Monitor Members for CEPH	Secret UUID	Enter Secret UUID for CEPH	NOVA Boot from	Drop down selection. You can choose CEPH or local.	NOVA RBD POOL	Enter NOVA RBD Pool (default's to vms)	CEPH NAT	Optional, needed for Central Ceph and when mgmt network is not routable
CEPH Mode	By default Central.																
Cluster ID	Enter Cluster ID.																
Monitor Host	Enter Monitor Host for CEPH																
Monitor Members	Enter Monitor Members for CEPH																
Secret UUID	Enter Secret UUID for CEPH																
NOVA Boot from	Drop down selection. You can choose CEPH or local.																
NOVA RBD POOL	Enter NOVA RBD Pool (default's to vms)																
CEPH NAT	Optional, needed for Central Ceph and when mgmt network is not routable																

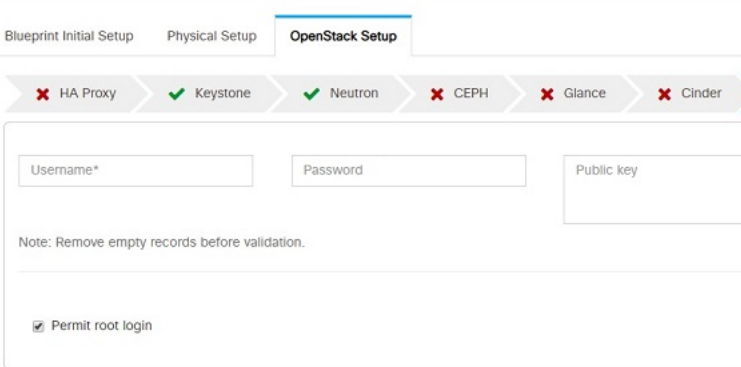
Name	Description
	<p>Create Blueprint configuration</p> 
<p>GLANCE</p>	<p>1. When Object Storage Backend is selected Central in blueprint initial setup.</p>  <p>When Object Storage Backend is selected Dedicated in blueprint initial setup.</p>  <p>Note By default Populated for CEPH Dedicated with Store Backend value as CEPH.</p>


Name	Description
CINDER	<p>By default Populated for CEPH Dedicated with Volume Driver value as CEPH.</p> <p>Create Blueprint configuration</p>  <p>2. When Object Storage Backend is selected Dedicated in blueprint initial setup.</p> <p>Create Blueprint configuration</p>  <p>Note By default Populated for CEPH Dedicated with Volume Driver value as CEPH.</p>

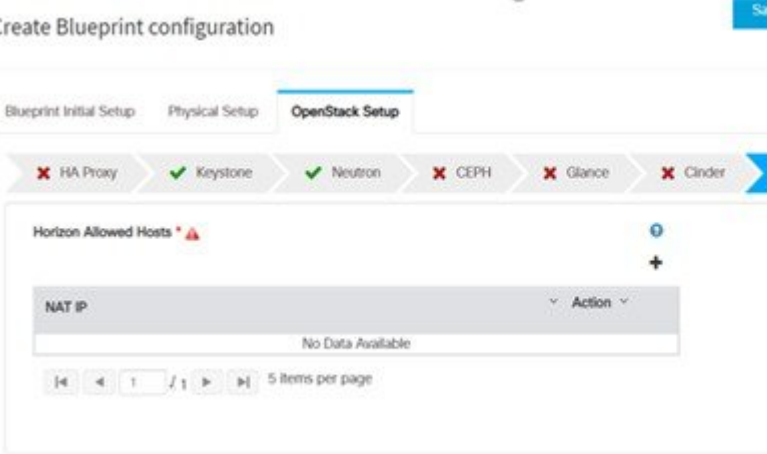
Name	Description
VMTP optional section, this will be visible only if VMTP is selected from Blueprint Initial Setup. For VTS tenant type Provider network is only supported.	

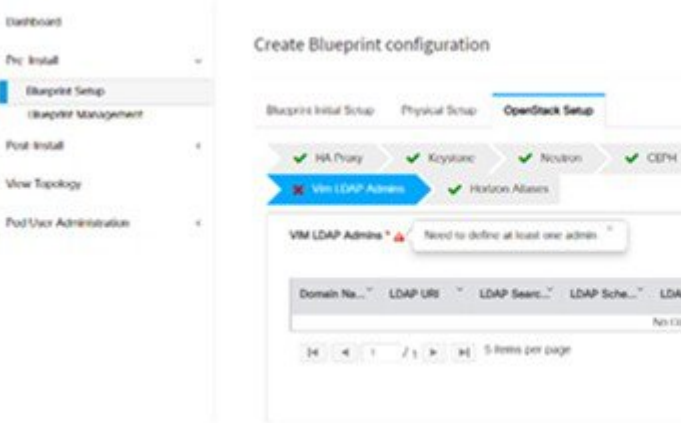
Name	Description		
	<p>Check one of the check boxes to specify a VMTP network:</p> <ul style="list-style-type: none"> • Provider Network • External Network <p>For the Provider Network complete the following:</p> <p>Create Blueprint configuration</p> 		
	<table border="1"> <tr> <td data-bbox="841 926 1182 997">Network Name field</td> <td data-bbox="1182 926 1523 997">Enter the name for the external network.</td> </tr> </table>	Network Name field	Enter the name for the external network.
Network Name field	Enter the name for the external network.		
	<table border="1"> <tr> <td data-bbox="841 1010 1182 1081">Subnet field</td> <td data-bbox="1182 1010 1523 1081">Enter the Subnet for Provider Network.</td> </tr> </table>	Subnet field	Enter the Subnet for Provider Network.
Subnet field	Enter the Subnet for Provider Network.		
	<table border="1"> <tr> <td data-bbox="841 1100 1182 1171">Network IP Start field</td> <td data-bbox="1182 1100 1523 1171">Enter the starting floating IPv4 address.</td> </tr> </table>	Network IP Start field	Enter the starting floating IPv4 address.
Network IP Start field	Enter the starting floating IPv4 address.		
	<table border="1"> <tr> <td data-bbox="841 1190 1182 1262">Network IP End field</td> <td data-bbox="1182 1190 1523 1262">Enter the ending floating IPv4 address.</td> </tr> </table>	Network IP End field	Enter the ending floating IPv4 address.
Network IP End field	Enter the ending floating IPv4 address.		
	<table border="1"> <tr> <td data-bbox="841 1281 1182 1352">Network Gatewayfield</td> <td data-bbox="1182 1281 1523 1352">Enter the IPv4 address for the Gateway.</td> </tr> </table>	Network Gateway field	Enter the IPv4 address for the Gateway.
Network Gateway field	Enter the IPv4 address for the Gateway.		
	<table border="1"> <tr> <td data-bbox="841 1371 1182 1442">DNS Server field</td> <td data-bbox="1182 1371 1523 1442">Enter the DNS server IPv4 address.</td> </tr> </table>	DNS Server field	Enter the DNS server IPv4 address.
DNS Server field	Enter the DNS server IPv4 address.		
	<table border="1"> <tr> <td data-bbox="841 1461 1182 1491">Segmentation ID field</td> <td data-bbox="1182 1461 1523 1491">Enter the segmentation ID.</td> </tr> </table>	Segmentation ID field	Enter the segmentation ID.
Segmentation ID field	Enter the segmentation ID.		
	<p>For External Network fill in the following details:</p> 		

Name	Description	
	Network Name field	Enter the name for the external network.
	IP Start field	Enter the starting floating IPv4 address.
	IP End field	Enter the ending floating IPv4 address.
	Gateway field	Enter the IPv4 address for the Gateway.
	DNS Server field	Enter the DNS server IPv4 address.
	Subnet field	Enter the Subnet for External Network.
<p>TLS optional section, this will be visible only if TLS is selected from Blueprint Initial Setup Page.</p>	<p>TLS has two options:</p> <ul style="list-style-type: none"> • External LB VIP FQDN - Text Field. • External LB VIP TLS - True/False. By default this option is false. 	

Name	Description						
<p>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</p>	<p>Following are the field descriptions for VIM Admins:</p> <ul style="list-style-type: none"> • Add Username, Password, Public key or both for the non-root login. • At least one Vim Admin must be configured when Permit root login is false. <p>Create Blueprint configuration</p>  <table border="1" data-bbox="841 1052 1523 1381"> <tbody> <tr> <td data-bbox="841 1052 1182 1142">User Name</td> <td data-bbox="1182 1052 1523 1142">Enter username for Vim Admin.</td> </tr> <tr> <td data-bbox="841 1142 1182 1262">Password</td> <td data-bbox="1182 1142 1523 1262">Password field. Admin hash password should always start with \$6.</td> </tr> <tr> <td data-bbox="841 1262 1182 1381">Public Key</td> <td data-bbox="1182 1262 1523 1381">Public key for vim admin should always start with 'ssh-rsa AAAA....'</td> </tr> </tbody> </table>	User Name	Enter username for Vim Admin.	Password	Password field. Admin hash password should always start with \$6.	Public Key	Public key for vim admin should always start with 'ssh-rsa AAAA....'
User Name	Enter username for Vim Admin.						
Password	Password field. Admin hash password should always start with \$6.						
Public Key	Public key for vim admin should always start with 'ssh-rsa AAAA....'						

Name	Description												
<p>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.</p>	<p>Following are the options that needs to be filled for SwiftStack:</p>  <p>The screenshot shows the 'OpenStack Setup' section of a configuration wizard. It includes a progress bar with steps: HA Proxy (failed), Keystone (success), Neutron (failed), CEPH (success), Glance (success), Cinder (success), VMTP (failed), TLS (success), and SwiftStack (active). Below the progress bar are input fields for: Cluster End Point (IP address), Admin User (name), Admin Tenant (name), Reseller Prefix, Admin Password, and Protocol (http or https).</p> <table border="1" data-bbox="805 688 1484 1285"> <thead> <tr> <th data-bbox="805 688 1143 814">Cluster End Point</th> <th data-bbox="1149 688 1484 814">IP address of PAC (proxy-account-container) endpoint.</th> </tr> </thead> <tbody> <tr> <td data-bbox="805 823 1143 907">Admin User</td> <td data-bbox="1149 823 1484 907">Admin user for swift to authenticate in keystone.</td> </tr> <tr> <td data-bbox="805 915 1143 1054">Admin Tenant</td> <td data-bbox="1149 915 1484 1054">The service tenant corresponding to the Account-Container used by Swiftstack.</td> </tr> <tr> <td data-bbox="805 1062 1143 1180">Reseller Prefix</td> <td data-bbox="1149 1062 1484 1180">Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack E.g KEY_</td> </tr> <tr> <td data-bbox="805 1188 1143 1230">Admin Password</td> <td data-bbox="1149 1188 1484 1230">swiftstack_admin_password</td> </tr> <tr> <td data-bbox="805 1239 1143 1285">Protocol</td> <td data-bbox="1149 1239 1484 1285">http or https</td> </tr> </tbody> </table>	Cluster End Point	IP address of PAC (proxy-account-container) endpoint.	Admin User	Admin user for swift to authenticate in keystone.	Admin Tenant	The service tenant corresponding to the Account-Container used by Swiftstack.	Reseller Prefix	Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack E.g KEY_	Admin Password	swiftstack_admin_password	Protocol	http or https
Cluster End Point	IP address of PAC (proxy-account-container) endpoint.												
Admin User	Admin user for swift to authenticate in keystone.												
Admin Tenant	The service tenant corresponding to the Account-Container used by Swiftstack.												
Reseller Prefix	Reseller_prefix as configured for Keysone Auth,AuthToken support in Swiftstack E.g KEY_												
Admin Password	swiftstack_admin_password												
Protocol	http or https												

Name	Description
Horizon Aliases	<p>If the external <code>_lb_vip</code> is behind a NAT router or has a DNS alias, provide a list of those addresses.</p> <p>Horizon Allowed Hosts uses comma separated list of IP addresses and/or DNS names for horizon hosting.</p> 

Name	Description
<p>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. <code>external_lb_vip_tls: True</code>).</p>	<p>Following are the values to be filled to add vim LDAP admins:</p>  <ul style="list-style-type: none"> • domain_name: It is a mandatory field. Indicates the domain name to define vim LDAP admins. • ldap_uri : It is a mandatory field. The ldap_uris must be secured over ldaps. • 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. • ldap_user_gid_number: Optional. Enter the group id number. • ldap_group_member: Optional. Enter the group member ID.

Name	Description																									
<p>APICINFO tab is available in Openstack setup, when the Tenant type ACI/VLAN is selected in blueprint initial setup.</p> <p>Note When ACI/VLAN is selected then ToR switch from initial setup is mandatory.</p>	<table border="1"> <thead> <tr> <th data-bbox="841 294 1182 348">Name</th> <th data-bbox="1182 294 1523 348">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="841 348 1182 470">APIC Hosts field</td> <td data-bbox="1182 348 1523 470">Enter host input. Example: <ip1 host1>:[port] . max of 3, min of 1, not 2;</td> </tr> <tr> <td data-bbox="841 470 1182 525">apic_username field</td> <td data-bbox="1182 470 1523 525">Enter a string format.</td> </tr> <tr> <td data-bbox="841 525 1182 579">apic_password field</td> <td data-bbox="1182 525 1523 579">Enter Password.</td> </tr> <tr> <td data-bbox="841 579 1182 676">apic_system_id field</td> <td data-bbox="1182 579 1523 676">Enter input as string. Max length 8.</td> </tr> <tr> <td data-bbox="841 676 1182 730">apic_resource_prefix field</td> <td data-bbox="1182 676 1523 730">Enter string max length 6.</td> </tr> <tr> <td data-bbox="841 730 1182 785">apic_tep_address_pool field</td> <td data-bbox="1182 730 1523 785">Allowed only 10.0.0/16</td> </tr> <tr> <td data-bbox="841 785 1182 840">multiclass_address_pool field</td> <td data-bbox="1182 785 1523 840">Allowed only 225.0.0/15</td> </tr> <tr> <td data-bbox="841 840 1182 894">apic_pod_id field</td> <td data-bbox="1182 840 1523 894">Enter integer(1- 65535)</td> </tr> <tr> <td data-bbox="841 894 1182 949">apic_installer_tenant field</td> <td data-bbox="1182 894 1523 949">Enter String, max length 32</td> </tr> <tr> <td data-bbox="841 949 1182 1003">apic_installer_vrf field</td> <td data-bbox="1182 949 1523 1003">Enter String, max length 32</td> </tr> <tr> <td data-bbox="841 1003 1182 1058">api_l3out_network field</td> <td data-bbox="1182 1003 1523 1058">Enter String, max length 32</td> </tr> </tbody> </table>	Name	Description	APIC Hosts field	Enter host input. Example: <ip1 host1>:[port] . max of 3, min of 1, not 2;	apic_username field	Enter a string format.	apic_password field	Enter Password.	apic_system_id field	Enter input as string. Max length 8.	apic_resource_prefix field	Enter string max length 6.	apic_tep_address_pool field	Allowed only 10.0.0/16	multiclass_address_pool field	Allowed only 225.0.0/15	apic_pod_id field	Enter integer(1- 65535)	apic_installer_tenant field	Enter String, max length 32	apic_installer_vrf field	Enter String, max length 32	api_l3out_network field	Enter String, max length 32	
Name	Description																									
APIC Hosts field	Enter host input. Example: <ip1 host1>:[port] . max of 3, min of 1, not 2;																									
apic_username field	Enter a string format.																									
apic_password field	Enter Password.																									
apic_system_id field	Enter input as string. Max length 8.																									
apic_resource_prefix field	Enter string max length 6.																									
apic_tep_address_pool field	Allowed only 10.0.0/16																									
multiclass_address_pool field	Allowed only 225.0.0/15																									
apic_pod_id field	Enter integer(1- 65535)																									
apic_installer_tenant field	Enter String, max length 32																									
apic_installer_vrf field	Enter String, max length 32																									
api_l3out_network field	Enter String, max length 32																									
<p>VTS tab is available in Openstack setup, when Tenant Type is VTS/VLAN selected.</p> <p>If vts day0 is enabled then SSH username and SSH password is mandatory.</p> <p>If SSH_username is input present then SSH password is mandatory vice-versa</p>	<table border="1"> <thead> <tr> <th data-bbox="841 1100 1182 1155">Name</th> <th data-bbox="1182 1100 1523 1155">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="841 1155 1182 1209">VTS Day0 (checkbox)</td> <td data-bbox="1182 1155 1523 1209">True or false default is false.</td> </tr> <tr> <td data-bbox="841 1209 1182 1306">VTS User name</td> <td data-bbox="1182 1209 1523 1306">Enter as string does not contain special characters.</td> </tr> <tr> <td data-bbox="841 1306 1182 1360">VTS Password</td> <td data-bbox="1182 1306 1523 1360">Enter password</td> </tr> <tr> <td data-bbox="841 1360 1182 1415">VTS NCS IP</td> <td data-bbox="1182 1360 1523 1415">Enter IP Address format.</td> </tr> <tr> <td data-bbox="841 1415 1182 1470">VTC SSH Username</td> <td data-bbox="1182 1415 1523 1470">Enter a string</td> </tr> <tr> <td data-bbox="841 1470 1182 1524">VTC SHH Password</td> <td data-bbox="1182 1470 1523 1524">Enter password</td> </tr> </tbody> </table>	Name	Description	VTS Day0 (checkbox)	True or false default is false.	VTS User name	Enter as string does not contain special characters.	VTS Password	Enter password	VTS NCS IP	Enter IP Address format.	VTC SSH Username	Enter a string	VTC SHH Password	Enter password											
Name	Description																									
VTS Day0 (checkbox)	True or false default is false.																									
VTS User name	Enter as string does not contain special characters.																									
VTS Password	Enter password																									
VTS NCS IP	Enter IP Address format.																									
VTC SSH Username	Enter a string																									
VTC SHH Password	Enter password																									

- j. For SolidFire, enter the following:

Name	Description

SolidFire is visible for configuration on day0
 SolidFire is not allowed as a day-2 deployment option
 SolidFire is always available with CEPH.

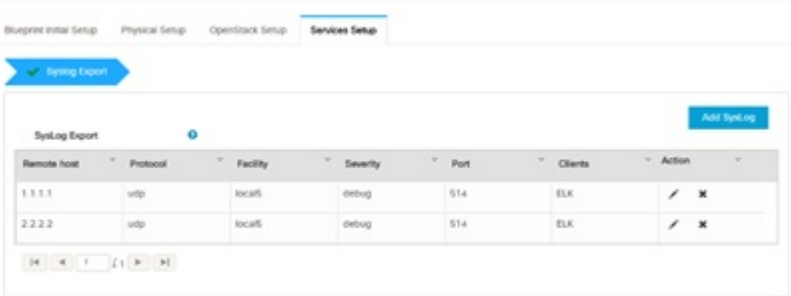
Create Blueprint configuration

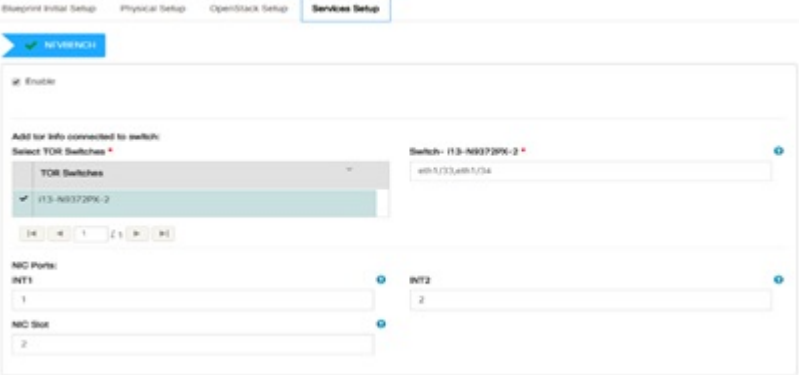
Blueprint Initial Setup Physical Setup **OpenStack Setup**

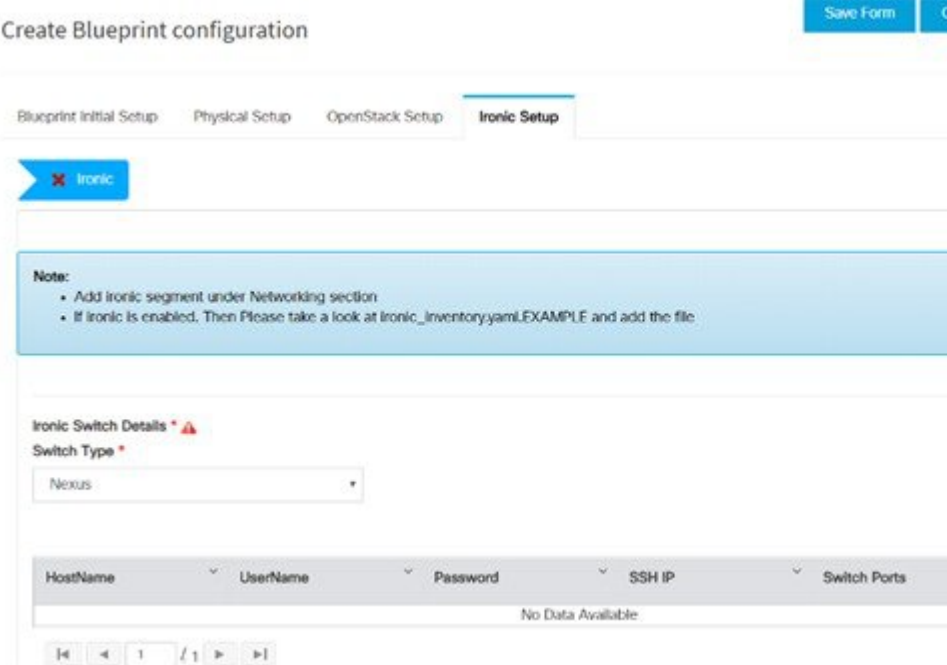
HA Proxy	Keystone	Neutron	CLPM	Glbance	Cinder	OpenStack	
Cluster MVIP *	172.23.105.217	Cluster SVIP *	10.3.3.50	Admin Username *	admin	Admin Password *	

Cluster MVIP field	Management IP of SolidFire cluster.
Cluster SVIP field	Storage VIP of SolidFire cluster.
Admin Username	Admin user on SolidFire cluster
Admin Password	Admin password on SolidFire cluster.

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

Name	Description																					
Syslog Export	<p>Following are the options for Syslog Settings:</p> <p>User can add maximum of three entries.</p> <p>To add new SysLog information, click on Add SysLog button, fill all the required information listed below and hit Save button.</p>  <table border="1" data-bbox="659 800 1528 1171"> <thead> <tr> <th>Remote Host</th> <th>Protocol</th> <th>Facility</th> <th>Severity</th> <th>Port</th> <th>Clients</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>1.1.1.1</td> <td>udp</td> <td>local5</td> <td>debug</td> <td>514</td> <td>ELK</td> <td>[edit] [delete]</td> </tr> <tr> <td>2.2.2.2</td> <td>udp</td> <td>local5</td> <td>debug</td> <td>514</td> <td>ELK</td> <td>[edit] [delete]</td> </tr> </tbody> </table>	Remote Host	Protocol	Facility	Severity	Port	Clients	Action	1.1.1.1	udp	local5	debug	514	ELK	[edit] [delete]	2.2.2.2	udp	local5	debug	514	ELK	[edit] [delete]
Remote Host	Protocol	Facility	Severity	Port	Clients	Action																
1.1.1.1	udp	local5	debug	514	ELK	[edit] [delete]																
2.2.2.2	udp	local5	debug	514	ELK	[edit] [delete]																
Remote Host	Enter Syslog IP address.																					
Protocol	Only UDP is supported.																					
Facility	Defaults to local5.																					
Severity	Defaults to debug.																					
Clients	Defaults to ELK.																					
Port	Defaults to 514 but can be modified by the User.																					

Name	Description
NFVBENCH	<p>NFVBENCH enable checkbox by default is false.</p> <p>Add ToR information connect to Switch:</p>  <ul style="list-style-type: none"> • 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 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 NFVbench. <p>NIC Slot: Optional input, should be in the range of 1-6, indicates which NIC to use in case there are multiple NICs. If nic_slot is defined, then nic_port has to be defined and vice-versa.</p>
ENABLE_ESC_PRIV	<p>Enable the checkbox to set it as True. By default, it is False.</p>

Name	Description												
Ironic	<p>Following are the options for Ironic :</p> <ul style="list-style-type: none"> • Ironic is applicable only for C-series and OVS/VLAN tenant network. • Ironic is available in optional service list. If ironic is enabled, the Ironic Segment under Networks Segment and Ironic Switch Details under Ironic are mandatory.  <table border="1" data-bbox="659 1213 1526 1780"> <tr> <td>Switch Type</td> <td>It can be Nexus, ACI, or BypassNeutron</td> </tr> <tr> <td>Hostname</td> <td>Enter ironic hostname. Required only if Switch Type is ACI or BypassNeutron.</td> </tr> <tr> <td>Username</td> <td>Enter ironic username. Required only if Switch Type is ACI or BypassNeutron.</td> </tr> <tr> <td>Password</td> <td>Enter the ironic password. Required only if Switch Type is ACI or BypassNeutron.</td> </tr> <tr> <td>SSH IP</td> <td>Enter ironic switch SSH IP. Required only if Switch Type is ACI or BypassNeutron.</td> </tr> <tr> <td>Switch Ports</td> <td>Optional. Indicates the ports that are in use to slap on inspector VLAN through Auto-ToR. Can be specified if Switch Type is ACI or BypassNeutron.</td> </tr> </table>	Switch Type	It can be Nexus, ACI, or BypassNeutron	Hostname	Enter ironic hostname. Required only if Switch Type is ACI or BypassNeutron.	Username	Enter ironic username. Required only if Switch Type is ACI or BypassNeutron.	Password	Enter the ironic password. Required only if Switch Type is ACI or BypassNeutron.	SSH IP	Enter ironic switch SSH IP. Required only if Switch Type is ACI or BypassNeutron.	Switch Ports	Optional. Indicates the ports that are in use to slap on inspector VLAN through Auto-ToR. Can be specified if Switch Type is ACI or BypassNeutron.
Switch Type	It can be Nexus, ACI, or BypassNeutron												
Hostname	Enter ironic hostname. Required only if Switch Type is ACI or BypassNeutron.												
Username	Enter ironic username. Required only if Switch Type is ACI or BypassNeutron.												
Password	Enter the ironic password. Required only if Switch Type is ACI or BypassNeutron.												
SSH IP	Enter ironic switch SSH IP. Required only if Switch Type is ACI or BypassNeutron.												
Switch Ports	Optional. Indicates the ports that are in use to slap on inspector VLAN through Auto-ToR. Can be specified if Switch Type is ACI or BypassNeutron.												

Step 4 Click **Offline validation**, to initiate an offline validation of the Blueprint.

Step 5 Blueprint can also be created using an **Upload functionality**:

- In Blueprint Initial Setup.
- Click **Browse** in the blueprint initial setup.
- Select the YAML file you want to upload.
- Click **Select** button.
- Clicking on load button in the Insight UI Application. All the fields present in the YAML file would be uploaded to the respective fields in UI.
- Enter the name of the Blueprint (Make sure you enter unique name while saving Blueprints. There would be no two Blueprints with same name.)
- Click **Offline Validation**.
- If all the mandatory fields in the UI are populated, then Offline Validation of the Blueprint will start else a pop up would be visible which will inform which section of Blueprint Creation has a missing information error.
- On Validation Success of Blueprint **Save Blueprint** button will be enabled with **Cancel** button
- A pop up will be generated asking to initiate the deployment with **Blueprint Name** and the stages you need to run.
On Validation Failure of Blueprint **Cancel** button will be enabled.

Once the **Offlinevalidation** is successful, **Save** option will be enabled which will redirect you to the Blueprint Management Page.

The wizard advances to the Blueprint Management page. On the Blueprint Management page you can select the recently added valid Blueprint and click **Install** button which is disabled by default.

A pop up will be generated asking to initiate the deployment with **Blueprint Name** and the stages you need to run.

By default all stages are selected but you can also do an incremented install.

In case of Incremented Install you should select stages in the order. For Example: If you select **Validation Stage** then the 2nd stage Management Node Orchestration will be enabled. You cannot skip stages and run a deployment.

Once you click **Proceed** the Cloud Deployment would be initiated and the progress can be viewed from "Dashboard".

Note Once the Blueprint is in **Active** State, the **Post-Install** features listed in Navigation Bar will changed to **Active** stage.

Post Installation Features for Active Blueprint

This option is only available to a pod, which is successfully deployed. There are multiple sublinks available to manage the day-n operation of the pod. However, often Insight cross-launches the relevant services, through delegating the actual rendering to the individual services.

Monitoring the Pod

Cisco VIM uses ELK (elasticsearch, logstash and Kibana) to monitor the OpenStack services, by cross-launching the Kibana dashboard.

To cross launch Kibana, complete the following instructions:

-
- Step 1** Login as **POD User**.
 - Step 2** Naviagte to **POD**.
 - Step 3** Navigate to **Post-install**
 - Step 4** Click **Monitoring**
The **Authentication Required** browser pop up is displayed.
 - Step 5** Enter the **username** as admin.
 - Step 6** Enter the ELK_PASSWORD password obtained from /root/installer-<tagid>/openstack-configs/secrets.yaml in the management node.
Kibana is launched in an I-Frame
- Note** Click **Click here to view Kibana logs in new tab** link to view Kibana Logs in a 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.

-
- Step 1** In the Navigation pane, click **Post-Install > Horizon**.
 - Step 2** Click **Click here to view Horizon logs in new tab**.
You will be redirected to Horizon landing page in a new tab.
-

NFVI Monitoring

NFVI monitoring is a 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 which basically pings the monitoring and checks status of **Collector VM1 Info** and **Collector VM2 Info**.

-
- Step 1** Login as **POD User**.
 - Step 2** Naviagte to **POD**.
 - Step 3** Navigate to **Post-install**
 - Step 4** Click **Reconfigure**.
 - Step 5** Click **NFVI Monitoring**
 - Step 6** Click the link **Click here to view NFVI monitoring..**
You will be redirected to NFVI monitoring page
-

Run VMTP

VIM 2.0, provides an integrated data and control plan test tool (called VMTP). VMTP helps you to test the cloud at any given time.

Run VMTP is divided in two sections:

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



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

Run CloudPulse

In VIM, 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. You can also run these API endpoint tests on demand, and fetch the result of these tests by refreshing the table.

Endpoints Tests:

1. cinder_endpoint
2. glance_endpoint
3. keystone_endpoint
4. nova_endpoint
5. neutron_endpoint
6. all_endpoint_tests

Operator Tests:

1. rabbitmq_check
2. galera_check
3. ceph_check
4. node_check
5. docker_check
6. all_operator_tests

Run NFVbench

You can execute **Run NFV Bench** for **BandC** series Pod, through Cisco VIM Insight. On a pod running with Cisco VIM, click on the NFVbench link on the NAV-Menu.

You can run either fixed rate test or NDR/PDR test. As the settings and results for the test types differ, the options to run these tests are presented in two tabs, with its own settings and results.

NDR/PDR Test

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

Name	Description
Iteration Duration	Select duration from 10 to 60 sec. Default is 20 sec
Frame Size	Select the correct frame size to run
Run NDR/PDR test	Click on Run NDR/PDR test. Once NDR/PDR test is finished it will display each type of test with its own settings and results.

Fixed Rate Test

- Step 1** Log in as **POD User**.
- Step 2** Navigate to **POD**.
- Step 3** Navigate to **Postinstall**.
- Step 4** Click **Run NFV Bench**.
- Step 5** Click Fixed rate test and complete the following fields.

Name	Description
Rate	Rate: Select right configuration pps or bps from drop down-list and enter values: For pps: minimum: 2500pps; maximum: 14500000pps (=14.5Mpps); default: 1000000pps (=1Mpps) For bps: minimum: 1400000bps; maximum: 10000000000bps (=10Gbps); default: 1000000000 (=1Gbps)
Iteration Duration	Select duration from 10-60Sec. Default is 20sec.
Frame Size	Select the right frame size(64,IMIX,1518) to run.
Run Fixed Rate Test	Click Run Fixed Rate Test . Once Fixed rate test is finished, it displays each type of test with its own settings and results.

POD Management

One of the key aspects of Cisco VIM is that it provides the ability for the admin to perform pod life-cycle management from a hardware and software perspective. Nodes of a given pod corrupts at times and VIM provides the ability to add, remove or replace nodes, based on the respective roles with some restrictions. Details of pod management will be listed in the admin guide, however as a summary the following operations are allowed on a running pod:

-
- Step 1** **Add or Remove Storage Nodes:** You can add one node at a time, given that we run Ceph as a distributed storage offering.
 - Step 2** **Add or Remove Computes Nodes:** N-computes nodes can be replaced simultaneously; however at any given point, at least one compute node should be active.
 - Step 3** **Replace Control Nodes:** We do not support double fault scenarios, replacement of one controller at a time is supported.
-

System Update

As part of the lifecycle management of the cloud, VIM has the ability to bring in patches (bug fixes related to code, security, etc.), thereby providing the additional value of seamless cloud management from software perspective. Software update of the cloud is achieved by uploading a valid tar file following initiation of a System Update from the Insight as follows:

-
- Step 1** Login as **POD User**.
 - Step 2** Navigte to **POD**.
 - Step 3** Navigate to **Post-install**
 - Step 4** Click **System Update**.
 - Step 5** Click **Openstack Password**
 - Step 6** Click **Browse** button.
 - Step 7** Select the valid tar file.
 - Step 8** Click **Open > Upload and Update** .
- Message stating System Update has been initiated will be displayed. Logs front-ended by hyperlink would be visible in the section below before Update Logs to help see the progress of the update. During the software update, all other pod management activities will be disabled. Post-update, normal cloud management will commence.
-

Reconfiguring CIMC Password through Insight

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

To update a password, you need 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 would be disabled if the pod is in failed state as indicated by `ciscovim install-status`.

- Step 1** Login as **POD User**.
- Step 2** Navigate to **POD**.
- Step 3** Navigate to **Post-install**
- Step 4** Click **Reconfigure**.
- Step 5** Click **Openstack Password**

Name	Description
CIMC_COMMON old Password	CIMC_COMMON old password field cannot be edited.
CIMC-COMMON new Password	Enter new CIMC-COMMON password. Password should be alphanumeric according to the password rule.
Click Update Password	Old CIMC-COMMON password will be updated with new CIMC-COMMON password.

Reconfiguring OpenStack Password

Cisco VIM has been designed with security to accommodate users password policy.

There are two options to regenerate the Password:

- 1. Regenerate all passwords:** Check the **Regenerate all passwords** checkbox and click **Set Password**. This automatically regenerates all passwords in alphanumeric format.
- 2. Regenerate single or more password:** If you want to set a specific password for any service like Horizon's `ADMIN_USER_PASSWORD` you can add it by doing an inline edit. Double click field under Password and then enter the password which enables **Set Password**.



Note During the reconfiguration of password, all other pod management activities are disabled. Postupdate, normal cloud management commences.

Reconfiguring OpenStack Services, TLS certs and ELK configurations

Cisco VIM supports the reconfiguration of OpenStack log level services, TLS certificates, and ELK configuration. Listed below are the steps to reconfigure the OpenStack and other services:

-
- Step 1** Login as **POD User**.
 - Step 2** Naviagte to **POD**.
 - Step 3** Navigate to **Post-install**
 - Step 4** Click **Reconfigure OpenStack Config**.
 - Step 5** Click on the specific item to be changed and updated; For TLS certificate it is the path to certificate location.
 - Step 6** Enter **Set Config** and the process will commence.

During the reconfiguration process, all other pod management activities will be disabled. Post-update, normal cloud management will commence.

Reconfiguring Optional Services

Cisco VIM offers optional services such as heat, NFVbench, NFVIMON, CVIM-MON and so on, that can be enabled as post-pod deployment. Optional services can be un-configured as post-deployment in Cisco VIM feature set. These services can be enabled in one-shot or selectively. Listed below are the steps to enable optional services:

-
- Step 1** Login as **POD User**.
 - Step 2** Naviagte to **POD**.
 - Step 3** Navigate to **Post-install**
 - Step 4** Click **Reconfigure Optional Services**.
 - Step 5** Choose the right service and update the fields with the right values.
 - Step 6** Enter **Reconfigure** to commence the process.

During the reconfiguration process, all other pod management activities will be disabled. Post-update, normal cloud management will commence. Once reconfigure is initiated than optional feature would be updated in active blueprint. If reconfigure of Optional Services fail in the time of reconfigure process then it is advised to contact CiscoTAC to resolve the situation through CLI.

Note All reconfigure operation feature contains repeated deployment true or false.

- Repeated re-deployment true - Feature can be re-deployed again.
- Repeated re-deployment false- Deployment of feature allowed only once.

Deployment Status :

Optional Features	Repeated re-deployment Options
APICINFO	True

Optional Features	Repeated re-deployment Options
DHCP Reservation for Virtual MAC Addresses	True
EXTERNAL_LB_VIP_FQDN	False
EXTERNAL_LB_VIP_TLS	False
INSTALL_MODE	True
LDAP	True
NETWORKING	True
NFVBENCH	False
NFVIMON	False
PODNAME	False
PROVIDER_VLAN_RANGES	True
SWIFTSTACK	True
SYSLOG_EXPORT_SETTINGS	False
TENANT_VLAN_RANGES	True
TORSWITCHINFO	False
VIM _ ADMINS	True
VMTP	False
VTS_PARAMETERS	False
AUTOBACKUP	, True
Heat	False
Ceilometer	False
HTTP Proxy Server	True
HTTPS Proxy Server	True
Enable TTY LOGGING	False
MGMTNODE_EXTAPI_REACH	False
Cobbler	True
SNMP	True

Optional Features	Repeated re-deployment Options
Base MAC address	True

Pod User Administration

Cisco VIM Insight offers Users (Pod Admin(s) or Pod Users) to manage Users and roles associated with them.

Managing Users

To add new User

- Step 1** Click **Login as POD User**.
- Step 2** Navigate to **POD User Administration**.
- Step 3** Click **Manage Users**.
- Step 4** Click **Add Users** to add a new user.
- Step 5** Complete the following fields in the **Add Users** page of the Cisco VIM Insight:

Field Name	Field Description
Email ID	Enter the Email ID of the User.
User Name	Enter the User Name if the User is new. If the User is already registered to the Insight the User-Name gets auto-populated.
Role	Select the Role from the drop-down list.

- Step 6** Click **Save**.

Managing Roles

To create a new Role:

- Step 1** Click **Log in as POD User**.
- Step 2** Navigate to **Pod User Administration** and click **Manage Roles**. By default you will see a full-pod-access role in the table.
- Step 3** Click **Add Role** to create a new role.
- Step 4** Complete the following fields on the **Add Roles** page in Cisco VIM Insight:

Field Name	Field Description
Role	Enter the name of the role.
Description	Enter the description of the role.

Field Name	Field Description
Permission	Check the Permission checkbox to select the permission.

Step 5 Click **Save**. Once, the Blueprint is in an Active state all the permissions are same for C-series and B-series Pods other than Reconfigure CIMC Password which is missing for B-series Pod.

Note Permissions are divided in the granular level where viewing *Dashboard* is the default role that is added while creating a role.

Managing Root CA Certificate

You can update the CA Certificate during the registration of the POD. Once, logged in as POD User and if you have the permission to update the certificate you can view under POD User Administration>> Manage Root CA Certificate.

To update the Certificate:

Step 1 Click **Login as POD User**

Step 2 Navigate to **POD User Administration>>Manage Root CA certificate**.

Step 3 Click **Browse** and select the certificate that you want to upload.

Step 4 Click **Upload**.

- If the certificate is Invalid, and does not matches with the certificate on the management node located at (var/www/mercury/mercury-ca.crt) then Insight will revert the certificate which was working previously.
- If the Certificate is valid, Insight will run a management node health check and then update the certificate with the latest one.

Note The CA Certificate which is uploaded should be same as the one which is in the management node.
