

# Cisco Nexus Fabric Manager

## Product Overview

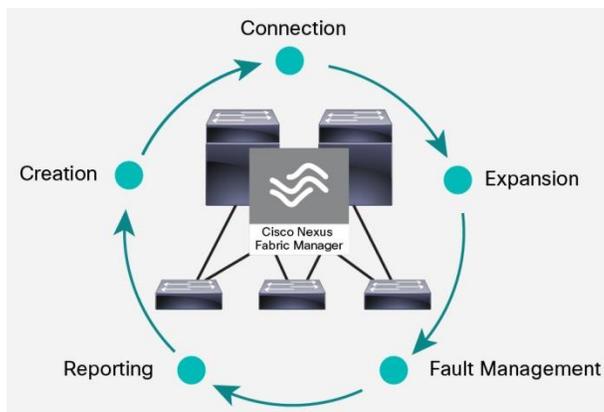
Cisco Nexus<sup>®</sup> Fabric Manager simplifies fabric lifecycle management—including the tasks of building, managing, and troubleshooting fabrics—in the modern data center (Figure 1).

By using fabric-aware intelligent algorithms, Cisco Nexus Fabric Manager discovers the fabric’s physical topology, learns and categorizes all points of connectivity, and delivers control to the IT operation teams through a simplified point-and-click web-based interface. Full switch configurations are automatically built, pushed, and managed on the individual switches, based on simplified user requests, with no need for the user to interact with the command-line interface (CLI).

IT departments can focus their attention on the businesses they support rather than on mastering an often complex set of protocols and CLI-based practices. Infrastructure changes for revenue-generating applications can be implemented promptly and securely, without the need for complicated CLI configurations or expensive internally developed automation frameworks.

Behind the scenes, Cisco Nexus Fabric Manager automatically implements a self-managed Virtual Extensible LAN (VXLAN-based topology incorporating an Ethernet VPN (EVPN) control plane. This choice of technology helps provide a fabric that delivers service that meets both current and future requirements in an open manner.

**Figure 1.** Fabric Management Lifecycle



## Features and Benefits

Cisco Nexus Fabric Manager offers these main benefits (summarized in Table 1):

- Self-configured and managed fabric topology
- Integrated zero touch provisioning capability
- VXLAN-based topology with open EVPN control plane
- Simple point-and-click GUI

- Fully discovered fabric topology
- Fabricwide focus
- Host-facing port channel and virtual port channel management
- Fabricwide broadcast domain creation and management
- Fabricwide VRF creation and management
- Full switch image management including automated software upgrades
- Simplified switch RMA workflow
- Simplified fabric expansion workflow
- Northbound REST API

**Table 1.** Features and Benefits

Feature	Benefit
<b>Self-configured and managed fabric topology</b>	NFM completely builds and manages a full VXLAN-based fabric topology from scratch with a few simple steps. No CLI interaction required.
<b>VXLAN-based topology</b>	Fully automated VXLAN based topology leveraging open Ethernet VPN (EVPN) control plane. Easy creation and management of VXLAN anycast gateways.
<b>Simple point-and-click GUI</b>	Highly intuitive point-and-click GUI with simplified workflows for completing day 0, 1, and 2 fabric management tasks. Two views to work with including a <b>tiles</b> view and a fully actionable topology view.
<b>Fully discovered fabric topology</b>	Full fabric discovery of fabric switches and connected hosts and hypervisors enabled with Cisco® Discovery Protocol (CDP) or Link Layer Discovery Protocol (LLDP).
<b>Fabricwide focus</b>	Managed fabric treated as a single object within system. Sub-objects including switches, switch interfaces, host, broadcast domains, gateways, etc. are aggregated fabricwide for easy sorting, filtering, and applying workflows against.
<b>Port channel and VPC management</b>	Easy workflows for creating host-facing port channels and virtual port channels (vPCs) requiring no CLI interaction.
<b>Broadcast domain creation and management</b>	Simplified creation of fabricwide broadcast domains from both GUI views (tiles and topology). Automation translation of broadcast domain definition to VXLAN configuration. Dynamic VXLAN configuration automatically installed in fabric switches.
<b>VRF creation and management</b>	Simplified creation and management of VRF topologies.
<b>Switch image management</b>	Embedded switch image repository and easy switch image management workflows including switch software upgrades. Switches can be grouped into upgrade groups for sophisticated upgrade procedures.
<b>Switch RMA workflow</b>	Two simple step switch RMA workflow for replacing or upgrading switch hardware. New dynamic configuration automatically built and pushed to new switch.
<b>Fabric expansion workflow</b>	Two simple step fabric expansion including auto-discovery and configuration of new switch based on existing fabric state.
<b>REST API</b>	Well-structured northbound REST API with full 100% feature coverage. GET, PUT, POST, and DELETE methods supported.

## Simplified Fabric Management Using Enhanced Fabric-Aware Engine

Many organizations have achieved highly efficient data center fabric management by automating day-0, day-1, and day-2 management tasks using internally developed tools—an IT approach that some organizations can achieve because of characteristics such as greater scale. However, such automation is out of reach for many IT organizations. The complex management of numerous network protocols and devices within a fabric is a daunting—yet business-critical—challenge for many organizations

Cisco Nexus Fabric Manager is designed to simplify fabric lifecycle management for users requiring an easier option than switch-by-switch, CLI-based approaches. The fabric manager delivers a point-and-click web interface in front of a fabric-aware lifecycle management engine that can build and manage fabric based on simplified user requests.

Cisco Nexus Fabric Manager is delivered as a hardware appliance. After installation, the fabric manager can be used to build and manage fabric based on the Cisco Nexus 9000 Series data center switches in NX-OS standalone mode.

## Platform Support

Table 2 lists the platforms supported by the fabric manager.

**Table 2.** Platforms Supported by Cisco Nexus Fabric Manager

Product Series	Platforms Supported	Cisco IOS <sup>®</sup> Software Images (Feature Sets) Supported
Cisco Nexus 9000 Series Switches	Cisco Nexus 9500, 9300 and 9200 platforms	Cisco NX-OS Software 7.0(3)I2(2a) and later

## Licensing

Cisco Nexus Fabric Manager is licensed per switch. Fabric manager licenses do not differentiate between modular and fixed Cisco Nexus 9000 Series chassis or between spine and leaf switches. Cisco Nexus Fabric Manager licenses will also be included in the Cisco ONE™ Software portfolio in the near future.

## Product Specifications

Table 3 lists the product specifications for Cisco Nexus Fabric Manager.

**Table 3.** Product Specifications

Item	Description
<b>Cisco Nexus Fabric Manager Appliance</b>	The fabric manager hardware appliance is preinstalled with the Cisco Nexus Fabric Manager software
<b>Cisco Nexus Fabric Manager Software License</b>	The fabric manager software is licensed on a per-switch basis. Customers need to purchase a license for each Cisco Nexus 9000 Series Switch being managed

## System Requirements

Cisco Nexus Fabric Manager is packaged on hardware that is optimized for the fabric manager. The fabric manager software is preinstalled on the hardware.

## Ordering Information

Table 4 provides ordering information for Cisco Nexus Fabric Manager.

**Table 4.** Ordering Information

Part Number	Description
<b>NFM-APPL-G1</b>	Cisco Nexus Fabric Manager Appliance
<b>N9K-NFM1K9</b>	Cisco Nexus Fabric Manager license for one Nexus 9000 series switch, configurable option on Nexus 9000 series switch, E-Delivery
<b>N9K-NFM1K9=</b>	Cisco Nexus Fabric Manager license for one Nexus 9000 series switch, Spare, E-delivery

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Customers need to purchase at least one Cisco Nexus Fabric Manager Appliance. Customers also need to purchase a software license for each Cisco Nexus 9000 Series Switch being managed.

### Warranty Information

For more information about Cisco warranties, go to <http://www.cisco.com/go/warranty>.

### Services and Support

Achieve the full business value of your technology investments with smart, personalized services from Cisco and our partners. Backed by deep networking expertise and a broad ecosystem of partners, Cisco Services enable you to successfully plan, build, and run your network as a powerful business platform. Whether you are seeking to quickly seize new opportunities to meet rising customer expectations or improve operational efficiency to lower costs, mitigate risk, or accelerate growth, we have a service that can help you.

### Technical Services

Purchasing Cisco Application Support plus Upgrades (SASU) service provides benefits not available with the warranty, including access to maintenance releases, minor and major upgrades, online resources, and Cisco Technical Assistance Center (TAC) support services. For more information about Cisco Technical Services, go to <http://www.cisco.com/go/ts>.

### Cisco Capital Financing to Help You Achieve Your Objectives

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### For More Information

For more information about the Cisco Nexus Fabric Manager software, visit the product homepage at [www.cisco.com/go/nexusfabricmanager](http://www.cisco.com/go/nexusfabricmanager) or contact your local Cisco account representative or partner.



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