SmartFabric Services for OpenManage Network Integration User Guide

Release 1.3



Notes, cautions, and warnings

(i) NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

MARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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SmartFabric vCenter

Enterprises are adopting the power of automation to transform their IT operations, and enable a more agile and responsive infrastructure in their data center. Network operators must leverage the power of automation within and across their departmental functions, delivering integrated solutions which cater to cloud-based consumption models.

SmartFabric Services

SmartFabric Services (SFS) are an automation framework that is built into the Dell EMC SmartFabric OS10, to integrate converged and hyperconverged infrastructure systems. These solutions deliver autonomous fabric deployment, expansion, and life cycle management.

SFS enables converged infrastructure (CI) and hyperconverged infrastructure (HCI) for system administrators to deploy and operate the network fabric for the infrastructure solution as an extension of the solution being deployed. This integrated network fabric is built using industry-standard protocols adhering to the best practice recommendations for that solution, and is interoperable with customers existing data center networks.

OpenManage Network Integration

Dell EMC OpenManage Network Integration (OMNI) is a management application that is designed to complement SFS, providing a web-based GUI for operating one or more automated network fabrics deployed using SFS (called SmartFabric instances).

OMNI is delivered as a virtual appliance which can be deployed as:

- A stand-alone virtual machine enabling a web portal to manage one or more SmartFabric Instances
 - Deployed as an external plug-in for VMware vCenter. OMNI when deployed as a plug-in for VMware vCenter enables:
 - Enables zero-touch automation of physical underlay network fabric running SFS corresponding to changes in the virtual network layer
 - Extends vCenter Host Network Inventory data to include physical switch connectivity details for easy monitoring and troubleshooting
 - Enables single pane of management for one or more SmartFabric instances through the OMNI portal pages that are embedded within vCenter

VxRail SFS integration solution

Dell EMC VxRail integrated with SFS automates and simplifies networking for VxRail hyperconverged infrastructure deployments and ongoing network operations. As hyperconverged domains scale, the network fabric becomes the critical piece of successful deployment. VxRail integration with SFS allows customers to deploy network fabrics for VxRail clusters as an extension of the VxRail clusters without extensive networking knowledge. The network fabric is automatically configured for the VxRail nodes as the operators deploy their VxRail clusters.

Key benefits

- Faster time to production
 - Plug and play fabric formation for VxRail.
 - VxRail Manager automatically creates fabric policies for VxRail nodes.
 - SmartFabric to automate all fabric functions.
- Integrated life cycle
 - Fabric creation, expansion, and maintenance follow the VxRail application model.
 - HCl fabric operations are fully managed through VxRail Manager or vCenter.
- Better infrastructure visibility
 - o Tight integration between VxRail appliance and Dell EMC ON-Series PowerSwitches.

- Fabric connectivity extended to PowerSwitches required for VxRail solutions only.
- Improved SLA
 - Fully validated software stack recommendation.
 - Protection from human-error due to predictable and repeatable HCI fabric experience.
- Enhanced support experience
 - World-class Dell EMC HCl and fabric services.
 - Fabric that is integrated into VxRail services and support experience.

Required components

- Dell EMC PowerSwitches supporting SmartFabric Services
 - Leaf/ToR switches: 10 GbE—S4112F-ON, S4112T-ON, S4128F-ON, S4128T-ON, S4148F-ON, S4148T-ON; 25 GbE— S5212F-ON, S5224F-ON, S5248F-ON, and S5296F-ON
 - Spine switches: S5232F-ON and Z9264F-ON
- Dell EMC SmartFabric OS10 for PowerSwitch models.
- Dell EMC OpenManage Network Integration (OMNI).
- Dell EMC VxRail hyperconverged nodes when deploying VxRail integrated solution.
- VMware vCenter internal to VxRail cluster or existing vCenter in customer environment.

See the *Dell EMC VxRail Support Matrix* for the latest software releases that support the VxRail SmartFabric Service integrated solution.

More resources

List of more resources you may need:

Table 1. More resources

Path and Links to Documents	Description
Dell EMC Networking OS10 Info Hub > OS10 User Guides > OS10 Dell EMC SmartFabric OS10 User Guide, 10.5.0	This document contains information to help you understand, configure, and troubleshoot your OS10 networking operating system.
Dell Technologies VxRail Networking Infohub > Guides	This page contains reference documents to configuration, deployment, and other guides for VxRail networking solutions.
Support Matrix > Solutions and SmartFabric Services Validated Versions	This page contains the various support matrices of SmartFabric OS10 solutions including VxRail, PowerStore, Isilon front-end, PowerEdge ESXi, vSAN Ready Nodes, and PowerEdge MX.
Dell EMC Networking SmartFabric Services Deployment with VxRail	This guide demonstrates the deployment of a leaf-spine fabric using SmartFabric Services and shows how SmartFabric Services simplifies the deployment of a new VxRail cluster.
Dell EMC OpenManage Network Integration for VMware vCenter > Manuals and documents	This page lists the OMNI reference manuals from previous versions.

SmartFabric Services

SFS offers plug and play data center network fabric deployment, expansion, and management of Dell EMC infrastructure as turnkey solutions. SFS is a component of SmartFabric OS10 network operating system that provides the framework to automatically deploy the network as a single logical entity which enables the integration of Dell EMC infrastructure solutions.

SFS offers turnkey network solution for data center infrastructure using Dell EMC PowerEdge modular system switches (PowerEdge MX), and PowerSwitch data center switches.

This information provides an overview of the SFS solution that is built on an automated data center leaf and spine network fabric using Dell EMC PowerSwitch models.

For complete information about SFS for PowerEdge MX fabric, see *Dell EMC PowerEdge MX SmartFabric Configuration and Troubleshooting Guide*.

SFS for data center leaf and spine fabrics

SFS is built on top of modern leaf and spine data center design that is optimized for the increased east-west traffic requirements of modern data center workloads. The entire leaf and spine network fabric is orchestrated and managed as a single object, eliminating the need for box-by-box configuration and management of the switches.

The fabric can start from a single rack deployment with two leaf/top-of-rack (ToR) switches, and expanded to a multi rack leaf and spine network fabric. The fabric is automatically built and expanded using industry-standard Layer 2 and Layer 3 protocols as new switches are connected.

L3 fabric profile



Single Rack Fabric

Multi Rack Fabric

(i) NOTE: SmartFabric Services can be enabled when there are at least two leaf/ToR switches connected as a VLT pair.

SFS initial setup

When PowerSwitch models with SmartFabric OS10 power on, the switches are operating in the normal Full Switch mode. This information explains how to start the automated discovery and fabric creation process.

- 1. Log in to each switch console.
- 2. Configure the out-of-band Management IP address.
- 3. Upgrade SmartFabric OS10 to supported versions based on the Dell EMC VxRail Support Matrix.
- 4. Enable SmartFabric Services on the switches.

For complete information about configuring the out-of-band Management IP address and upgrading the switch operating system, see *Dell EMC SmartFabric OS10 User Guide, Release 10.5.0.*

Enable SFS

This information describes how to enable SmartFabric Services. To enable SFS on a switch from the SmartFabric OS10 command-line interface (CLI), use smartfabric 13fabric enable command and set a role. In SmartFabric mode, the two leaf or ToR switches are automatically configured as a VLT pair, and the VLT interconnect link (ICL) ports must be physically connected before enabling SFS.

() NOTE: The VLTi ports (ICL ports) cannot be modified once SFS is enabled. It is recommended to select the required number of ports upfront. SFS must be disabled and reenabled again to change the VLTi ports which can result in service interruption.

Once you enable SFS on switches and set a role, the network operating system prompts for configuration to reload, then boots in SFS Fabric mode. To apply the changes, enter Yes to confirm and the switch reloads in Fabric mode. The switch is then placed in Fabric mode, and the CLI is restricted to global switch management features and monitoring. SFS Master controls all network configuration for interfaces and switching or routing functions.

Use these SmartFabric OS10 CLI commands to build a leaf and spine fabric:

On leaf switches:

Leaf1(config) # smartfabric l3fabric enable role LEAF vlti icl ports

Example:

Leaf1(config) # smartfabric l3fabric enable role LEAF vlti ethernet 1/1/1-1/1/5

• On spine switches

Spine1(config)# smartfabric l3fabric enable role SPINE

For complete information about how to use SFS commands, see *SmartFabric commands* in the *Dell EMC SmartFabric OS10* User Guide, Release 10.5.0.

SFS Graphical User Interface

You can also enable SFS using the SFS Graphical User Interface (GUI). OS10 switches support SFS GUI to set up initial SFS configuration in SFS leaf and spine deployment. The SFS GUI is focused on day zero deployment operations and management of the switches in a Layer 3 SFS fabric. For more information about the SFS and SFS GUI, see SmartFabric Services in the *Dell EMC SmartFabric OS10 User Guide, Release 10.5.0.*

Fabric creation

This information describes switch discovery, SFS Master, Master advertisement, SFS REST services, Master high availability, preferred Master, SmartFabric, rack or VLT fabrics, default fabric settings, reserved VLANs, default client management network, default client control traffic network, and spanning-tree protocol.

Switch discovery

When SFS is enabled on PowerSwitches, the switches boot in Fabric mode, then start discovering each other using LLDP. All discovered switches become part of a single SFS domain, to form a single network domain.

NOTE: For L3 fabric profile, the SFS Domain ID is automatically set to 100 and is not configurable in the current release. All directly connected switches join one single domain.

The port where another leaf switch is discovered is configured as a VLT interconnect link (ICL), and the port where another spine switch is discovered is configured as an interswitch link (ISL). A switch operating as a spine can only have ISL links to other leaf switches.

SFS uses reserved VLAN 4000 internally to establish communication between switches in a single network fabric. VLAN 4000 is automatically added to all ICL and ISL ports.

SFS Master

SFS uses Keepalive protocol, running on VLAN 4000, to elect one in the fabric as a Master switch. Only a leaf switch can be elected as a Master.

In a single SFS domain, there is only one Master switch at any given time, and the rest of the leaf switches are designated as the backup. A new Master is elected from the backup switches when the Master fails to provide high-availability to the fabric.

(i) NOTE: Spine switches cannot be elected as a Master node within SFS.

Master advertisement

Once a Master is elected, it initiates all applications to automatically build the network fabric. The Master VIP is advertised using mDNS Avahi services for applications to automatically discover the fabric through inband networks.

SFS REST services

The SFS REST service is started on the Master node. Applications consuming or integrating with SFS use this REST service for fabric operations. Communication is performed with the fabric using the IPv6 VIP assigned to the SFS Master, or using the IPv4 out-of-band Management IP of the Master.

A default REST_USER account is created to authenticate all REST queries. The default password is admin, and Dell EMC recommends changing the password through VxRail Manager or OMNI.

(i) NOTE: OMNI communicates with SmartFabric REST Services through REST_USER account only.

Master high availability

SFS uses an internal distributed data store where all fabric configuration is saved. This data is synchronized with all backup switches ensuring the Master, and the backup switches always have the same view of the fabric. With a Master failover, the switch taking over as the Master uses its internal data store to continue fabric operations.

When the fabric is expanded, the newly added switches receive all fabric policies from the SFS Master, once the switches are added to the domain.

Preferred Master

When a Master is elected for a fabric, the switches that are configured as Preferred Master have a higher priority to become the Master switch. If none of the switches are configured as the Preferred Master, any leaf switch can become the Master.

When the fabric is expanded, newly added switches may come up and form a fabric among themselves, and elect a Master before they are connected to the existing fabric. When the new fabric merges with the existing fabric, SmartFabric elects a new Master switch for the combined fabric. If one of the new leaf switches becomes the master, it may overwrite the configuration in the existing fabric. Ensure that the leaf nodes in the existing fabric are set as the Preferred Master before expanding the fabric to prevent the configuration loss.

NOTE: VxRail workflow automatically sets the preferred master during uplink creation as part of Day1 operation. The SFS UI or OMNI checks for the preferred master settings during uplink creation and sets Preferred Master flag automatically on all configured leaf switches in the fabric if not configured already.

SmartFabric or SFS domain

SmartFabric or SFS domain is interchangeable terminology, and the fabric consists of all switches directly connected to form a single logical network. The L3 fabric is automatically assigned ID 100 and this ID cannot be changed. The fabric name and description are automatically assigned, but can be changed through the SFS user interface.

Rack or VLT fabrics

When two leaf switches are discovered on specified VLTi ports, a VLT is automatically created between the two switches to form a network fabric called the VLT fabric. This VLT fabric is automatically assigned with a fabric ID, a universally unique identifier (UUID).

In a single rack deployment, the network fabric and the VLT fabric represent the same set of switches. In a multi rack deployment, each rack has a VLT fabric, and all the VLT fabrics and the spine switches together form the network fabric.

Default fabric settings

SFS automatically builds the network fabric using industry-standard Layer 2 and Layer 3 protocols.

Reserved VLANs

To build fabric, SFS reserves VLANs 4000 to 4094 for internal use. You are not allowed to use these VLANs for general use.

- VLAN 4000 SFS control VLAN SFS automatically configures VLAN 4000 on all switches that are discovered in the fabric, and uses it for all fabric operations internally. When a leaf or spine is switch is discovered, the ICL or ISL ports are automatically added as tagged members.
- VLAN 4001 to 4079 leaf and spine connections SFS automatically sets up the leaf and spine network configuration using eBGP as the underlay routing protocol. SFS uses the reserved VLAN range (4001 to 4079) with automatic IP addressing to set up the peer connections. When a spine switch is connected to the fabric, an ISL is created between the leaf and spine switch. Each ISL link uses a reserved VLAN and the ISL ports that are configured to be the untagged members of this VLAN. IP addresses from the reserved range are used for this VLAN, and an eBGP session is started on the VLAN IP interface.
- VLAN 4080 global untagged VxLAN VLAN SFS automatically sets up VXLAN overlay networks with EVPN to extend networks between racks in a multi rack deployment. SmartFabric OS10 requires an untagged VLAN on leaf switches for VXLAN traffic handling when using VLT. VLAN 4080 with automatic IP addresses from the reserved range is used for leaf-to-leaf interconnect (ICL) links.
- VLAN 4090 iBGP peering between leaf switches SFS automatically sets up iBGP peering between a pair of leaf switches directly connected over ICL links. VLAN 4090 with automatic IP addresses from the reserved range is used for enabling iBGP sessions between the VLT peer switches.
- VLAN 4094 VLT control VLAN SFS automatically creates VLAN 4094 on all leaf switches. VLAN 4094 is used for all VLT control traffic between two VLT peer switches. VLAN 4094 is only added on the VLT interconnect links (ICL ports) on leaf switches.
- VLAN 4089 OS10 internal use In SmartFabric mode, VLAN 4089 is the default VLAN and is reserved for OS10 internal use.

Default client management network

SFS automatically sets up an overlay network that is called a *client management network*. When a device is automatically onboarded on to the network fabric, the device uses the VLAN mapped to this overlay network. This network is a native VLAN unless there is a policy specifying a different native VLAN. VLAN 4091 is used as the default client management VLAN for this VXLAN network.

(i) NOTE: The embedded SFS user interface allows you to change this VLAN to a specified VLAN.

Default client control traffic network

SFS sets up a second overlay network that is called *client control network* specifically for VxRail integrated solutions. When a VxRail node is discovered, it is automatically added as a tagged member of this network. SFS also enables the mDNS Avahi service on this network for master advertisement and fabric discovery by integrated solutions. The SFS Master virtual IP for VXLAN network is advertised. The VIP address is fde1:53ba:e9a0:cccc:0:5eff:fe00:1100 is fixed and not user configurable.

VLAN 3939 is used as the default client control VLAN for this VxLAN network. Although you can change the VLAN associated with this, it is not recommended to change it for VxRail integrated solution deployments.

Spanning-tree protocol

SFS uses RPVST+ as the default spanning tree protocol to build leaf and spine switches.

Spanning-tree protocol is disabled for VXLAN networks. SFS automatically creates user networks as VXLAN networks inside the fabric. For a Layer 2 uplink from the fabric to the external network, the uplink ports in the fabric are configured as VXLAN access interfaces and spanning-tree BPDUs are not sent to the external network.

SFS support for MSTP on L3 fabric: By default, the STP mode is RPVST+. You can change the mode to MSTP once the fabric is built. When you change the mode, the whole fabric goes through a reboot cycle and the new mode will be set as MSTP.

NOTE: Changing the mode impacts traffic in the SFS as fabric reboots. (i)

The spanning tree behavior for Layer3 fabric is as follows:

- STP is enabled on Cluster control VLAN (VLAN 4000). The spine switches are configured to take over the STP root role. •
- STP is disabled on all inter leaf-spine VLANs and leaf-leaf VLAN (4001-4091).
- STP is enabled on all user created VLANs.
- STP is disabled on server facing port.

() NOTE: VLANs used for setting up the leaf and spine eBGP peering are automatically set up to prevent loops while having nonblocking connections between the leaf and spine switches.

SFS and OMNI supported solutions

OMNI 1.3 with the latest SmartFabric Services OS10 release supports the following qualified solutions:

able 2. Qualified solutions						
Qualified Solutions	Dynamic discovery	Onboarding type	vCenter/Day 2 automation			
VxRail	Yes	Automatic	Yes			
PowerStore X (ESXi)	Yes	Import from Fabric or vCenter	Yes			
PowerStore T	Yes	Import from Fabric	No			
silon front-end/PowerScale	No	Manual	No			
Other devices running ESXi	No	Import from vCenter or Manual	Yes			
Other devices running Windows or Linux-based Operating Systems	No	Manual	No			

Т

NOTE: Other devices can be supported provided they meet the industry Ethernet standards and are compatible with (\mathbf{i}) SmartFabric-enabled switches.

Dynamic Discovery - Devices that support dynamic discovery send a Dell-specific LLDP TLV. Supported devices are automatically populated in the SFS GUI and OMNI by MAC address, switch, and switch port number for onboarding to the fabric. Devices that do not send the Dell-specific LLDP TLV must be manually added to the fabric.

Onboarding - Onboarding is the process of adding devices to the fabric through the creation of server interface profiles. For VxRail, the SFS and VxRail Manager automates the onboarding process. PowerStore systems support dynamic discovery and may be onboarded using the Import from Fabric option in OMNI, see Import SmartFabric discovered server interfaces. Hosts running ESXi may be onboarded using the Import from vCenter option in OMNI only if the hosts are already connected to vCenter. For more information, see Import ESXi host profiles from vCenter. Other devices are manually onboarded by specifying the switch and switch port number for each interface, see Create server interface profile.

vCenter/Day 2 Automation - Port groups that are created in vCenter are automatically applied to the applicable hostconnected ports on the switch. The host must be running ESXi, added to the vCenter, and have a server profile that is created in OMNI. For the automation to work, register OMNI with the vCenter and ensure to start the respective OMNI vCenter automation services.

NOTE: See the Solutions Support Matrix for the latest supported versions for all the qualified solutions.

SFS integrated personalities

This information describes the two SFS integrated personalities.

- SFS VxRail L2 single rack personality enables an automated single rack network fabric (L2 fabric profile) for VxRail clusters. Use the L2 personality for the existing fabric deployments. For more information about configuring VxRail L2 single rack personality, see VMware Integration for VxRail Fabric Automation SmartFabric User Guide, Release 1.1, September 2019. For new SmartFabric deployments, it is recommended to use the L3 leaf and spine fabric personality for future expansion.
- SFS L3 leaf and spine fabric personality enables a multi rack data center network fabric offering flexibility to start with a L3 single rack (L3 fabric profile), and expand to a multi rack solution on demand. The L3 personality is integrated with VxRail to enable single-site, multi rack VxRail deployments allowing VxRail nodes to be easily deployed in any rack without complex underlay network configuration.

OpenManage Network Integration (OMNI) enables fabric management and zero-touch automation for:

- SFS L3 leaf and spine fabric personality
- SFS VxRail L2 single rack personality

Table 3. SFS personality comparison

SFS VxRail L2 single rack personality	SFS L3 leaf and spine fabric personality
Network fabric with two ToR switches in a single rack, and cannot be expanded beyond a single rack.	Network fabric with up to 20 switches in a leaf and spine design that can start with a single rack, and extend up to nine racks. If you want to deploy a L3 single rack fabric, enable only leaf switches in the rack without spine. Add spine to the L3 single rack to form a L3 multi rack leaf and spine fabric.
All VxRail SmartFabric deployments prior to SmartFabric OS10 10.5.0.5.	All new SmartFabric deployments with SmartFabric OS10 10.5.0.5 or later.
Enabled through shell commands with fixed parameters.	Enabled through standard SmartFabric OS10 CLI commands with just role and VLTi ports for leaf as fixed parameters. Enable SFS using SmartFabric GUI also. For more information about SFS GUI, see <i>Dell EMC SmartFabric OS10 User Guide</i> .
Default uplink and jump box port that is created as part of SmartFabric initialization, and cannot be modified after enabling SFS as part of Day 2 operations.	The network fabric is created as part of SmartFabric initialization. Uplinks and jump box port must be created through the embedded SFS user interface or OMNI. These are fully customizable as part of Day 2 operations.
All networks created during initialization, VxRail deployment and Day 2 operations are VLAN backed network with customer router acting as the gateway.	Networks that are created during initialization and the ones created as part of VxRail deployment and vCenter integration are VxLAN stretched networks for single rack deployments. VLAN-based netwoks in a rack can be created through OMNI.
Existing deployments when upgraded to SmartFabric OS10 10.5.0.5 continue to run in L2 mode. L3 fabric capabilities are not available.	Migration from VxRail L2 personality to L3 fabric personality is not available with SmartFabric OS10 10.5.0.5, and will be available in a future release.

() NOTE: We recommend that all new deployments be enabled with L3 leaf and spine fabric personality. VxRail SmartFabric deployments using older VxRail L2 single rack personality cannot be upgraded to the new L3 leaf and spine fabric personality automatically. A migration workflow will be available in a future release to allow existing deployments to expand to a multi rack solution.

OpenManage Network Integration

OpenManage Network Integration (OMNI) is a component of SmartFabric Services (SFS) that integrates with VMware vCenter for fabric automation of the physical network infrastructure corresponding to the virtual network operations within vCenter. OMNI also serves as a front-end management application for managing one or more SFS instances, enabling administrators to manage and operate one or more network fabrics that are deployed with SFS.

OMNI virtual appliance

The OMNI virtual appliance is delivered as an open virtual appliance (.ova extension) file. Deploying an OMNI OVA template allows you to add preconfigured OMNI virtual machines to vCenter Server or ESXi inventory.

The OMNI OVA file can be downloaded from the Dell EMC OMNI for VMware vCenter support portal. OMNI virtual machine deployment is tested and supported only on the VMware ESXi hypervisor, even though it is expected that the OVA could be deployed in other x86 hypervisors.

OMNI deployment

Deploying an OVA template is similar to deploying a virtual machine from a template. You can deploy an OVA template from any local file system accessible from the vSphere web client, or from a remote web server.

Table 4. OMNI deployment

OMNI VM system requirements	vCenter Server Network (OMNI VM Network 1 - ens160)	VxRail Management Network (OMNI VM Network 2 - ens192) <i>Optional in non-VxRail</i> <i>deployment</i>	OMNI access
 Virtual hardware version: vmx-14 Compatible: ESXi 6.7 and later 4 virtual CPUs; 4 GB memory; 40 GB hard disk 	 Out-of-band (OOB) management network Provides reachability to DNS, default gateway, and where OMNI obtains the IP/hostname Provides reachability to Management network (vCenter IP/hostname, SmartFabric Management IP/hostname) VxRail default: vCenter Server network 	In-band link-local network— Provides reachability to SmartFabric link-local network for IPv6 VIP reachability VxRail default: VxRail Management network	 vCenter HTML5 (/ui) plug-in; click OpenManage Network Integration link OMNI stand-alone user interface: https:// OMNI_IP or hostname/ delawareos10/ using admin user SSH to OMNI VM IP/ hostname as admin user OMNI VM console using vCenter/ESXi admin or root user

(i) **NOTE:** Even when OMNI is deployed in-band, it is recommended to set up connectivity with the out-of-band Management network of the switches in the network fabric to separate management traffic with user data traffic, and also to enable faster image downloads to the switches.

Create OMNI virtual appliance

This information describes how to deploy the OMNI appliance on a VMware ESXi hypervisor using the OMNI OVA file, and create a virtual machine (VM).

(i) NOTE: The OMNI portal or SmartFabric Services user interface does not provide localization.

When upgrading from older major version to 1.3, follow the instructions for upgrading major version that is provided in Upgrade OMNI appliance.

Download and install OVA

- 1. Download the OVA from OpenManage Network Integration support, and store the OVA image locally.
- 2. In the vSphere Client, select Hosts and Clusters, right-click the cluster that the plug-in must manage, and select Deploy OVF Template.

vm vSphere	Actions - VxRail-Virtual-SAN-Cluster-addd102a-c7ee-4c16-ac Add Hosts	C (?) v Administrator@VSPHER	
VxRail-Datac VxRail-Virt VxRail-Virt VxRail-Virt VxRail-Virt Vxhost0 Vxhost0 Vxhost0 OMNI-1:	Image: Storage Image	IUAI-SAN-Cluster-addd102a-c7ee-4c16-ac82-b76c613a0658 ar Configure Permissions Hosts VMs Datastores Networks Updates al Processors: 96 CPU Used 3.61 GHz al VMotion Migrations: 0 Used 3.61 GHz Memory al VMs VMs <th>Free: 245.35 GHz Capachy: 248.96 GHz Free: 289.32 GB Capachy: 382.4 GB Free: 5.05 TB Conector. 7.18.78</th>	Free: 245.35 GHz Capachy: 248.96 GHz Free: 289.32 GB Capachy: 382.4 GB Free: 5.05 TB Conector. 7.18.78
중 VMware 중 VMware 장 VMware 장 VXRall N	Settings Move To Rename	VSphere DRS VSphere DRS Cluster Consumers	••••••••••••••••••••••••••••••••••••••
	Tags & Custom Attributes	Custom Attributes Attribute Value VxRail-IP 16.11.02 VxRail-VERSION 4.7.410	OF:EA:58:12:A
Recent Tasks A	VxRail		*

3. Select Local file, click Choose Files, select the OMNI ova file from a local source, and click Next.

	Deploy OVF Template	e	ACTION	5 v
Vc.st.vxrail.cluster1 VxRail-Datacenter VRPail-Virtual-SAN-Cluster-articl100	1 Select an OVF template 2 Select a name and folder	Select an OVF template Select an OVF template from remote URL or local file system		Free: 247.44 GHz
xxhost04.st.vxrail.cluster1	3 Select a compute resource 4 Review details 5 Select storage	Enter a URL to download and install the OVF package from the internet, or browse to a location accessible from your computer, such as a local hard drive, a network share, or a	2 GHz	Capacity: 248.96 GHz Free: 289.34 GB
Vxhost06.st.vxrail.cluster1 OMNI-1.3.9 OMNI-1.3.9 OMNI-1.3.9	6 Ready to complete	CD/DVD drive.	05 GB	Capacity: 382.4 GB Free: 5.05 TB
VMware vCenter Server Applianc		http://tremoteserver-address/filetodeploy.ovf i .ova © Local file	3 18	Capacity: 7.18 TB
VMware vRealize Log Insight		Choose Files OMNI-1.3.16.ova		`

4. Select a name and folder for the VM, and click Next.



5. Select the destination compute resource, and click Next.

vm vSphere Client Menu V	Q Search in all environments	C	, `````	Administrator®	@VSPHERE.LOC4	NL ~ (
Image: Determined of the second s	Deploy OVF Template ✓ 1 Select an OVF template	Select a compute resource		_	ACTIONS 🗸		
VxRail-Virtual-SAN-Cluster-addd02 vxhost04.st.vxrail.cluster1 vxhost05.st.vxrail.cluster1 vxhost06.st.vxrail.cluster1 CMNNI-13.9	2 Select a name and roter 3 Select a compute resource 4 Review details 5 Select storage 6 Ready to complete	Select the destination compute resource for this operation Image: VxRail-Datacenter Image: VxRail-Virtual-SAN-Cluster-addd102a-c7ee-4c16-ac82-b76d	:613aO658	3 Gł		Free: 245.33 GHz apacity: 248.96 GHz Free: 289.33 GB Capacity: 382.4 GB Free: 5.05 TB	
OMNI-13.9_ToBeRegistered WWare vCenter Server Applianc VWware vCenter Server Platform VWware vRealize Log Insight DV VPUI WAre vRealize Log Insight		Compatibility ✓ Compatibility checks succeeded.		3 18		Capacity: 7.18 TB	
ලු, VxRail Manager		CANCEL	BACK	NEXT		~	
Recent Tasks Alarms			_	4			~

6. Review and verify the template details, and click Next.

vm vSphere Client Menu V	Q Search in all environments		C 0~	Administra	tor@VSPHERE.L	ocal ~
	Deploy OVF Template	è			ACTIONS ~	
 	 1 Select an OVF template 2 Select a name and folder 	Review details Verify the template details	ails.			Free: 245.91 GHz
 Select a compute resource Selec	The OVF package contains advanced configuration options, which might pose a security risk. Review the advanced configuration options below. Click next to accept the advanced configuration options.			5 GHz 13 GB	Capacity: 248.96 GHz Free: 289.37 GB Capacity: 382.4 GB	
	Publisher	dellemcnetwork-appliance (Untrusted certificate)		3 TB	Free: 5.05 TB Capacity: 7.18 TB	
	Download size Size on disk	2.4 GB 6.0 GB (thin provisioned)			<u> </u>	
		Extra configuration	39.1 GB (thick provisioned)			~
		and comparator	nvram = ovf:/file/file2			^
Recent Tasks Alarms			CANCEL BACK	NEXT	102	

7. Accept the end-user license agreement (EULA), and click Next.



8. Select the VSAN datastore for the configuration and disk files, and click Next.

vm vSphere Client Menu v	Q Search in all environments Deploy OVF Template	9			C 0 ~	Adminis	trator@VSPHERE.	0CAL ~ 😳	
 Vc.st.vxrail.cluster1 VxRail-Datacenter VxRail-Datacenter VxRail-Virtual-SAN-Cluster-addd10; vxhost05.st.vxrail.cluster1 vxhost05.st.vxrail.cluster1 vxhost05.st.vxrail.cluster1 OMNI-13.9 OMNI-13.9_TOBRegistered VWare vCenter Server Appliant Ready to complete 	Select storage Select the storage for the configuration and disk files					3 GHz	Free: 245.68 GHz Cepacity: 248.96 GHz Free: 289.3 GB	4	
	Select virtual disk format: Th		Thin Provision ~		~)	1 GB	Capacity: 382.4 GB Free: 5.05 TB		
	Name	Capacity	Provisioned	Free	Typ	3 TB	Capacity: 7.18 TB		
		BZ731Q2000000-01-01	216 GB	98.05 GB	184.39 GB	VM ^			
VMware vCenter server Platform VMware vRealize Log Insight		BZ751Q2000000-01-01	216 GB	14.71 GB	201.29 GB	VM		~	
VxRail Manager		BZ821Q2000000-01-0	216 GB	12.65 GB	203.35 GB	VM			
		VxRail-Virtual-SAN-Datas	6.55 TB	2.07 TB	4.48 TB	Virt		~	
		<				.			
		Compatibility						^	
	✓ Compatibility checks succe	eded.							
						:102 3:35:B6:A4:20:01	EA:58.12:A		
				CANCEL	ВАСК	NEXT			
Recent Tasks Alarms			_	_	_	_	4	3	~

9. Select a destination network for each network source, and click Next. The VxRail Management Network must be assigned to the VxRail internal Management network. The default VLAN ID for this network is 3939. The vCenter Server network must be connected to the port group where the vCenter Server is reachable for deployment of the OMNI plug-in. If you are using a standalone generic ESXi host deployment, you can skip this step.

vm vSphere Client Menu ∨ Q Search In a					ELOCAL V
Constraint of the second	Template template Select networks and folder Select a destination network fo	r each source network.			S ♥ Free: 243.09 GHz
✓ 3 Select a com ✓ 4 Review detail	s Source Network	T Destination Network	т	7 GHz	Capacity: 248.96 GHz
🔽 vxhost05.st.vxrail.cluster1 🗸 🗸 5 License agree	wents VxRail Management Network	VxRall Management-addd102	a-c7ee-4c16-a. ^		Free: 289.36 GB
vxhost06.st.vxrail.cluster1	e vCenter Server Network	vCenter Server Network-addo	1102a-c7ee-4c. 🖕	03 GB	Capacity: 382.4 GB
7 Select netwo	rks		2 items		Free: 5.05 TB
MINI-1.3.9_ToBeRegistered 8 Ready to con	plete			зтв	Capacity: 7.18 TB
🕞 VMware vCenter Server Platform	IP Allocation Settings				
🛱 VMware vRealize Log Insight 🏠 VxRail Manager	IP allocation:	Static - Manual			<u> </u>
	IP protocol:	IPv4			~
		CANCEL B/	ACK		
Recent Tasks Alarms					*

10. Click Finish to start creation of the VM.

							٢
	Deploy OVF Template	•			A		
✓ ✓ ✓ vc.st.vxrail.cluster1 ✓ ✓ ✓ ✓ VxRail-Datacenter ✓ ✓	 1 Select an OVF template 2 Select a name and folder 3 Select a compute resource 	Ready to complete Click Finish to start creat	ion.		A	Free: 245.39 Canacity: 248.96	GHz
xvhost05.st.vxrail.cluster1	 4 Review details 5 License agreements 	Provisioning type	Deploy from template			Free: 289.3	
xxhost06.st.vxrail.cluster1	✓ 6 Select storage	Name	OMNI-1.3.16		05 GB	Capacity: 382	4 GB
MNI-1.3.9_ToBeRegistered	 7 Select networks 8 Peady to complete 	Template name	OMNI-1.3.16				
VMware vCenter Server Applianc	o neady to complete	Download size	2.4 GB				
VMware vRealize Log Insight		Size on disk	6.0 GB		11.85	`	r
🕞 VxRail Manager		Folder	VxRail-Datacenter				
		Resource	VxRail-Virtual-SAN-Cluster-addd102a-c7ee b76c613a0658	e-4c16-ac82-	11.85		
		Storage mapping	1			/	
		All disks	Datastore: BZ731Q2000000-01-01-servic Format: Thin provision	ce-datastore1;	102		F
		Network mapping	2		10	x44.20.0F.EA.58.12.A	
		VxRail Management Network	VxRail Management-addd102a-c7ee-4c16- b76c613a0658	-ac82-	11.8		
		vCenter Server Network	vCenter Server Network-addd102a-c7ee-4 b76c613a0658	4c16-ac82-		a 3 items	
			CANCEL	ВАСК	INISH	/	6.
Recent Tasks Alarms					-		*

Power on OMNI VM

1. Click **Recent Tasks** and scroll to the bottom of the window to view the status, and wait for the deployment to finish.

vc.st.vxrail.cluster1	UxRail-Virtual-S	ACTIONS - ACTION	
 VxRail-Datacenter VxRail-Virtual-SAN-CL vxhost04.st.vxrail.cL vxhost05.st.vxrail.cL vxhost06.st.vxrail.cL OMNI-1.3.16 VMware vCenter S VXRail Manager 	 Services Configuration More vSAN VxRail System Updates Certificate Market Add VxRail Hosts Hosts Support Networking Health Monitoring Troubleshooting 	System VXRail Version: 4.7.410-26262335 Installed On Apr 26, 2020, 10:17:09 PM About VxRail The VxRail integration for VMware vCenter is designed to streamline the management process of your pre-engineered hyperconverged infrastructure appliances that combines compute, networking, and storage by allowing you to use VMware vCenter to keep your operational environment up and running.	aries.
Recent Tasks Alarms	Casture	Dutility v Durund East v State Time v Completion Time v Security	*
Deploy plug-in C vc.st.vxrail.c	luster1 ✓ Completed	com.vmware.vcIntegri VSPHERE.LOCAL\vsp 4 ms 4 ms 4 ms 4 M 4 vc.stv	xrail.cluster1
OS10 SmartFabric update task	luster1 100% 🛞	OMNI Update: Update 06/09/2020, 1:33:08 succeeded for ('host- OMNI OS10 Plugin at 4 ms 21; 'host-10', 'host-19'). PM	oxrail.cluster1
All			More Tasks

2. Select the OMNI VM you want to power on, and select Actions > Power > Power On.

	🗗 OMNI-1.3.16	🕨 🗏 🦉 🤣 🚺 Actions 🗸			
✓	Summary Monitor	Configure Permissions Datastores Netw	vorks Updates		
VxRail-Datacenter VxRail-Virtual-SAN-CL VxNostO4.st.vxrail.cL vxhostO5.st.vxrail.cL VxhostO6.st.vxrail.cL MNN-13.16 VMware vCenter S VMware vCenter S VMware vRealize L	Powered Off Launch Web Console Launch Remote Console	Guest OS: Debian GNU/Linux 10 (64-bit) Compatibility: ESX1 6.7 and later (VM version 14) VMware Tools: Not running, version:10346 (Guest Ma More info DNS Name: omni P Addresses: Host: vxhost06.st.vxrail.cluster1	inaged)	CPU USAGE O Hz MEMORY USAGE O B STORAGE USAGE 39.06 GB	
💦 VxRail Manager	VM Hardware		∧ Notes	^	
	> CPU	4 CPU(s)	Edit Notes		
	> Memory	4 GB, 0 GB memory active	Custom Attributes	^	
	> Hard disk 1	39.06 GB	Attribute	Value	
	> Network adapter 1	vCenter Server Network-addd102a-c7ee-4c1 ac82-b76c613a0658 (disconnected)	6-	•	
	> Network adapter 2	VxRail Management-addd102a-c7ee-4c16- ac82-b76c613a0658 (disconnected)			

3. Select Launch Web Console.

	🕻 OMNI-1.3.16 📗 🕨	📕 🔮 🤣 💧 ACTIONS 🗸				
vc.st.vxrail.cluster1 Su	ummary Monitor Conf	igure Permissions Datastores Netw	works	Updates		
VXRail-Datacenter VXRail-Virtual-SAN-CL. VXhost04.st.vxrail.c Vxhost05.st.vxrail.c Vhvstost05.st.vxrail.c VMware vCenter S VMware vCenter S VMware vCenter S VMware vCenter S VMware vCenter S VMware vCenter S VMware vCenter S	Rowered On IP A aunch Web Console aunch Remote Console ①	st OS: Debian GNU/Linux 10 (64-bit) patibility: ESXi 6.7 and later (VM version 14) ware Tools: Running, version:10346 (Guest Manag More Info 5 Name: omni ddresses: 172.24.0.1 View all 11 IP addresses t: vxhost06.st.vxrail.cluster1	ged)			CPU USAGE 25 MHz MEMORY USAGE 81 MB STORAGE USAGE 43.15 GB
	VM Hardware		^	Notes		^
	> CPU	4 CPU(s)		Edit Notes		
	> Memory	4 GB, 0.08 GB memory active		Custom Attributes		^
	> Hard disk 1	39.06 GB		Attribute	Value	
	> Network adapter 1	vCenter Server Network-addd102a-c7ee-4c1 ac82-b76c613a0658 (connected)	16-			^
	> Network adapter 2	VxRail Management-addd102a-c7ee-4c16- ac82-b76c613a0658 (connected)				
	CD/DVD drive 1	Disconnected	D ¥	4		• •
	> Video card	4 MB		Colle		No items to display
	VMCI device	Device on the virtual machine PCI bus that		Edit		
Recent Tasks Alarms		neodolog summer for the cletcal modules				\$

Set up OMNI

This information describes how to log in to the VM console, and also explains the OMNI vCenter setup.

Log in to VM console

Configure OMNI through the VM console after completing the authentication step. By default, the VM console automatically closes after 10 minutes, but can be customized.

1. Enter admin for both the default username and password.

2. If it is a first-time login, the system prompts for password change.

After the passwords are successfully updated, self-signed certificates are created. You can change the certificates later with OMNI management menu options.

(i) NOTE: The sudo password is the same as the password set for the admin user.

() NOTE: Root user is disabled by default. To set the password to enable **root** user, use the OMNI VM console CLI menu. You can only access root user through the console.

Setup OMNI

This information describes how to set up the appliance with the required network interface configurations, and registration with vCenter and SmartFabric. A single OMNI VM instance supports up to 10 vCenters and 16 SmartFabric domains.

(i) NOTE: The OMNI initial configuration setup can be performed using the vCenter OMNI VM Console only.

Network interface profile configuration

1. Select 0. Full Setup.

	Menu
0. 1. 2. 3. 5. 5. 8. 9.	Full setup Show version Interface configuration menu OMNI management service menu Register/Update OMNI vSphere client plugin with vCenter Password/SSL configuration menu Upgrade appliance Reboot appliance Show EULA Logout

2. Select Edit a connection, then click OK.

NetworkManager TUI Please select an option Edit a connection Activate a connection Set system hostname Quit <ok></ok>	

(i) **NOTE: Edit a connection** menu displays edit option of Bridge interface docker0. Do not modify any configuration of the docker0 interface as it can lead to OMNI appliance failure or unexpected OMNI behavior.

3. Select Wired connection 1, then click Edit.

Wired connection 1 Wired connection 2 Bridge docker0 + <back></back>
--

4. Verify Ethernet (ens160) is connected to the vCenter reachable network, then change the Profile name to vCenter Server Network.

Edit Connection Profile name Vcenter server network Device 00:50:56:B3:0E:A0 (ens	160) <show></show>
 ↓ IPv4 CONFIGURATION ↓ IPv6 CONFIGURATION ↓ IPv6 CONFIGURATION ↓ Ink-Local ↓ Manual ↓ Shared ↓ Available to all 	<show> <show></show></show>
	<cancel> <ok></ok></cancel>

- 5. Change the IPv4 configuration from Automatic to Manual from the drop-down. You can choose Automatic or Manual IP address configuration.
 - (i) **NOTE:** If you are using a stand-alone generic ESXi host deployment and if DHCP services are running on the Management network subnet, use the default IPv4 vCenter server network configuration which uses automatic IP address assignment using DHCP.



- 6. Click Show to the right of IPv4 configuration, then click Add.
- 7. Set the Manual IPv4 address, Gateway address, DNS servers, Search Domains, then click Edit to the right of Routing.
- 8. On IPv6 configuration, select **Ignore** for the IPv6 configuration, then click **OK**.

(i) NOTE: IPv6 configuration is only required for an in-band network.

<pre>Vice UDISDISSIBILITION (Manual) (Hide) • ETHERNET (Show) • IPv4 CONFIGURATION (Manual) (Hide) Addresses 16.1.1.41/24 (Add) Gateway 16.1.1.254 DNS servers 16.1.1.51 (Remove) (Add) Search domains 51.vxnail.cluster1 (Remove) (Add) Routing (No custom routes) (Edit) [Never use this network for default route [I Ignore automatically obtained DNS parameters [I Ignore automatically obtained DNS parameters [I Require IPv4 addressing for this connection • IPv6 CONFIGURATION [X] Automatically co [X] Available to all </pre>	Edit Connection	
<pre> IPv4 CONFIGURATION <manual></manual></pre>	◆ ETHERNET	<show></show>
<pre>(Add) Gateway 16.1.1.254 DNS servers 16.1.1.51 (Add) Search domains St.vxrail.cluster1 (Add) Search domains St.vxrail.cluster1 (Add) Routing (No custom routes) <edit) (dhcp-only)="" (i)="" (show)="" <="" [i]="" addressing="" automatic="" automatically="" configuration="" connection="" default="" dns="" for="" ignore="" ipv4="" ipv6="" link-local="" manual="" network="" never="" obtained="" parameters="" pre="" require="" route="" routes="" this="" use=""></edit)></pre>	IPv4 CONFIGURATION <manual> Addresses 16.1.1.41/24 <remove></remove></manual>	<hide></hide>
<pre> Search domains st.vxrail.cluster1 </pre> Search domains st.vxrail.cluster1 Routing (No custom routes) <edit> Routing (No custom routes) <edit> I Never use this network for default route I Ignore automatically obtained routes I Ignore automatically obtained DNS parameters I Require IPv4 addressing for this connection IPv6 CONFIGURATION Automatic (DHCP-only) Link-Local Manual Automatic all</edit></edit>	<pre></pre>	
Routing (No custom routes) <edit> [] Never use this network for default route [] Ignore automatically obtained routes [] Ignore automatically obtained DNS parameters [] Require IPv4 addressing for this connection • IPv6 CONFIGURATION Matomatic (X) Automatically co [X] Available to all</edit>	<pre></pre>	
[] Require IPv4 addressing for this connection ◆ IPv6 CONFIGURATION Automatic (X] Automatically co (X] Available to all Manual Automatic (DHCP-only)	Routing (No custom routes) <edit> [] Never use this network for default route [] Ignore automatically obtained routes [] Ignore automatically obtained DNS parameters</edit>	
<pre> IPv6 CONFIGURATION Automatic Automatic (DHCP-only) Link-Local Manual Automatic Automatic (DHCP-only) Link-Local Manual Automatic Automati</pre>	[] Require IPv4 addressing for this connection	
[X] Available to all Manual	IPv6 CONFIGURATION ↓ IPv6 CONFIGURATION (X) Automatically co Link-Local	<show></show>
<pre></pre>	[X] Available to all Manual	<cancel> <ok></ok></cancel>

You are now ready to continue configuration.

(i) **NOTE:** If you are not connecting the OMNI VM to a SmartFabric local-link, ignore this part as it not applicable and you are ready to activate the connection profile.

1. Select Wired connection 2, and click Edit.

Ethernet vCenter Server Network <u>Wired connection 2</u> Bridge docker0 • • • • • • • • • • • • • • • • • • •

2. Rename Profile name to VxRail Mgmt Network.

Profile name <mark>Vxrail Mgmt network</mark> Device 00:50:56:B3:BB:60 (ens192)	
• ETHERNET	<show></show>
 IPv4 CONFIGURATION <<u>Automatic></u> IPv6 CONFIGURATION <link-local></link-local> 	<show> <show></show></show>
<pre>[X] Automatically connect [X] Available to all users</pre>	
	<cancel> <ok></ok></cancel>

3. Select **Disabled** for the IPv4 configuration.

Profile name Device	Edit Connection Vxrail Mgmt network 00:50:56:B3:BB:60 (ens192)	
 ETHERNET IPv4 CONFIGURATION IPv6 CONFIGURATION [X] Automatically co [X] Available to all 	Disabled Automatic Link-Local Manual Shared	<show> <show> <show></show></show></show>
		<cancel> <ok></ok></cancel>

4. Select Link-Local for the IPv6 configuration.

Profile name	Vxrail Mgmt network	
Device	00:50:56:83:88:60 (ens192)	<show)< th=""></show)<>
 IPv4 CONFIGURATION IPv6 CONFIGURATION [X] Automatically co [X] Available to all 	Ignore Automatic Automatic (DHCP-only) <mark>Link-Local</mark> Manual	<show> <show></show></show>
		<cancel> <ok< td=""></ok<></cancel>

5. Click Edit to the right of Routing, and click Add.

Profile name VxRail Mgmt Network Device <u>00:50:56:B3:0E:25 (ens19</u>	2)
+ ETHERNET	<show></show>
<pre> IPv4 CONFIGURATION <disabled> IPv6 CONFIGURATION <link-local> Addresses <add> Gateway DNS servers <add> Search domains <add> Routing (No custom routes) </add></add></add></link-local></disabled></pre>	<show> <hide></hide></show>
[] Ig [] Ig Destination/Prefix Next Hop No custom routes are defined. (] Re	Metric
[X] Auto [X] Avai	<cancel> <ok></ok></cancel>
	<cancel> <ok></ok></cancel>

6. Enter the custom route as fde1:53ba:e9a0:cccc::/64, and click OK.

<pre>Device 00:50:56:E3:0E:25 (ens192) • ETHERNET</pre>	<pre>Device 00:50:56:B3:0E:25 (ens192) • ETHERNET</pre>	Profile name VXR	Edit Connection	
<pre> • ETHERNET</pre>	<pre> • ETHERNET</pre>	Device <mark>00:</mark>	50:56:B3:0E:25 (ens192)	
<pre> IPv4 CONFIGURATION <disabled></disabled></pre>	<pre> • IPv4 CONFIGURATION <disabled> <show> • IPv6 CONFIGURATION <link-local> <hide> Addresses <add> Gateway DNS servers <add> Search domains <add> Routing (No custom routes) <edit> [[[[[[[[[[[[[[[[[[</edit></add></add></add></hide></link-local></show></disabled></pre>	♦ ETHERNET		<show></show>
I I I Destination/Prefix S3ba:e9a0:cccc::/64 Metric <add></add>	Image: Cancel> Image: Cancel> Image: Cancel> Concel>	 IPv4 CONFIGURATION <di< li=""> IPv6 CONFIGURATION <li< li=""> Addresses <ad< li=""> Gateway DNS servers <ad< li=""> Search domains <ad< li=""> Routing (No </ad<></ad<></ad<></li<></di<>	sabled> nk-Local> d> d> d> custom routes) <mark><edit></edit></mark>	<show> ⟨Hide></show>
	[X] [X] (Cancel> <ok></ok>	[Destination/Prefix 53ba:e9a0:cccc::/6 [<add></add>	Next Hop 4	Metric <remove></remove>

7. One custom route is now configured, click **OK**.



8. Click **Back** to activate the connection profiles.

Ethernet Vxrail Mgmt network Vcenter server network Bridge docker0 • • • • • • • • • • • • • • • • • • •

Activate connection profiles

(i) NOTE: To populate DNS entries automatically, deactivate and active each profile.

1. Select Activate a Connection, and click OK.

NetworkManager TUI
Please select an option
Edit a connection Activate a connection Set system hostname
Quit
<ok></ok>

(i) **NOTE:** If you change while editing a connection, you must deactivate then activate the connection for the respective interface profile.

2. Select the vCenter Server Network profile, and click Deactivate. Repeat for VxRail Mgmt Network.

Ethernet (ens160) * * Vcenter server network * Ethernet (ens192) * * Vxrail Mgmt network * Bridge (docker0) * *
+ <back></back>

3. Select the vCenter Server Network profile, and click Activate. Repeat for VxRail Mgmt Network.

<pre>Bridge (docker0) * docker0 * docker0 * <back></back></pre>

4. Click Back, select Set system hostname, and click OK.

NetworkManager TUI	
Please select an option	
Edit a connection Activate a connection Set system hostname	
Quit	
<0K>	

(i) NOTE: If you are setting the hostname of OMNI, ensure you have the DNS entry of the OMNI hostname.

5. Enter omni for the hostname, and click OK.

	Please select an option Set Hostname
Hos	tname omni

6. The hostname is now set. Click $\ensuremath{\text{OK}}$.

Set hostname to 'omni'	
OK	

7. Click ${\bf Back},$ and ${\bf OK}$ to exit the network management UI.

NetworkManager TUI
Please select an option
Edit a connection Activate a connection Set system hostname
Quit

- 8. Enter a valid NTP Server IP address or hostname, and click Enter.
- 9. Enter **n** to not install the SSL certificate from remote server. When you enter **n**, the self-signed certificate that is created locally is installed.

5840ad80b255 d131d9befde1 6dbf4c20c67b ef892490e40b e836a837b6bd 98c6ecd01515 858330a9026a Starting omni_db Starting omni_services ... done Starting omni_api Starting omni_nginx NTP Server IP/Hostname: 10.16.126.1 2020-07-27 10:53:16 INFO [setup.sh] Generating NTP config 2020-07-27 10:53:16 INFO [setup.sh] Adding 10.16.126.1 as an NTP server 2020-07-27 10:53:16 INFO [setup.sh] NTP service active Install SSL certificates from remote Server [y]? n_

(i) NOTE: To install a new certificate, see Generate and install SSL certificate.

(i) NOTE: If the NTP Server is not configured, the OMNI appliance VM synchronizes with the ESXi server time zone.

Generate and install SSL certificate

OMNI Management menu has options to generate self-signed SSL certificates or install SSL certificates from remote server.

Generate self-signed SSL certificate

To generate a self-signed SSL certificate:

1. From the OMNI management menu, select 5. Password/SSL configuration menu.



2. Enter the selection as 3. Generate self signed SSL certificates. OMNI VM displays confirmation for replacing the existing certificate and key with the newly created certificates and keys.

Password/SSL configuration menu 1. Change appliance password 2. Change root password Generate self signed SSL certificates з. Install SSL certificates from remote server 4. 5. Exit Enter selection [1 - 5]: 3 Existing Certificate and Key will be replaced. Proceed? [y]? y 2020-07-31 01:51:20 INFO [setup.sh] Generating default OpenSSL certificate for the appliance Generating a RSA private key writing new private key to '/home/isengard/workspace/sslworkspace/dellIsengardCA–key.pem' Generating RSA private key, 4096 bit long modulus (2 primes) .++++ e is 65537 (0x010001) Signature ok subject=C = US, ST = CA, L = Santa Clara, O = Dell, OU = networking, CN = dellemcnetwork-appliance, emailAddress = noreply@dell.com Getting CA Private Key omni_nginx press [enter] to continue...

3. Register or update the OMNI appliance with vCenter for applying the new SSL certificate. From the OMNI management menu, select **4.Register/update OMNI vSphere client plug-in with vCenter**.

NOTE: Refresh the browser to view the OMNI UI plug-in from the vCenter when you register or unregister OMNI 1.3 VM appliance with vCenter 7.0. For older versions of vCenter, log out and log in to access the plug-in from the vCenter.



Install SSL certificate from remote server

To install SSL certificate from remote server:

- 1. Generate SSL certificate using a standard method in .pem or .crt formats.
- 2. Copy the generated files to the remote SCP server.
- 3. From the OMNI management menu, select 5. Password/SSL configuration menu.

Menu

0. 12. 34. 56. 8	Full setup Show version Interface configuration menu OMNI management service menu Register/Update OMNI vSphere client plugin with vCenter Password/SSL configuration menu Upgrade appliance Reboot appliance Show EULA
8. 9.	Show EULA Logout
Ente	er selection [0 – 9]: 5

4. Enter the selection as 4. Install SSL certificate from remote server to install the certificate. Enter the remote SCP server IP address or hostname and login to the SCP server. Provide the path to the certificate and private key in the server. The files are copied to the OMNI VM.

```
Password/SSL configuration menu
1. Change appliance password
2. Change root password
3. Generate self signed SSL certificates
4. Install SSL certificates from remote server
   Exit
5.
Enter selection [1 - 5]: 4
2020-07-31 02:07:57 INFO [setup.sh]
Setting up server certificate for HTTPS service
Remote SCP server IP/hostname: 192.168.101.32
Username: admin
File path [certificate file format(.crt/.pem)]: /tmp/omni-cert.pem
The authenticity of host '192.168.101.32 (192.168.101.32)' can't be established.
ECDSA key fingerprint is SHA256:Hxik4YrYfZfrEbR5r5oegH8XivUdGdHHTL/+F29hiQQ.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.101.32' (ECDSA) to the list of known hosts.
admin@192.168.101.32's password:
omni-cert.pem
                                                  100% 1034
                                                                5.2MB/s
                                                                          00:00
2020-07-31 02:08:44 INFO [setup.sh]
2020-07-31 02:08:44 INFO [setup.sh]
Remote SCP server IP/hostname [192.168.101.32]:
Username [admin]:
File path [must be private key format(.pem)]: /tmp/omni-key.pem
admin@192.168.101.32's password:
                                                  100% 1675
                                                                7.1MB/s
                                                                          00:00
omni–key.pem
2020-07-31 02:09:11 INFO [setup.sh]
Installing new keys will restart the service. Proceed? [y]? _
```

- 5. Enter y to install the SSL certificate.
- 6. Register or update the OMNI appliance with vCenter for applying the SSL certificate. From the OMNI management menu, select **4.Register/update OMNI vSphere client plugin with vCenter**.

NOTE: Refresh the browser to view the OMNI UI plug-in from the vCenter when you register or unregister OMNI 1.3 VM appliance with vCenter 7.0. For older versions of vCenter, log out and log in to access the plug-in from the vCenter.

Menu

```
0. Full setup
   Show version
   Interface configuration menu
3. OMNI management service menu
Register/Update OMNI vSphere client plugin with vCenter
5. Password/SSL configuration menu
6. Upgrade appliance
7. Reboot appliance
8.
  Show EULA
9.
  Logout
Enter selection [0 – 9]: 4
2020-07-31 01:53:31 INFO [setup.sh] Registering OMNI plugin with vCenter
OMNI IP/FQDN to use for registration: dellemc-omni.st-omni.a.maa
OMNI IP/FQDN : dellemc-omni.st-omni.a.maa
vCenter server FQDN: vc.st-omni.a.maa
vCenter server username: administrator@vsphere.local
vCenter server password:
2020-07-31 01:54:29,256 Extension registration succeed with: vc.st-omni.a.maa
press [enter] to go back to main menu...
```

OMNI vCenter client plug-in registration

This information describes how to register the vCenter plug-in. SSL certificates have been automatically generated after the password is successfully updated. For more information, see Log into VM console.

() NOTE: Multiple OMNI instances cannot be mapped to a single vCenter instance. If a situation where multiple VxRail clusters exist with their own respective fabric instances, it is recommended to map these fabric instances to a single vCenter instance. For example, VxRail cluster1 ideally has its own vCenter-1 VM instance, and the same is true for VxRail cluster 2 with its own vCenter-2 VM instance. In this case, OMNI-1 maps to vCenter-1, and OMNI-2 maps to vCenter-2.

If you do not want to create individual OMNI to vCenter mappings, you do have the option of mapping multiple fabric instances to a single OMNI mapped to a single or primary vCenter instance.

1. Login to the OMNI management console.



2. Select 4. Register/Update OMNI vSphere client plugin with vCenter.

	Menu
0. 1. 2. 3. 4. 5. 6. 8. 9.	Full setup Show version Interface configuration menu OMNI management service menu Register/Update OMNI vSphere client plugin with vCenter Password/SSL configuration menu Upgrade appliance Reboot appliance Show EULA Logout

3. Enter the OMNI IP or FQDN for registration with the vCenter instance.

(i) NOTE: The recommendation is to use FQDN instead of the IP address of OMNI.



4. Enter the vCenter Server FQDN, vCenter Server username, and vCenter Server password. Repeat this step to register each vCenter instance (up to 10).

	Menu
0. 12. 4. 5. 7. 8. 9.	Full setup Show version Interface configuration menu OMNI management service menu Register/Update OMNI vSphere client plugin with vCenter Password/SSL configuration menu Upgrade appliance Reboot appliance Show EULA Logout
Enti 2021 OMN OMN VCel VCel VCel	er selection [0 – 9]: 4 O–O6–O8 02:25:43 INFO [setup.sh] Registering OMNI plugin with vCenter I IP/FQDN to use for registration: omni.st02.omni.vxrail I IP/FQDN : omni.st02.omni.vxrail nter server FQDN: internal–vc.st02.omni.vxrail nter server username: administrator@vsphere.local nter server password: _

5. The OMNI application server services start successful; press [enter] to continue.


6. Select 9. Logout.



(i) NOTE: You cannot register the same vCenter instance from another OMNI plug-in.

For more information about how to unregister OMNI with vCenter, see Manage vCenter with OMNI.

OMNI vCenter integration

This information describes the OMNI vCenter integration to automate vCenter PortGroup VLANs.

vCenter VSS and DVS PortGroups

When you configure PortGroups of a virtual standard switch (VSS) with VLANs and distributed virtual switch (DVS) with VLANs on the OMNI registered vCenter, the respective active and standby physical adapter interfaces are automatically configured by OMNI on the SmartFabric ServerInterfaces. This is shown as tasks on the registered vCenter tasks pane.

NOTE: You cannot delete PortGroups on a VSS/DVS, or delete the VSS/DSS entirely as it clears all unused networks from the SmartFabric ServerInterfaces.

DVS provides an option to change the VLAN of uplink PortGroups. OMNI ignores PortGroup configuration if the VLAN type PortGroup is set to VLAN trunking or private VLAN.

We recommend keeping the DVS uplink in Trunking mode and configure the virtual PortGroups with VLANs for each network. OMNI configures the respective VLANs on the ToRs and SmartFabric uplinks.

OMNI automates the vCenter PortGroup VLAN and manages the registered vCenter by identifying the relation between the SmartFabric ServerInterface and the ESXi host PNIC MAC.

Identification of vCenter ESXi Host by OMNI

OMNI collects the PNIC MACs of all ESXi hosts in registered vCenters. If OMNI identifies the ServerInterface ID as a collected PNIC MAC (Id=MAC without ':') of the host, OMNI identifies that host to belong to an OMNI registered SmartFabric instance.

Table 5. vCenter PortGroup VLAN automation of identified ESXi host

vCenter action	SmartFabric action by OMNI
Add/update PortGroup: VLAN of VSS/DVS	 Create network of PortGroup VLAN and set Network Originator to Auto Add network to SmartFabric ServerInterface
Remove PortGroup from VSS/DVS	Remove unused networks from SmartFabric ServerInterface

(i) NOTE: OMNI automation is not designed to delete unused ServerInterfaces of SmartFabric.

SmartFabric networks consolidation by OMNI

- 1. Collect all networks of registered SmartFabric.
- 2. Collect networks of ServerInterface of registered SmartFabric.
- **3.** Identify SmartFabric networks created by the OMNI user interface, and SmartFabric networks that are not created by the OMNI user interface.

OMNI distinguish the origin of the network configured through vCenter or OMNI user by setting the Network Originator parameter.

- a. OMNI sets Network Originator to Manual when an user creates a network using OMNI UI.
- **b.** OMNI sets Network Originator to Auto when OMNI vCenter PortGroup automation creates a network.

4. Append networks that are not created by the OMNI user interface (all networks except the one that has Network Originator set to Manual) to SmartFabric uplink of the type Default or CreateOnly.

OMNI automates network addition on one of the fabric uplinks. If you edit the network on the uplink using the OMNI UI and add or edit Network of Originator type Auto, the automation process may remove that network.

- 5. Find unused networks; SmartFabric networks not created by the OMNI user interface, and not used by the SmartFabric ServerInterface and SmartFabric uplinks.
- 6. Delete unused networks from the SmartFabric.

NOTE: The Default or CreateOnly uplink can be configured on the SmartFabric through the OMNI Uplink configuration page. For more information, see Configure and manage uplinks.

OMNI appliance console CLI menu

This information describes the menus available to the admin SSH user through the console.

Menu option	Submenu option	Description
1. Show version	-	Display OMNI virtual appliance and plug- in version.
2. Interface configuration menu	1. Show interfaces	Display OMNI network interface configuration.
	2. Show connection status	Display OMNI network interface connection status.
	3. Configure interfaces	Configure OMNI network interfaces using Network Manager user interface (nmtui) including OMNI Management IP, gateway, DNS entries, search domains, routes, OMNI hostname, and so on.
	4. Show NTP status.	Display OMNI network time protocol (NTP) server status.
	5. Configure NTP server.	Configure OMNI NTP server. Enter remote NTP server IP or hostname. It is recommended that you use the server hostname.
	6. Unconfigure NTP server.	Unconfigure OMNI NTP server.
	7. Start NTP server.	Start OMNI NTP service, and enable NTP service.
	8. Stop NTP server.	Stop OMNI NTP service.
	9. Exit	—
3. OMNI management service menu	1. Start OMNI management service.	Start OMNI web and database essential services.
	2. View OMNI management service	Display status of OMNI essential services.
	3. Stop OMNI management service.	Stop OMNI essential services.
	4. Restart OMNI management service.	Restart OMNI essential services.
	5. Create support bundle.	Create OMNI support bundle archive and save to download location. It is recommended that you use the OMNI appliance management user interface to generate and download support bundle.
	6. Change application log level	Display current log-levels, and configure DEBUG or ERROR log-levels. It is recommended that you use the OMNI appliance management user interface to change log level of needed services.

Table 6. OMNI appliance console CLI menu

Table 6. OMNI appliance console CLI menu (continued)

Menu option	Submenu option	Description
	7. Exit	—
4. Register or update OMNI vSphere client plug-in with vCenter		Register OMNI with vCenter; enter OMNI IP or hostname, vCenter IP or hostname, vCenter administrator user (administrator @vsphere.local), and vCenter password. It is recommended that you register OMNI appliance user interface with one or multiple vCenters.
5. Password or SSL configuration	1. Change appliance password	Change appliance admin user password.
	2. Change root password	Assign password of application root user; root user is disabled by default, and is required to set the password first to access the root user. Root user is only accessible using the vCenter OMNI VM console. △ CAUTION: Changing the system state from the Linux shell can result in undesired and unpredictable system behavior. Only use Linux shell commands to display system state and variables, or as instructed by Dell EMC Support.
	3. Generate self-signed SSL certificates.	Replace existing OMNI appliance self- sign certificate. After SSL certificate installation completes, you need to re-register OMNI with the vCenter.
	4. Install SSL certificates from remote server.	Replace OMNI certificates with the certificate that is on the remote server using SCP or FTP. After SSL certificate installation completes, you need to re-register OMNI with the vCenter.
	5. Exit	_
6. Upgrade appliance		Upgrade the OMNI appliance.
7. Reboot appliance		Reboot the OMNI appliance.
8. Show EULA	-	Display the OMNI end user license agreement (EULA).
9. Logout	-	Log out as the admin user.

OMNI appliance page displays links to launch the OMNI Appliance Management UI, OMNI Fabric Management Portal, and OMNI Documentation. Open a browser session, **https://OMNI_IP/** with the IP address or FQDN of the OMNI VM.

OMNI Appliance Management user interface

From OMNI 1.3 release, manage all the system, web, and automation services running in the OMNI using a new UI—OMNI Appliance Management.

OMNI Appliance Management provides flexibility to manage each of the automation services running in the OMNI appliance, by allowing you to start, stop, and restart the OMNI services individually. See Related videos section for more information.

After you create the OMNI virtual appliance and complete the virtual appliance setup, launch the OMNI appliance management UI.

To access the OMNI Appliance Management UI:

Open a browser session, go to https://OMNI_IP/omni with the IP address or hostname of the OMNI VM that is configured during the initial setup.

(i) NOTE: Access OMNI Appliance Management UI only with OMNI VM appliance administrator credentials.

View OMNI Appliance Management summary

	anagement	Summary		? ~
Summary	OMNI Sun	nmary		
Services	Build numbe	er	1.3	
	Hostname		OMNI-1.3.14	
	Product		OpenManage Network Integration	
	Version		1.3.16	

Summary displays:

- Build number—Displays the OMNI build number information.
- Hostname—Displays the hostname configure during OMNI setup.
- Product—Displays the name of the VM appliance that is registered with the vCenter.
- Version—Displays the version of the OMNI VM build.

Manage OMNI services

By default, the web and database essential services start automatically, and the services must be in running state. Once you complete the OMNI virtual appliance setup by adding the SmartFabric service instances and register the relevant vCenters, the system creates individual fabric automation services. The automation services are created based on the combination of the number of vCenters registered and the SmartFabric service instances that are managed by the OMNI appliance. For example, if OMNI appliance has two service instances and two registered vCenters, the system displays four automation services.

List of OMNI services:

Table 7. List of OMNI services

Service	Function	States
omni_api	Service serving REST APIs for OMNI Fabric Management interface	Can restart the services.
omni_services	Orchestration service that provides APIs to start, stop, and manage all OMNI services.	
omni_db	Database service that stores crucial information	Cannot restart, start, or stop the services.
omni_nginx	Web server service that manages all incoming and outgoing web requests.	
Automation services	Automation services running between vCenter and SFS	Can start, stop, or restart individual automation services anytime.

Services menu displays the list of OMNI management and automation services running on the OMNI appliance. Select the automation service of the relevant vCenter and SmartFabric combination and start the services manually. Also start, stop, and restart the automation services individually.

	Appliance Management Summary		<u></u> ؟~
Summary	C RESTART START STOP DOWNLOAD SUPPO	RT BUNDLE	
Services	Name	State T	Startup Type Log Level
	O omni_nginx	running	Automatic
	O omni_api	running	Automatic ERROR
	omni_services	running	Automatic ERROR
	O omni_db	running	Automatic
	VCenter_100.104.26.21_SmartFabric_100.104.26.32_Automation	Not Created	
	VCenter_100.104.26.21_SmartFabric_100.94.27.2_Automation	Not Created	

Click $\ensuremath{\textbf{Refresh}}$ icon to update the data and display the updated contents.

Start fabric automation services

To start the fabric automation services:

- 1. From the OMNI Appliance Management UI, click Services tab menu.
- 2. Select the automation service that you want to start, and click Start.

C	RESTART STOP DOWNLOAD SUPPO	ORT B	UNDLE		
	Name	Τ	State T	Startup Type	Log Level
0	omni_nginx		running	Automatic	
0	omni_api		running	Automatic	ERROR
0	omni_services		running	Automatic	ERROR
	omni_db		running	Automatic	
0	vCenter_100.104.26.21_SmartFabric_100.104.26.32_Automation		Not Created		
0	vCenter_100.104.26.21_SmartFabric_100.94.27.2_Automation		Not Created		

After you start the service, OMNI starts monitoring the networking events for the registered service instance.

3. The system displays start service success message.

С	RESTART START STOP DOWNLOAD SUPPOR	RT BUNDLE		
	Name	T State	T Startup Type	Log Level
	/Center_100.104.26.21_SmartFabric_100.104.26.32_Automation	running	Manual	ERROR
	omni_nginx	running	Automatic	
	omni_api	running	Automatic	ERROR
	omni_services	running	Automatic	ERROR
	omni_db	running	Automatic	
	Center 100 104 26 21 SmartEabric 100 94 27 2 Automation	Not Created		

Stop fabric automation services

To stop the fabric automation services:

1. Select the relevant automation service that you want to stop, and click Stop.

C	RESTART START STOP DOWNLOAD SUPPO	RT BUNDLE		
<u> </u>	lame	T State	T Startup Type	Log Level
) 0	mni_nginx	running	Automatic	
0	mni_api	running	Automatic	ERROR
) 0	mni_services	running	Automatic	ERROR
) 0	mni_db	running	Automatic	
) v	Center_100.104.26.21_SmartFabric_100.104.26.32_Automation	Not Created		
v	Center_100.104.26.21_SmartFabric_100.94.27.2_Automation	Not Created		

2. The system displays stop service success message.

To restart the fabric automation service, select the relevant automation service, and click Restart.

View the status of automation service in the OMNI VM Home page, see View vCenter Host Automation status.

Download Support Bundle

1. Support options are used for debugging. If there is an issue, download a support bundle containing all the logs that are found in OMNI. Also change the log-level of OMNI to collect logs of different types.

When the log-level of OMNI is set to ERROR, the system records the error logs. When the log-level is set to DEBUG, error logs and logs with additional information is recorded. Use the DEBUG level when you want to diagnose an issue.

2. (Optional) Click Error under log-level of each service to modify the log-level to Debug.

Set Lo	g Level [omni_api]: Success			X
C	RESTART START STOP DOWNLOAD S	UPPORT BUNDLE		
	Name	T State	T Startup Type	Log Level
0	vCenter_100.104.26.51_SmartFabric_10.11.180.9_Automation	n running	Manual	ERROR
0	omni_nginx	running	Automatic	
	omni_api	running	Automatic	DEBUG
0	omni_services	running	Automatic	ERROR
0	omni_db	running	Automatic	

The system displays set log level success message.

 (Optional) Click **Debug** under log-level of each service to modify the log-level to **Error**. The system displays set log level success message.

Help links

Use the help icon to access the link to Dell EMC documentation support page. Also view the end-user license agreement (EULA) using the help icon.

D&LL EMC	OMNI Appliance Management Summary		?`
Summary Services	C RESTART START STOP DOWNLOAD SUPPOR	RT BUNDLE	Documentation EULA
	Name T	State T	Startup Type Log Level
	O omni_nginx	running	Automatic
	O omni_api	running	Automatic ERROR
	O omni_services	running	Automatic ERROR
	O omni_db	running	Automatic
	VCenter_100.104.26.21_SmartFabric_100.104.26.32_Automation	Not Created	
	VCenter_100.104.26.21_SmartFabric_100.94.27.2_Automation	Not Created	

Related Videos

OMNI Appliance Management UI

Access to OMNI Fabric Management Portal

This information describes how to access SmartFabric vCenter through the vSphere Client. A shortcut is available from the vSphere Client left-pane within the menu drop-down and shortcuts view.

Access OMNI portal using registered vCenter

Before you use the plug-in, you must set up an OMNI appliance in vSphere. Once you register OMNI with vCenter, an OMNI plug-in is available in the vCenter.

NOTE: vCenter 7.0 supports plug-in autodiscovery feature. So, when you register or unregister OMNI 1.3 appliance with vCenter 7.0, refresh the browser to view the OMNI UI plug-in from the vCenter. For OMNI 1.3 with older versions of vCenter, log out and log in to access the plug-in from the vCenter.

vm vSphere Client	Menu V Q Search in all environm		C ().~	Administrator@VSPHERE.LOCAL	
Home Shortcuts	Image: Home ctrl + alt + home Image: Shortcuts ctrl + alt + 1				
 Hosts and Clusters VMs and Templates Storage Networking Content Libraries Global Inventory Lists 	Image Hosts and Clusters ctrl + alt + 2 Image VMs and Templates ctrl + alt + 3 Image Storage ctrl + alt + 4 Image Networking ctrl + alt + 5 Image Content Libraries ctrl + alt + 6 Image Global Inventory Lists ctrl + alt + 7	Ms and Storage mplates	Networking	Content Libraries Global Inventory Lists	Linked Domains
 OpenManage Network Integr Policies and Profiles Auto Deploy Developer Center vRealize Operations VxRail 	 OpenManage Network Integration Policies and Profiles Auto Deploy Developer Center vRealize Operations VxRail 	t Console VM Customization Specifications	VM Storage Policies	Host Profiles Update Manager	X VxRail
 Administration Update Manager 	Opdate Manager				
😰 Tasks 🕞 Events	🖻 Tasks 🌄 Events				
Tags & Custom Attributes	Tags & Custom Attributes				

When you select SmartFabric, the home page displays information about the SmartFabric domains being managed. This page also allows you to update extensions if available. Information includes:

- Service instance
- vCenter credentials

6

价Home	DELLEMC	
 Service Instance SFS-1 	Service Instance	
sf_10.11.180.8	CREFRESH + CREATE / EDIT X DELETE	
	Service Instance \forall Service Instance Name \forall User Name \forall Configuration Status \forall Mode vCenter Host Automation Status	tus
	Instruction Instruction	
	O 10.11.180.8 sf_10.11.180.8 REST_USER OK IN SERVICE 100.104.26.21, 100.104.26.21	2
	1 - 2 of 2 instan	ces
	OpenManage Network Integration (OMNI) offers a single page of glass through VMware vSphere for operation and management of	
	Dell EMC SmartFabric OS10.	
	vCenter Credentials	
	CREFRESH & UPDATE × UNREGISTER	
	vCenter y User	٣
	0 100.104.26.21 administrator@vsphere.local	
	Plugin Information Links	
	Documentation	

Access OMNI portal using the OMNI IP address

Once the vCenter registration steps are complete, you can log in to the OMNI UI using the OMNI stand-alone page. This information describes how to access the OMNI UI from a browser.

- 1. Open a browser session, go to https://OMNI_IP/delawareos10 with the IP configured during setup.
- 2. Enter the username and password for the OMNI VM, then click Sign In.

GHome		Sign in
	DELLEMC	https://100.104.26.26 Username
	Service Instance	Password
	○ + CREATE Ø E	Sign in Cancel
	Service Instance T	Service Instance Name Y User Name Y Configuration Status Y Mode vCenter Host Automation Status
	OpenManage Network Integra	ation (OMNI) offers a single pane of glass through VMware vSphere for operation and management of Dell EMC SmartFabric OS10.
	vCenter Credentials	
	vCenter	User T
		1 - 10 of 0 credentials

Once the username and password are authenticated, the OMNI page displays.

G Home	D¢LLEMC
 Service Instance SFS-1 sf_10.11.180.8 	Service Instance
	Service Instance Y Service Instance Name Y User Name Y Configuration Status Y Mode vCenter Host Automation Status
	100.104.26.32 SFS-1 REST_USER OK IN SERVICE 100.104.26.21 100.104.26.25 100.104.26.25 100.104.26.25 100.104.26.25 100.104.26.25
	O 10.11.180.8 sf_10.11.180.8 REST_USER OK IN SERVICE 100.104.26.21, 100.104.26.25
	1 - 2 of 2 instances
	Opermalage Network Integration (OMN) oners a single pane of glass through VMWare Vsphere for Operation and management of Dell EMC SmartFabric OS10. VCenter Credentials C REFRESH Ø UPDATE × UNREGISTER
	vCenter Y User Y
	100.104.26.21 administrator@vsphere.local
	Plugin Information Links
	Documentation EULA

OMNI Fabric Management Portal

Once you log in to the OMNI UI using the OMNI appliance IP, you can use the OMNI to manage the SmartFabric instances.

From the **Home** page, you can:

- Add a SmarFabric instance manually.
- Configure OMNI autodiscovered SmartFabric instance.
- Enable or disable OMNI Maintenance mode.
- View the vCenter host automation status.
- Manage vCenter with OMNI.
- View Plugin information links.

Add SmartFabric instance

This information describes how to add SmartFabric instances in OMNI.

1. Identify the master IP address of the switch in a SmartFabric cluster. To identify the master, use the show smartfabric cluster command in the OS10 switch CLI.

```
OS10# show smartfabric cluster

CLUSTER DOMAIN ID : 100

VIP : fde2:53ba:e9a0:cccc:0:5eff:fe00:1100

ROLE : MASTER

SERVICE-TAG : FX6HXC2

MASTER-IPV4 : 10.11.180.8

PREFERRED-MASTER : true
```

- **2.** Go to the OMNI portal.
- 3. From Service instance pane, click Create to manually add the master IP address of the SmartFabric Service instance.

心 Home	D&LLEMC
 Service Instance SFS-1 	Service Instance
sf_10.11.180.8	C REFRESH + CREATE 2 EDIT X DELETE
	Service Instance Y Service Instance Name Y User Name Y Configuration Status Y Mode vCenter Host Automation Status
	100.104.26.32 SFS-1 REST_USER OK IN SERVICE 100.104.26.21 100.104.26.32 100.104.26.25 100.104.26.25 100.104.26.25 100.104.26.25
	O 10.11.180.8 sf_10.11.180.8 REST_USER OK IN SERVICE 100.104.26.21, 100.104.26.25
	1 - 2 of 2 instances
	Dell EMC SmartFabric OS10. vCenter Credentials C REFRESH Ø UPDATE × UNREGISTER
	vCenter Y User Y
	O 100.104.26.21 administrator@vsphere.local
	Plugin Information Links
	Documentation EULA

4. Enter the service instance name, username, and password. Click Add.

Service Instance Name			
SFS-32		REST_USER	ок
n (OMNI) offers a single pane of glass throug	Add a Service Instance	×	
	Service 10.11.201.32 Instance	-	
IDECISTED	Service 10.11.201.32 Instance Name	-	
	User REST_USER Name REST_USER is the recommen	- nded User Name	
	Password	0	
		CANCEL	

5. The system displays service instance creation success message.

Configure OMNI autodiscovered SmartFabric instance

This information describes how to configure OMNI autodiscovered SmartFabric instances. If the OMNI virtual appliance is connected to a link-local network on SmartFabric (such as VxRail Management Network-VLAN 3939), find the SmartFabric IPv6 VIP autodiscovered by OMNI. For complete information about discovery, see *mDNS service* in Fabric creation.

Edit the autodiscovered SmartFabric instance for the REST_USER password to complete the configuration.

- 1. Go to the OMNI portal.
- 2. Select Auto Discovered VIP, and click Edit.

&LL EMC						
ervice Instance						
C REFRESH + CREATE	🖉 EDIT	× DELETE				
Service Instance	т	Service Instance Name	User Name y	Configuration Status 🝸	Mode	vCenter Host Automatic
• fde1:53ba:e9a0:cccc:0:	5eff:fe00:1100	[2WJHXC2.local]	REST_USER	OK	IN SERVICE	vc.st.vxrail.cluster1
a						
						1 - 1 of 1 instanc
penManage Network Integ anagement of Dell EMC S	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for o	peration and	
penManage Network Integ anagement of Dell EMC S Center Credentials	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for o	peration and	
penManage Network Integ anagement of Dell EMC S Center Credentials CREFRESH Ø UPDATE	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for o	peration and	
penManage Network Integ anagement of Dell EMC S Center Credentials CREFRESH & UPDATE vCenter	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for o	peration and	Ţ
penManage Network Integ anagement of Dell EMC S Center Credentials CREFRESH & UPDATE vCenter vc.st.vxrail.cluster1	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for of rator@vsphere.local	peration and	Ţ
penManage Network Integ anagement of Dell EMC S Center Credentials CREFRESH Ø UPDATE vCenter vc.st.vxrail.cluster1	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for og rator@vsphere.local	oeration and	T-1 of 1 credentia
penManage Network Integ anagement of Dell EMC S Center Credentials CREFRESH Ø UPDATE vcenter vc.st.vxrail.cluster1	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for op	peration and	1 - 1 of 1 credentia
penManage Network Integranagement of Dell EMC S Center Credentials CREFRESH & UPDATE vcenter vc.st.vxrail.cluster1	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for op	peration and	1 - 1 of 1 credentia
PenManage Network Integranagement of Dell EMC S Center Credentials CREFRESH & UPDATE Vcenter Vc.st.vxrail.cluster1 Iugin Information Lin	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for op	peration and	1 - 1 of 1 credentia
penManage Network Integranagement of Dell EMC S Center Credentials CREFRESH & UPDATE VCenter Vc.st.vxrail.cluster1 lugin Information Lin ocumentation	gration (OMNI martFabric OS) offers a single pane of 510.	glass through V	/Mware vSphere for op	peration and	1 - 1 of 1 credentia

NOTE: During VxRail initial deployment, the system forces you to change the password. If you forget the REST_USER password, contact Dell support to reset REST_USER password.

3. Enter the service instance information, then click Submit.

1 ce C2.local]	DØLLEMC	Edit a Service Ins	tance		×	
	Service Instance	Service Instance	fde1:53ba:e9a0:cccc:0	0:5eff:fe00:1100		
	C REFRESH + CREA	Service Instance Name	[6XJHXC2.local]			
	Service Instance	User Name	REST_USER			
	fde1:53ba:e9a0:c		REST_USER is the recomm	ended User Name		
		Password		0		
	OpenManage Network			CANCEL	вміт	
	vCenter Credentials					

(i) **NOTE:** After you configure the SmartFabric instance, start the fabric automation services from the OMNI appliance management User Interface (UI).

4. The system displays service instance configuration success message.

Manage vCenter with OMNI

You can unregister vCenter and manage vCenter credentials with OMNI.

Unregister vCenter with OMNI

1. From the Home page, go to vCenter Credentials pane.

ppenmanage Network Integration INSTANCE	16.1.1.41:443 ~	
OpenManage Network Integration (OMNI) offer nanagement of Dell EMC SmartFabric OS10.	s a single pane of glass through VMware vSphere for oper	ation and
Center Credentials		
C REFRESH Ø UPDATE × UNREGISTER		
vCenter	۲ User	T
• vc.st.vxrail.cluster1	administrator@vsphere.local	
		1 - 1 of 1 credentia
lugin Information Links		
locumontation		

2. Select the vCenter from the list, and click Unregister.

vCenter	Unregister OMNI Plugin with vCenter	\times	
• vc.st.vxrail.cluster	Do you want to unregister vc.st.vxrail.cluster1 from OMNI.		
	CANCEL	UNREGISTER	

3. Click Unregister to confirm.

Update the credential of the registered vCenter

1. Select the existing vCenter from the list, and click **Update** to update the credentials.

OpenManage Network Integration INSTANCE	16.1.1.41:443 ×	
OpenManage Network Integration (OMNI) offers management of Dell EMC SmartFabric OS10.	s a single pane of glass through VMware vSphere for operal	ion and
vCenter Credentials		
C REFRESH Ø UPDATE × UNREGISTER		
vCenter	۳ User	т
• vc.st.vxrail.cluster1	administrator@vsphere.local	
		1 - 1 of 1 credentials
Plugin Information Links		
Documentation EULA		

Update Credential window appears.

2. Enter the required information to edit (user and vCenter fields are automatically populated), then click Update.

er Credential	Update Credenti	al		\times	
	OMNI IP/FQDN	16.1.1.42			
RESH 🖉 UPDA	vCenter	vc.st.vxrail.cluster1			
vCenter	User	administrator@vsphere	local.		
ve.st.vxran.erdster	Password		٥		
	Asset Id				
Information	Credential Id				
entation			CANCEL	UPDATE	

3. The system displays an update success message.

Enable and disable OMNI Maintenance mode

The OMNI Fabric Management portal Home page displays the mode of each service instance in the OMNI VM.

Home Service Instance	DOLLEMC
SFS-1 sf_10.11.180.8	Service Instance
	Service Instance Y Service Instance Name Y User Name Y Configuration Status Y Mode vCenter Host Automation Status 100.104.26.32 SFS-1 REST_USER OK IN SERVICE 100.104.26.21 100.104.26.32 SFS-1 REST_USER OK IN SERVICE
	Image: 10.11.180.8 sf_10.11.180.8 REST_USER OK IN SERVICE 100.104.26 21, 100.104 26 25 1 - 2 of 2 instances 1 - 2 of 2 instances - 2 of 2 instances - 2 of 2 instances
	OpenManage Network Integration (OMNI) offers a single pane of glass through VMware vSphere for operation and management of Dell EMC SmartFabric OS10.
	vCenter Credentials

Enabling Maintenance mode disables zero-touch automation for all SmartFabric instances. Enabling Maintenance mode prevents OMNI from configuring networks on SmartFabrics when there are changes in the vCenter port groups.

Enable Maintenance mode

To enable Maintenance mode for a service instance:

- 1. From the Home page, under Service Instance, click In Service for a specific service instance from the
 - **NOTE:** Enabling Maintenance mode disables all the Service Instance UI navigation and stops the automation services that are running for the service instance.

2. Click Ok to confirm.

C REFRESH + CREAT	Service Instance Maintenance \times		
Service Instance	The Service Instance 100.104.26.32 is currently In Service.	Mode	
0 100.104.26.32	Do you want to move this Under Maintenance? Note: Maintenance will disable Service Instance UI navigation and stop	IN SERVICE	
	Automation service for Service Instance, if it is running.		
0 10.11.180.8	CANCEL	IN SERVICE	

3. The system displays Maintenance mode change success message.

Disable Maintenance mode

To disable Maintenance Mode for a service instance:

1. From the **Home** page, under **Service Instance**, click **Under Maintenance** for a specific Service Instance from the list. Click **Ok** to confirm.

C REFRESH + CREAT	Service Instance Maintenance \times
Service Instance	The Service Instance 100.104.26.32 is currently Under Maintenance.
0 100.104.26.32	Do you want to move this In Service? Note: Please navigate to OMNI Appliance Management UI to start automation OER MAINTENANCE of the Service Instance once Service Instance returns "In Service"
0 10.11.180.8	

- () NOTE: Once the status changes to In Service, go to the OMNI Appliance Management UI to start the relevant automation services.
- 2. Click to confirm.
- 3. The system displays Maintenance mode change success message.

View vCenter host automation status

OMNI appliance **Home** page displays the vCenter host automation status. **vCenter Host Automation Status** displays the list of all automation services available for the service instance and the status of the automation services for the vCenter host.

OMNI VM represents the status of automation service for the vCenter host using color.

- Blue—Automation service is running.
- Yellow—Automation service is not started.

Also check the status of vCenter host services by placing the cursor on the list.

	Service Instance 💡	Service Instance Name 🛛 🝸	User Name 🛛 🕆	Configuration Status 🛛 🔻	Mode	vCenter Host Automation Status			
0	100.104.26.32	SFS-1	REST_USER	OK	IN SERVICE	100.104.26.21			
0	10.11.180.8	sf_10.11.180.8	REST_USER	OK	IN SERVICE	100.104.26.21, 100.104.26.25			
						1 - 2 of 2 instances			
OpenManage Network Integration (OMNI) offers a single pane of glass through VMware vSphere for operation and nanagement of Dell EMC SmartFabric OS10.									

Plugin information links

You can view the links to documentation and end-user license agreement (EULA).

1. Plugin Information Links has links to:

- Documentation
- End User License agreement

Plugin Information Links	
Documentation EULA	

2. Click EULA to view the Dell EMC End User License Agreement.

	Dell'Elle Elle Oser Electise Agreement
	END USER LICENSE AGREEMENT
	This Software (meaning application, microcode, firmware, and operating system software in object code format) and associated materials contain proprietary
	and confidential information, and its use is subject to, and expressly conditioned upon acceptance of, this End User License Agreement and the documents incorporated by reference below ("E-EULA").
	This E-EULA is a legally binding agreement between the entity that has obtained the Software ("End User") and Licensor (which may be a Dell Inc. Affiliate or an
L	authorized reseller ("Reseller"), as explained below). If End User has a written, signed agreement with a Dell Inc. Affiliate that expressly provides for the licensing
L	of this Software, then that agreement, and not this E-EULA, will govern.
L	End User may have an employee or an employee of a vendor ("You") download and install the software on End User's behalf. This E-EULA becomes binding on
L	End User when You click on the "Agree" or "Accept" or a similar button below, proceed with the installation, download, use, or reproduction of this Software, or
L	otherwise agree to be bound by this E-EULA. By accepting the E-EULA, as set out in the prior sentence, You represent to Licensor that:
L	i. You have authority to bind the End User to this E-EULA;
L	ii. You agree on behalf of the End User that the terms of this E-EULA govern the relationship of the parties with regard to the subject matter in this E-EULA; and
L	iii. You waive on behalf of End User any rights, to the maximum extent permitted by applicable law, to any claim anywhere in the world concerning the
L	enforceability or validity of this E-EULA.
L	If one or more of these representations are not true, then You must do all of the following actions:
L	a. Do not accept the terms of this E-EULA on behalf of the End User by clicking on the "Cancel" or "Decline" or other similar button below;
L	b. Cease any further attempt to install, download, or use this Software and Documentation for any purpose; and
L	c. Remove any partial or full copies made from this Software and Documentation.

3. Click **Documentation** to view the User Guide and Release Notes uploaded at www.dell.com/support.



OMNI SmartFabric Management

This chapter explains how to manage SmartFabric components or entities using OMNI. The OMNI VM displays the list of manually created service instances, and the OMNI autodiscovered SmartFabric instances. For more information about the service instances, see OMNI Fabric Management Portal.

After you log in to the OMNI Fabric Management Portal, you can access and manage the SFS entities that are configured in a service instance.

心 ^{Home}	DIELEMC							
 Service Instance SFS-1 sf_10.11.180.8 	Service Instance C REFRESH + CREATE Ø EDIT × DELETE							
	Service Instance Y Service Instance Name Y Us	ser Name T Configuration Status T	Mode vCenter Host Automation Status					
	O 100.104.26.32 SFS-1 R	EST_USER OK	IN SERVICE 100.104.26.21 100.104.26.25					
	○ 10.11.180.8 sf_10.11.180.8 Rf	EST_USER OK	IN SERVICE (100.104.26.21, 100.104.26.25)					
			1 - 2 of 2 instances					
	Dell EMC SmartFabric OS10.							
	vCenter	T User	т					
	0 100.104.26.21 administrator@vsphere.local							
	Plugin Information Links							
	Documentation EULA							

For each service instance, you can:

- View the summary of the fabric.
- View fabric topology design.
- Manage switches in a service instance.
- Manage server interface configuration.
- Manage uplinks.
- Manage network configuration.
- Manage network fabric entities.

View Service Instance summary

From **Home**, select the **Service Instance** > **Summary** to view details of each SmartFabric. The **Summary** page displays the fabric summary including fabric nodes and racks in a network fabric.

公Home	SmartFabric Instance SFS_1								
 Service Instance 	Summary Topology Switches Server Interface Uplink Network Fabric Actions								
SFS_1	Fabric Nodes								
	C DOMAIN								
	> Fabric ID: 100 (AutoFab-100)								
	> Fabric ID: 72220224-2230-31a4-a244-cu3calio65550 (AutoPab-72220224-2230-51a4-a244-cu3calio85550)								

View node details

To view the details of the nodes or switches in the fabric, select the **Service Instance** > **Summary** > **Fabric Nodes**.

From **Fabric Nodes**, view the list of spine and leaf nodes that are deployed in the fabric. The page displays node information of the selected spine fabric structure which is arranged in racks. Select the **Fabric ID** to view the fabric details. Each spine fabric has corresponding switches. Each switch includes status (online or offline), name, model, version, role, and IP address.

Click **Domain** at any time to update the fabric details.

Fabric	ID—	Displays	the l	list of	spine	switches	connected	in the	fabric.
		Diopidyc			opino	000100100	00111100100		Tubilo.

AHome	SmartFabric	Instance SFS_1					
M. Hollie	Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
Service Instance							
SFS_2	Fabric No	des					
	C DOMAIN						
	✓ Fabric ID	: 100 (AutoFab-10	0)				
	Ē	5WJFXC2			Onlin	e	
	Nam	e:	Spine				
	Mod	el:	Z9264F-ON				
	Vers	ion:	10.5.0.6				
	Role	:	Spine				
	IP:		10.11.180.10				
	Deals						
	Rack						
	L. Eshvis IE	7000-004 000-			2000-004-0		
	> Fabric IL	. 1222c224-223c-5	ora4-a244-cd3ca	AutoFab-	222C224-2	23C-5Ta4-a244	+-ca3ca1685550)

Rack—Displays the summary of the racks, which contains logical groupings of switches.

Mome	Summary Topology	Switches	Server Interface	Uplink Networ	k Fabric Actions					
 Service Instance 	Fabric Nodes									
SFS_2										
	> Fabric ID: 100 (AutoFab-100)									
	Rack									
	✓ Fabric ID: 7222c224-2	23c-5fa4-a244-cd3ca	a1685550 (AutoFab-	7222c224-223c-5fa4-a	244-cd3ca1685550)					
	B Q700G	2	Online	GGVQG0	02	Online				
	Name:	Leaf1		Name:	Leaf2					
	Model:	S5232F-ON		Model:	S5232F-ON					
	Version:	10.5.0.6		Version:	10.5.0.6					
	Role:	Leaf		Role:	Leaf					
	IP:	10.11.180.9		IP:	10.11.180.8					

View fabric topology

The **Topology** tab displays the graphical topology of the network fabric for the selected service instance. You can also view the details of the switch in the fabric.

Select the Service Instance > Topology.

(i) NOTE: In this release, this feature is marked as beta.

ப்Home	SmartFab	ric Instance Sf	FS_2				
× Service Instance	Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
SFS_2				5W/ IEXC2			
			GC	VQG02 BQ70) DQ2		

The topology view displays the graphical icons of all the nodes and the link connectivity between the nodes. Each graphical node is represented with their service tag. Hover over an icon to view the detailed information about the node, and the link connectivity in the nodes. The detailed information of the node includes switch ID, switch platform, type of switch (leaf or spine), OS10 version running on the switch, and IP address. You can also view the details of source and destination interfaces of the link, when you hover over the links between the nodes.



Manage switches in a fabric

You can manage the list of spine and leaf switches available in a fabric.

From Switches page:

- View the details of the switches and the ports in a fabric.
- Edit the interface details.
- Set the MTU value for the port.
- Manage the unused ports in the switches.
- Configure breakout ports in leaf switches.
- Configure jump port.

View switch and port details

View the details of the leaf and spine switches, and the list of all ports and unused ports available in each switch. All ports category contains the list of interface and port channel in the switch.

1. Select the Service Instance > Switches.

Fabric Switches—Displays the list of spine and leaf switches available in the selected service instance.

心Home	SmartFabric Instance SFS_1								
 Service Instance 	Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions		
SFS_2									
	Fabri	c Switches							
	Spine Switche	S							
	> 5w	JFXC2(Spine)-Spi	ne	Online					
BQ700Q2(Leaf1)-Leaf Online									
	> GG'	VQG02(Leaf2)-Le	af (Online					

2. Select the arrow of the respective leaf or spine switch to view more information.

Spine Switches—Displays the list of all spine switches with ports information in categories. Click the arrow of the respective switch and category to view more about port information.

心Home	SmartFabric	Instance SFS_	_2				
· Convice Instance	Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
		ria Cuuitaba	-				
		nc Switche	5				
	Spine Switch	ies					
	~ 5	WJFXC2(Spine))-Spine	Online			
	~ 🗰	All Ports					
	~ 🔳	Unused Ports					
	Leaf Switche	es.					
	> в	Q700Q2(Leaf1)	-Leaf	Online			
	> 📑 G	GVQG02(Leaf2)-Leaf	Online			

Leaf Switches—Displays the list of all leafs in the fabric with ports, unused ports, breakout ports, and jump port information in categories. Click the arrow of the respective leaf switch category to view more information about the ports.

SmartFal	oric Instance sf_10.11.	180.8					
Summar	y Topology	Switches	Server Interface	Uplink	Network	Fabric Actions	
 , ⊧	abric Switches						
Spine Sw	itches						
>	5WJFXC2(Spine)-Sp	pine (Online				
Leaf Swit	ches						
~	BQ700Q2(Leaf1)-Le	af	Online				
~	All Ports						
~	Unused Ports						
~	関 Breakout Ports & .	Jump Port					
>	GGVQG02(Leaf2)-Le	eaf	Online				

Edit port configuration on a switch

Edit the configuration of port on a leaf or spine switch.

- 1. Select the Service Instance > Switches.
- 2. Select the spine or leaf switch by clicking the arrow to view more information.

公Home	SmartFabric Instance	e SFS_2				
v. Service Instance	Summary Topol	ogy Switches	Server Interface	Uplink	Network	Fabric Actions
SFS_2						
	Fabric Swi	tches				
	Spine Switches					
	~ 5WJFXC2(Spine)-Spine	Online			
	V 🛡 All Ports					
	V 👿 Unused I	Ports				
	Leaf Switches					
	> BQ700Q2((Leaf1)-Leaf	Online			
	> GGVQG02	(Leaf2)-Leaf	Online			

3. Select a port from All Ports category, and click Edit.

Summary	Topology	Switches	Server Interface	Uplink Net	work	Fabric Acti	ons		
	ric Switches								
oine Switch	es								
~ 5'	WJFXC2(Spine)-S	Spine	Online						
V 📕 All F	Ports								
	Tenable	AUTO NEG	O DISABLE AU	TO NEG 🔄 SE	T MTU	Speed T	Auto Neg 🖷	r MTU T	· •
<pre></pre>	 Therefore Port-channel97 ethernet1/1/2 ethernet1/1/2 ethernet1/1/1 ethernet1/1/1 	AUTO NEG Role 7 Unknown 2 4	O DISABLE AU Admin Status	TO NEG 5 SE · Operational Statu Up	T MTU	Speed T 400 G	Auto Neg Disabled	9216	*
 <i>⊘</i> EDIT <i>∞</i> × 	The second se	AUTO NEG Role Unknown	DISABLE AU Admin Status Enabled Enabled	TO NEG 5 SE	T MTU	speed v 400 G 400 G	Auto Neg T Disabled Disabled	9216 9216	r 🌲
 ✓ EDIT ✓ ✓ ✓ ✓ ✓ ✓ 	The second se	AUTO NEG Role Unknown Unknown Unknown	DISABLE AU Admin Status Enabled Enabled Enabled	TO NEG SE	T MTU	Speed ▼ 400 G - 400 G - 400 G -	Auto Neg The second sec	9216 9216 9216	

4. Edit the name, description, admin status, auto negotiation, and MTU, and click Edit.

Fa									
		Edit Ir	nterface -	5WJFXC2	ethernet	1/1/14	×		
	EXC2(Spi	Name		test					
		Descripti	on						
	DIT	Admin St	atus	 Enabled 		ed			
	Interfac	Auto Neg	3		• Disable	ed			
	ethern	MTU		9216					
	ethern			1312-9216					
	ethern								
	ethern								
	ethern								
	ethern				ſ	CANCEL	EDIT		
	ethern								

Configure auto negotiation status

You can enable or disable the auto negotiation on a single port or multiple ports.

- To enable auto negotiation:
- 1. From All Ports, select a port or multiple ports and click Enable Auto Neg.

F	Fabric Switches												
Spine Sw	vitches												
~ [5WJFXC2(Spine)-Spine Online												
~	All Ports												
<i>(</i>) E	edit 👚 Enabi	LE AUTO NEG	G 🛇 DISABLE	AUTO NEG – SET	. MTN								
	Interface T	Role T	Admin Status 🔻	Operational Status 🔻	Speed T	Auto Neg 🛛 🝸	MTU T						
	ethernet1/1/14	Unknown	Enabled	Down	0	Disabled	9216						
	ethernet1/1/39	Unknown	Enabled	Down	0	Disabled	9216						
	ethernet1/1/38	Unknown	Enabled	Down	0	Disabled	9216						
	ethernet1/1/7	Unknown	Enabled	Up	100 G	Enabled	9216						
	ethernet1/1/6	Unknown	Enabled	Up	100 G	Enabled	9216						
	ethernet1/1/5	Unknown	Enabled	Up	100 G	Enabled	9216						
	ethernet1/1/4	Unknown	Enabled	Up	100 G	Enabled	9216						
	ethernet1/1/3	Unknown	Enabled	Up	100 G	Enabled	9216						

2. The system displays a warning message. Click Yes to confirm.

Summary	Top	oology (RETA)	Switches	Server Interface	Uplink	Network	Fabric Actio	ons	 	
Fa		witches								
		Wa	arning							
		Char in se	nging the Inte rvice. The us	erface level configuer should be awar	urations car e of their ne	potentially c	ause a disrup as and the	tion		
	M All Po	rts Auto	ote-peers cor o-neg, Admin	nnected to the inte -down (if not mate	erfaces. The ched to the	changing of to the attache	MTU, Speed, ed-peer) can I	ead		
		to co	onnectivity is: ou want to c	sues. ontinue with this c	operation?					
		Interfac				NO	YES			
		ethern								
		ethernet1/1/49	Uplink	Enabled		Down		0		

3. The system displays the stage-wise progress of the interface status.

To disable auto negotiation:

1. From All Ports, select a port or multiple ports and click Disable Auto Neg.

2. The system displays the stage-wise progress of the interface status.

Set MTU value

Set maximum transmitting unit (MTU) for the port.

1. Select a port or multiple ports and click Set MTU.

F	abric Switche	s					
Spine Sw	vitches						
~ [5WJFXC2(Spine	e)-Spine	Online				
~ .	All Ports						
Ø E	DIT 👚 ENABL	E AUTO NEG	S DISABLE /	AUTO NEG – ⇔SET	MTU		
	Interface 🔻	Role T	Admin Status 🔫	Operational Status 🛛 🔻	Speed T	Auto Neg 🛛 🝸	MTU T
	ethernet1/1/14	Unknown	Enabled	Down	0	Disabled	9216
	ethernet1/1/39	Unknown	Enabled	Down	0	Disabled	9216
	ethernet1/1/38	Unknown	Enabled	Down	0	Disabled	9216
	ethernet1/1/7	Unknown	Enabled	Up	100 G	Enabled	9216
	ethernet1/1/6	Unknown	Enabled	Up	100 G	Enabled	9216
	ethernet1/1/5	Unknown	Enabled	Up	100 G	Enabled	9216
	ethernet1/1/4	Unknown	Enabled	Up	100 G	Enabled	9216

2. Enter the MTU value and click Set.

III All F	Set	MTU			×		
	DIT MTU		2516 🗢				
	ethern		1312-9216				
	ethern			CANC	EL SET		
	ethern						
	ethernet1/1/7	Unknown	Enabled	Up	100 G		

3. The system displays a warning message. Click Yes to confirm.

Fabr	ric Switche	es						
	s	Warning						
	Z6Y42(TOR1	Changing the in service. The	Interface level config e user should be awar	urations can potentially or re of their network settin	cause a disruption Igs and the			
- W	All Ports	remote-peers Auto-neg, Ad	connected to the inte min-down (if not mate	erfaces. The changing of ched to the to the attach	f MTU, Speed, ned-peer) can lead			
	a sour	to connectivit	y issues.					
	e edit	Do you want	to continue with this o	operation?				
	Interfac			NO	VES	Υ		
	ethern							
	etherne	t1/1/49 Uplin	k Enabled	Down	0			

4. The system displays the action success or failure message.

Manage unused switch ports

You can view and manage the unused ports in the switches.

To enable or disable unused ports:

- 1. Select the Service Instance > Switches.
- 2. Select any spine or leaf switch by clicking the arrow to view the list of ports.

ப்Home	Smart Fabric	Instance SFS_	_2				
Convice Instance	Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
i	Fabr	ic Switches	5				
	Spine Switche	es					
	✓ □ 5V	VJFXC2(Spine)	-Spine	Online			
	~ 🔳	All Ports					
	~ .	Unused Ports					
	Leaf Switches	5					
	> вс	0700Q2(Leaf1)	-Leaf	Online			
	> 🛄 GC	GVQG02(Leaf2)-Leaf	Online			

- 3. Click **Unused Ports** category to view the list of unused ports available in the switch.
- 4. Select a port or multiple ports, and click **Enable Admin Status**.

~	:	5WJFXC2(Spine)-	Spine	Online				
	~ W A	II Ports						
		laura d Danta						
	v 🖷 U	inused Ports						
	1 E	NABLE ADMIN	status 🛇) DISABLE ADMIN	STATUS			
		Interface 🔻	Role T	Admin Status 🛛 🔻	Operational Status 🛛 🝸	Speed T	Auto Neg 🛛 🝸	MTU
		ethernet1/1/62	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/63	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/60	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/61	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/66	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/64	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/65	Unknown	Enabled	Down	0	Disabled	9216
		ethernet1/1/44	Unknown	Enabled	Down	0	Disabled	9216

To disable the ports, select a port or multiple ports, and click **Disable Admin Status**.

The system displays the change status and update success message on completion.

Dell Technologies recommends to:

- Enable the port status to operationally up before adding any devices to the port, if the port is disabled using the OMNI UI.
 (i) NOTE: Devices that are connected to the disabled port are not discovered.
- Ensure that the ports are UP before adding any switches, when you expand the leaf and spine fabric deployments.
- Ensure that the switch port is in UP, when onboarding a server to a leaf switch.

Configure breakout ports

Configure breakout ports on an interface of the leaf switch.

NOTE: By default, the auto breakout feature is enabled in spine switches. OMNI UI does not provide an option to break out ports in spine switches.

To configure the breakout ports in a leaf switch:

- 1. Select the Service Instance > Switches > Leaf Switches.
- 2. Select a leaf switch from the list.
- 3. From Breakout Port and Jump Port category, select a port that you want to breakout, and click Breakout port.

Leaf Switches		
✓ → BQ700Q2(Leaf1)-Leaf	Online	
V 📕 All Ports		
∽ 👿 Unused Ports		
∽ 👿 Breakout Ports & Jump Port		
BREAKOUT PORT + JUMP PORT		🛄 BQ700Q2 🛡 phy-port1/1/11
Interface T	Breakout Profile	
 ● phy-port1/1/11 	4X10GE	✓ ■ BQ700Q2:ethernet1/1/11:1
phy-port1/1/10	1X100GE	✓ ₩ BQ700Q2:ethernet1/1/11:2
phy-port1/1/13	1X100GE	✓ ₩ BQ700Q2:ethernet1/1/11:3
phy-port1/1/12	1X100GE	✓ ■ BQ700Q2:ethernet1/1/11:4
phy-port1/1/15	1X100GE	
Ports per page 5 1 - 5 of 32 F	Ports < < 1 / 7 > >	

() NOTE: While configuring a breakout port, the existing configuration of the port is reset to default.

4. Select the Breakout Mode for the port from the list, and click Submit.

🗸 🖉 All Ports						
🗸 🖷 Unused I						
V 💵 Breakout	× 📖 💌	phy-port1/1/1	1 Breakout		×	
	UT Mode	4X1GE Breakout Mode	~			hy-port1/1/11
0 1	phy			CANCEL	ЈВМІТ пе	
	phy-port1/1/13	1X100GE		V 🛄 BQ	700Q2:etherne	
0 🔳	D Imply-port1/1/12 1X100GE			✓ ■ BQ700Q2:ethernet1/1/11:4		
0				-		

5. The system displays breakout port configured successful or failure message.

View port-group properties

Select a port to view properties on the right.
Switch	hes						
5	WJFXC2(Spine)-Spine	Online					
witche	es						
_• в	3Q700Q2(Leaf1)-Leaf	Online					
III AII	Ports						
🔳 Uni	used Ports						
• •							
Bre	akout Ports & Jump Port						
Bre	akout Ports & Jump Port						
Bre	eakout Ports & Jump Port	Ţ	Breakout Profile	T A	BQ700Q2	u phy-port1/1	1/11
U Bre	Eakout Ports & Jump Port EAKOUT PORT + JUMP PORT Interface	Ţ	Breakout Profile 4X10GE	T A		phy-port1/1	1/11
Bre Bre Bre	AAKOUT PORT + JUMP PORT EAKOUT PORT + JUMP PORT Interface phy-port1/1/11 phy-port1/1/10	Ţ	Breakout Profile 4X10GE 1X100GE	T A	BQ700Q2	g phy-port1/1 nernet1/1/11:1	1/11 Down
Bre Bre Bre C BR C C C C C C C C C C C C C C C C C	ARAOUT PORT + JUMP PORT Interface phy-port1/1/11 phy-port1/1/13	Y	Breakout Profile 4X10GE 1X100GE 1X100GE	T	BQ700Q2 I BQ700Q2 I BQ700Q2:eth InterfaceStatus MTU	ej phy-port1/1 hernet1/1/11:1 s	1/11 Down 9216
Bre Bre C BR C C C C	EAKOUT PORT + JUMP PORT Interface phy-port1/1/11 phy-port1/1/10 phy-port1/1/13 phy-port1/1/12	Υ	Breakout Profile 4X10GE 1X100GE 1X100GE 1X100GE	Y A	BQ700Q2 BQ700Q2:eth InterfaceStatus MTU Type	■ phy-port1/1 hernet1/1/11:1	1/11 Down 9216 PhysicalEthernet
Bre Bre O BR O O O O O O O O	Accel of a second secon	Ŧ	Breakout Profile 4X10GE 1X100GE 1X100GE 1X100GE 1X100GE	Y A	BQ700Q2 I BQ700Q2 eth InterfaceStatus MTU Type V BQ700Q2:eth	ernet1/1/11:1	1/11 Down 9216 PhysicalEthernet
Bre Bre O	Accur on a series of the serie	▼ bage <u>5 ∨</u> 1-	Breakout Profile 4X10GE 1X100GE 1X100GE 1X100GE 1X100GE 1X100GE 1X100GE 1X100GE	▼ 1/7 > ×	BQ700Q2 I BQ700Q2:eth InterfaceStatus MTU Type SQ700Q2:eth BQ700Q2:eth SQ700Q2:eth	phy-port1/1 hernet1/1/11:1 s hernet1/1/11:2 hernet1/1/11:3	1/11 Down 9216 PhysicalEthernet

Add jump port

You can configure only one port in a leaf switch as a jump port. You can select any available port that is not part of an uplink and ICL, and port connected to a server in SmartFabric deployment.

To configure jump port:

- 1. Select the leaf switch from the list, and select the Breakout Ports & Jump Port category.
- 2. Select the switch to view the properties, and click Jump Port.

Leaf Swite	ches						
~ [] E	3Q700Q2(Leaf1)-Leaf	On	line				
~ 👅 All	Ports						
V 📕 Un	used Ports						
V 📕 Bre	eakout Ports & Jump P	ort					
A PD		POPT					
	Interface	T Break	out Profile	Ŧ			BQ700Q2 ■ phy-port1/1/11
0	📕 phy-port1/1/11	4X100	GE		I.	~	BQ700Q2:ethernet1/1/11:1
\bigcirc	📕 phy-port1/1/10	1×100)GE			~	BQ700Q2:ethernet1/1/11:2
0	📕 phy-port1/1/13	1X100)GE			~	BQ700Q2:ethernet1/1/11:3
0	phy-port1/1/12	1X100)GE			~	BQ700Q2:ethernet1/1/11:4
0	📕 phy-port1/1/15	1X100)GE		•		
Ports	s per page _5 ∨ 1 -	5 of 32 Ports 🛛 🤇	< 1/	7 >	>		

3. Enter the Name of the new jump port, select the Interface Name, select the Untagged Network, then click Add.

Spine Switches				
> 5WJFXC2(Spi	dd Jump Port	t 📻 BQ700Q2	×	
Leaf Switches Na	ame	test JumpPort Name		
Int	terface Name	BQ700Q2:ethernet1/1/24 ~ Select an interface		
Ur 📜 Unused Por	ntagged Network	40 (VLAN-400) Select a Network	~	
V 🜉 Breakout Po	ative VLAN	400	NCEL	
	▼ Breal	cout Profile	EQ700Q2 phy-por	
phy-port1/			BQ700Q2:ethernet1/1/11:1	

4. The system displays jump port addition success message.

Delete jump port

1. Select the leaf switch for which you want to delete the configured jump port.

af Switches					
воло	00Q2(Leaf1)-Leaf (Online			
V 👅 All I	Ports				
V 📕 Uni	used Ports				
🗸 📕 Bre	akout Ports & Jump Port				
Ø BR	EAKOUT PORT × JUMP POR	? Т			
	Interface	T Breakout Pr	rofile	Ŧ	
0	phy-port1/1/11	4X10GE			
0	phy-port1/1/10	1X100GE			
0	phy-port1/1/13	1X100GE			
0	phy-port1/1/12	1X100GE			_
0	phy-port1/1/15	1X100GE			1
	Ports per page 5	✓ 1 - 5 of 32 Ports	K K 1/7	>	×
~ E	3Q700Q2-Jumpbox (Jumph	nost) Port Details			
	Interface Name	BQ700Q2:et	hernet1/1/17		
	Description	OMNI Created Ju	umpbox		
	Vlan	4091	ieni_iNetwork		
	VIGIT	4001			

2. Select the Jump port, and click **Delete**.

Spine Switches			
> 5WJFXC2(Spine			
Leaf Switches			
✓ □ BQ70002(Lez	Delete a Jump Port	×	
V 📕 All Ports	Do you want to remove BQ700Q2-Jumpbo	x Jump Port.	
V 📕 Unused Por		CANCEL	
V 😈 Breakout Port	s & Jump Port		
BREAKOUT PC			
Interface		т	
🔿 👿 phy-p			

3. The system displays jump port deletion success message.

Configure server interface profile

Server Interfaces Profile page displays a list of Server Profile IDs and their respective onboard status. Select a profile to view details pertaining to that specific profile. You can view information including interface ID, fabric ID, native VLAN, and network name and VLAN ID (if applicable).

From Server Interface, you can:

- Create a server interface profile.
- Edit a network in a server interface profile.
- Edit the ports in a server interface profile.
- Delete a server interface profile.
- Automate server onboarding.

Create server interface profile

Create a server profile by providing the server profile type, name, and bonding technology.

Create server interface with an existing server profile

To create a server interface with an existing server profile:

1. Select the Service Instance > Server Interface.

C + CREATE C EDIT NETWORKS EDIT PORTS X DELETE IMPORT FROM VCENTER + IMPORT FROM FABRIC Server Interface ID Y Onboarded Y NIC Bonded 74867af2cf2d true false d4ae52c74940 false d4ae52c7493f false	<u> </u>	Server Interface Pro	ofile		
Server Interface ID Onboarded NIC Bonded 74867af2cf2d true false 74867af2cf2e true false 044ae52c74940 false false 044ae52c7493f false false 1686 false false 17867af2cf2e true false 1886 false false 1886 <th>∛+ cre -impor</th> <th>ATE Ø EDIT NETWORK</th> <th>S DEDIT PORTS ></th> <th>< DELETE RIC</th> <th></th>	∛+ cre -impor	ATE Ø EDIT NETWORK	S DEDIT PORTS >	< DELETE RIC	
74867af2cf2dtruefalse74867af2cf2etruefalsed4ae52c74940falsefalsed4ae52c7493ffalsefalsesfsdfalsetruef8f21e2d78e0truetrue		Server Interface ID	Onboarded	T NIC Bonded	
74867af2cf2etruefalsed4ae52c74940falsefalsed4ae52c7493ffalsefalsesfsdfalsetruef8f21e2d78e0truetrue	\bigcirc	74867af2cf2d	true	false	
d4ae52c74940falsefalsed4ae52c7493ffalsefalsesfsdfalsetruef8f21e2d78e0truetrue	\bigcirc	74867af2cf2e	true	false	
d4ae52c7493f false sfsd false f8f21e2d78e0 true	0	d4ae52c74940	false	false	
sfsd false true f8f21e2d78e0 true true	\bigcirc	d4ae52c7493f	false	false	
f8f21e2d78e0 true true	0	sfsd	false	true	
•	0	f8f21e2d78e0	true	true	
	C			۱.	

- Click Create to create a server interface profile and provide server interface ID, then select Existing Server Profile.
 NOTE: You are allowed to configure duplicate server interface ID. When using MAC address to onboard server interface, enter MAC Address without ":", for example, f8f21e2d78e0. For onboarding ESXi host Interfaces for zero touch automation, use the ESXi host VM NIC physical adapter MAC address without ":".
- 3. Select the Server Profile Id from the list, select one or multiple networks for the Untagged Network, enable or disable NIC Bonding, select Static Onboarding Option as No, and click Create.

Create Server II	e Server Interface Profile × erface Id f8f2le2d78 Unique string to identify the interface When using MAC Address to onboard server interface, enter MAC Address without ":", e.g. "f8f2le2d78e0" For onboarding ESXI Host Interfaces for zero touch automation, use the ESXI host vmnic physical adapter MAC address without ":". file file file file file file file fi				
Server Interface Id	18121e2d78 Unique string to identify the interface When using MAC Address to onboard server interface, enter M. "18121e2d78e0" For onboarding ESXi Host Interfaces for zero touch automation adapter MAC address without "".	AC Address without ":", e.g. , use the ESXi host vmnic physical			
Server Profile	• Existing Server Profile 🔿 New Server Profile				
Server Profile Id	100.104.26.2 ~				
Untagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x	Tagged Network	Network-800-CMNI (VLAN-800 of VxLAN Network) x Client_Control_Network (VLAN-3939 of VxLAN Network) x Network-700-OMNI (VLAN-700 of VxLAN Network) x		
Static Orboarding Option	No	NIC Denable Bonding	O Disable		
			CANCEL	ATE	

4. (Optional) Select Yes for the Static Onboarding Option, add Leaf Node and Interface (where the server interface is connected), select the routing protocol as None, and click Create.

Server internace iu	f8f21e2d78						
	Unique string to identify the interface When using MAC Address to onboard server interface, enter MA "When using MAC Address to onboard server interface, enter MA For onboarding ESSN Host Interfaces for zero touch automation, adapter MAC address without """.	IC Address without ":", e.g. use the ESXi host vmnic physical					
Server Profile	• Existing Server Profile 🔿 New Server Profile						
Server Profile Id	100.104.26.2 v						
Untagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x	Tagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x Client_Control_Network (VLAN-3939 of VxLAN Network) x Network-700-OMNI (VLAN-700 of VxLAN Network) x				
Static 💽 Yes (⊃ No	NIC • Enable Bonding	O Disable				
Onboarding Option							
Onboarding Option Leaf Node	Leaf2 (A1B2CD4) v	Interface	A1B2CD4:ethernet1/1/42 ~				

(Optional) Select Yes for the Static Onboarding Option, select Leaf Node and Interface (where the server interface is connected), select eBGP. Enter the eBGP routing template by entering the name, peer ASN, description, and peer interface IP address, and click Create.

Server Profile	• Existing Server Profile 🔿 New Server Profile		
Server Profile Id	100.104.26.2 ~		
Untagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x	Tagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x Client_Control_Network (VLAN-3939 of VxLAN Network) x Network-700-OMNI (VLAN-700 of VxLAN Network) x
Static O Yes (Onboarding Option) No	NIC • Enable Bonding	O Disable
Leaf Node	Leaf2 (A1B2CD4) \vee	Interface	A1B2CD4:ethernet1/1/42 v
Routing Protocol	None • eBGP · Static Route Select Routing for static onboarding of interface		
Name	sample ebgp	Peer Interface IP Address	1.1.1. 0.0.0.0
Peer ASN	1	Description (optional)	

(i) NOTE: In static onboarding, the eBGP or static route routing protocol option is used for NSX-T deployment.

6. (Optional) Select Yes for the Static Onboarding Option, select Leaf Node and Interface (where the server interface is connected), select Static Route, enter the Network Address and Next-Hop Address, then click Create.

Server Profile Id	100.104.26.2 ~		
Untagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x	Tagged Network	Network-800-OMNI (VLAN-800 of VxLAN Network) x Client_Control_Network (VLAN-3939 of VxLAN Network) x Network-700-OMNI (VLAN-700 of VxLAN Network) x
Static • Yes O Dnboarding Option	No	NIC • Enable Bonding) Disable
.eaf Node	Leaf2 (A1B2CD4) $ \smallsetminus $	Interface	A1B2CD4:ethernet1/1/42 >
Routing Protocol	None eBGP Static Route Select Routing for static onboarding of interface		
Name	samplestatic	Network Address	1.1.1.1
			0.0.0.0
Prefix Length	24	Next Hop IP Address	5.5.5.5
	1-32		0.0.0.0
Description (optional)			

(i) NOTE: You cannot delete any created server profile.

7. The system displays server profile and server interface creation successful messages.

Create server interface with new server profile

To create a server interface with new server profile:

- 1. Select the Service Instance > Server Interface.
- Click Create to create a server interface profile and provide server interface ID, then select New Server Profile.
 NOTE: You can configure duplicate server interface ID. When using MAC address to onboard server interface, enter MAC Address without ":", for example, f8f21e2d78e0. For onboarding ESXi host Interfaces for zero touch automation, use the ESXi host VM NIC physical adapter MAC address without ":".
- 3. Select the Server Profile Id and Server Profile Bonding Type from the list, select the Untagged Network and Tagged network, enable or disable NIC Bonding, select Static Onboarding Option as No, and click Create.

Server Interface Id	f8f21e2d78			
	When using MAC Address to onboard server inte "f8f21e2d78e0" For onboarding ESXi Host Interfaces for zero tou adapter MAC address without ":".	rface, enter MAC Address witho	out ":", e.g. st vmnic physical	
Server Profile	C Existing Server Profile • New Serve	r Profile		
Server Profile Id	new-profile	Server Profile Bonding	~	
	Unique string to identify the server	Туре	Select Server Profile Bonding Type	
Untagged Network	Select Untagged Network	Tagged Network	AutoDetect	•
	(LACP	
Static Yes Onboarding Option	O No	NIC Enab Bonding	ble 🔿 Disable	

4. (Optional) Select Yes for the Static Onboarding Option, add Leaf Node and Interface (where the server interface is connected), select the routing protocol as None, and click Create.

Create Serv	er Interface Profile			\times
Server Profile Id	new-profile Unique string to identify the server	Server Profile Bonding Type	AutoDetect ~	•
Untagged Network	Client_Management_Network (VLAN-4091 of VxLAN Network) x	Tagged Network	Client_Management_Network (VLAN-4091 of VxLAN Network) x Client_Control_Network (VLAN-3939 of VxLAN Network) x VXLAN_400 (VLAN-400 of VxLAN Network) x L3VLAN_600 (VLAN-600) x	
Static • Y Onboarding Option	∕es ⊖ No	NIC Bonding	Enable 🔵 Disable	
Leaf Node	Leaf2 (GGVQG02) ~	Interface	GGVQG02:ethernet1/1/17	I.
Routing Protocol	None eBGP Static Route Select Routing for static onboarding of interface			•
			CANCEL	TE

(Optional) Select Yes for the Static Onboarding Option, select Leaf Node and Interface (where the server interface is connected), select eBGP. Enter the eBGP routing template by entering the name, peer ASN, description, and peer interface IP address, and click Create.

Create Serve	er Interface Profile			×
		Network) x	•	
Static • Yes Onboarding Option	s 🔿 No	NIC	Disable	-
Leaf Node	Leaf2 (GGVQG02) V	Interface	GGVQG02:ethernet1/1/17 v	
Routing Protocol	○ None ● eBGP ○ Static Route Select Routing for static onboarding of interface			L
Name	sample	Peer Interface IP Address	<u>1.1.1.1</u> 0.0.0.0	L
Peer ASN	1 Positive Number	Description (optional)		•
			CANCEL	ATE

(i) NOTE: In static onboarding, the eBGP or static route routing protocol option is used for NSX-T deployment.

6. (Optional) Select Yes for the Static Onboarding Option, select Leaf Node and Interface (where the server interface is connected), select Static Route, enter the Network Address and Next-Hop Address, then click Create.

Static • Yes Onboarding Option	○ No	NIC	ble 🔵 Disable
Leaf Node	Leaf2 (GGVQG02) V	Interface	GGVQG02:ethernet1/1/17 ~
Routing Protocol	○ None ○ eBGP Static Route Select Routing for static onboarding of interface		
Name	static	Network Address	1.1.1.1
			0.0.0.0
Prefix Length	24	Next Hop IP Address	4.4.4.4
	1-32		0.0.0.0
Description (optional)			

(i) NOTE: You cannot delete any created server profile.

- 7. The system displays server profile and service interface creation successful messages.
- () NOTE: OMNI does not synchronize a statically onboarded interface when it is first added. For the synchronization to happen, a port-group change event on the vCenter must happen or a restart of the automation service for the specific vCenter and SmartFabric instance must occur.

Edit networks and ports in a server interface profile

You can edit the network and port configuration in a server interface profile. You can also view the detailed information of a server interface profile.

Select a server interface ID to view the properties of the profile on the right.

Edit networks on a server interface profile

- 1. Select the Service Instance > Server Interface.
- 2. Select the server interface ID from the list to view the detailed information.

俞Home	SmartFabric Instance SFS
Convice Instance	Summary Topology With Switches Server Interface Uplink Network Fabric Actions
Service instance	
	Server Interface Profile
	C + CREATE Ø EDIT NETWORKS Ø EDIT PORTS X DELETE +IMPORT EROM VCENTER - +IMPORT EROM EABRIC
	Server Interface ID 74867af2cf2d
	Server Interface ID T Onboarded T NIC Bonded T Server
	• 74867af2cf2d true false • 74867af2cf2e false Server Profile ID 100.104.26.2 • 74867af2cf2e false Server Bonding Technology AutoDetect
	Server Interface Profiles per page 10 × 1 - 2 of 2 Server Interface Profiles Server Interface
	Server Interface Bonding PhysicalEthernet Native Vlan 300 Onboard Type Static Interface Name 1126Y42:ethernet1/1/1 Optic Type Eixed
	Untagged Network Network-300-OMNI : 300
	Tagged Networks
	Network ID Y VLAN ID Y Qos Priority Y Network Type Y
	network-888 888 Iron VXLAN
	Network-700-OMNI 700 Iron VXLAN
	Network-800-OMNI 800 Iron VXLAN
	Networks per page 5 🗸 1 - 3 of 3 Networks

- 3. Select the server interface ID from the list, and click Edit Networks.
- 4. Edit the Untagged Network and the Network configuration for the profile, and click Edit.

Edit Server Ir	nterface Profile Networks 74867af	2cf2d	X
Untagged Network	Network-300-OMNI (VLAN-300 of VxLAN Network) x	Tagged Networks	network-888 (VLAN-888 of VxLAN Network) x Network-700-OMNI (VLAN-700 of VxLAN Network) x Network-800-OMNI (VLAN-800 of VxLAN Network) x
			CANCEL

5. The system displays the server interface profile update success message.

Edit ports on a server interface profile

- 1. Select the server interface ID from the list, and click Edit Ports.
- 2. Edit the Static Onboarding Option and the NIC Bonding configuration for the profile, and click Edit.

Edit	Server Interfa	ce Profile 74867af2cf2d					×
Static Onbo Optio	: • Yes O No arding n	o	NIC Bonding	🔵 Enable 🧧	Disable		
Leaf N	Node	Leaf1 (11Z6Y42) ~	Interface		11Z6Y42:ethernet1/1/48	~	
						CANCEL	EDIT

3. The system displays the server interface profile update success message.

Delete a server interface profile

You can delete a service interface profile from the service instance. To delete:

1. Select the server interface profile from the displayed list, and click **Delete**.

Server Interface				
		Server Interfac	ce Details	
EIMPORT FROM VCEN	Delete a Server Interface Profile	×	867af2cf2d	
• 74867af2cf2d	o you want to remove 74867af2cf2d Server Interface	e Profile.		
O 74867af2cf2e Server Inter		CANCEL	0.104.26.2 ItoDetect	

2. Click Delete to confirm.

Import ESXi host profiles from vCenter

Automate onboarding of server interface profile by importing:

ESXi host profiles from the registered vCenter—Use this feature to migrate the existing ESXi hosts that are already connected to the vCenter and ready to be onboarded on to the fabric. The feature imports all the required servers to onboard on to the SFS instead of manually configuring the server interface one at a time.

OMNI retrieves data center, clusters, hosts, VM NICs, and networks for the registered vCenter. Create server interface profiles for the set of available VM NICs in ESXi hosts from vCenter.

(i) NOTE: In vCenter, enable LLDP on Distributed Virtual Switch of ESXi host to discover the interfaces automatically.

- 1. Select the Service Instance > Server Interface.
- 2. Click Import from vCenter to launch the Onboarding ESXi Hosts wizard.



3. Select the vCenter from the list, and click Next.

Onboarding ESXi Hosts	vCenter Se	election	>
1 vCenter Selection			
2 ESXi Host Selection	vCenter	Select vCenter	
3 Interface Configuration		100.104.26.21	
		100.104.26.25	
			CANCEL

4. Select the relevant cluster, the ESXi host, or the VM NICs available on the ESXi host. **ESXi Host Selection** window displays the server profile status of the interfaces on the right.

(i) NOTE: You cannot select the VM NICs that are already part of a server interface profile in SmartFabric.

ES	Onboarding ESXi Hosts	ESXi Host Select	tion ×
	1 vCenter Selection	Datacenter	Seleted VM NICs for Server Interface Profile creation.
	2 ESXi Host Selection	 Default Cluster 	
	3 Interface Configuration	 Interpretation Interpretation<td>HostYInterfaceYServer Interface Profile ExistY100.104.26.2vmnic1false</td>	HostYInterfaceYServer Interface Profile ExistY100.104.26.2vmnic1false
L			CANCEL BACK NEXT

- ${\bf 5.}~$ Click ${\bf Next}$ to complete the selection of the VM NICs.
- 6. The Interface Configuration screen displays the list of selected VM NICs.

an ES	Onboarding ESXi Hosts	Interface Configuration	×
	1 vCenter Selection	+ ADD NETWORKS	
L	2 ESXi Host Selection	Server Id: 100.104.26.2 Bonding Technology: AutoDetect	0
L	3 Interface Configuration	74867af2cf2d vmnic1 11Z6Y42:ethernet1/1/1 network-700,	0
		CANCEL BACK FINIS	н

7. (Optional) Click Edit icon available for each interface to edit the server profile information.

Edit the NIC bonding configuration and **Static Onboarding**. If the static onboarding is **No**, select an **Untagged Network** and one or more **Tagged Networks** and click **Update**.

Edit Server Inte	erface Profile		×
NIC Bonding	C Enable O Disable		
Static Onboarding	Ves 💿 No		
Untagged Network	Network-799-OMNI (VLAN-799) x		
Routing Protocol	O None ○ eBGP ○ Static Route		Ŧ
	CANCEL	UPDATE	

(i) NOTE: You cannot select same network for both untagged and tagged networks.

(Optional) If the static onboarding is **Yes**, select **Leaf Node** and **Interface** (where the server interface is connected), select the **Routing Protocol**.

- (Optional) Select the Routing Protocol as None, and click Update.
- (Optional) Select the **Routing Protocol** as **eBGP**, enter the **ASN** and **IP address**, and click **Update**.
- (Optional) Select the **Routing Protocol** as **Static Route**, enter the **Network Address** and **Next-Hop Address**, and click **Update**.

(i) NOTE: You cannot edit the server profile that is already configured in the system.

8. Click Add Networks to associate the networks that are part of the fabric for all the server interface profile. Select the networks for Tagged Networks and Untagged Network from the list, and click Add.

Summary Topolog	y ^{ligen} Switches Server Interface	e Uplink Network Fabric Action	15		
boarding ESXi Hosts	Add Server Interface	Networks	\times		
	Add Networks will overwrite the existing netw	vorks of all the server interface profiles.			
vCenter Selection	Tagged Networks	Client Control Network (V/ AN-			
ESXi Host Selection		3939 of VxLAN Network) x VXLAN 800 (VLAN-800 of		Untagged Network	
Interface Configuration		VxLAN Network) x		gy: AutoDetect	
		Network-12-OMNI (VLAN-12) x		Client_Manage	
				Client_Manage	
	Untagged Network	VXLAN 800 (VLAN-800 of VxLAN Network) x		Client_Manage	
				Client_Manage	
		CANCEL		CANCEL	

(i) NOTE: Add networks overwrite the existing networks of all the server interface profiles.

9. Click **Finish** after all the configurations are complete.

Summary	Topology Switches Server interface Oplink Network Pablic Actions	
S Onboarding ESXi Hosts	Interface Configuration	\times
1 vCenter Selection	+ ADD NETWORKS	
	Interface Id Interface Name Discovered Interface Tagged Networks Untagged Network Routing	Ð
2 ESXi Host Selection	Server Id: 100.104.26.2 Bonding Technology: AutoDetect	0
3 Interface Configuration	74867af2cf2d vmnic1 11Z6Y42:ethernet1/1/1 network-700,	0
	CANCEL BACK FINISH	1

10. The system displays the server interface profile update success message.

Import SmartFabric discovered server interfaces

Automate onboarding of server interface profile by importing:

Profiles that are discovered by the SmartFabric—SFS discovers the following types of servers apart from VxRail:

- PowerStore-X
- PowerStore-T

Use this feature to onboard new servers that support the Dell-specific LLDP TLVs. When the servers are connected to the fabric, SFS discovers the servers automatically, and the OMNI onboards the discovered servers as part of this workflow. OMNI retrieves a list of server interfaces that are discovered by the SFS.

1. Select Service Instance > Server Interface.

2. Click Import from Fabric. Discovered Server Interface window appears with the list of discovered interfaces.

Server Profil	e T	Interface Id	Ψ	Discovered Interface	Τ	Tagged Networks	Τ	Untagged Network	Τ	Routing	Υ	Edit
		00e0ec8836	6c8	11Z6Y42:ethe	ernet1/1/	(30		Client_Mar	nagement	_Network		0

(i) NOTE: The interface that is already associated with a server interface profile is not listed in the discovery table.

3. Edit the server profile information of each interface using the **Edit** option available at the end of each row.

Edit the NIC Bonding configuration and Static Onboarding. If the static onboarding is No, select an Untagged Network and one or more Tagged Networks and click Update.

INOTE: You cannot select same network for tagged and untagged network.

(Optional) If static onboarding is **Yes**, select **Leaf Node** and **Interface** (where the server interface is connected), select the **Routing Protocol**.

• (Optional) Select the Routing Protocol as None, and click Update.

Edit Server Inter	Edit Server Interface Profile								
NIC Bonding	C Enable • Disable								
Static Onboarding	• Yes 🔿 No								
Leaf Node	Leaf1 (11Z6Y42) V	Interface	11Z6Y42:ethernet1/1/30 >						
Untagged Network	Client_Management_Network (VLAN-4091 of VxLAN Network) x	Tagged Networks	Select Network						
Routing Protocol	None eBGP Static Route Select Routing for static onboarding of interface		CANCEL	ATE					

• (Optional) Select the Routing Protocol as eBGP, enter the ASN and IP address, and click Update.

.eaf Node	Leaf1 (11Z6Y42) ~	Interface	11Z6Y42:ethernet1/1/30 ~
Untagged Network	Client_Management_Network (VLAN-4091 of VxLAN Network) x	Tagged Networks	Select Network
Routing Protocol	○ None ● eBGP ○ Static Route Select Routing for static onboarding of interface		
Name	ebgp	IP Address	1.1.1
ASN	2 Positive Number	Description (optional)	

• (Optional) Select the Routing Protocol as Static Route, enter the Network Address and Next-Hop Address, and click Update.

Edit Server Inte	erface Profile			>
Static Onboarding	• Yes 🔿 No			4
Leaf Node	Leaf1 (11Z6Y42) v	Interface	11Z6Y42:ethernet1/1/30 ~	
Untagged Network	Client_Management_Network (VLAN-4091 of VxLAN Network) x	Tagged Networks	Select Network	•
Routing Protocol	None eBGP Static Route Select Routing for static onboarding of interface			
Name	static	Network Address	1.1.1.1	
			0.0.0.0	
Prefix Length	16	Next Hop IP Address	3.3.3.3	
Description (optional)	0-32		0.0.0.0	
			CANCEL	UPDATE

4. Select one or multiple discovered interfaces, add the service profile and networks, and click **Update**. For more information about adding server profile and networks, see *Add to Server Profile* and *Add networks* sections.

Add to Server Profile

To add the discovered interfaces to a new or existing server profile:

- 1. Select one or more discovered interfaces, and click Add to Server Profile.
- $\label{eq:constraint} \textbf{2.} \hspace{0.1 cm} \text{Select the server profile to which you want to add the discovered server interfaces.}$
 - Select Existing Server Profile—Select the Server Profile Id to associate the interface with the existing server profile, and click Associate.

Discovered Server Interfac	e		
+ add networks $+$ add to se	Server Profile	\times	
Server Profile T Interfact	Server Description Server Profile Onew Server Profile Server Profile Description Server Profile Id Description Server Profile		Edit
Note: Configure server name to the	CANCEL		CANCEL

Select New Server Profile—Enter the Server Profile Id and Bonding Type to associate the interface with the new server profile, and click Associate.

covered Server Interfac								
ADD NETWORKS + ADD TO SE	Server F	Profile			×			
Server Profile T Interfac	Server Profile	C Existing Server Profile	• New Serve	er Profile		T		
	Server Profile Id		Bonding	AutoDetect	~			
21	Frome id	Unique string to identify the interface	туре			e <u>10 ×</u>		
ote: Configure server name to the			CANC	EL	Ē			
_						Ľ	ANCEL	CREAT

3. The system displays the server interface profile association success message.

Add Networks

To add the networks to the discovered interfaces:

- 1. Select one or more interfaces from the list, and click Add Networks.
- 2. Associate the networks with the discovered interfaces, and click Add.
 - Select one or multiple networks for Tagged Networks.
 - Select a single network for Untagged Network.

SmartFabric Inst				
	Add Server Interfa	ace Networks	×	
overed Server Interfa	Add Network will overwrite the exist	sting networks of all the server interface profiles.		
ADD NETWORKS + ADD TO SE	Tagged Networks	a (VLAN-3999) x vlan130 (VLAN-130) x vlan120 (VLAN-120) x vlan300 (VLAN-300) x network-12 (VLAN-12 of VxLAN Network) x	r ▼ Edit C Ø	
a 1 te: Configure server name to the	Untagged Network	a (VLAN-3999) x	e <u>10 v</u> 1-1 of 1 Discoverd Ser	
L.J	e Profiles per page 1- 8		ADD	

(i) NOTE: Add networks overwrite the existing networks of all the server interface profiles.

3. The system displays the server interface networks addition success message.

Remove from server profile

To remove the interface from the server profile, select one or more interfaces from the list, and click **Remove from Server Profile**.

Configure and manage uplinks

Configure an uplink and manage the uplinks that are available in the service instance.

Using the **Uplinks** tab, you can:

- View the list of uplinks created in the service instance.
- Create an uplink.
- Edit network and port configuration for an uplink.
- Delete a created uplink.

You can create uplinks with available interfaces which are not part of an existing uplink, server connected ports, part of a fabric automation, or jump port.

There are two types of uplinks—L2 and L3, and there are two types of L3 uplinks—L3 VLAN and L3 routed interface. Once you have created an uplink, you can then associate networks to the uplink and change or modify interfaces. These user-managed uplinks require configuration of networks through SmartFabric vCenter.

(i) NOTE: If you delete an uplink, any unused networks and ports can be used for future use.

View Uplinks summary

From the left pane, select the Service Instance, then select Uplink.



Create L2 Uplink

You can create an uplink by selecting the fabric with a unique name, and select the interfaces, and networks to create a user uplink.

1. Select Uplink, then click Create.

Sum	mary	Topology	Switches	Server Ir	nterface	Uplink	Net
2+0	CREATE	[¢] edit netwoi	rks Øedit p	orts × de	LETE		
	Name	Ŧ	Uplink ID	Ŧ	Info		Ŧ
\bigcirc	L2uplink	(L2uplink		Networ Interfac	ks 1 res 2	
0	l3vlan		I3vlan		Networ Interfac	ks 1 es 1	
			U¢	olinks per page	10 ~	1 - 2 of 2 u	uplink

2. Enter the uplink port type as L2, a Name, an optional description, then click Next.

Summary Topology	Switches Se	rver Interface Uplink Network Fabric Ac	
Create Uplink	Uplink Details	\$ >	<
1 Uplink Details	Uplink Port Type	● L2 ○ L3	
2 Port Configuration	Name	uplink1	
3 Network Configuration	Description (optional)	first	
		CANCEL	

3. Enter the port configuration by selecting the rack to create the uplink on, select the interfaces, the **LAG Mode** (LACP or Static), then click **Next**.

Create Uplink	Port Configu	iration		×
1 Uplink Details	Select Rack to Create Uplink on	Rack AutoFab-72220	c224-223c-5fa4-a244-cd3ca1685550	<u>~</u>
2 Port Configuration	Leaf1		Leaf2	
3 Network Configuration	ethernet1/1/29	(Leaf1) Up x 🔍	ethernet1/1/29 (Leaf2) Up x	•
	Lag Mode	● LACP ○ Static		
			CANCEL BACK N	ЕХТ

4. Select the untagged network, the OMNI network, and Select **Yes** or **No** to integrate the networks that are created automatically in the fabric through vCenter on this uplink.

Summary Topology	Switches Server interface Opinik Retwork Pable Acto
Create Uplink	Network Configuration ×
1 Uplink Details	UnTagged Network VXLAN_400 ~
2 Port Configuration	Client_Management_Network (VLAN-4091 of VxLAN Network) x
3 Network Configuration	+CREATE NETWORK
	Do you want networks automatically created in the fabric through vCenter Integration to be extended on this uplink? • Yes No
	CANCEL BACK FINISH

5. (Optional) Click **Create Network** to associate a network with the uplink. Enter the name of the network, optional description, and the VLAN number.

ate Uplink	Network C	onfiguration				
Iplink Details	Add Network	<		×		
Port Configuration	Name L2vla	n				
Network Configuration	Description (optiona	1)				
	Vlan 400 1-4093					
			CLOSE	REATE		

- 6. Click **Finish** to complete the L2 uplink creation.
- 7. The system displays user uplink creation success message.

Create L3 Uplink

Create an L3 uplink of L3 VLAN or L3 routed interface types.

Create L3 VLAN uplink

1. Select the Service Instance > Uplink, and click Create.

Summary	Topology	Switches	Server Ir	nterface	Uplink	Net	work	Fabric Actions
		AFRITA						
+CREATE	PEDIT NETWOR	KS CEDIT P	ORTS × DE	LETE				
Name	T	Uplink ID	Τ	Info		Ŧ		
L2uplink	(L2uplink		Network Interfac	<s 1<br="">es 2</s>			
🔵 l3vlan		I3vlan		Networl Interfac	ks 1 es 1			
		Up	inks per page	10 ~	1 - 2 of 2 u	uplink		

2. Select L3 for the uplink port type, select L3 VLAN, enter the name for the uplink, and optional description, then click Next.

-1 0.11	Create Uplink	Uplink Det	ails			×
	1 Uplink Details	Uplink Port Typ	e 🗌 L2 💿 L3			
	2 Port Configuration	L3 Type	L3 VLAN	C L3 Rout	ted Interface	
	3 Network Configuration	Name	I3vlan			
l		Description (optional)			1	
					CANCE	NEXT

 Select the Switch group (Leaf or Spine), select the rack to create the uplink on, select the interfaces, select LACP for the LAG mode, then click Next.

Leaf:	
-------	--

Summary Topc	Switches Server Interface Opilwork Fabric Actions	
Create Uplink	Port Configuration	×
1 Uplink Details	Switch Group • Leaf Spine	
2 Port Configuration	Select Rack to Rack AutoFab-7222c224-223c-5fa4-a244-cd3ca1685550 ∨ Create Uplink on Create Uplink on	
3 Network Configuration	Leaf1 ethernet1/1/30 (Leaf1) Up x Lag Mode LACP Static LACP Static LACP LACP Matrix LACE BACK NEXT	

Spine:

ista -1	Create Uplink	Port Con	figuration					×
5.11	1 Uplink Details	Switch Group	🔵 Leaf 💽 Sp	ine				
	2 Port Configuration	Domain	AutoFab-100					
	3 Network Configuration	Node	Spine ~					
		ethernet1/1,	/6 (Spine) Up x eth	ernet1/1/5	i (Spine) Up x	ethernet1	/1/7 (Spine) U	p x 🔻
		Lag Mode	💽 LACP 🔵 S	tatic				
						CANCEL	ВАСК	NEXT

4. Select UnTagged network, select the OMNI network, enter an optional description, select either eBGP or Static Route for the routing protocol, enter the routing policy information, then click Finish.

Create Uplink	Network Configuration	×
1 Uplink Details 2 Port Configuration	Network Profile Information	
3 Network Configuration	Name L3VLAN Prefix 24 Length 1-32	
	Vian <u>4</u> IP Addresses 1.1.1.1	
	IP Address (0.0.0.0 1.1.14)	
	Route Policy Information Routing Protocol eBGP O Static Route	
	Policy Id 1 Policy Name vlanebgp	
	Peer Interface IP 3.3.3.3 Peer ASN 2 Address Positive	
	Description (optional)	
	CANCEL BACK FIN	пгн

5. A route is associated with the nodes that are configured in the port configuration. The system displays uplink creation success message.

Create L3 routed interface uplink

- 1. Select the **Service Instance** > **Uplink**, and click **Create**.
- 2. Select L3 routed interface, enter the Uplink name, and optional description, then click Next.

tance				
.11.1	Create Uplink	Uplink Detai	ls	×
	1 Uplink Details	Uplink Port Type	○ L2 L3	
	2 Port Configuration	L3 Type	◯ L3 VLAN	
	3 Network Configuration	Name	I3route1	
l		Description (optional)		
			c	ANCEL NEXT

 Select the Switch group (Leaf or Spine), the rack to create the uplink on, select the interfaces, then click Next. Leaf:

an	Create Uplink	Port Configu	Port Configuration						
	1 Uplink Details	Switch Group	• Leaf O Spine						
	2 Port Configuration	Select Rack to Create Uplink on	Rack AutoFab-7222c224-223c-5fa4-a244-cd3ca1685550 ∨						
	3 Network Configuration	Node	Leaf1 v						
		ethernet1/1/29	(Leaf1) Up x						
L			CANCEL BACK NEXT						

Spine:

tan	Create Uplink	Port Config	Port Configuration					
	1 Uplink Details	Switch Group	🔵 Leaf 💿 Spine					
	2 Port Configuration	Domain	AutoFab-100					
	3 Network Configuration	Node	Spine v					
		ethernet1/1/7	(Spine) Up x			▼		
				CANCEL	ВАСК	NEXT		

4. Enter the network profile information and routing policy information for the uplinks, then click Finish.

Create Uplink	Network Configuration	×
1 Uplink Details 2 Port Configuration	Network Profile Information Name I3routed Preduction	fix <u>16</u> Igth <u>1-32</u>
3 Network Configuration	IP Address 1.1.1.1 IP Address (0.0.0.0) Description (optional) Route Policy Information Routing Protocol	
	Policy Id 11 Peer Interface IP 1.1.1 Address	Policy Name I3routedebgp Peer ASN 1 Positive Number CANCEL BACK FINISH

5. The system displays L3 routed uplink creation success message.

Edit networks and ports in an uplink

You can edit the network and port configuration for an uplink, and also view the detailed information of the uplink.

Select the uplink from the displayed list to view the details of the uplink on the right.

Edit networks

1. Select the uplink from the list, and click Edit Networks.

Summary T	Topology Swite	ches Server In	erface Uplink N	etwork	Fabric Actio	ons		
Ċ+create ∂e	DIT NETWORKS ØED	IT PORTS ×DEL	TE Uplink Detai	ils				
Name L2uplink	T Uplink ID	T Info Networks Interfaces	Vame Uplink ID Uplink Type LAG Type	L2uplir L2uplir Norma Static	nk nk al			
🔵 I3vlan	l3vlan	Networks Interfaces	Fabric Untagged VLAN	7222c: 400 (4	224-223c-5f 10)	a4-a244-cd	3ca1685550	
	Uplinks per page 10	✓ 1 - 2 of 2 upli	Member Interfac	e Ţ	Status 🔻	MTU T	Туре	Ψ
			BQ700Q2:eth	ernet1/1/26	Down	9216	PhysicalEth	hernet
			GGVQG02:eth	ernet1/1/28	Down	9216	PhysicalEth	nernet
			•	Int	erfaces per pag	ge <u>10 ~</u>	1 - 2 of 2 Inte	rfaces

2. Edit the Untagged Network associated with the uplink, and click Update.

Summary Topology	7A Switches	Sorver Interface	Uplink Noty	iork Eabric i	Actions			
	Edit Uplin	k Networks			×			
C+CREATE ØEDIT NE	UnTagged Network	Client_Control_Network	(VLAN-3939 of \	/xLAN Network)	Driginator			
• 11	testing_108	88 (VLAN-1) Originator N	Manual x		•			
				CLOSE	PDATE			

3. The system displays the uplink interface edit success message.

Edit ports

1. Select the fabric uplink from the list, and click **Edit Ports**.

Summary Topology	Switches Server Interface Uplin	k Network Fabric Actions	_
	Edit Uplink Interfaces	×	
	ethernet1/1/29 (OS10) Down x ethernet ethernet1/1/18 (OS10) Down x	et1/1/48 (OS10) Down x	
			rmal
			D
			τ Status τ MTU τ Type
			Down 9216 Physica 9
		CLOSE	Interfaces per page 10 Y 1 - 1 of

- 2. Edit the networks associated with uplink interfaces, and click Update.
- 3. The system displays the uplink interface edit success message.

Delete an uplink

You can delete a user-created uplink. To delete:

1. Select the uplink from the displayed list, and click **Delete**.

		Uplink Netwo			
			k Details		
Delete User Upli Do you want to delete up	nk Jink.		×		
		CANCEL	DELETE		
		A1B2	CD4:ethernet1/1/4		
		1126			

2. Click Delete to confirm.

Configure networks and routing configuration

You can set up networks and routing configuration.

(i) NOTE: Networks that are created by the OMNI user interface are considered Manual.

The OMNI vCenter PortGroup VLAN automation process does not add *Manual* networks to auto uplinks, and does not remove them from SmartFabric. Add *Manual* networks to uplinks using the OMNI portal if needed. The OMNI VLAN automation process uses *Manual* networks for ServerInterfaces. If you are using the VLANs for the OMNI registered vCenter PortGroup, it is not recommended to use the OMNI portal to create a network. OMNI automation manages those VLANs or networks by itself. For complete information, see OMNI vCenter integration.

You can configure three types of networks including VXLAN networks (for L2 and L3 profiles), VLAN networks (for L2 and L3 profiles), and L3 routed interfaces (for L3 profiles only).

View Networks summary

Select the Service Instance, and click Network.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
Networks	Routing Configurat	ion				
> VxLAN	Networks					
> VLAN N	Networks					
> Layer 3	Routed Interfaces					

Configure networks

You can manage VXLAN and VLAN networks, and L3 routed interfaces.

VXLAN network

From Network tab, you can create, edit, and delete VXLAN and VLAN networks, and L3 routed interfaces.

Create VXLAN network

Virtual network for L2 profile:

1. Select Network from the Network tab, then click **Networks** > **VxLAN Networks**. The page displays the list of the VXLAN networks that are configured in the service instance.

~	VXLAN	l Networks					
	C+0	CREATE ØEDIT × DELE	TE				
		Virtual Network T Name	VXLAN VNI	т	Network Type		
	\bigcirc	Virtual_network_400	400		Layer 3		
	0	Virtual_network_500	500		Layer 3		
	0	Client_Control_Virtu al_Network	3939		Layer 2		
	0	Client_Management_ Virtual_Network	4091		Layer 2		
		Virtual Net	works per page	10 ~	1 - 4 of 4 Virtual Netw	orks	
		Networks					

- 2. Click Create.
- 3. Verify Layer 2 is selected as the Virtual Network Type.
- 4. Enter the text for Virtual Network Name, a value for the VxLAN VNI, and the VLT VLAN ID.
- 5. (Optional) Enter a description, and click **Create**.

Networks				~	
	Virtual Network Type	Layer 2	~		
CREATE ØED	Virtual Network Name	test	-		
Virtual Networ Name	VxLAN VNI	2			
Virtual_netv		Input(1 - 16777215) is required			
Virtual_netv	VLT VLAN Id	2 Input(1 - 4093) is required			
Client_Contr al_Network	Description		_		
Client_Mana Virtual_Netv					
Networks			CANCEL	CREATE	

6. The system displays virtual network creation successful message.

Virtual network for L3 profile:

- 1. Select Network from the Network tab, then click **Networks** > **VxLAN Networks**. The page displays the list of the VXLAN networks that are configured in the service instance.
- 2. Click Create.
- 3. Select Layer 3 as the Virtual Network Type.
- 4. Enter the text for Virtual Network Name, a value for the VxLAN VNI, the VLT VLAN ID, prefix, gateway IP address, and helper IP address. Click Create.

witches Server Interface							
					_		
		Create Virtual N	etwork		×		
					A		
		Virtual Network Type	Layer 3	~	- 11		
et e		Virtual Network Name	vn1620		- 11		
Ŧ	VxLAN VNI	VxLAN VNI	1620		- 11		
Network	3939		Input(1 - 16777215) is required		- 1.1		
- lirtual Network	4091	VLT VLAN Id	1620		- 11		
	4	Description		_	- 1.1		
	44	Desemption			- 11		
	43			1	- 11		
	212	IP Address	1.1.1.1		- 11		
				1	- 11		
			IP Address (0.0.0.0 1.1.1.1-4)		- 1.1		
		Prefix	2		- 1.1		
		Gateway ID Address	2222		- 1.1		
		carrier in Paraloos	IP Address (0.0.0.0)		- 14		
		Helper Addresses	1111	Г	- 14		
			1.1.1.1		- 11		
			IP Address (0.0.0.0 1.1.1.1-4)	20	-		
				CANCEL	CREATE		

5. The system displays virtual network creation successful message.

View VxLAN network details

The VxLAN networks display a list of mapped VLANs. Select a VxLAN network to view details pertaining to that specific network including network ID, VLAN ID, and network name.

~ V	xLAN	l Networks			
(3+0	CREATE ØEDIT × DELETI	E		VxLAN Details
		Virtual Network Name 🔫	VXLAN VNI T	Network Type	Name Virtual_network_500
	0	Virtual_network_400	400	Layer 2	Description Virtual Network 500
	0	Virtual_network_500	500	Layer 3	Network Type Layer 3
	0	Client_Control_Virtual_ Network	3939	Layer 2	VLAN Interface IP Addresses 12.1.1 12.1.12 "Require 1 per leaf Node
	0	Client_Management_Vi rtual_Network	4091	Layer 2	Network Prefix Length 16 Gateway IP Address 12.1.1.0
		Virtu	al Networks per page 10 🚿	1 - 4 of 4 Virtual Networks	DHCP Helper Address 3.3.3.3
					VLANs mapped to VxLAN Network
					C+create Øedit ×delete
					Network ID Y VLAN ID Y Network Name Y

Edit VxLAN network

You can edit the configuration of VXLAN network:

1. Select a virtual network from the list, then click **Edit**.

Virtual Network Name Virtual_network_500 TE Virtual Network Name Virtual_network_500 Yulan VI SOO 400 Input(1 - 16777215) is required 500 Description Virtual_Network 500 Network 3933 rtual_Ne 4091 IP Address 12.11-2 IP Address 12.110 IP Addresses 3.3.3	hes Server Interl	Edit Virtual Network Ture	work	×	
TE VALAN VN SUO input[1 - 16777215) is required input[1 - 16777215) is required Virtual_network_50 400 Input[1 - 16777215) is required Virtual_network_50C 500 Description Virtual Network 500 Layer 3 rual_Ne 4091 IP Address 12.111-2 AN Network IP Address 12.111-2 AN Network AN Network IP Address 12.110 IP Address (0.0.0.0) T VILAN Helper Addresses 3.3.3 SOC SOC SOC		Virtual Network Type	Virtual_network_500		
SOO Description Virtual Network 500 Network 3939 rtual_Ne 4001 IP Address 12.11.1-2 IP Address 00.00.0111.1-4) Prefix 16 1-32 Gateway IP Address Gateway IP Address 12.11.10 IP Address 0.00.01 Helper Addresses 3.3.3.3	TE T VILAN VA	VLT VLAN Id	500 Input(1 - 16777215) is required 500 Input(1 - 4093) is required		
IVAL_Ne 4091 IP Address 12.1.1-2 IP Address (0.0.0.0.1111-4) AN Network Prefix 16 1-32 Gateway IP Address Gateway IP Address 12.1.10 IP Address (0.0.0.0) IP Address (0.0.0.0) Helper Addresses 3.3.3.3	400 500 Network 3939	Description	Virtual Network 500		
P Address (0.0.0.1111-4) Prefix 16 1 - 32 Gateway IP Address 12.1.1.0 IP Address (0.0.0) Helper Addresses 3.3.3.3 CANCEL EDIT	rtual_Ne 4091	IP Address	12.1.1-2	L	
Gateway IP Address 12.1.10 IP Address (0.0.0.0) Helper Addresses 3.3.3.3		Prefix	IP Address (0.0.0.1111-4) 16 1-32	L	
Addresses 3.3.3.3		Gateway IP Address	12.11.10 IP Address (0.0.0.0)		
		Heiper Addresses	3.3.3.3	т	
- **2.** Modify the Virtual Network Type.
- 3. Enter the Prefix, Gateway IP Address, IP address, then click Edit.

C+cri	Edit Virtual Netv	vork	×	
• • •	Virtual Network Type	Layer 2 v		
0 1	Virtual Network Name	Virtual_network_400		
	VXLAN VNI	400 Input(1 - 16777215) is required		
4	VLT VLAN Id	400 Input(1 - 4093) is required		
	Description	Virtual Network 400		
		CANCEL	EDIT	
			Network ID	T VLAN ID T Network

4. The system displays virtual network edits success message.

Delete VXLAN network

To delete a VXLAN network, first delete the mapped VLAN or VLANs if associated, and delete the virtual network.

1. Select the Virtual Network Name, select the Network to remove, then click **Delete**.

Networks				
	^{+ cR} Delete Virtual Ne	twork	×	
	Confirm delete Virtual Net	work Virtual_network_	CANCEL DELETE	
	Vintual_network	Layer 3 Layer 2	Type VLAN Interface IP	

- 2. Click Delete to confirm.
- 3. The system displays network deletion success message.

VLAN networks

Create L2 VLAN or L3 VLAN network

VLAN networks for L2 profile:

1. Select Networks > VLAN Networks, and click Create.

etwor	rks	Routing Confi	guration					
>	VxLAN	Networks						
~	VLAN I	Networks						
	C+c	CREATE ØEDIT	T × DELETE					
		Network ID	T VLAN ID	T	VLAN Type			
	0	vlan1000	1000		Layer 2			
	0	vlan200	200		Layer 2			
	0	deanl3vlanid	987		Layer 3			
			Networks per page	10 ~	1 - 3 of 3 Net	tworks		

2. Select the Network Type as Layer 2 VLAN Network is selected as the Network Type, enter the Network ID, Network Name, enter 1 to 4093 for the VLAN, enter an optional description, then click Create.

SmartFabric Ins	tance sf_10.11.180.8			lions
Networks R	Create Layer 2 V	/LAN Network	×	
> VxLAN N	Network Type	Layer 2 VLAN Network $ imes $	_	
VLAN Ne	Network ID	test		
C+cri	Network Name	test		
4	Vlan	<u>4</u> 1 - 4093		
0 6	Description			
> Layer 3 R		(CANCEL	

3. The system displays VLAN network creation success message.

VLAN networks for L3 profile:

1. Select Networks > VLAN Networks, and click Create.

2. Select the Network Type as Layer 3 VLAN Network is selected as the Network Type, enter the Network ID, Network Name, enter 1 to 4093 for the VLAN, enter an optional description, then click Create.

Switches	Server Interface Uplink	Network Fabric Actions	3				
		Create Layer 3	VLAN Network		×		
		Network Type	Layer 3 VLAN Network	~	•		
		Network ID	L3VLAN_600				
		Network Name	L3VLAN_600				
		Vlan	600 1-4093		- 1		
		Description			- 1		
		IP Addresses	15.1.1-2 Maximum 2 IP Addresses			dresses de 1	
		Prefix Length	<u>24</u> 1-32		- 1		
		Gateway IP Address	15.1.1.10 IP Address (0.0.0.0)		- 1		
		Helper Addresses	4.4.4.4 IP Address (0.0.0.0 1.1.1.1-4)		Ŧ		
				CANCEL	CREATE		

3. The system displays VLAN network creation success message.

Edit network

1. Select a network ID from the list, and click **Edit**.

Summary	Topology	Switches	s Server Interfa	ce Uplink	Network	Fabric A	Actions	
tworks F	Routing Config	guration						
> VxLAN Ne	etworks							
✓ VLAN Net	works							
C+creat	e∥edit ×di	ELETE		VLAN De	etails			
Netw	ork ID 🔫	VLAN ID	VLAN Type	Network ID	6			
0 6		600	Layer 3	Network	L3V	LAN_600		
	Networks pe	erpage 10 🗸	1 - 1 of 1 Networks	Name Description	L3V	LAN netw	ork 600	
				VLAN ID Network Ty	600 /pe Lave) er 3	QoS Priority	Iron
				VLAN Inter	face IP Add	dresses	15.1.1.1 15.1.1.2	
				Network Pr	efix Length	n	24	
				Gateway IP	Address		15.1.1.10	
				DHCP Help	er Address		4.4.4.4	

2. Modify the details, edit the configuration as necessary, and click Edit.

TA.	Server Interface	Uplink Network	Fabric Actions		
gurati		Edit Layer 3 V	/LAN Network : 6	×	
		Network Type	Layer 3 VLAN Network $^{\vee}$		
		Network Name	L3VLAN_600	- 11	
		Vlan	600 1 - 4093	- 11	
×de		Description	L3VLAN network 600	- 11	
	VLAN ID 600	ID Addresses		- 11	
		ir Addresses	15.1.1.1-2	- 11	
			IP Address (0.0.0.0 1.1.1.1-4)	tre	
		Prefix Length	24 1-32	te I	
		Gateway IP Address	15.1.1.10 IP Address (0.0.0.0)	- 11	
es		Helper Addresses	4.4.4.4	- 11	
			IP Address (0.0.0 1.1.1.1-4)		
			CANCE	EDIT	

3. The system displays edit network success message.

Delete network

1. Select the VLAN network to remove, then click **Delete**.

VLAN Networks			
C + create ∂ed	Delete Network	×	
Network ID	Confirm delete Network 6 .		
0 6		CANCEL DELETE	
		LAN ne	

2. Click **Delete** to confirm.

3. The system displays network deletion success message.

L3 routed interfaces

This information explains how to create and delete Layer 3 routed interfaces.

Create L3 routed interface

To create an L3 routed interface:

1. Select Networks > Layer 3 Routed Interfaces, and click Create.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
Networks	Routing Configuration	n				
> VxLAN	Networks					
> VLAN	Networks					
✓ Laver:	3 Routed Interfaces					
C+	CREATE ØEDIT XDEL	ETE				
	Network ID				Ψ	
0	L3routed					
0	tex					
0	re					
		Networks p	er page 10 🗸	1 - 3 of 3 Net	works	

2. Enter the Network ID, Network Name, select the Prefix Length, select the IP Address, enter an optional description, then click Create.

Retworks Routing Con	Create L3 Ro	outed Interface		×	
> VxLAN Networks	Network ID	test		^	
VLAN Networks Layer 3 Routed Interi	Network Name	test		- 11	
C + create ⊘ed	Description		//	- 11	
Network ID	P Address	1.1.1.1 IP Address (0.0.0.0)		- 11	
	Prefix Length	1-32			
			CANCEL	CREATE	

 $\textbf{3.} \ \ \text{The system displays network creation success message}.$

Edit network

1. Select the Network ID from the list, and click Edit.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Action	S
Networks	Routing Configurat	ion					
> VxLAN	Networks						
> VLAN N	etworks						
∽ Layer 3	Routed Interfaces						
G+ct	REATE ØEDIT × DI	ELETE		Rout	ed Interfa	ice	
	Network ID		т	Netwo	ork ID	L3routed	
0	L3routed			Netwo	ork	L3routed	
	Networks per	page 10 🗸	1 - 1 of 1 Networks	Descr	iption		
				Interf	ace IP Addre	ess	1.1.1.0
				Netwo	ork Prefix Le	ength	24

2. Edit the configuration, and click **Edit**.

	Topology S	witches Server Interfa	ace Uplink	Network	Fabric Actions	
Networks R	Edit L3 Ro	uted Interface : L	3routed		×	
	Network Name	L3routed				
	Description					
	IP Address	1.1.1.0 IP Address (0.0.0.0)		ed	
	Prefix Length	24 1-32			ed •	
			CAN	ICEL	ит	

3. The system displays edit network success message.

Delete network

1. Select the network ID to remove, and click **Delete**.

	Networks Routing Config			
C + CREATE / ED Network ID Image: Cancel inter	> VLAN Networks			
C + CREATE DED Confirm delete Network L3routed . Network ID L3routed Networks per page 10 ~ 1 - 1 of 1 Networks Name Description	✓ Layer 3 Routed Inter	Delete Network	×	
C + CREATE DEL Network ID L3routed Networks per page 10 × 1 - 1 of 1 Networks Description				
Network ID CANCEL DELETE L3routed L3routed	C + create ∅ed	Confirm delete Network L3routed .		
L3routed Networks per page 10 \checkmark 1 - 1 of 1 Networks Description	Network ID	٦	CANCEL	
Networks per page 10 Y 1 - 1 of 1 Networks Description	L3routed	L		
			Name	

2. The system displays network deletion success message.

Configure Routes

You can configure static routes and eBGP peer routes for a network.

Configure static routes

Create static route

1. Select Network > Routing Configuration.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
Networks	Routing Config	uration				
> Static R	outes					
> eBGP P	eer Configuratio	n				

- 2. Select Static Routes, and click Create to add a new static route.
- 3. Enter the relevant details and click Create.

Summary	Create Static Route		\times	tions
Networks R				
	Policy Id	1	-	
✓ Static Rol	Policy Name	vlanstatic	-	
C+cr:	Network Address	1.1.1.2	-	
	Prefix Length	<u>24</u> 1-32		
	Next Hop IP Address	1.1.1.3	-	
	Description (optional)			
		CAN	CREATE	

4. The system displays static route creation is successful.

Delete static route

1. Select the static route to delete, and click **Delete**.

Static	Routes						
C+	CREATE	e × dei	LETE				Static Route - 1
	Id	τ	Name	Address T Prefix	Prefix ⊤ Length	Next T Hop Address	Route Description
0	1		1	1.1.1.2	24	1.1.1.3	Switches using this routes
•	99		static99	2.2.2.2	24	2.2.2.3	$\mathbb{C}+$ add route to switch $ imes$ delete route from switch
			Static Ro	utes per page 10) × 1-20	of 2 Static Routes	Switch
							Leaf1 (BQ700Q2)

2. Click **Delete** to confirm.

Networks Routing Confi	guration		
C + create × de	Delete Route Policy Are you sure to delete the Route Policy : 1.		×
● 1 ○ 99 ∢	Static Doutes par page 10 V 1, 2 of 2 Static Doutes	CANCEL	DELETE SWITCH × DELETE ROUTE FROM SWI
	on		

3. The system displays static route deletion is successful.

Add route to switch

- 1. Select Routing Configuration > Static Routes.
- 2. Select a static route, and click Add Route to Switch.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
letworks	Routing Config	guration				
✓ Static Ro	outes					
C+creat	TE ×DELETE			Static R	oute - vlar	nstatic
Id T	Name T A	Address y Pref Prefix Leng	Tix T Next Hop gth Address	Route Des	scription	
0 1	vlanstatic 1.	.1.1.2 24	1.1.1.3	Switches	using this rou	tes
∢ Stati	ic Routes per page	e 10 🔨 1-	1 of 1 Static Routes	C+add	ROUTE TO	SWITCH × DELETE ROUTE FROM SWITCH
				Sw	itch	
						There are no Switches

3. Select the switch to map to this route, and click **Add**.

Summary Topology	Switches Server Interface	Uplink Network	Fabric Actions	
Add Re	oute to Switch		×	
C+cr) Switch	Leaf1 (BQ700Q2) V Select Switch to Add Route			
		CANCEL	ADD	
		c Routes		

4. The system displays the route added success message.

Static route details

The static route details display a list of mapped routes. Select a static route to view details pertaining to that specific route including the switch ID.

Static	Routes						
C+	CREAT	e × de	LETE				Static Route - 1
	Id	Τ	Name	Address ⊤ Prefix	Prefix T Length	Next T Hop Address	Route Description
0	1		1	1.1.1.2	24	1.1.1.3	Switches using this routes
•	99		static99	2.2.2.2	24	2.2.2.3	C+ add route to switch $ imes$ delete route from switch
			Static Ro	outes per page) × 1-2 of	2 Static Routes	Switch
							Leafl (BQ700Q2)

Delete route from switch

- 1. Select the route to delete, and click **Delete Route**.
- 2. Click **Delete** to confirm the removal of the route from the switch.

Networks Routing Configuration
C+create × delete Static Route - vlanstatic
Delete Route from Switch ×
Are you sure to delete the Route from BQ700Q2 .
CANCEL DELETE SWITCH X DELETE ROUTE FROM S

3. The system displays route policy deletion success message.

Configure eBGP peer route

Create eBGP route

1. Select Network > Routing Configuration, and click eBGP Peer Configuration.

Summar	/ То	pology	Switche:	Server Interface	Uplink	Network	Fabric Actions
Networks	Routi	ng Config	guration				
> Static	Routes						
∨ eBGP	Peer Co	onfiguratio	n				
C+	CREAT	e × dele	TE				
		_	_	Deer Interface ID	-		
	Id	Ť	Name T	Address	T P	eer ASN	
0	eBGI	P1_Policy	eBGP1_Policy	20.1.1.1	6	5001	
4						•	
		eB	GP Peer Routes pe	erpage 10 ∨ 1-1o	f 1 eBGP Peer	Routes	

2. Click **Create** to add an eBGP peer route.

Summary Topology (())	Switches Server Interfa	ce Uplink Network	Fabric Actions	_
Networks Routing Con	reate eBGP		×	
> Static Routes	Policy Id	607		
V ebbr Peel Contigura	Policy Name	607		
C+create × de	Peer Interface IP Address	1.1.1.2	_	
eBGP1_Polic	Peer ASN	22 Positive Number	_	
4	Description (optional)			
			1	
		CAI	CREATE	

- 3. Enter the relevant details and click Create.
- 4. The system displays eBGP peer route creation is successful.

Delete eBGP route

- 1. Select the eBGP route to delete, then click **Delete**.
- 2. Click **Delete** to confirm.

Summary Topolo Networks Routing Co		
> Static Routes		
C + CREATE × C Id eBGP1_Po	Are you sure to delete the Route Policy : eBGP	P1_Policy CANCEL DELETE tes
	eBGP Peer Routes per page <u>10 ∨</u> 1 - 1 of 1 eBGP Peer R	C + ADD ROUTE TO SWITCH × DELETE ROUTE FROM SV Switch Leaf2 (GGVQG02)

3. The system displays route policy deletion success message.

View eBGP peer details

The eBGP peer details display a list of mapped routes. Select an eBGP route to view details pertaining to that specific route including the switch ID.

Summary Topology Erra Swit	ches Server Interface	Uplink Net	work Fabric Actions
works Routing Configuration			
> Static Routes			
 eBGP Peer Configuration 			
C+create ×delete			oPCD Poor oPCD1 Policy
			ebop peer - ebop1_policy
Id T Name	 Peer Interface IP Address 	T Peer ASN	Route Description EBGP policy
• eBGP1_Policy eBGP1_F	Policy 20.1.1.1	65001	Switches using this routes
•		•	
eBGP Peer Rou	tes per page 10 \checkmark 1 - 1 of 1	eBGP Peer Routes	C+ADD ROUTE TO SWITCH X DELETE ROUTE FROM SWITCH
			Switch
			Leaf2 (GGVQG02)

Add eBGP route to switch

1. Select an eBGP route, then click **Add Route to Switch**.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions
etworks	Routing Config	uration				
> Static Ro	outes					
✓ eBGP Pe	eer Configuratio	n				
G+ct	REATE × DELE	TE				eBGP Peer - eBGP1_Policy
	Id T	Name T	Peer Interface IP Address	ΨP	eer ASN	Route Description EBGP policy
•	eBGP1_Policy	eBGP1_Policy	20.1.1.1	6	5001	Switches using this routes
4	eB	GP Peer Routes per p	age <u>10 ~</u> 1-1 of	1 eBGP Peer	Routes	C+ADD ROUTE TO SWITCH × DELETE ROUTE FROM SWITCH
						Switch
						Leaf2 (GGVQG02)

2. Select the switch, then click Add.

BGP Peer Configura					
	Add R	oute to Switch		×	
C+create × de				P1	Policy
id T	Switch	Spine (5WJFXC2) ~ Select Switch to Add Route			
eBGP1_Polic			CANCEL	ADD	
	BGP Peer Route	s per page 10 Y 1 - 1 of 1 eBGP Pe	er Routes C + A D	D ROUTE TO SWI	

3. The system displays the route to switch addition success message.

Delete eBGP route from switch

1. Select an eBGP route, then click **Delete Route**.

Delete Route Policy Are you sure to delete the Route Policy : eBGP	P1_Policy CANCEL DELETE tes
eBGP Peer Routes per page 10 ⊻ 1 - 1 of 1 eBGP Peer R	C + ADD ROUTE TO SWITCH X DELETE ROUTE FROM SU Switch Leaf2 (GGVQG02)

- 2. Click **Delete** to remove the route from the switch.
- **3.** The system displays route deletion success message.

Configure fabric management actions

From Fabric Actions pane, you can:

- Change SmartFabric password.
- Upgrade SmartFabric OS10 image, see Upgrade SmartFabric OS.
- Replace a switch in a network fabric, see Replace switch in a fabric.
- Fabric backup and restore, see Back up and Restore fabric configuration.

	Summary Topology	erface Uplink	Network E	abric Actions
vice Instance	Summary Topology Switches Server into		Network P	ablic Actions
SFS-1				
	Fabric Actions			
	🕲 SmartFabric Password Change 🛛 🕲 Upgrade OS	📾 Replace Swit	ch 🔅 Backup	o and Restore
	Username REST_USER			
	Username REST_USER			
	Username REST_USER Current Password	٥		
	Username REST_USER Current Password New Password	0		
	Username REST_USER Current Password New Password	0		
	Username REST_USER Current Password New Password Confirm New Password	© ©		
	Username REST_USER Current Password New Password Confirm New Password	© ©		
	Username REST_USER Current Password New Password Confirm New Password	© ©		

Change SmartFabric password

To change the SmartFabric password:

1. Select the Service Instance > Fabric Actions > SmartFabric Password Change.

SmartFabric Passwo	ord Change	Upgrade OS	📾 Replace Sw	itch 🔅 Ba	ickup and Restore
Username	REST_USEF	2			
Current Password	•••••	0			
New Password	•••••	0			
Confirm New	•••••	0			

- 2. Enter the current password for the REST_USER, the new password, confirm the new password, and click Update Password.
- **3.** The system displays password update success message.

Host network inventory

You can view information about physical Dell EMC PowerSwitch infrastructure running SmartFabric OS10.

Host network inventory page

Select a host in vCenter, select the **Monitor** tab, then select **OpenManage Network Integration** (OMNI) in the monitor sidebar.

	ntigure Permi	ssions VMs	Datastores Networks	Updates		
 Issues and Alarms 						
All Issues	Host Netw	ork Inventory				
Triggered Alarms	nostnetw	ork inventory				
Performance		_				
Overview	C REFRES	н				
Advanced						
Tasks and Events	Server	Physical Adapter 🝸	Logical Switch 🔨 🕆	MAC Address	Physical Switch Node T	Physical Switch Interface
Tasks	⊖ ≣ vmr	hicO	VMware HCIA Distributed	00:0a:f7:f5:c1:a0	6XJHXC2	ethernet1/1/8
Events			Switch			
	○ ■vmr	hic1	VMware HCIA Distributed	00:0a:f7:f5:c1:a1	2WJHXC2	ethernet1/1/6
Hardware Health			Switch			
Hardware Health OpenManage Network I						
Hardware Health OpenManage Network I OpenManage Netwo	◯ ≣ vus	bO	1 vSwitchiDRACvusb	54:48:10:fd:e9:8f		
Hardware Health OpenManage Network I OpenManage Netwo VxRail	◯ ∎vus	bO	T vSwitchiDRACvusb	54:48:10:fd:e9:8f		•

Refresh button

Click **Refresh** to update the host network inventory data and display updated contents.

Physical adapter table

Select a switch from the Host Network Inventory to view detailed information. The table is default-sorted by descending switch name to group physical adapters belonging to the same switch.

- Physical adapter Name of the physical network adapter.
- Virtual switch Name of switch the physical adapter is connected to.
- MAC address MAC address of the physical adapter.
- Physical switch Physical switch that is connected to the fabric.
- Physical switch interface Physical switch port this server network adapter is wired to.

View logical switch details

Displays information about the logical switch that is connected to the selected physical adapter.

When you select a switch from the Host Network Inventory, the page displays the logical switch information connected to the selected physical adapter.

• Switch tab — includes name of switch, MTU in bytes of switch, physical adapters connected to the switch. and uplink ports on the switch

	Host	Network Inventory						
All Issues Triggered Alarms Performance	Cr	REFRESH						
Overview		Server Physical Adapter T	Logical Switch	1 τ	MAC Address T	Physical Switch Node	Physical Sw	itch Interfa
Tasks and Events	0	₩ vmnic0	VMware HCIA Dis Switch	ributed	00:0a:f7:f5:c1:a0	6XJHXC2	ethernet1/	1/8
Events	•	₩vmnic1	VMware HCIA Dis Switch	ributed	00:0a:f7:f5:c1:a1	2WJHXC2	ethernet1/	1/6
Hardware Health	0	₩ vusb0	1 vSwitchiDRACvust)	54:48:10:fd:e9:8f			
OpenManage Network I	4							+
VxRail Physical View Skyline Health	Lo	gical Switch					1 - 3 of	3 PNICs
	Sv	vitch Port Groups	VMs					
	Swi	tch		MTU (B	Bytes) Phy	sical Adapter	Uplink Ports	

• Port groups tab — includes the name of port groups, and VLAN IDs for each port group

VxhostO4.st.vxrail	I.Cluster1 ACTIONS ~	Datastores Networks U	pdates		
 ✓ Issues and Alarms All Issues Triggered Alarms ✓ Performance 	Host Network Inventory				A
Overview	Server Physical Adapter 🛛 🕆	Logical Switch 🔶 🕆	MAC Address	Physical Switch Node T	Physical Switch Interfa
Advanced ✓ Tasks and Events	◯ ∭ vmnic0	VMware HCIA Distributed Switch	00:0a:f7:f5:c1:a0	6XJHXC2	ethernet1/1/8
Events	• vmnic1	VMware HCIA Distributed Switch	00:0a:f7:f5:c1:a1	2WJHXC2	ethernet1/1/6
Hardware Health	○ ■vusb0	1 vSwitchiDRACvusb	54:48:10:fd:e9:8f		
OpenManage Network I	•				•
 VxRail Physical View Skyline Health 	Logical Switch Switch Port Groups Name	VMs	Ť	VLAN ID	1-3 013 PNICS
	VxRail Management-add	d102a-c7ee-4c16-ac82-b76c613a06	58	3939	- 11
	Vlan999			999	
	CuxB			300	

• VMs tab — includes the name of VMs of that host that is connected to a single virtual switch

All Issues	Host Network Inventory				
Triggered Alarms Performance	CREFRESH				
Overview	Server Physical Adapter 🔻	Logical Switch 🔨 🕆	MAC Address	Physical Switch Node T	Physical Switch Interfa
Advanced Tasks and Events	◯ ≣ vmnic0	VMware HCIA Distributed Switch	00:0a:f7:f5:c1:a0	6XJHXC2	ethernet1/1/8
Tasks Events	• Uvmnic1	VMware HCIA Distributed Switch	00:0a:f7:f5:c1:a1	2WJHXC2	ethernet1/1/6
Hardware Health	⊖ ≣ vusb0	1 vSwitchiDRACvusb	54:48:10:fd:e9:8f		
OpenManage Network I	4				•
OpenManage Netwo					1 - 3 of 3 PNICs
Physical View Skyline Health	Logical Switch Switch Port Groups	VMs			
	Name				т
	@ OMNI-1.3.9_ToBeRegister	red			
	🔂 VxRail Manager				

View physical switch details

Displays information about the onboard interface. This information displays only when there is a physical connection between the VxRail domains and OMNI.

When you select a switch from the Host Network Inventory, the page also displays the physical switch information connected to the selected physical adapter.

Onboard interface tab

Issues and Alarms	Name					Ŧ
All Issues		oBeRegistered				
Triggered Alarms	ලි VxRail Manag	ger				
Performance						
Overview	뮵 VMware vCe	nter Server Platform Service	s Controller			
Advanced						1 - 4 of 4 VMs
Tasks and Events						
Tasks						
Events	Physical Swit	ch				
Hardware Health	Filysical Switt					
OpenManage Network I						
OpenManage Netwo	Onboard Interfa	ce Networks				
VxRail						
Physical View	Admin Status	Interface Status	Auto Neg	Current Speed	MTU	Native VLAN

- Admin Status configured state of the physical interface
- Interface Status current operations state of the physical switch port

- Auto Neg negotiation status of the physical interface
- Current Speed current operational speed of the physical interface
- MTU maximum transmitting unit configured on the physical interface
- Native VLAN untagged default VLAN for the physical switch

Networks tab

 Issues and Alarms 	Name				T
All Issues	🛱 OMNI-1.3.9_ToBeRegistered				
Triggered Alarms	ලි VxRail Manager				
 Performance 	🔂 OMNI-1.3.9				
Overview	🔂 VMware vCenter Server Plat	form Services Controller			
Advanced				1 - 4 of 4	↓ ∨Ms
Events					
Hardware Health OpenManage Network I					
Hardware Health OpenManage Network I OpenManage Netwo 	Physical Switch				
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network	ks			
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network Network Name	KS T Network Id	y VLA	IN T	, ^
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network Network Name Client_Control_Network	KS T Network Id Client_Control_Network	т VLA 393	IN T 39	· •
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network Network Name Client_Control_Network network-502	XS Y Network Id Client_Control_Network network-502	v v 393 502	им т 39 2	· •
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network Network Name Client_Control_Network network-502 network-2500	Network Id Client_Control_Network network-502 network-2500	▼ VLA 393 502 250	NN T 39 2 20	· A
Hardware Health OpenManage Network I OpenManage Netwo VxRail Physical View Skyline Health	Physical Switch Onboard Interface Network Network Name Client_Control_Network network-502 network-2500 network-99	Network Id Client_Control_Network network-502 network-2500 network-99	vLA 393 502 250 99	IN 1 39 2 00	

- Network Name name of the VLAN network
- Network ID unique identifier of the fabric network
- VLAN tagged VLAN of the switch port

Lifecycle management

This chapter explains common lifecycle operations of upgrading the SmartFabric OS10, OMNI appliance, switch replacement, fabric backup, and restore.

Upgrade OMNI appliance

This section explains how to upgrade the OMNI appliance for major and minor releases.

Upgrade OMNI during major releases

To upgrade OMNI appliance from older version to 1.3:

1. Prerequisite

Save the following details:

- IP address or hostname of the SmartFabric instances that are manually added in the OMNI VM.
- IP address or FQDN information of all the vCenters that are registered with the OMNI VM.
- IP address or hostname of the OMNI VM.
- Details of the ens192 and ens160 interface settings.
- 2. Unregister the older version of OMNI VM from the vCenter, see Manage vCenter with OMNI.
- 3. Shut down the older OMNI VM.
- 4. Deploy the new OMNI VM, see Create OMNI virtual appliance.
- 5. Configure the OMNI VM with the documented settings and complete the full setup, see OMNI setup.

Upgrade OMNI during minor releases

You must be in the OMNI VM Console to use these steps. After you upgrade the appliance, register the appliance with the vCenter Server then.

(i) NOTE: The OMNI appliance upgrade information only applies to the OMNI minor release upgrade. For example, use this option to upgrade the OMNI VM from 1.3.16 to 1.3.18.

To upgrade OMNI appliance from one minor version to another:

 Download the OMNI upgrade image from the Dell EMC Support portal and store the image on an SCP server. Check the existing version.



2. From the OMNI VM console, select the option 6. Upgrade Appliance.

	Menu
0.	Full setup
1.	Show version
2.	Interface configuration menu
3.	UMNI management service menu Desistan (Vadata SVNI vSebana aliant plusin vith vSector
4.	Register/Update UMNI VSphere client plugin with Voenter
э. б	Passworu/SSL configuration menu
0. 7	Reboot appliance
8.	Show FULA
9.	

The display lists all the applications which can be upgraded along with the old and new versions. Upgrading requires restarting the services.

3. Enter the SCP server IP address or hostname, username, and the path to the upgrade .zip file and password.

Welcome to Dell EMC OpenManage Network Integration (OMNI) management Menu 0. Full setup 1. Show version Interface configuration menu 3. OMNI management service menu 4. Register/Update OMNI vSphere client plugin with vCenter 5. Password/SSL configuration menu 6. Upgrade appliance 7. Reboot appliance Show EULA Logout Enter selection [0 - 9]: 6 2020-06-09 00:59:48 INFO [setup.sh] Getting the upgrade file Remote SCP server IP/hostname: 10.11.201.26 Username: admin Path to the upgrade zip file: /tmp/OMNI-upgrade-1.3.18.zip admin@10.11.201.26's password:

4. Verify all information, then enter Y to continue.

```
admin@10.11.201.26's password:
OMNI–upgrade–1.3.18.zip
                                   100% 413MB 189.5MB/s
                                                           00:02
2020-06-09 01:02:23 INFO [setup.sh] File successfully copied to
2020-06-09 01:02:23 INFO [setup.sh] Verifying....
Archive: /home/isengard/upgrade/upgrade.zip
  inflating: /home/isengard/upgrade/setup.sh
extracting: /home/isengard/upgrade/version.txt
  inflating: /home/isengard/upgrade/passwd_mgr.py
 extracting: /home/isengard/upgrade/sslworkspace.zip
 extracting: /home/isengard/upgrade/rls.label
 extracting: /home/isengard/upgrade/vcenterapp.zip
2020-06-09 01:02:26 INFO
                          [setup.sh] OMNI applications will be upgraded
2020-06-09 01:02:26 INFO
                          [setup.sh] Setup file will be upgraded
2020-06-09 01:02:26 INFO
                          [setup.sh] Current OMNI appliance version : 1.3.14
2020-06-09 01:02:26 INFO
                          [setup.sh] Current OMNI plugin version : 1.3.16
2020-06-09 01:02:26 INFO
                          [setup.sh] New OMNI appliance version : 1.3.14
2020-06-09 01:02:26 INFO
                          [setup.sh] New OMNI plugin version : 1.3.18
Upgrade will restart the service if running. Proceed? [y]? y_
```

```
Deleted Images:
untagged: omni_api:1.3.16
deleted: sha256:b74a6bcaef6a0cb5bddbdfbcfe95a65b986bf16bd57baa7442be7f6bfde535db
deleted: sha256:b38a969d203cf912596a3315dee9d9c6b2a59ed28c3ea0df52760a873557046a
deleted: sha256:faf5a9a889563441d85fe9b9a6aa56e71c830a0428e501acefc52234da4204b9
deleted: sha256:e8c221ea7f6e27d7522b39c2f286e9c6c314501943c12eb720d66e0dcaa216cb
deleted: sha256:a93af37c97f86ddaf0142f4bbb26b7d37cc6f33d260dc1e84206bde3f3994686
deleted: sha256:eb837a36308d64855beb10d447128cad8e05a2a46b31721a66991da230c806ef
deleted: sha256:dfeccb855bbb49569ce74975cf1f0abf142146dedbe7faec58958e92c8660853
deleted: sha256:e6a4ef29eac986e9fdd62db2259029f86e972f7f35c59bc581ba28cb1430eaea
deleted: sha256:a4af04414a305e9ee614ba09a8611053f3aad9e657788c6d0d5b00f62e450e37
deleted: sha256:71e0704daed13a9f2ad9719a5bff2f88040a3e25bc92781e7608c44a85c8c08b
deleted: sha256:1530409102eb508e141789eda959e5f0d477c2d01eade3d04cc79b3474d5695e
deleted: sha256:e9439b40b20f9242279e9d7c7ee3a7ebb65bccfd8c80ad5b913323c38992da57
untagged: omni_db:1.3.16
deleted: sha256:12105165d7c98163621ef5690c3e0bc70f47363a78312738cd6de2edaf239af7
deleted: sha256:59e37a21240db89f411d4db2af49c7b38a38673c9f46b2e4d9a1888de86c5e00
untagged: omni_nginx:1.3.16
deleted: sha256:97405fdc4903348cd2ed3e97d5081aeef3afe0e9d6864769a817320739f26ffc
deleted: sha256:a042897f6913019143e8523b8515a8118ec981c636858b4eeed0d070b0f83f79
deleted: sha256:41941d8ddde4536258de137b984ccffaeeaaed8ecb3d3d3797cfde5bb794d4c9
deleted: sha256:bf7e2b14afa2e1d8a11af89e28ce0b429d477c70ebb8bfe57c2d1a174c1169e3
deleted: sha256:d7209c3b4a771e4890e391ee87cb14369128a352e942c5a7ab24dd9794ac420e
deleted: sha256:e087dbc984642a1a75477871343bd82daab105ae7bbb18a1a08999beb85abcee
deleted: sha256:490a28a6ff630009c3f279de6673e69fad50565f2c38b0f6a803e91d156b69dd
deleted: sha256:f96361a50e82dfc1c2ef6cee47b0f60e9f38c50e9926546829bdac4b7a80ec68
deleted: sha256:d74247f928c76f06384a245bc18a3156168c81fffeef09b5cd6d9b72dfc6fd39
deleted: sha256:55dbbfa3215fc6458b6f61a71b3c491dc3d8b549983618cd0fb328cc2ea1315d
Total reclaimed space: 99.6MB
2020-06-09 01:04:20 INFO [setup.sh] Removing upgrade files
2020-06-09 01:04:21 INFO [setup.sh] To get an updated plugin version in vCenter:
2020-06-09 01:04:21 INFO [setup.sh] plugin needs to be re-registered using
OMNI web client plugin menu (option 4 in main menu),
2020-06-09 01:04:21 INFO [setup.sh] Session will be closed now. Please log back in.
press [enter] to continue...
```

5. Verify the OMNI version.



- 6. Select 4. Register/Update OMNI vSphere client plugin with vCenter to register the plug-in.
- 7. Enter the FQDN or IP address to use for registration, then repeat the steps to update the plug-in with the vCenter Server.

- 1. Show version
- 2. Interface configuration menu
- 3. OMNI management service menu
- 4. Register/Update OMNI vSphere client plugin with vCenter
- 5. Password/SSL configuration menu
- 6. Upgrade appliance
- 7. Reboot appliance
- 8. Show EULA
- 9. Logout

Enter selection [0 - 9]: 4 2020-05-27 22:43:23 INFO [setup.sh] Registering OMNI plugin with vCenter OMNI IP/FQDN to use for registration: 100.104.26.22 Appliance IP : 100.104.26.22 vCenter server FQDN: 100.104.26.21 vCenter server username: administrator@vsphere.local vCenter server password: 2020-05-27 22:45:11,873 Extension registration succeed with: 100.104.26.21 press [enter] to go back to main menu...

Upgrade SmartFabric OS in switch

You can upgrade SmartFabric OS from OMNI VM.

You can upload an OS10 image to upgrade the fabric. For more information about changing the SmartFabric password, see Configure fabric management actions.

You can upgrade OS using the following steps:

- Upload the latest image in the OMNI VM.
- Upgrade fabric using the uploaded image.
- (Optional) Delete the image from the OMNI VM.

NOTE: Dell Technologies recommends stopping the fabric automation service that is running before starting fabric upgrade. The system displays the notification before you start SmartFabric OS10 upgrade.

Upload image

Upload an OS10 image to the OMNI VM:

1. Select Service Instance > Fabric Actions > Upgrade OS.

Fabric Actions						
🖏 SmartFabric Pas	sword Change	l Upgrade OS	📾 Replace Switch	l 協会 ku	ıp and Restore	
C ⊥ upl	OAD 💮 UPGR/	ADE FABRIC X	DELETE IMAGE			
Name						Ŧ
O PKGS_OS10-	Enterprise-10.5.0.6.	719stretch-installer->	x86_64.bin			
PKGS_OS10-	Enterprise-10.5.0.6.	27stretch-installer-	x86_64.bin			

2. Click Upload to upload the .bin file.

d Change – 🔞 Ungrade OS – 🖂 Replace Swit	ch 🚯 Backup	and Restore	1
Upload Image			
Choose File No file chosen			
	CANCEL	UPLOAD	

Upgrade fabric

Upgrade the switches in a fabric with an OS10 image:

1. Select the .bin image, and click **Upgrade Fabric**.

Fabric Actions		
🕸 SmartFabric Password Change	🕲 Upgrade OS 🛛 📾 Replace Switch 🛛 🕸 Backup and Restore	
C ⊥ UPLOAD @ UPGR	ADE FABRIC × DELETE IMAGE	
Name		T
• PKGS_OS10-Enterprise-10.5.0.6.	719stretch-installer-x86_64.bin	
O PKGS_OS10-Enterprise-10.5.0.6.	727stretch-installer-x86_64.bin	

() NOTE: Upgrade Fabric option upgrades all the switches in a network fabric. You cannot stop the upgrade after it is triggered.

2. Click Upgrade to confirm.

SmartFabric Passwork	Confirm Lingrado	~	
	Commopgrade	~	
	Upgrade Fabric with image: PKGS_OS10-Enterprise-10.5.0.6.719stre	etch-	
Name	The fabric upgrade process will start in the background and it can t	take about	
• PKGS_OS10-Enter	15 minutes or more per switch in the fabric. Upgrade Status will sho	ow the	
O PKGS_OS10-Enter	(SmartFabric will automatically reboot when upgrade is completed))	
	CANCEL	JPGRADE	

The system displays fabric upgrade success message.
 SmartFabric automatically reboots when the upgrade is complete.

Delete image

Delete the OS10 image uploaded in the OMNI VM:

1. Select the .bin image to delete.

e/hs	^	
양 SmartFabric Password Char	nge 😢 Upgrade OS 🦾 Replace Switch 🔅 Backup and Restore	
C ⊥ UPLOAD @	UPGRADE FABRIC × DELETE IMAGE	
Name		Ť

2. Click Delete Image.

C UPLOAD Confirm Delete			
Name Delete PKGS_OS10-Enterprise-10.5.0.6.719stretch-installer-x86_64.bin? PKGS_OS10-Enter CANCEL	C ⊥ UPLOAD COT	nfirm Delete	×
PKGS_OS10-Enter CANCEL DELETE	Name	a DVGS OC10 Enternice 10 E 0 6 710strateb	installer v26_64 bio2
PKGS_OS10-Enter CANCEL DELETE	PKGS_OS10-Enter	e PKGS_OSIO-Enterprise-10.5.0.6.7 Isstretch	-IIIStaller-x86_64.bills
	PKGS_OS10-Enter		CANCEL

- 3. Click Delete to confirm.
- 4. The system displays delete image is success.

Replace switch in a fabric

You can replace the faulty OS10 switch in a fabric. To replace:

- 1. Identify the OS10 switch to be replaced and label each of the cables with the port numbers before disconnecting the cables.
- 2. Back up the following configurations from the faulty switch to configure the new switch with the same details:
 - Hostname
 - Management IP address
 - DNS and NTP IP addresses if configured
 - Spanning-tree mode

(i) NOTE: In SmartFabric Services mode, RPVST+ is enabled by default on the uplink interfaces.

- Other nonfabric commands
- **3.** Ensure that the new switch has the same OS version as the faulty switch. You can check the version using the following command:

OS10# show version

- 4. Power off the existing switch to prevent data traffic loss in the cluster.
- 5. Remove the ICL and uplink connections from the existing switch, and connect to the new switch.

(i) NOTE: Do not remove connections to VxRail nodes until the new switch is in SmartFabric Services mode.

(i) NOTE: Ensure that the ICL ports are connected to the other leaf switch which is already in SmartFabric Service mode.

- 6. Enable SmartFabric Services on the new switch and define the ICL ports.
 - For L2 personality—Enable SmartFabric Services on the new switch, and define the breakouts, uplinks, interlink ports, plus any other parameters such as management VLAN, LACP, VLAN tagging, and so on.

For example, if the uplink port is 1/1/4 and the interlink ports are 1/1/29,1/1/30, no VLAN tagging, LACP auto, management VLAN 1 as default.

:~\$ sfs enable vxrail personality.py -i 1/1/6,1/1/8 -u 1/1/4 -1

• For L3 personality—Enable SmartFabric Services on the new switch using the smartfabric l3fabric enable role command. Example:

OS10# smartfabric l3fabric enable role LEAF vlti ethernet 1/1/29-1/1/30

For more information about enabling SmartFabric Services, see Dell EMC SmartFabric OS10 User Guide Release 10.5.0.

- 7. The new switch reboots and is placed in SmartFabric Services mode.
- (i) NOTE: During reboot, the configurations are synchronized in the new switch and it takes several minutes.
- 8. Connect VxRail server ports to the new switch one-by-one to bring up the switch ports and advertise LLDP.
- **9.** Review the command outputs on both switches for same configurations. Use the following commands to validate the configurations:
 - OS10# show vlan
 - (i) **NOTE:** The command displays if the switch is a primary or secondary peer.
 - OS10# show vlt 255
 - OS10# show lldp neighbor
- 10. After ensuring all the configurations are up and running, go to OMNI > Service Instance > Fabric Actions > Replace Switch to complete the switch replacement workflow.

Summary Topolog	y Switches Server Interfa	ce Uplink Network Fabric Actions
Fabric Actions		
l SmartFabric Passwo	ord Change 🛛 🖗 Upgrade OS	Replace Switch 🛞 Backup and Restore
Old Switch	leaf3 (4NPZZP2) v	
New Switch	leaf4 (4PVZZP2)	-
REPLACE		

11. Select the switch that you want to replace from the list, select the new switch, and click **Replace**. The system displays switch replace success message.

Back up and restore the fabric configuration

You can save the current fabric configuration in a repository, and restore the data using a backup file when an error or failure occurs.

Using the Fabric backup and restore tab, you can:

- Set a local or remote repository.
- Back up the configuration of a select fabric in the OMNI VM.
- Download the backup files to the local system.
- Delete the downloaded backup from the OMNI VM.
- Upload or import the fabric backup file from the local or remote repository to the OMNI VM.
- Restore the fabric from a backup file.

() NOTE: The fabric backup and restore features are supported from the OS10.5.0.7 version. If the OS10 software version is less than 10.5.0.7, the system displays a message that backup is not supported for the software version and disables all the backup and restore functions.

Set Repository

To backup the configuration, set up a local repository on the OMNI VM or a remote repository to store the backup files. OMNI supports File Transfer Protocol (FTP) and Secure Copy protocol (SCP) to transfer the backup files to a remote repository.

NOTE: You can either set a local or a remote repository at a time. To change the backup repository, edit the repository setting accordingly.

Set a local repository

- 1. Select the Service Instance > Fabric Actions > Backup and Restore.
- 2. From Backup and Restore tab, click Set Repository.

abric Actions	Switches Server Interface Uplink Network	Fabric Actions	
SmartFabric Password Chan	ge 🔞 Upgrade OS 🖴 Replace Switch 🛛 🙆 Ba	ckup and Restore	
C 🕲 backup now	\pm download $ imes$ delete $ riangle$ restore $ ilde{ riangle}$	UPLOAD BACKUP 🖉 SET REPOSITORY 🛈	
Name	T Date & Time	T Description	Ŧ
	\$		
	No backups av	ailable	
		Backup Eiles per page 10 V	1 - 10 of 0 Radius File

3. Select Local, and click Submit.

Fabric Actions				
			Backup and Restore	
Name Name Plea O L Requi	ase choose one from ocal (backup to OMNI filesyst emote (ftp/scp) red	the below tem)	CANCEL SUBMIT	REPOSITORY (1) Description
				Backup Files per page 10

4. The system displays local repository configuration success message.

Set a remote repository

- 1. From Backup and Restore tab, click Set Repository.
- 2. Select Remote.
- 3. Select the protocol (SCP or FTP) from the list. Enter the Hostname, Username, and Password details.

(Optional) Enter the **Repository Path** details, and click **Submit**.

SmartFabric Passwore	Please choose one from the below Local (backup to OMNI filesystem) Remote (ftp/scp) Required	
	Protocol <u>ftp ~</u> Select protocol	REPOSITORY (1)
	Hostname localhost	
	Username delawareos10	
	Password Image: Constraint of the system	Backup Files per page
	Repository mypath Path Optional	

4. The system displays remote repository configuration success message.

View repository

View the repository details by clicking the information icon.

	0.94.27.2-1590712	2710.json	Fri	, 29 May 2020	00:38:30 GMT	ſ	first		
Name			T Dat	e & Time			T Descript	ion	т
с Фе	BACKUP NOW	± download) × delete	🛆 RESTC	DRE <u>1</u> UPI	LOAD BACKUP	🖉 EDIT RE	POSITORY	
SmartFak	pric Password Ch	nange 🕼 Upg	grade OS 🛛 🖾	Replace Swit	tch 🔞 Bad	ckup and Restore	2	Repository Type - Loca	al
obric Act	tions							Repository Details	5:
Summary	Topology	Switches	Server Interface	e Uplink	Network	Fabric Actions			

Edit repository

You can edit the repository type that is already set. To do so:

- 1. From Backup and Restore tab, click Edit Repository.
- 2. Edit the repository type, enter the required details if prompted, and click Edit.
 - (i) **NOTE:** When you edit the repository from local to remote, the backup files from the local OMNI VM are transferred to the remote repository. If you change the repository from remote to local, they backup files are not transferred to local OMNI VM.

Backup fabric configuration

To backup the fabric configuration:

1. Select Fabric Actions > Backup and Restore, and click Backup Now.

C BACKUP Name St_100.94.27.2-15	③ SmartFabric Password	Change 🐵 Upgrade OS 🛛 Replace Switch 🤷 Backup and Re	estore	
Name T Description 0 sf_100.94.27.2-15 Image: Constraint of the state of th	С 🕅 васкир	Enter Backup Description	\times	REPOSITORY (1)
osf_100.94.27.2-15: Description first 28May Backup Files per Image:	Name			T Description
Backup Files per Note: Fabric Backup will backup SFS applied configuration for the whole fabric. Any manual configuration performed directly on individual switches has to be backed up using switch CLI.	O sf_100.94.27.2-159	Description 28May		first
Note: Fabric Backup will backup SFS applied configuration for the whole fabric. Any manual configuration performed directly on individual switches has to be backed up using switch CLI.				Backup Files per page
CANCELOK		(i) Note: Fabric Backup will backup SFS applied configuration for the whole fabric. Any manual configuration performed directly on individual switches has to be backed up using switch CLI. CANCEL	ок	

2. Enter the description for the backup file and click $\ensuremath{\text{Ok}}$.

				e print				
abric Ac	tions							
్రి SmartFal	bric Password	Change 🛛 🔞 Up	grade OS 🛛 📾 R	eplace Swite	h 🔞 Bao	kup and Resto	re	
Backup Compl	leted: Success						-	>
С 🕅 в	ACKUP NOW	\pm download	× delete (🖞 RESTORE		AD BACKUP	C EDIT REPOSITORY	(i
Name	,		T Date & Tim	e		T Des	cription	Ŧ
	0.94.27.2-15907	712991.json	Fri, 29 Ma	ay 2020 00:43	3:11 GMT	281	ſay	
							a to V to to to to to to	

The backup file is stored as a JSON file with the date and time with the GMT timestamp.

- **NOTE:** The backup action stores SFS-applied configuration for the whole fabric. Any OS10 system configuration that is done on the individual switches directly has to be backed up using the OS10 CLI. For more information about how to backup the configuration, see *Dell EMC SmartFabric OS10 User Guide*.
- 3. The system displays backup completed success message.

Download backup

You can download a backup file from the OMNI VM to the local system.

- 1. Select Backup and Restore tab, and select the backup JSON file that you wanted to download from the list.
- 2. Click Download.

Sumr	mary	Topology	Switches	Server Interface	Uplink	Network	Fabric Action	s
Fabri	ic Act	ions						
绞 Sm	nartFab	ric Password Cha	nge 🔅 Up 2-1590713152 ison	ograde OS 🔤 Re	eplace Swite	ch 🔅 B	ackup and Resto	re
C	🕅 ВАСР	(UP NOW ⊥ DOM	'NLOAD X DI	ELETE 🛆 RESTORE	↑ UPLOAD	BACKUP	🖉 EDIT REPOSITO	RY (1)
	Name		Τ	Date & Time		T	Description	т
0	sf_100).94.27.2-159071315	2.json	Fri, 29 May 2020	00:45:52 GM	T f	first	
0	sf_100).94.27.2-159071299	91.json	Fri, 29 May 2020	00:43:11 GMT	-	28May	
				Ba	ackup Files per	page 10	 1 - 2 of 2 Backu 	up Files

The file is downloaded locally with the backup download success message.

Delete backup

You can delete a backup file from the OMNI VM.

- 1. Select Backup and Restore tab.
- 2. Select the backup file that you want to delete from the displayed list, and click Delete.

Sumr	mary	Topolog	BETA	Switch	es	Server	Interface	Uplink	Networ	k Fabric /	Actions
Fabr	ic Acti	ons									
② Sn	nartFabr	ric Passw	ord Char	ige	္တိ Upg	Irade O	s 📾 R	eplace Swit	ch 🔅	Backup and	Restore
С	🕅 ВАСК	UP NOW	⊥ dom	NLOAD	× del	.ETE @	🗄 RESTORE	↑ UPLOA	D BACKUP	Ø EDIT REF	POSITORY (i
	Name				т	Date &	Time		Ψ	Description	T
0	sf_100	.94.27.2-1	59071315	2.json		Fri, 29	May 2020	00:45:52 GN	ИT	first	
0	sf_100	.94.27.2-1	59071299	1.json		Fri, 29	May 2020	00:43:11 GM	Т	28May	
							В	ackup Files pe	r page 10	✓ 1 - 2 of	2 Backup Files

3. Click Delete to confirm.

			Backup and Backup a	nd Restore	
Confi	rm Delete			×	
Delete s	f_100.94.27.2-15907	713152.json?			
27.2-159					
27.2-159			CANCEL	DELETE	

4. The system displays backup deleted success message.

Upload backup

You can upload a backup file from the local system to the OMNI VM.

- 1. From Backup and Restore tab, click Upload Backup.
- 2. Enter the description and choose the file that you want to upload, and click Upload.

Fabric Actions	Upload Backup		
SmartFabric Passwor	Description		REPOSITORY ()
Name	17		T Description
o sf_100.94.27.2-159	Change File of 100.04.27.2 (500712)52 (con		first
o sf_100.94.27.2-159	Choose File 51_100.94.27.2-1590713152.json		28May
			Backup Files per page
		CANCEL	

3. The system displays upload file success message.

(i) NOTE: OMNI displays error if the uploaded file is not in the JSON format.

Restore from a backup file

You can restore the configuration running on the SmartFabric using a backup file during unexpected error situation or disaster.

CAUTION: Restore action is disruptive and cause connection downtime and traffic loss. The restore action erases all fabric configuration and restarts the entire fabric with the configuration in the backup file. It is highly recommended to use the restore action during a maintenance window.
1. Select Fabric Actions > Backup and Restore.

Summary	Topology	Switches	Server Interface	Uplink	Network	Fabric Actions		
Fabric A	ctions							
🔅 SmartF	abric Password Cha	inge 🔞 Upgi	ade OS 🛛 📾 R	eplace Swit	ch 🔞 Bao	ckup and Restore		
С Фе	BACKUP NOW	download ×	DELETE 🛆 RE	ESTORE	L UPLOAD BA	скир 🖉 еріт	REPOSITORY	i
Nam	ne		⊤ Date & Ti	me		T Des	cription	τ
	sf_100.104.26.32-1590611529.json		Wed, 27	Wed, 27 May 2020 20:32:09 GMT			n/a	
	100.104.26.32-159065	8071.json	Thu, 28	May 2020 0	9:27:51 GMT	TE	ST	
					Backup Files	per page 10 ×	1 - 2 of 2 Backu	up Files

2. Select the backup file from which you want to restore the configuration, and click Restore.

Restore Configurati	on		×
You are initiating a Fabric F loss. The Fabric will be torr highly recommended to ca downtime. Do you want to proceed w	testore Operation. The restore operation is di t a-down (switches will be reloaded together) a rry out the restore operation during a mainter ith the Restore?	sruptive and will result in connectivity and traffic and rebuilt with the backed-up JSON file. It is nance window in order to plan around the	
		CANCEL GET DIFF RESTOR	Ξ

() **NOTE:** The restore action reboots all the switches with the applied fabric settings. Any manual configuration that are performed directly on individual switches has to be restored manually using the OS10 CLI. For more information about how to restore the configuration, see *Dell EMC SmartFabric OS10 User Guide*.

3. (Optional) Click **Get Diff** to compare the current configuration with the configuration in the backup file. **Configuration Diff View** displays the detailed comparison between the current and backup configuration.



4. To proceed with the restore action, select the checkbox to confirm, and click Restore.

Once you initiate the restore process, OMNI appliance changes the service instance state to Maintenance mode automatically, which stops all the fabric automation services specific to the service instance.

5. The system displays the restore success message.

When the fabric restore is complete, change the Maintenance mode of the service instance to **In Service**. For more information about Maintenance mode, see OMNI Maintenance mode. Start the automation services of the specific service instance manually from the OMNI Appliance Management UI. For more information about the OMNI Appliance Management UI, see OMNI Appliance Management User Interface.

6. For internal vCenter environment, restart the vCenter manually from the Platform Service Controller page. For more information about restarting the vCenter, see *VMware vSphere Documentation*.

Troubleshooting

Use the following information to troubleshoot the SmartFabric vCenter OMNI appliance connectivity, SmartFabric errors, and UI population errors.

OMNI appliance connectivity

Verify the IP address, DNS settings, and connection status.

1. From the OMNI management menu, select 2. Interface Configuration Menu.

Welcome to Dell EMC OpenManage Network Integration (OMNI) management Menu 0. Full setup Show version Interface configuration menu OMNI management service menu Register/Update OMNI vSphere client plugin with vCenter Password/SSL configuration menu Upgrade appliance Reboot appliance 8. Show EULA Logout Enter selection [0 - 9]: 2

2. Enter the selection as 1. Show Interfaces and press Enter.





3. Select 2. Show Connection Status.



Unable to register service instance in OMNI

Unable to register the service instances in OMNI, when:

- 1. SmartFabric is not reachable. To check the SFS connectivity:
 - **a.** Log in as root user through the OMNI appliance console.
 - **b.** Check the connectivity of the service instance using the ping command. Use IPv4, hostname, or IPv6 address of the service instance.

:~\$ ping 100.104.22.22 :~\$ping6 <fully qualified domain name>

- **c.** If ping fails, check if the OMNI interfaces are configured properly. If OMNI is internal, ensure that the VxRail Management network is configured.
- **d.** If OMNI is external, ensure that OMNI appliance is configured with the correct port-group that provides connectivity to SFS.
- 2. If SFS is reachable, but not able to register service instance.
 - **a.** If the master node of the SFS has changed, the IP address of the SFS can also change.

(i) **NOTE:** This scenario is not applicable if the OMNI appliance is inbound.

- **b.** Identify the master node using the OS10 CLI command. For more information about the command, see Add service instance.
- **c.** Register with the identified IP address.

OMNI appliance is not synchronized

If the NTP server is not configured, the OMNI appliance VM does not synchronize with the data center.

Check the NTP server status in the OMNI appliance.

1. From the OMNI management menu, select 2. Interface Configuration Menu.



2. Select 4. Show NTP Status.



3. If the NTP server is not configured, select 5. Configure NTP Server, and enter the valid NTP Server IP address or hostname.

UI is not populated

NOTE: Any IP address or SSL certificate changes on the VM, OMNI automation services can be restarted by changing the status of the service instance to Maintenance mode and then In Service mode. For more information about Maintenance mode, see OMNI Maintenance mode.

Check the service status on the plug-in VM.

- 1. From the OMNI management menu, enter the selection as **3. OMNI management service menu**.
- 2. Select 4. Restart OMNI management service to restart all the database and web essential services.
 (i) NOTE: To restart the automation services, go to OMNI Appliance Management UI and restart the services.
- **3.** Select **2. View OMNI management service status** to view the list of registered vCenter managed by the OMNI VM. Confirm that all services are active.

<pre>. Start OMNI management service . View OMNI management service status . Stop OMNI management service . Restart OMNI management service . Create support bundle . Change application log-level . Exit nter selection [1 - 7]: 2 Name Command State Ports </pre>		OMNI manage	ment service menu			
nter selection [1 – 7]: 2 Name Command State Ports 	1. 2. 3. 5. 6. 7.	Start OMNI management service View OMNI management service status Stop OMNI management service Restart OMNI management service Create support bundle Change application log-level Exit				
mni_api /usr/local/bin/gunicorn -w Up mni_db docker-entrypoint.sh postgres Up mni_nginx nginx -g daemon off; Up mni_services /usr/local/bin/gunicorn -w Up 020-05-27 06:10:56,998 OMNI is registered with 100.104.26.21 vCenter hos 020-05-27 06:10:57,002 OMNI is registered with 100.104.26.32 controller ress [enter] to continue	Ent	er selection Name	[1 – 7]: 2 Command	State	Ports	
	mn mn mn 02 02 re	i_api i_db i_nginx i_services 0–05–27 06:1 0–05–27 06:1 ss [enter] t	/usr/local/bin/gunicorn –w docker–entrypoint.sh postgres nginx –g daemon off; /usr/local/bin/gunicorn –w 0:56,998 OMNI is registered with 0:57,002 OMNI is registered with o continue	Up Up Up Up 100.104. 100.104.	26.21 vCe 26.32 con	nter host troller

NOTE: View OMNI management service status is recommended for status validation and debugging purpose. Hence, the output does not show the port numbers.

4. If the problem still persists, try to unregister and register OMNI appliance with vCenter again.

Create support bundle

Download the support bundle from the OMNI Appliance Management UI. If you cannot access the UI, use to OMNI console to download the support bundle.

- 1. From the OMNI management menu, enter the selection as 3. OMNI Management Service Menu.
- 2. Select 5. Create Support Bundle to create a support bundle at /tmp/support-bundle.tar.gz on the OMNI VM.

```
OMNI management service menu
1.
   Start OMNI management service
   View OMNI management service status
2.
   Stop OMNI management service
   Restart OMNI management service
   Create support bundle
   Change application log-level
6.
   Exit
Enter selection [1 – 7]: 5
2020-05-27 06:00:20 INFO [setup.sh] Creating support bundle..
2020-05-27 06:00:20 INFO [setup.sh] OMNI appliance version ......(1.3.14)
2020-05-27 06:00:20 INFO [setup.sh] OMNI vSphere client plugin
sudo: unable to resolve host OMNI-1.3.14: Name or service not known
sudo: unable to resolve host OMNI–1.3.14: Name or service not known
2020-05-27 06:00:20 INFO [setup.sh] Support bundle creation successful
2020-05-27 06:00:20 INFO [setup.sh] Support bundle available for SCP at
press [enter] to continue...
```

(i) NOTE: The recommendation is to set the log level to DEBUG before creating the support bundle.

3. From an external host, scp using admin credentials to transfer the support bundle file out. SCP credentials for the OMNI appliance are the same as the OMNI appliance console password. By default, admin is used for the username and password.

Change log level

NOTE: Use OMNI Appliance Management UI to change the log level of each service. For more information about changing log-level using UI, see OMNI Appliance Management UI.

- 1. From the OMNI management menu, enter the selection as 3. OMNI Management Service Menu.
- 2. Select 6. Change Application Log Level to display the current log-level and switch accordingly.

```
OMNI management service menu
    Start OMNI management service
   View OMNI management service status
2.
   Stop OMNI management service
   Restart OMNI management service
4.
   Create support bundle
   Change application log-level
6.
   Exit
7.
Enter selection [1 - 7]: 6
2020-05-27 05:51:43 INFO [vc-extension.sh] omni_api Log Level.
2020-05-27 05:51:46,945 Current application log-level: ERROR
2020-05-27 05:51:47 INFO [vc-extension.sh] omni_services Log Level.
2020-05-27 05:51:48,293 Current application log-level: ERROR
Existing log-level will be toggled from (DEBUG<->ERROR), do you want to Proceed? [y]? y
2020-05-27 05:52:01 INFO [vc-extension.sh] omni_api Log Level toggle.
2020-05-27 05:52:02,428 Changing application log-level to: DEBUG
2020-05-27 05:52:02 INFO [vc-extension.sh] omni_services Log Level toggel.
2020-05-27 05:52:03,983 Changing application log-level to: DEBUG
2020-05-27 05:52:04 INFO [setup.sh] log-level change successful
press [enter] to continue...
```

- **NOTE:** By default, the log-level in OMNI appliance is set to ERROR. The appliance log can be swapped between ERROR to DEBUG.
- 3. Stop if the log level is already on the wanted log level.

Reset OMNI VM password

1. Reboot the VM from vCenter, then select Advanced Options for Debian GNU/Linux.

	GNU GRUB version 2.02+dfsg1-20
Debian GNU/Linux *Advanced options fo	or Debian GNU/Linux
Use the ↑ and ↓ Press enter to b before booting c	keys to select which entry is highlighted. boot the selected OS, `e' to edit the commands or `c' for a command-line.

2. Use the arrow keys to go to the line starting with linux and ending with ro quiet.



3. Append init=bin/bash after ro quiet.

GNU GRUB version 2.02+dfsg1-20 insmod ext2 set root='hd0,msdos1' if [x\$feature_platform_search_hint = xy]; then search --no-floppy --fs-uuid --set=root --hint-bios=hd∖ 0,msdos1 --hint-efi=hd0,msdos1 --hint-baremetal=ahci0,msdos1 bfad5792-d∖ 272-4fce-80c5-4e816a00bd6f else search --no-floppy --fs-uuid --set=root bfad5792-d272-\ 4fce-80c5-4e816a00bd6f fi 'Loading Linux 4.19.0-9-amd64 ...' echo linux /vmlinuz-4.19.0-9-amd64 root=/dev/mapper/de\ bian--vg-root ro quiet init=/bin/bash_ 'Loading initial ramdisk ...' echo /initrd.img-4.19.0-9-amd64 initrd

Minimum Emacs-like screen editing is supported. TAB lists completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for a command-line or ESC to discard edits and return to the GRUB menu.

4. Press Ctrl-X to boot into the shell with root access.

[1.412485] piix4_smbus 0000:00:07.3: SMBus Host Controller not enabled! [2.003442] sd 2:0:0:0: [sda] Assuming drive cache: write through /dev/mapper/debian--vg-root: clean, 91252/2285568 files, 1503501/9127936 blocks bash: cannot set terminal process group (-1): Inappropriate ioctl for device bash: no job control in this shell root@(none):/#

5. Remount the directory.

mount / -rw -o remount

[1.412485] piix4_smbus 0000:00:07.3: SMBus Host Controller not enabled! [2.003442] sd 2:0:0:0: [sda] Assuming drive cache: write through /dev/mapper/debian--vg-root: clean, 91252/2285568 files, 1503501/9127936 blocks bash: cannot set terminal process group (-1): Inappropriate ioctl for device bash: no job control in this shell root@(none):/# mount / -rw -o remount root@(none):/# passwd admin New password: _

6. Change the password for admin using passwd admin. Enter the new password and confirm the password.

[1.399189] piix4_smbus 0000:00:07.3: SMBus Host Controller not enabled! 1.979601] sd 2:0:0:0: [sda] Assuming drive cache: write through /dev/mapper/debian--vg-root: recovering journal /dev/mapper/debian--vg-root: clean, 91252/2285568 files, 1503501/9127936 blocks bash: cannot set terminal process group (-1): Inappropriate ioctl for device bash: no job control in this shell root@(none):/# mount / -rw -o remount root@(none):/# passwd admin New password: passwdr: password updated successfully root@(none):/# _

7. Reset the VM from vCenter and log in through the new password for the OMNI VM.

Missing networks on server interfaces

If OMNI fails to create and associate the appropriate network on a server interface during automation, OMNI automation services can be restarted so that OMNI reconfigures the networks. OMNI automation services can be restarted by changing the status of the service instance to Maintenance mode, then changing the instance to In Service mode. For more information about Maintenance mode, see OMNI Maintenance mode.

OMNI unable to resolve vCenter FQDN

A change in the DNS can cause an issue during FQDN resolution. If there is any change in DNS, set the proper DNS for the interface through option **2. Interface configuration Menu**. For complete information, see *Network interface profile configuration* in OpenManage Network Integration.

Certificate not trusted error

If OMNI is having issues communicating with the vCenter due to SSL certificate errors, new SSL certificates must be installed.

- 1. To install new SSL certificates, see Generate and Install SSL certificates.
- 2. OMNI automation services can be restarted by changing the status of the service instance to Maintenance mode, then changing the instance to In Service mode. For more information about Maintenance mode, see OMNI Maintenance mode.