Cisco Nexus Fabric Manager Release Notes for Administrators, Release 1.2(1)

This document describes the features, bugs, and limitations for Cisco Nexus Fabric Manager. Use this document in combination with documents listed in the "Obtaining Documentation and Submitting a Service Request" section.

Table 1 shows the online change history for this document.

Table 1. Online History Change

Date	Description
October 3, 2016	Created the Release Notes for Release 1.2(1)

Contents

Introduction

The Cisco Nexus Fabric Manager (NFM) is a product designed to simplify fabric lifecycle management requirements for users requiring easier options than switch-by-switch offerings such as CLI and element managers. The NFM provides a simple point-n-click web-based user interface to a *fabric-aware* management engine that can build and manage fabrics based on simplified user requests. The NFM bears the heavy lifting of creating, installing, and maintaining proper fabric-wide switch configurations to deliver on these simplified requests. The NFM, being fabric-aware, also understands how the fabric should operate and can monitor and take actions within the fabric throughout its lifecycle to ensure optimal fabric operation. You can focus on workflows associated with delivering business-enabling applications and leave the complexity of building and managing the fabric to the NFM.

Behind the scenes, the NFM implements a self-managed VXLAN-based topology incorporating an EVPN control plane. This choice of technology ensures a future-proofed fabric delivering service for today and tomorrow's requirements in an open manner.

Supported Platforms

- Cisco Nexus 9500 Series switches

- Cisco Nexus 9300 Series switches

- Cisco Nexus 9200 Series switches

- Cisco Nexus 2000 Series Fabric Extenders

Supported NX-OS Releases

Table 2 Supported NX-OS Releases

7.0(3)I4(1), 7.0(3)I4(2), 7.0(3)I4(3)	These releases are supported.
7.0(3)I3(1)	This release is supported.
7.0(3)I2(3)	This release is supported only if the patch for CSCuy96592 is loaded. If you are using AFP, make sure you are not using this release.
7.0(3)I2(2e)	This release is supported.

Limitations

The following are the known limitations for Cisco Nexus Fabric Manager:

- The NFM supports the configuration of border-leaf switches but does not support border-spine configurations.

- The maximum number of gateways for a fabric of 20 switches or less is 50. The maximum number of gateways for a fabric greater than 20 or up to 50 is 20.

- The maximum number of leaf switches within a supported fabric is 50.

- The maximum number of host-facing interfaces within the fabric connected to devices such as physical servers, firewalls, and load balancers is 2,400. For example, a dual-homed host would count as two host-facing attachments.

- The maximum number of discovered hosts is limited to 1,200.

- The maximum number of configurable broadcast domains is limited to 500.

- The Cisco Nexus 2000 Series of fabric extenders (FEX) is supported in a limited fashion. FEX Fabric interfaces must be configured on the CLI, and then host interfaces are shown and can be managed within the Cisco Nexus Fabric Manager.

- The Cisco Unified Compute System B-Series (UCS) fabric interconnect module is discoverable by the NFM. However, any compute blades behind it are not represented within the NFM topology.

- After an upgrade from a 1.1 release, any change to the BGP AS number is validated. If the AS number is modified beyond the valid range, an error is generated. AS numbers should be manually checked by the administrator and modified according to their preferences before using the system.

- After an upgrade from a 1.1 release, the allowed range of BGP autonomous system numbers are reduced from a 4-byte to a 2-byte autonomous system. During an upgrade, any AS number greater than the limit 65535 will be converted to 65535. AS numbers should be manually checked by the administrator and modified according to their preferences before using the system.

- For all Nexus 9300 Series switches (not including Nexus 9300-EX Series) and all Nexus 9500 Series line cards in X94xx and X95xx lines, TCAM needs to be carved for the Logical Gateway counters to work.

- The topology view renders only if less than 4,000 physical interfaces exist in the switchpool. If the UI finds more than 4,000 physical interfaces, the topology view remains empty (with a message stating it's too large).

- If using the browser Firefox, there may be an additional password prompt when logging in for the first time after a password change. This only occurs in Firefox, and once the user credentials are provided then the login process is complete.

New and Changed

This section lists the new and changed features in this release.

New Software Features

Table 3. New Software Features, Guidelines and Restrictions

Feature	Description
Scale Enhancements to Managed Fabric Size	The Cisco Nexus Fabric Manager Release 1.2(1) now supports the following maximum number of objects by type: • Imported leafs: 50 (up from 20 in Release 1.1) • Imported host facing or border interfaces: 2400 (up from 1000 in Release 1.1) • Configured vPCs: 1200 (up from 500 in Release 1.1) • Foreign devices: 1200 (up from 500 in Release 1.1) • Broadcast domains: 500 (up from 200 in Release 1.1) • Configured VRFs: 50 (not tracked in Release 1.1)
Cloning of a Switch Workflow	A new workflow has been added to enable the user to import a new switch into a switchpool based on the settings of an existing imported switch.
Enhancements to Web User Interface Performance	Several enhancements to the web user interface have been made which enhance the performance of using web interface and the efficiency in which the user interacts with the web interface.
Cisco Fabric Extender (FEX) Enhanced Support	Cisco Nexus 2000 Series of Fabric Extenders (FEX) switches are now supported in managed mode. While the user must configure the fabric facing interfaces via the CLI, once connected, their host facing interfaces are managed through the Nexus Fabric Manager including broadcast domain and port channel membership.
Enhancements to Broadcast Domain Creation	Users can now add multiple host-facing interfaces to one or more new or existing broadcast domains in one workflow. In addition, users can select all interfaces within an existing broadcast domain and add them to one or more new broadcast domains again within one workflow. Names that are assigned to broadcast domains during their creation within the Nexus Fabric Manager are now pushed to member leaf switches as the name for the VLAN definition.
New Switchpool Settings for vPC Tuning Parameters	Users can now tune vPC performance parameters including *vPC delay restore* and *vPC auto-recovery reload-delay* from within the switchpool settings.
New Switchpool Settings for Default Role for Foreign Devices	Users can now define the role that unknown foreign devices, and those devices that are connected to a managed fabric but are not enabled with CDP or LLDP are assigned, which accelerates the time required to build connectivity between connected devices.

New Border Interface Role	The role of *Uplink* within previous versions of the Nexus Fabric Manager has now been renamed to *Border*.
Enhancements to Switch Upgrade Work-flow	A membership editor has been added to the upgrade task. Existing upgrade tasks can be easily edited using the membership editor to add or remove switches from the task.
Enhancements to VRF Management	A membership editor has been added to the VRF function. Existing VRFs can be easily edited using the membership editor to add or remove layer 3 interfaces from the VRF. Both default VRFs are also displayed, the underlay VRF which is the switch *default* VRF and the default overlay VRF named *Switchpool Default*.
Enhancements to the Untagged Broadcast Domain Configuration	The definition of an untagged broadcast domain on an interface has been added to the interface profile definition. Users can define an untagged broadcast domain from all available broadcast domains and assign the interface profile as a default profile type or easily assign it to one more host-facing or border interfaces.

Caveats

The open and resolved bugs for this release are accessible through the Cisco Bug Search Tool. This web-based tool provides you with access to the Cisco bug tracking system, which maintains information about bugs and vulnerabilities in this product and other Cisco hardware and software products.

Note: You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. if you do not have one, you can register for an account.

For more information about the Cisco Bug Search Tool, see the Bug Search Tool Help & FAQ.

- Known NX-OS Issues that Might Impact Cisco Nexus Fabric Manager Functionality

- Resolved Caveats - Cisco Nexus Fabric Manager, Release 1.2(1)

- Open Caveats – Cisco Nexus Fabric Manager, Release 1.2(1)

Known NX-OS Issues that Might Impact Cisco Nexus Fabric Manager Functionality

The following table describes how these NX-OS issues impact NFM. Please consult the NX-OS release notes for more details

Table 5. Cisco Nexus Fabric Manager, Release 1.2(1) – Known NX-OS Issues

Record Number	Release Note Enclosure
CSCuz46651	• **Synopsis:** Duplicate foreign switches (FSW) would be discovered • **Symptoms:** In the switchpool, a foreign switch (FSW) for the same switch will appear twice • **Conditions:** If on switch, 'ip domain-name x' is set, the system name does not match for CDP and LLDP advertisements for the switch • **Workarounds:** Remove 'ip domain-lookup' and 'ip domain-name x' on the switch and reload it. On NFM delete the duplicate entries.

CSCvb32973	• **Synopsis:** Cisco Nexus 9000 series switches become unable to save startup configuration • **Symptoms:** Recurring faults are reported on one or more switches with the command 'copy running-config startup-config' failing with the error 'Configuration update aborted: request was aborted'. • **Conditions:** A backing for a logical gateway is created or modified, which causes the 'no ip redirects' to be issues for a SVI on a switch. As an example, this problem can be triggered by removing or changing the VRF of a logical gateway. • **Workarounds:** Manually execute the command 'no ip redirects' on the backing of the logical gateway on the switch.
CSCuy96592	• **Synopsis:** Certain VRF changes may not take effect on the switch. • **Symptom:** VRF creation does not succeed, or a VRF does not get updates after a name change. NFM reports faults on the switches related to VRF commands that report 'Request object does not exist'. • **Conditions:** VRF creation does not succeed, or a VRF does not get updates after a name change. NFM reports faults on the switches related to VRF commands that report 'Request object does not exist'. • **Workarounds:** No workaround, but retrying the operation using the reconcile button may help.

Note: If using the Nexus C93108YC or C93108TC-EX fixed switches or the N9K-X9732C-EX line card for the Nexus 9500 modular switch , an extra command is required before switches are to be managed by the NFM. The following command must be entered on each switch at the CLI, followed by a switch reboot, and cannot be automated by the Nexus Fabric Manager.

```
switch# system routing template-vxlan-scale
```

To verify this command has been properly applied to applicable switches and a reboot has been preformed, run the following command on the switch CLI:

```
switch# show system routing mode
Configured System Routing Mode: Vxlan Scale
Applied System Routing Mode: Vxlan Scale
```

"Configured" indicates the command has been applied, and "Applied" indicates the reboot has occurred.

Resolved Caveats – Cisco Nexus Fabric Manager Release 1.2(1)

The following table lists the Resolved Caveats in Cisco Nexus Fabric Manager, Release 1.2(1). Click the Record Number to access the Bug Search Tool and see additional information about the bug.

To see the most up-to-date list of Resolved Caveats, go to:

https://bst.cloudapps.cisco.com/bugsearch/search?kw=*&pf=prdNm&pfVal=286305124&rls=1.2(1)&sb=fr&bt=custV

Table 6. Cisco Nexus Fabric Manager, Release 1.2(1) – Resolved Caveats

Record Number	Bug Headline
CSCux42972	Disabling peerlink interface doesn't disable interface on switch
CSCux43009	Interface part of a port channel does not update interfaceType
CSCux43282	Failed delete of VRFs incorrectly shows the selection as cleared
CSCuy63722	Summary pane horizontal scroll bar may be partly cut off
CSCuz22022	Cannot move an interface from one port channel to another using REST API
CSCuz25021	Making network configuration changes causes NFM service restart
CSCuz25992	Busy spinner is not cleared when navigating away from the Topology tab
CSCuz25997	Text fields in switch multi-edit do not show Mixed after revert
CSCuz26002	Hint text is not shown after reverting broadcast domain VLAN ID field
CSCuz26010	Filter expressions only apply to the current page for Faults and History
CSCuz89560	Setting MTU for logical gateway at creation does not percolate to switch VLAN interfaces
CSCuz89572	Link icons still appear in the switch editor after removing the profile

| CSCva60842 | Login timed out after 60 seconds |
| CSCvb46573 | Traffic loss may occur for logical port channels with no active connections between spine and leafs |

Open Caveats – Cisco Nexus Fabric Manager Release 1.2(1)

The following table lists descriptions of open bugs in Cisco Nexus Fabric Manager, Release 1.2(1). You can use the record number to search the Cisco Bug Search Tool for details about the bug.

To see the most up-to-date list of Open Caveats, go to
https://bst.cloudapps.cisco.com/bugsearch/search?kw=*&pf=prdNm&pfVal=286305124&rls=1.2(1)&sb=afr&bt=custV

Table 7. Cisco Nexus Fabric Manager, Release 1.2(1) – Open Caveats

Record Number	Bug Headline
CSCvb46495	Importing a new switch in an existing large environment is very slow
CSCux43004	Transitioning unconfigured switch to managed, may cause some port channels to be improperly deployed
CSCux43296	Updating object memberships seems to show an object being created
CSCuz22019	Interface operational MAC address no longer gets updated
CSCuz22020	User is allowed to set the same IP address on the same VRF on different interfaces
CSCuz25989	Switchpool available VLANs becomes 0 after editing switchpool settings
CSCuz25993	CLI window sometimes doesn't display all lines of output
CSCuz25998	Port channel member interface states are not live updated
CSCuz26003	Interfaces filtered on role "unknown" but tiles show different text
CSCuz26004	Applying a filter expression sometimes gives unexpected results
CSCuz27969	Conflicting foreign device briefly appears
CSCuz27973	Port channels get rebuilt on monitored to managed mode transition
CSCuz27978	New connections created if DHCP server and NFM coexist
CSCuz27989	The fault "neighborMismatch" is flooded at times
CSCuz30047	A fault is created for a switch with "lldp receive" CLI failure
CSCuz46218	NFM cannot resolve "CLI execution" faults
CSCva68910	Django request.session Record Creation Denial of Service Vulnerability
CSCvb46572	Logical port channel with interfaces from two switches may not have member interfaces operational
CSCvb46578	Changing VRF and removing IP address simultaneously can result in configuration error on the switch
CSCvb56260	Switchpool MTU change causes some members of a two-switch logical port channel to become inactive

Related Documentation

Related documentation for the Cisco Nexus Fabric Manager:

Cisco Nexus Fabric Manager

http://www.cisco.com/c/en/us/support/cloud-systems-management/nexus-fabric-manager/tsd-products-support-series-home.html

Cisco Nexus 9000 Series NX-OS Fundamentals Configuration Guide, Release 7.x

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/fundamentals/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_Fundamentals_Configuration_Guide_7x.html

Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide, Release 7.x

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/interfaces/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_Interfaces_Configuration_Guide_7x.html

Cisco Nexus 9000 Series NX-OS System Management Configuration Guide, Release 7.x

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/system_management/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_System_Management_Configuration_Guide_7x.html

Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 7.x

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/vxlan/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_VXLAN_Configuration_Guide_7x.html

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http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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