



Hewlett Packard
Enterprise

HPE Composable Fabric 5.0
Release Notes

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Introduction

This document contains information about the HPE Composable Fabric Release 5.0.

Software

The following software is included:

- HPE Composable Fabric module software Release 5.0.0
- HPE Composable Fabric Manager software Release 5.0.0

Supported Hardware

Release 5.0.0 is supported on the following hardware:

- HPE FM 3180 fabric module
- HPE FM 2072 fabric module, was Plexxi 2e
- HPE FM 3032Q fabric module, was Plexxi 3eq
- HPE FM 1006 passive interconnect module, was Plexxi PSI (Pod Switch Interconnect)
- Plexxi 1x
- Plexxi 2
- Plexxi 2s
- Plexxi 2p
- Plexxi 2sp

Features

The following features are included in this release:

- New Composable Fabric Manager UI
- UI Additions include:
 - System services config (NTP, DNS, etc)
 - OSPF Config
 - BGP Config
 - Routed IP interface Config
 - Fabric IP network (formerly known as router channel)
- HPE OneView integration
- HPE Composable Cloud support
- Composable Fabric module administration and CLI changes
- New fabric module: HPE FM 3180
- Rebranded fabric module: HPE FM 3032Q
- Rebranded fabric module: HPE FM 2072

Related Documentation

The following related documentation supports this release:

- *HPE Composable Fabric 5.0 Support Matrix* which contains version-specific software and hardware support information, including cable and transceiver support information.
- *HPE Composable Fabric Module 5.0 Administrator Guide using Linux and CLI*
- *HPE Composable Fabric Manager 5.0 Installation Guide*
- *HPE Composable Fabric 5.0 FM 3180 Fabric Module Installation Guide*
- *HPE Composable Fabric 5.0 FM 3032Q Fabric Module Installation Guide*
- *HPE Composable Fabric 5.0 FM 2072 Fabric Module Installation Guide*
- *HPE Composable Fabric Manager Online Help* is available while logged into the HPE Composable Fabric Manager UI.

Contacting HPE Networking Support

You can open a support case by contacting the HPE Advanced Support Center at 1-800-633-3600. Note that customers will be asked to provide their Support Agreement ID (SAID) so that the support agent can provide the full level of support to which the customer is entitled and see the details of the equipment covered. Alternatively, the customer could provide the serial number of the device under support.

You can also open a support case electronically through the HPE Support Center:

www.hpe.com/support/hpesc

Note: To log a case directly in HPE Support Center you will need both an HPE Passport account and a valid Service Agreement ID (SAID). In May 2019, legacy Plexxi customers will receive HPE SAID numbers for their existing Plexxi service agreements (see the “Support Service Contract Migration” section in this document).

HPE Composable Fabric Module Support

The HPE Composable Fabric Release 5.0 supports the following fabric module models:

HPE Model	HPE Part #	Description	Plexxi Model
FM 2072	R0Y48A	HPE Composable Fabric FM 2072 6-port QSFP and 48-port SFP+ Front-to-Back Module	2e
	R0Y49A	HPE Composable Fabric FM 2072 6-port QSFP and 48-port SFP+ Back-to-Front Module	
FM 3180	R1N25A	HPE Composable Fabric FM 3180 8-port QSFP28 and 48-port 10/25GbE Back-to-Front Module	N/A
	R1N26A	HPE Composable Fabric FM 3180 8-port QSFP28 and 48-port 10/25GbE Back-to-Front Module	
FM 3032Q	R1N27A	HPE Composable Fabric FM 3032Q 32-port QSFP28 1RU Front-to-Back Module	3eq
	R1N28A	HPE Composable Fabric FM 3032Q 32-port QSFP28 1RU Back to Front Module	
FM 1006	R1N31A	HPE Composable Fabric FM 1006 1RU Passive Module	Pod Switch Interconnect (PSI)
		HPE Plexxi Switch1x 1RU Module	1x
		HPE Plexxi Switch2 2RU Module	2
		HPE Plexxi Switch2s 2RU Module	2s
		HPE Plexxi Switch2P 2RU Module	2p
		HPE Plexxi Switch2sp 2RU Module	2sp

IMPORTANT: The Plexxi models and the HPE models are based on the same hardware.

Fabric modules must be running Composable Fabric module software version 5.0 or newer.

A single direct-connect Composable Fabric cannot exceed 7 fabric modules.

FM 1006 passive interconnect modules can be used to connect the following fabric modules when deploying a Composable Fabric:

- HPE FM 3180, FM 3032Q and 3eq fabric modules running at 25 Gbps per port (100 Gbps per QSFP).
- HPE FM 3180, FM 3032Q, FM 2072, 2, 2s, 2p, 2sp and 3eq fabric modules running at 10 Gbps per port (40 Gbps per QSFP).

IMPORTANT: For Composable Fabric paths between fabric modules, you must make sure that all fabric modules use the same fabric port speed. This is especially true when a fabric contains fabric modules of different speed capacities, for example, FM 2072 which operates at 10 Gbps per port and FM 3180 which operates at 25 Gbps per port. In release 5.0, the installed transceiver determines the port speed. In a mixed environment, 40 Gb/s QSFP transceivers must be installed in QSFP switch ports capable of operating at 100 Gb/s.

New Composable Fabric Manager UI

The HPE Composable Fabric Manager User Interface (UI) is your primary Composable Fabric management interface, enabling you to configure and monitor the Composable Fabric environment as well as integration with other environments such as HPE OneView and VMware vSphere.

The Composable Fabric Manager manages Composable Fabric life cycle, affinities, fitting, IP configuration, layer 3 routing, and other global configuration activities.

For information on using the UI to configure the Composable Fabric, refer to the following document:

- *Composable Fabric Manager UI Online Help*, available from the Composable Fabric Manager UI.

A Guided Setup guides you through the initial minimal setup procedures required to get a fabric up and running.

A Composable Fabric Manager Dashboard page provides easy-to-find configuration, status and message information.

Port configuration features

- Configure fabric module ports.
- Configure VLANs on ports.
- Configure Link Aggregation Groups (LAGs).
- Configure port security.
- Configure VLAN Groups.
- Configure VLAN properties.
- View transceiver information.

Routing features

- Virtual Private Cloud (VPC) routing.
- Fabric IP networks.
- BGP routing.
- OSPF routing.
- IP Prefix Lists.

System features

- Add and edit Fabric(s) and recover from an unresponsive fabric.
- DNS
- NTP
- SNMP
- sFlow
- LDAP
- Neighbor Discovery
- Syslogs

Maintenance features

- View HPE Composable Fabric Support contact information.
- Manage fabric modules:
 - Configure fabric module IP addresses for management (MGMT) port access.
 - View fabric module health.
 - View fabric module configuration information.
 - Delete a fabric module.
 - Upgrade fabric module software using downloaded and staged fabric module install images.
 - Replace a fabric module.
- View Audit messages.
- Create, download and delete support bundles.
- Download fabric module install images to the Composable Fabric Manager and stage fabric module install images to fabric modules for upgrade.
- Create Composable Fabric Manager configuration backup instances and if necessary, restore a fabric module to a known state using a backup instance.
- Create backups, maintain backups, and restore the Composable Fabric configuration from a backup.

Administration features

- User Accounts
- TACACS
- HPE Composable Fabric Manager certificates.
- User settings such as setting the session inactivity timeout.
- Integration Set activation
- Device maps for non-LLDP/CDP environments.

Integrations:

- Depending on the selected Integration Set you can manage one or more of the following integrations: HPE OneView, HPE SimpliVity, VMware vSphere and VMware NSX.
- Quickly view integration and integration configuration status.
- Create, edit and delete integration configurations.

Affinity features:

- VLAN affinities.
- Fittings.
- Traffic matrices.
- Loads between fabric modules.

Visualization features:

- Fabric Visualization: Visualize the HPE Composable Fabric paths and ports using the visualization, port map and path table in the Visualization view.
- Host Visualization: View Host elements, paths, element information and host connections to the HPE Composable Fabric in the Host Visualization.

- Network Visualization: View all HPE Composable Fabric modules and high-level fabric links between them, not showing individual port-to-port paths

HPE OneView Integration

Integration with HPE OneView is supported and is configured through the HPE Composable Fabric Manager UI.

HPE Composable Cloud Support

The HPE Composable Fabric integrates within the HPE Composable Cloud as top-of-rack fabric modules that connects multiple Composable Racks into a single configurable, automated and self-healing fabric.

Composable Fabric Module Administration and CLI Changes

HPE Composable Fabric release 5.0 introduces the following enhancements and changes to the HPE Composable Fabric Module software:

- Simplified fabric module installation and configuration process when using either of the following methods:
 - DHCP - The fabric module is factory-configured for DHCP, enabling communication between the fabric module and HPE Composable Fabric Manager through the management network.
 - Static IP addresses - Configure the IP addresses from the Linux shell using the px-setup utility.

After the link has been established with the HPE Composable Fabric Manager, you use the HPE Composable Fabric Manager UI to configure the fabric module's operation.

- Support for using an IPV6 link local address to access the management port.
- Support for configuring the HPE Composable Fabric Manager IP address on the DHCP Server has been removed because the Composable Fabric Manager now initiates connection to a fabric module.
- Support for the following features has been removed from Composable Fabric 5.0 and therefore from the fabric module CLI:
 - RADIUS authentication
 - L2 VPN
 - BGP EVPN
 - Fabric LAGs
- Configuration of the management interface can be performed using the px-setup command from the Linux shell or using the Composable Fabric Manager UI.
- A number of features previously configured at a command prompt on a fabric module are now more easily configured using the Composable Fabric Manager UI. These features include:
 - DNS
 - NTP
 - SNMP
 - LDAP
 - sFlow
 - Syslog

- TACACS
- BGP
- Routed port interface
- Configure fabric module IP addresses for management (MGMT) port access.

New Fabric Module: HPE FM 3180

A new HPE FM 3180 fabric module is available consisting of 48 SFP28 ports that can each operate as high as 25 Gbps each and 8 QSFP28 ports that can each operate as high as 100 Gbps each. For detailed hardware and installation information, refer to the document:

- *HPE Composable Fabric 5.0 FM 3180 Installation Guide*

Rebranded Fabric Module: HPE FM 3032Q

A rebranded HPE FM 3032Q fabric module, formerly Plexxi model 3eq, is available consisting of 32 QSFP28 ports that can each operate as high as 100 Gbps. For detailed hardware and installation information, refer to the document:

- *HPE Composable Fabric 5.0 FM 3032Q Installation Guide*

Rebranded Fabric Module: HPE FM 2072

A rebranded HPE FM 2072 fabric module, formerly Plexxi model 3eq, is available consisting of 48 SFP ports that can each operate as high as 10 Gbps and 6 QSFP ports that can each operate as high as 40 Gbps. For detailed hardware and installation information, refer to the document:

- *HPE Composable Fabric 5.0 FM 2170 Installation Guide*

Release Support

Configuration

Composable Fabric 5.0 supports the following:

- One Composable Fabric
- One Virtual Private Cloud (VPC)

Fabric Connectivity

Composable Fabric modules must be running software version 5.0 or newer.

FM 1006 passive interconnect modules can be used to connect the following fabric modules when deploying a Composable Fabric:

- HPE FM 3180, FM 3032Q and 3eq fabric modules running at 100 Gbps.
- HPE FM 3180, FM 3032Q, FM 2072, 2, 2s, 2p, 2sp and 3eq fabric modules running at 40 Gbps.

A single direct-connect Composable Fabric cannot exceed 7 fabric modules.

Known Issues in this Release

Issue ID	Description
PXS-4204	When there are redundant IP connections to an external router, we have observed an issue that causes the resulting ECMP route to be missing some paths. In a specific example, where there are 2 external routers each with 2 IP interfaces to the fabric and each advertising the same route, we expect to see that as an ECMP route that uses all 4 paths. With the issue we have in OSPF, they are computed as 4 paths, but only 3 of them unique. This results in the route in h/w to have just 3 ECMP paths as opposed to 4.
PXS-5542	On a Composable Fabric FM 3180, untagged RPI (routed port interfaces) cannot be used, only tagged RPI interfaces are supported.
PXPSE-4907	Access ports are not automatically enabled after an HPE OneView restore. To resolve the problem, in HPE OneView, enable the access ports.
PXPSE-4956	After an HPE Composable Fabric Manager reboot, switches might appear in HPE OneView as having a ConfigError state. To resolve this problem, from the Composable Fabric Manager UI, reboot the switches that possess this error state. After reboot, in OneView, verify that the ConfigError state is cleared.