



## **Cisco DCNM Release Notes, Release 11.1(1)**

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# CONTENTS

---

## CHAPTER 1

### Overview 1

Overview of Cisco DCNM 1

---

## CHAPTER 2

### System Requirements 3

System Requirements for Cisco DCNM, Release 11.1(1) 3

Cisco DCNM Supported Scale Parameters 7

---

## CHAPTER 3

### Guidelines and Limitations 9

Guidelines and Limitations 9

---

## CHAPTER 4

### New Features and Enhancements 15

New Features and Enhancements 15

New Features and Enhancements in Cisco DCNM, Release 11.1(1) 15

LAN Fabric Enhancements 15

Core Router and Edge Router Roles 16

Restore Fabric 17

LAN Telemetry 17

Smart License Support 17

Template Enhancements 17

Slow Drain Analysis 17

SAN Insight Enhancements 17

VMM Enhancements 17

Switch Role Change 17

Upgrade from Older Releases 18

Support for New Hardware 18

Supported Switch Version for NFM Migration 18

---

<b>CHAPTER 5</b>	<b>Upgrading Cisco DCNM</b>	<b>19</b>
	Upgrading the Cisco DCNM	19

---

<b>CHAPTER 6</b>	<b>Supported Cisco Platforms and Software Versions</b>	<b>21</b>
	Hardware Supported in Cisco DCNM, Release 11.1(1)	21

---

<b>CHAPTER 7</b>	<b>Supported Hardware</b>	<b>33</b>
	Hardware Supported in Cisco DCNM, Release 11.1(1)	33

---

<b>CHAPTER 8</b>	<b>Caveats</b>	<b>45</b>
	Caveats	45
	Resolved Caveats	45
	Open Caveats	47

---

<b>CHAPTER 9</b>	<b>Related Documentation</b>	<b>49</b>
	Navigating the Cisco DCNM Documentation	49
	Cisco DCNM 11.(1) Documentation Roadmap	49
	Platform-Specific Documents	50
	Documentation Feedback	51
	Communications, Services, and Additional Information	51



# CHAPTER 1

## Overview

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- [Overview of Cisco DCNM, on page 1](#)

## Overview of Cisco DCNM

Cisco Data Center Network Manager (DCNM) is the comprehensive management solution for all NX-OS network deployments spanning LAN fabrics, SAN fabrics, and IP Fabric for Media (IPFM) networking in the data center powered by Cisco. Cisco DCNM 11 automates Cisco Nexus and Cisco MDS Family infrastructure for data center management across Cisco Nexus 1000, 2000, 3000, 5000, 6000, 7000, and 9000 Series Switches in NX-OS mode using Cisco NX-OS Software. Cisco DCNM 11 lets you manage large numbers of devices while providing ready-to-use control, management, and automation capabilities plus Virtual Extensible LAN (VXLAN) control and automation for Cisco Nexus LAN fabrics.

For more information, see <https://www.cisco.com/c/en/us/products/cloud-systems-management/prime-data-center-network-manager/index.html>.

Cisco DCNM Release 11.1(1) manages SAN, LAN, and LAN Fabrics with VXLAN in the Cisco NX-OS driven data center environment. To download the Cisco DCNM software, go to <https://www.cisco.com/c/en/us/support/cloud-systems-management/prime-data-center-network-manager/tsd-products-support-series-home.html> and click **Download Software**.

### Deployment of VXLAN EVPN Fabrics Using Cisco DCNM 11.1(1):

- **Greenfield Deployments:** Applicable for provisioning new VXLAN EVPN fabrics
- **Brownfield Deployments:** Applicable for existing VXLAN EVPN fabrics:
  - NFM\_Fabric fabric template is deprecated.  
Brownfield import of NFM fabrics to DCNM 11.3 using the Easy\_Fabric\_11\_1 fabric template is supported.
  - Migrate CLI configured VXLAN EVPN fabrics to DCNM
- **Upgrades:** Applicable for VXLAN EVPN fabrics created with previous DCNM versions
  - Migrate VXLAN fabrics built with DCNM 10.4.2 using POAP templates for Underlay provisioning and Top-down Overlay provisioning, to DCNM 11.1
  - Migrate VXLAN fabrics built with DCNM 11.0 to DCNM 11.1

This document provides the Release Notes for Cisco DCNM, Release 11.1(1). Use this document with the documents that are listed in the [Related Documentation](#).

**Note**

Release Notes are sometimes updated with new information about restrictions and caveats. To view the most recent version of the Cisco DCNM Release Notes document, see: <https://www.cisco.com/c/en/us/support/cloud-systems-management/prime-data-center-network-manager/products-release-notes-list.html>.

The following table shows the change history for this document.

**Table 1: Change History**

Date	Description
19 December 2018	Published Release Notes for Cisco DCNM Release 11.1(1)



## CHAPTER 2

# System Requirements

This chapter lists the tested and supported hardware and software specifications for Cisco Data Center Network Management (DCNM) server and client architecture. The application is in English locales only. This chapter contains the following section:

- [System Requirements for Cisco DCNM, Release 11.1\(1\), on page 3](#)
- [Cisco DCNM Supported Scale Parameters , on page 7](#)

## System Requirements for Cisco DCNM, Release 11.1(1)



### Note

We recommend that you do not upgrade any underlying third-party software separately. All the necessary software components will be updated during the inline upgrade procedure. Upgrading the components outside of DCNM upgrade will cause performance issues.

### Java Requirements

The Cisco DCNM Server is distributed with JRE 1.8.0\_152 into the following directory:

```
DCNM_root_directory/java/jre1.8
```

### Server Requirements

Cisco DCNM, Release 11.1(1), supports the Cisco DCNM Server on these 64-bit operating systems:

- **SAN Deployments:**
  - Microsoft Windows 2016
  - Microsoft Windows 2012 R2
  - Red Hat Enterprise Linux Release 7.3 and 7.4
- **LAN Fabric and Classic LAN Deployments:**
  - Open Virtual Appliance (OVA) with an integrated CentOS Linux release 7.6.1810 (Core)
  - ISO Virtual Appliance (ISO) with an integrated CentOS Linux release 7.6.1810 (Core)

Cisco DCNM Release 11.1(1) supports the following databases:

- Oracle 11g Express (XE), Standard, and Enterprise Editions, and Oracle 11g Real Application Clusters (RAC)
- Oracle 12c Enterprise Edition (Conventional)—(Nonpluggable installation)



**Note** Cisco DCNM Release 11.1(1) does not support the Oracle 12c pluggable database version installation.

- Oracle 12c RAC (nonpluggable installation)
- PostgreSQL 9.4.5



**Note** The Cisco DCNM database size is not limited, and increases according to the number of nodes and ports that the DCNM manages with Performance Manager Collections enabled. You cannot restrict the database size. If you choose Oracle database, we recommend that you use Oracle SE or Enterprise edition, instead of Oracle XE due to table space limitations.



**Note** You are responsible for all the support that is associated with the Oracle databases, including maintenance, troubleshooting, and recovery. We recommend that you take regular database backups, either daily or weekly, to ensure that all the data is preserved.

Cisco DCNM Release 11.1(1) supports the ISO installation on a bare-metal server (no hypervisor) on the following server platforms:<sup>1</sup>

Server	Product ID (PID)	Recommended minimum memory, drive capacity, and CPU count
Cisco UCS C240M4	UCSC-C240-M4S	24G / 500G 8-vCPU Cores with Cisco hardware RAID Controller [UCSC-MRAID12G-1GB/2 GB] for the RAID operation (small)
Cisco UCS C240M4	UCSC-C240-M4L	32G / 500G 16-vCPU Cores with Cisco hardware RAID Controller [UCSC-MRAID12G- GB/2 GB] for the RAID operation (large)
Cisco UCS C240 M5S	UCSC-C240-M5SX	24G / 500G 8-vCPU Cores with Cisco hardware RAID Controller [UCSC-SAS-M5] for the RAID operation (small)

<sup>1</sup> Install the Cisco DCNM Compute node with 16vCPUs, 64G RAM, and 500GB hard disk. Ensure that you do not install the Compute node on 32G RAM server.



Server	Product ID (PID)	Recommended minimum memory, drive capacity, and CPU count
Cisco UCS C220 M5L	UCSC-C220-M5L	32G / 500G  16-vCPU Cores with Cisco hardware RAID Controller [UCSC-SAS-M5] for the RAID operation (small)



**Note** Cisco DCNM can work on an alternative computing hardware as well, despite Cisco is only testing on Cisco UCS.

Cisco DCNM Release 11.1(1) supports the running of the Cisco DCNM Server on the following hypervisors:

**Table 2: VMware Snapshot Support for DCNM LAN Fabric and DCNM LAN Classic Deployments**

VMware vSphere Hypervisor (ESXi)	6.0	6.5	6.7	6.7 update 1
VMware vCenter Server	6.0	6.5	6.7	6.7 update 1



**Note** Only Warm and Cold VMware snapshot is supported  
vCenter server is mandatory to deploy the Cisco DCNM OVA Installer.

## Server Resource Requirements

**Table 3: Server Resource Requirements**

Deployment	Deployment Type	Small (Lab or POC)	Large (Production)	Compute
SAN	Windows, Linux (standalone or VM)	CPU: 8 vCPUs RAM: 24 GB DISK: 500 GB	<b>Note</b> Standalone functioning of SAN Insights require 28 vCPUs.  RAM: 128 GB RAM(with SAN Insights) or 32 GB (without SAN Insights)  DISK: 10 TB Disk (with SAN Insights) or 500 GB (without SAN Insights)	Not Applicable
IP for Media (IPFM)	<ul style="list-style-type: none"> <li>• OVA</li> <li>• ISO</li> </ul>	CPU: 8 vCPUs RAM: 24 GB DISK: 500 GB	CPU: 16 vCPUs RAM: 32 GB DISK: 500 GB	Not Applicable
LAN Fabric Classic LAN	<ul style="list-style-type: none"> <li>• OVA</li> <li>• ISO</li> </ul>	CPU: 8 vCPUs RAM: 24 GB DISK: 500 GB	CPU: 16 vCPUs RAM: 32 GB DISK: 500 GB	CPU: 16 vCPUs RAM: 64 GB DISK: 500 GB



### Note

- The SAN Insights feature is not supported on small deployment.
- You can use the SAN Insights feature on a medium-sized deployment with 2 TB disk space as well.
- Every Federation node must consists of 3 Large configuration nodes.

## Client Requirements

Cisco DCNM SAN desktop client and Cisco Device Manager support Microsoft Windows 10, Microsoft Windows 2012, and Red Hat Linux. The following table lists the minimum hardware requirements for these client systems.

**Table 4: Client Hardware Requirements**

Hardware	Minimum Requirements
RAM (free)	6 GB or more
CPU speed	3 GHz or faster
Disk space (free)	20 GB

If you install Cisco DCNM on a virtual machine, you must reserve resources equal to the server resource requirements to ensure a baseline with the physical machines.

Some Cisco DCNM features require a license. Before using the licensed features, you must install a Cisco DCNM license for each Nexus-managed or MDS-managed platform. For information about Licensing in DCNM, see [https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/11\\_x/licensing/cisco\\_dcnm\\_licensing\\_guide\\_11\\_x.html](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/11_x/licensing/cisco_dcnm_licensing_guide_11_x.html).

### Supported Web Browsers

Cisco DCNM supports the following web browsers:

- Google Chrome version 71.0.3578.80
- Mozilla Firefox Version 63.0.3 (32/64 bit)
- Microsoft Internet Explorer 11.0.96 update version 11.0.90

### Other Supported Software

The following table lists the other software that is supported by Cisco DCNM, Release 11.1(1).

**Table 5: Other Supported Software**

Component	Features
Security	<ul style="list-style-type: none"><li>• ACS versions 4.0, 5.1, and 5.5</li><li>• Telnet Disabled: SSH Version 1, SSH Version 2, Global Enforce SNMP Privacy Encryption.</li><li>• Web Client and Cisco DCNM-SAN Server Encryption: HTTPS with TLS 1, 1.1 and 1.2</li></ul>
OVA/ISO Installers	CentOS 7.6/Linux Kernel 3.10.x

Also, Cisco DCNM supports call-home events, fabric change events, and events that are forwarded by traps and email.

## Cisco DCNM Supported Scale Parameters

For more information about the Cisco DCNM Supported Scale Parameters, the see the [Cisco DCNM Scalability Guide, Release 11.1\(1\)](#).





## CHAPTER 3

# Guidelines and Limitations

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- [Guidelines and Limitations, on page 9](#)

## Guidelines and Limitations

This section lists guidelines and limitations that are related to the Cisco DCNM Release 11.1(1).

- The icons or fonts on Cisco DCNM GUI may not appear correctly on Microsoft Windows 10 browsers. This problem can occur if your Windows 10 is set to block untrusted fonts or some security or mitigation options. Microsoft's Internet Explorer Browser Support team has provided with the following steps to address this issue.

Configure the *Allow Font Downloads* Internet Explorer Setting on the Internet Zone and Restricted Sites Zone (enabled by default). Perform the following steps:

1. Search for **Group Policy Editor** in Control Panel.
  2. Choose **Computer Configuration > Administrative Templates > Windows Components > Internet Explorer > Internet Control Panel > Security Page > Internet Zone > Allow Font Downloads**.
  3. Double click and choose the **Enabled** radio button.
  4. Click **OK**.
  5. Choose **Computer Configuration > Administrative Templates > Windows Components > Internet Explorer > Internet Control Panel > Security Page > Restricted Sites Zone > Allow Font Downloads**.
  6. Double click and choose the **Enabled** radio button.
  7. Click **OK**.
  8. Restart the computer so that the new setting takes effect.
- You must apply patch for any changes that happen on switch side (Nexus 3000 and/or Nexus 9000), to enable Cisco DCNM to support those features. To apply that patch to your Cisco DCNM Native HA setup, follow the steps below:
    1. Stop the services on the Active node using the `/etc/init.d/FMServer` stop command.
    2. Run **patch.sh** on the Active node.

3. Run **patch.sh** on Standby node.




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**Note** Services are not stopped on Standby node.

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4. Start services on the Active node using the **/etc/init.d/FMServer start** command.
  5. Stop the services on Active node using the **/etc/init.d/FMServer stop** command, and roll back the patch.
  6. Roll back the patch on the Standby node.
  7. Start services on the Active node using **/etc/init.d/FMServer start** command.
- The Cisco DCNM Virtual Machine Manager integration does not display in topology when the PKCS12 certificate is used. The REST API call to the ElasticSearch fails, and hence the Compute visualization feature does not work. This is because ElasticSearch uses the same SSL, and when you create a new self-signed SSL, you have to maintain the same version with ElasticSearch as well. Therefore the issue is with creating a self-signed SSL and then having the old one at /usr/elasticsearch/fmserver.jks. To address this issue, use JKS keystore format and do not use the PKCS12 certificate. Make sure that the same JKS file is copied to both JBoss and ElasticSearch locations.
  - To check the status of the running Postgres database in Native HA setup, use **pg\_ctl** command. Do not use the **systemctl** command.
  - Do not begin the password with Hash (#) symbol. Cisco DCNM considers the password as an encrypted text if it begins with # symbol.
  - **POAP Dynamic Breakout**—From Cisco NX-OS Release 7.0(3)I4(1), POAP dynamically breaks out ports to detect a DHCP server behind one of the broken-out ports. Previously, the DHCP server that is used for POAP was directly connected to a normal cable as the breakout cables were not supported. POAP determines which breakout map (for example, 10gx4, 50gx2, 25gx4, or 10gx2) brings up the link that is connected to the DHCP server. If breakout is not supported on any of the ports, POAP skips the dynamic breakout process. After the breakout loop completes, POAP proceeds with the DHCP discovery phase as normal.  
  
Cisco DCNM leverages the dynamic breakout to simplify the fabric setup by retaining successful breakout configuration. Since dynamic breakout requires the other side of the link to be active, there are circumstances where you must manually breakout interfaces, or may notice breakout in places which are not desired. In those situations, you must adjust the ports on the Interfaces page before performing Save and Deploy in the Fabric Builder.
  - Before using the licensed features, install a Cisco DCNM license for each Nexus-managed platform. For information about licensing, see the [Cisco DCNM Licensing Guide, Release 11.x](#).
  - Depending on how a switch handles the **cdp enable** CLI command (enabled or disabled by default), Cisco DCNM shows this as config difference, although the Save and Deploy operation is performed to correct it. This depends on the default behavior of the switch image (that is, whether the **show running-config** shows the CLI or not). To address this issue, the respective policy template that is applied on the interfaces must be updated, so that the CLI is ignored during the configuration compliance check.
  - Create a free-form configuration on all the white box switches that are managed by Cisco DCNM as shown below, and deploy them on all the switches before the final Save and Deploy operation.

```
line console
speed 115200
stopbits 2
```

This is only applicable to the Cisco DCNM LAN Fabric mode.

- On Microsoft Windows 2016 Standard server, run the Cisco DCNM installation EXE file as an administrator. Cisco DCNM installation will not start on Microsoft Windows 2016 Standard server unless you set the EXE file as an administrator. To start the installation EXE file, you can right-click on the EXE file, and choose **Run as administrator**.
- When the Cisco Nexus 9000v Virtual Switches are cloned, they may use the same serial number. Since Cisco DCNM discovers them using the same serial number, the device discovery operation fails.
- Addition of FEX or breakout of interfaces is not supported in External Fabrics.
- You cannot access the Cisco DCNM Web UI, when the user system is configured with the same IP address range as that of internal subnet used by the Application Framework in DCNM. For more information, see *Cisco DCNM Troubleshooting Guide*.
- The VXLAN OAM feature in Cisco DCNM is only supported on a single fabric or site.
- You cannot configure ICAM on the Cisco Nexus 9000 Series Switches Release 7.0(3)I7(6), and therefore, the telemetry will fail until the switch issue is resolved.
- Though you can delete PMN hosts, we recommended that you use this option with extreme caution, understanding that manual effort is needed to bring the solution back in sync.
- Cisco DCNM in Media Controller Deployment Release 11.x does not support non-default VRFs for Cisco Nexus 9000 Release 9.3(x).
- From Cisco DCNM Release 11.2(1), the Device Connector allows you to change the access mode via the Web UI at **Administration > DCNM Server > Device Connector > Settings > General**. The Cisco Intersight will not configure its device connector, and therefore, the Read-Only and Allow Control access mode in the Device Connector are not operational.
- Cisco DCNM does not support hot snapshots. While taking snapshots, we recommend that you power off the VM. Otherwise, ensure that you uncheck the **Snapshot the virtual machine's memory** option.
- Cisco DCNM does not support suspending or unsuspending of the VMs.
- Do not install NIR on standalone DCNM
- If NIR was installed and stopped, it does not stop service containers running on DCNM compute nodes.  
If the NIR application is deleted from DCNM, a few service containers continues to run DCNM compute nodes and must be stopped manually using **afw service** commands.
- When DCNM Tracker is enabled, the NIR LAN Telemetry feature in Managed mode and the EPL feature with the **Configure my Fabric** option selected, will not work. As a workaround, disable the DCNM tracker on the switches that are configured during the EPL or NIR LAN Telemetry configuration. For EPL, disable the DCNM tracker on the Spines/Route Reflectors (both RR1 and RR2). For NIR LAN Telemetry, disable the DCNM tracker on all the switches selected for telemetry configuration.
- The DCNM installer creates a `_deviceImage-0.iso` in the DCNM VM folder and mounts the ISO permanently to the VM. If this ISO is removed or the CD/DVD is disconnected, the VM will not boot. The VM will enter Emergency Mode and prompt you with the message: Give root password for maintenance. If the VM is down, CD/DVD drive can be disconnected. However, after you power it up again, the VM will enter Emergency Mode and provide a prompt.

- For leaf-leaf ports in non-VPC cases, DCNM will always push the **shutdown** command. If you want to bring up the port, add the **no cdp enable** command to the interface freeform policy on one of the ports.
- Two-factor authentication is not supported in DCNM.
- In Cisco DCNM SAN deployment, if the DCNM server streaming the SAN analytics is over-utilized, the Elasticsearch database service goes down. This results in performance issues. The Pipeline service may be consuming all the CPU and system resources on the Cisco DCNM server. To troubleshoot this, do the following task:
  1. Stop the Pipeline service.
  2. Reduce the streaming load from the MDS fabric.
  3. Start Elasticsearch service.
  4. Start the Pipeline service.
- In Cisco DCNM SAN deployment, when you enable or disable alarms on a Primary node, it will not be applied to all the nodes in the Federation. You must manually enable or disable alarms on all nodes on all servers in the Federation setup. You must restart the DCNM Server to apply the changes.
- In Cisco DCNM SAN deployment, when you add or delete alarm policies on a Primary node, it will not be applied to all the nodes in the Federation. You must restart all the DCNM servers to apply this change on all servers in the Federation setup.
- In Cisco DCNM SAN deployment, when you modify the server properties on Cisco DCNM **Web UI > Administration > DCNM Server > Server Properties** on a Primary node, it will not be applied to all the nodes in the Federation. You must manually make the changes to the server properties on all nodes on all servers in the Federation setup. You must restart the DCNM Server to apply the changes.
- SAN Insights is not recommended on Windows Deployments, and is no longer supported from Release 11.3(1).
- SAN Insights is best supported on Linux from Release 11.0(1), and on Cisco DCNM OVA/ISO deployments from Release 11.3(1).
- From Cisco DCNM Release 11.3(1), you cannot download the SAN Client package from the Software Downloads page. You must install Cisco DCNM, launch Web UI to download the SAN Client and Device Manager. For more information, [Cisco DCNM Installation and Upgrade Guide for SAN Deployment](#).
- We recommend that you do not upgrade any underlying third-party software separately. All the necessary software components will be DCNM upgrade will cause performance issues.

Certain commands must not be executed on Cisco DCNM, as they may harm the functionality of various components on the network. The following table shows the commands and specifies the reason why they must not be executed.



*Table 6: List of Commands that must not be executed on Cisco DCNM*

Command	Reason
<b>systemctl restart network</b>	<p>This is a common Linux command that the network administrators use when editing the interface properties. The command has shown to render the DCNM useless when converting to the cluster mode.</p> <p>Use the equivalent <b>appmgr</b> commands for changing any IP addresses for eth0, eth1, or eth2 interfaces.</p>





## CHAPTER 4

# New Features and Enhancements

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- [New Features and Enhancements, on page 15](#)

## New Features and Enhancements

Cisco Data Center Network Manager (DCNM) includes the new features, enhancements, and hardware support that are described in the following section:

### New Features and Enhancements in Cisco DCNM, Release 11.1(1)

This section includes information about the new features, enhancements, and hardware support for Cisco DCNM, Release 11.1(1).

#### LAN Fabric Enhancements

##### **Fabric Builder, fabric devices and fabric underlay networks**

- Configuration Compliance function is enhanced to display side-by-side configuration of existing and pending configuration before deployment.
- The Save and Deploy function is added to the MSD screens.
- Upto 4 Route Reflectors are supported for BGP traffic in the VXLAN fabric.
- BIDIR-PIM is supported on Cisco's Cloud Scale Family platforms 9300-EX and 9300-FX/FX2, and software release 9.2(1) onwards.
- Changing network traffic replication mode between multicast and Ingress replication methods is possible, if no overlay profile exists for the fabric.
- Spine, Border-Spine and BGW-Spine roles are added for fabric switches.
- External IP Address Management (IPAM) support is added.
- Now Cisco Nexus 3600 is supported as a leaf, spine, or border device in the VXLAN BGP EVPN Fabric. The minimum NX-OS software version required for this functionality is 9.2(1).
- Support is added for adding and viewing policies for multiple devices.
- vPC support is added to BGWs in MSD and standalone fabrics.

### Brownfield Migration

- Transitioning an existing VXLAN fabric management to DCNM is supported. For more information, see the [Brownfield Deployment—Transitioning VXLAN Fabric Management to DCNM](#).

### Topology improvements

- Enhancements are made to topology views. The MSD fabric displays member fabrics and how they are connected. The fabrics are demarcated by boundaries and labelled for identification.

### Interfaces

- Add and edit port channel, vPC, subinterface, and loopback interfaces for external fabric devices.
- Cisco DCNM 11.1(1) specific template enhancements are made for interfaces.

### Overlay Network/VRF provisioning

- Network and VRF settings can be edited after creation.
- Support is added to export network and VRF information to a .CSV file. Also, new networks can be added in a .CSV file and imported to DCNM, thereby creating new networks.
- Networks and VRFs deployment can be done at the MSD level.

### IFCs

- Intra-fabric links can be added in a VXLAN fabric, in addition to inter-fabric links.
- Addition of IFCs function is moved to the fabric topology screen within the Fabric Builder, in a tabular screen. This is applicable for MSD and standalone fabrics.

### External Fabric

- Switches can be added to the external fabric. Inter-Fabric Connections (IFCs) can be created to/from an external fabric border switch. Policy templates are provided for provisioning external fabric switches.
- Cisco 9000, 7000 and 5600 Series switches can be added as destination switches in the external fabric.
- An external fabric can be moved under and depicted in an MSD fabric.
- A neighbor switch can be moved to an external fabric.
- Edge Router and Core Router roles are added to external fabric devices.

The Multi Site Manager function is available for the LAN Fabric DCNM deployment. Using Multi Site Manager, the health of a Cisco DCNM server application can be viewed and switch information for switches in local and remote sites retrieved.

EPL uses Elasticsearch release 5.6.7 and Kibana release 5.6.7. With this update, EPL interfaces with the existing AFW Elasticsearch.

## Core Router and Edge Router Roles

Starting from DCNM 11.1(1), use the Core Router role to set up a multisite eBGP underlay from a Border Gateway device to a Core Router and use the Edge Router role to set up a VRF-lite Inter-Fabric Connection (IFC) from a Border device to an Edge device. The Core Router and Edge Router roles are available only in the External\_Fabric template.

## Restore Fabric

Cisco DCNM 11.1(1) supports fabric-level backup and restore in the Easy Fabric deployment. However, you can restore the settings only after enabling the backup for the fabric.

## LAN Telemetry

Cisco DCNM 11.1(1) provides a preview functionality of DCNM LAN telemetry, where you will be able to see information about BGP, OSPF, ISIS sessions, environmental data, transceiver, VPC, interface, VRF/VLAN/VNI along with anomaly detection etc. available via streaming telemetry.

## Smart License Support

From Cisco DCNM Release 11.1(1), you can use Smart License feature to manage the licenses at device-level and renew them if required. Choose **Administration > DCNM Server > License > Smart License** in Cisco DCNM user interface to view this feature. Using this feature, you can enable, disable, and renew authorization. To use this feature, you need a smart account. For more information about this feature, see the Cisco DCNM licensing guide.

Cisco DCNM 11.1(1) supports site registration and capable to assign smart/server based DCNM license.

For a more detailed overview on Cisco Licensing, go to [cisco.com/go/licensingguide](https://cisco.com/go/licensingguide).

## Template Enhancements

You can customize the template content using Template Content Editor. You can also select a theme, editor mode, and the font size through **Template Editor Setting**.

## Slow Drain Analysis

You can visualize the slow drain of switches and links as topologies when you view the slow drain results for a selected fabric. This helps in locating the device with issues and the slow drain source.

## SAN Insight Enhancements

In this release the SAN Insights functionality has been enhanced to provide capability to configure San Insight in port sampling mode, improve web client chart data load performance.

## VMM Enhancements

- You can select the columns to display in the VM list table (**Topology > VM List**). If you select additional columns, you need to click the resync button to see the updated values. The following new columns are added in VM List table, and the columns are selectable:

IP Addresses , Mac Address, Resource Pool, Cluster, Data Center, VCenter

## Switch Role Change

Starting from DCNM 11.1(1), you can change switch roles if there are no overlays on the switches. The updated configuration is generated after save and deploy.

## Upgrade from Older Releases

Cisco DCNM 11.1(1) allows you to upgrade from the older releases of Cisco DCNM to Cisco DCNM 11.1(1). For the complete list of the Cisco DCNM releases that you upgrade, see the [Cisco DCNM Install and Upgrade Guides](#).

## Support for New Hardware

The following is a list of new hardware supported in Cisco DCNM Release 11.1(1).

**Table 7: Cisco Nexus 3000 and Nexus 9000 Hardware**

Product/Component	Part Number
32P 40/100G QSFP28, 2P 1/10G SFP	N9K-C9332C
1RU 32 Port QSFP28 10/25/40/50/100 Gbps	N3K-C3132C-Z
1 RU 48 x SFP+/SFP28 and 6 x QSFP+/QSFP28	N3K-C34180YC
1 RU 48x1/10GT + 6x40G/100G Ethernet Ports	N9K-C93180TC-FX
Cisco Nexus 7700 F4 40G Line card	Cisco Nexus 7700 F4 40G Line card

**Table 8: White Box Switches**

Product/Component
Seastone DX010—36x40/100G QSFP28 Ethernet Module
Celestica Redstone TOR—D2062—48x10G and 6x40G Ethernet Module
Edgecore—7312-54X-O-AC-B

## Supported Switch Version for NFM Migration

- The NFM Fabric Template has been deprecated in this release.
- New NFM > DCNM migrations are supported through the Brownfield Deployments.
- Existing fabrics using the NFM Fabric Template in Cisco DCNM 11.0(1) will be supported with the same level of functionality in Cisco DCNM 11.1(1) after the upgrade.
- Existing NFM fabrics in Cisco DCNM 10.4(2) will be supported with the Easy Fabric Template in DCNM 11.1 after the upgrade.

For information about the supported switch version for NFM migration, see the [Cisco DCNM Compatibility Matrix, Release 11.1\(1\)](#).

## Support for Cisco NX-OS Release 8.3(2)

Cisco DCNM 11.1(1) supports Cisco NX-OS Release 8.3(2). For more information about the supported software versions, see the [Cisco DCNM Compatibility Matrix, Release 11.1\(1\)](#).



## CHAPTER 5

# Upgrading Cisco DCNM

This chapter provides information about upgrading Cisco DCNM, and contains the following section:

- [Upgrading the Cisco DCNM, on page 19](#)

## Upgrading the Cisco DCNM

Before Cisco DCNM Release 11.0(1), DCNM OVA, and ISO supported SAN functionality. From Cisco DCNM 11.0(1), OVA, and ISO does not ship with SAN support.

For Cisco DCNM SAN Management, you can upgrade to Release 11.1(1) only from DCNM Release 10.4(1), 10.4(2), and 11.0(1).



### Note

Upgrade support from Cisco DCNM Release 10.4(1) is only for Windows/Linux.

The following table summarizes the type of upgrade that you must follow to upgrade to Release 11.1(1) .

**Table 9: Type of Upgrade**

Current Release Number	Upgrade type to upgrade to Release 11.1(1)
11.0(1)	Inline Upgrade
10.4(2)	Upgrade using the DCNMUpgradeTool

The following table summarizes the upgrade options for Cisco DCNM Release 11.1(1) .

Table 10: Upgrade Paths

DCNM 10.4(2) Installation Option	DCNM 11.1(1) equivalent Deployment Option	Is SAN configured in 10.4(2)?	Is Bottom Up configured in 10.4(2)?	Is Top Down configured in 10.4(2)?	Can you Upgrade to DCNM 11.1(1)?
VXLAN	LAN Fabric	Not applicable	Not applicable	Not applicable	Yes
LAN, SAN, Auto-Config		Yes	Not relevant	Not relevant	No
		No	Yes	Not relevant	No
		No	No	Not relevant	Yes
LAN, SAN, Auto-Config	Classic LAN	Yes	Not relevant	Not relevant	No
		No	Yes	Not relevant	No
		No	No	Yes	No
		No	No	No	Yes
Not applicable	Media Controller	Not applicable	Not applicable	Not applicable	Old database cannot be migrated to 11.0(1)  Release 11.0(1) can be upgraded to Release 11.1(1) using inline upgrade





## CHAPTER 6

# Supported Cisco Platforms and Software Versions

- [Hardware Supported in Cisco DCNM, Release 11.1\(1\), on page 21](#)

## Hardware Supported in Cisco DCNM, Release 11.1(1)

In LAN Fabric installation of Cisco DCNM 11.1(1), the Cisco Nexus 9000 and Nexus 3000 switches are supported for easy VXLAN EVPN fabric provisioning. The specific Cisco Nexus 3000 models supported are:

- Cisco Nexus 3636C-R
- Cisco Nexus C36180YC-R



### Note

In DCNM LAN Classic mode, all Nexus switches are supported.

The following tables list the products and components supported in Cisco DCNM, Release 11.1(1).

**Table 11: Cisco MDS 9000 Family**

Product/Component	Part Number
Cisco MDS 9396T 32-Gbps 96-Port Fibre Channel Switch	DS-C9396T-K9
Cisco MDS 9148T 32-Gbps 48-Port Fibre Channel Switch	DS-C9148T-K9
Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module	DS-X9648-1536K9
Cisco MDS 9250i Multilayer Fabric Switch	DS-9250I-K9
Cisco MDS 9124 24-Port Multilayer Fabric Switch	DS-C9124-K9
Cisco MDS 9134 34-Port Multilayer Fabric Switch	DS-C9134-K9
Cisco MDS 9148 48-Port Multilayer Fabric Switch	DS-C9148-K9

Product/Component	Part Number
Cisco MDS 9148 48-Port Multilayer Fabric Switch	DS-C9148S-K9
Cisco MDS 9216i Multilayer Fabric Switch	DS-C9216i-K9
Cisco MDS 9222i Multilayer Fabric Switch	DS-C9222i-K9
Cisco MDS 9506 Multilayer Director	DS-C9506
Cisco MDS 9509 Multilayer Director	DS-C9509
Cisco MDS 9513 Multilayer Director	DS-C9513
Cisco MDS 9706 Multilayer Director	DS-C9706
Cisco MDS 9710 Multilayer Director	DS-C9710
Cisco MDS 9718 Multilayer Director	DS-C9718
Cisco MDS 9000 32-Port 2-Gbps Fibre Channel Switching Module	DS-X9032
Cisco MDS 9000 32-Port Storage Services Module	DS-X9032-SSM
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 24-port 4-Gbps Fibre Channel Switching Module	DS-X9124
Cisco MDS 9000 48-port 4-Gbps Fibre Channel Switching Module	DS-X9148
Cisco MDS 9000 24-Port 8-Gbps Fibre Channel Switching Module	DS-X9224-96K9
Cisco MDS 9000 32-port 8-Gbps Advanced Fibre Channel Switching Module	DS-X9232-256K9
Cisco MDS 9000 48-port 8-Gbps Advanced Fibre Channel Switching Module	DS-X9248-256K9
Cisco MDS 9000 4/44-Port Host-Optimized 8-Gbps Fibre Channel Switching Module	DS-X9248-48K9
Cisco MDS 9000 48-Port 8-Gbps Fibre Channel Switching Module	DS-X9248-96K9
Cisco MDS 9000 Family 14-Port Fibre Channel and 2-port Gigabit Ethernet Module	DS-X9302-14K9
Cisco MDS 9000 18/4-Port Multiservice Module (MSM-18/4)	DS-X9304-18K9
Cisco MDS 9000 4-port 1-Gbps IP Storage Module	DS-X9304-SMIP

Product/Component	Part Number
Cisco MDS 9000 8-port 1-Gbps IP Storage Module	DS-X9308-SMIP
Cisco MDS 9000 Family 16-Port Storage Services Node (SSN-16)	DS-X9316-SSNK9
Cisco MDS 9000 Family 24/10 SAN Extension Module	DS-X9334-K9
Cisco MDS 9000 48-port 16-Gbps Fibre Channel Switching Module with SFP LC connectors	DS-X9448-768K9
Cisco MDS 9500 Series Supervisor-1 Module	DS-X9530-SF1-K9
Cisco MDS 9500 Series Supervisor-2 Module	DS-X9530-SF2-K9
Cisco MDS 9500 Series Supervisor-2A Module	DS-X9530-SF2A-K9
Cisco MDS 9000 Family 4-Port 10-Gbps Fibre Channel Switching Module	DS-X9704
Cisco MDS 9000 8-port 10-Gbps Fibre Channel over Ethernet (FCoE) Module	DS-X9708-K9
Cisco MDS 48-Port 10-Gigabit Fibre Channel over Ethernet (FCoE) Module with SFP LC connectors	DS-X9848-480K9
Cisco MDS 9132U 1RU Switch 32x32G-FC	DS-C9132U

Table 12: Cisco Nexus 9000 Series Switches

Product/Component	Part Number
<b>Cisco Nexus 9000 Series Switches</b>	
32P 40/100G QSFP28, 2P 1/10G SFP	N9K-C9332C
1 RU 48x1/10GT + 6x40G/100G Ethernet Ports	N9K-C93180TC-FX
Cisco Nexus 7700 F4 40G Line card	Cisco Nexus 7700 F4 40G Line card
Cisco Nexus 9336C-FX2, 1-RU, fixed-port switch	N9K-C9336C-FX2
Cisco Nexus 9000 Fixed with 48p 1/10G/25G SFP and 12p 40G/100G QSFP28	N9K-C93240YC-FX2
32-port 100Gigabit EthernetQuad Small Form-Factor Pluggable 28 (QSFP28) line card	N9K-X9732C-FX
48-port 1 and 10GBASE-T plus 4-port 40/100Gigabit Ethernet QSFP 28 line card	N9K-X9788TC-FX
FabricModule for Nexus 9516 chassis 100G support (100G/flow), NX-OS and ACI Spine	N9K-C9516-FM-E2
FabricModule for Nexus 9504 R-Series LC, NX-OS only	N9K-C9504-FM-R

Product/Component	Part Number
Fretta 48p 1/10/25G + 4p 100G Line card	N9K-X96160YC-R
100-Gigabit N9K-C9508-FM-E2 Fabric Module	N9K-C9508-FM-E2
48P 1/10/25G + 6x100G QSFP28 1RU	N3K-C36180YC-R
36 40/100G Ethernet module for Nexus 9500 Series	N9K-X9736C-FX
64x100G QSFP28 + 2x10GSFP 1RU	N9K-C9364C
36x100G Ethernet module for Nexus 9000 Series	N9K-X9636C-RX
1RU TOR, fixed module 48 100/1000Mbps + 4 25G SFP28 + 2 100G QSFP28	N9K-C9348GC-FXP
1RU TOR, fixed module 48 10/25G SFP28 + 6 40/100G QSFP28	N9K-C93180YC-FX
1RU TOR, fixed module for Nexus 9300 Series 6 40G/100G QSFP28 + 48 10G BASE-T	N9K-C93108TC-FX
Broadwell CPU based Supervisor module for Nexus 9400 Series	N9K-SUPA-PLUS
Broadwell CPU based Supervisor module for Nexus 9400 Series	N9K-SUPB-PLUS
Nexus 9K Fixed with 48p 10G BASE-T and 6p 40G/100G QSFP28	N9K-C93108TC-EX
N9K-C92300YC-Fixed Module	N9K-C92300YC
48-port 1/10/25 Gigabit Ethernet SFP+ and 4-port 40/100 Gigabit Ethernet QSFP Line Card	N9K-X97160YC-EX
Nexus N9K-C9232C Series fixed module with 32x40G/100G	N9K-C9232C
Nexus 9K Fixed with 48p 1/10G/25G SFP+ and 6p 40G/100G QSFP28	N9K-C93180YC-EX
<b>Cisco Nexus 9000 Series 40GE Modules</b>	
N9K 32p 40G Ethernet Module	N9K-X9432PQ
36p 40G Ethernet Module	N9K-X9636PQ
<b>Cisco Nexus 9000 Series 10GE Fiber and Copper Modules</b>	
8-port 100-Gigabit CFP2 I/O module	N9K-X9408PC-CFP2
100 Gigabit Ethernet uplink ports	N9K-M4PC-CFP2
Cisco Nexus 9500 Line Card support	N9K-X9564PX
N9K 48x1/10G-T 4x40G Ethernet Module	N9K-X9464PX

Product/Component	Part Number
Cisco Nexus 9500 Line Card support	N9K-X9564TX
N9K 48x1/10G SFP+ 4x40G Ethernet Module	N9K-X9464TX
<b>Cisco Nexus 9000 Series GEM Module</b>	
N9K 40G Ethernet Expansion Module	N9K-M12PQ
N9K 40G Ethernet Expansion Module	N9K-M6PQ
<b>Cisco Nexus 9200 Switches</b>	
Nexus 92160YC-X with High performance 1RU box, 48 1/10/25-Gb host ports	N9K-C92160YC-X
Nexus 9272Q with High-performance, 72-port/40-Gb fixed switching 2RU box, 5.76 Tbps of bandwidth	N9K-C9272Q
Nexus 9200 with 56p 40G QSFP+ and 8p 100G QSFP28	N9K-C92304QC
Nexus 9200 with 36p 40G 100G QSFP28	N9K-C9236C
Nexus 9200 with 48p 1/10G/25G SFP+ and 6p 40G QSFP or 4p 100G QSFP28	N9K-C92160YC-X
Nexus 9200 with 72p 40G QSFP+	N9K-C9272Q
<b>Cisco Nexus 9300 Fixed Switches</b>	
Nexus 9300 with 24p 40/50G QSFP+ and 6p 40G/100G QSFP28	N9K-C93180LC-EX
9372-PXE - 48 1/10-Gbps (SFP+) ports and 6 Quad SFP+ (QSFP+) uplink port, 1 RU box	N9K-C9372PX-E
Cisco Nexus 9396PX Switch	N9K-C9396PX
Cisco Nexus 9396TX Switch	N9K-C9396TX
Cisco Nexus 9372PX Switch	N9K-C9372TX
Cisco Nexus 9372PX Switch	N9K-C9372TX
Cisco Nexus 9372TX Switch	N9K-C9372TX
Cisco Nexus 9372TX Switch	N9K-C9372PX
Cisco Nexus 9332PQ Switch	N9K-C9332PQ
Cisco Nexus 93128TX Switch	N9K-C93128TX
Nexus 9300 with 48p 1/10G-T and 6p 40G QSFP+	N9K-C9372TX-E
<b>Cisco Nexus 9500 Modular Chassis</b>	
New fabric module for the Cisco Nexus 9516 Switch chassis	N9K-C9516-FM-E

Product/Component	Part Number
40/100G Ethernet Module for Nexus 9500 Series chassis	N9K-X9736C-EX
Cisco Nexus 9504 Switch	N9K-C9504
Cisco Nexus 9508 Switch	N9K-C9508
Cisco Nexus 9516 Switch	N9K-C9516
Nexus 9500 linecard, 32p 100G QSFP aggregation linecard	N9K-X9732C-EX
Nexus 9500 linecard, 32p 100G QSFP28 aggregation linecard (Line rate >250 Bytes)	N9K-X9432C-S
<b>Cisco Nexus 9500 Fabric Modules</b>	
Fabric Module for Nexus 9504 with 100G support, NX-OS and ACI spine	N9K-C9504-FM-E
Fabric Module for Nexus 9504 with 100G support, NX-OS only	N9K-C9504-FM-S
Fabric Module for Nexus 9508 chassis 100G support, NX-OS and ACI spine	N9K-C9508-FM-E
Fabric Module for Nexus 9508 chassis 100G support, NX-OS only	N9K-C9508-FM-S

Table 13: Cisco Nexus 7000 Series Switches

Product/Component	Part Number
<b>Supported Chassis</b>	
Cisco Nexus 7004 chassis	N7K-C7004
Cisco Nexus 7706 chassis	N77-C7706-FAB2
Cisco Nexus 7009 chassis	N7K-C7009
Cisco Nexus 7010 chassis	N7K-C7010
Cisco Nexus 7018 chassis	N7K-C7018
Cisco Nexus 7710 chassis	N7K-C7710
Cisco Nexus 7718 chassis	N7K-C7718
Fabric module, Cisco Nexus 7009 chassis	N7K-C7009-FAB-2
Fabric module, Cisco Nexus 7010 chassis	N7K-C7010-FAB-1
Fabric module, Cisco Nexus 7010 chassis	N7K-C7010-FAB-2
Fabric module, Cisco Nexus 7018 chassis	N7K-C7018-FAB-1
Fabric module, Cisco Nexus 7018 chassis	N7K-C7018-FAB-2

Product/Component	Part Number
Fabric module, Cisco Nexus 7710 chassis	N77-C7710-FAB-1
Fabric module, Cisco Nexus 7710 chassis	N77-C7710-FAB-2
Fabric module, Cisco Nexus 7718 chassis	N77-C7718-FAB-2
<b>Supported Supervisor</b>	
Cisco Nexus 7000 Supervisor 1 Module	N7K-SUP1
Cisco Nexus 7000 Supervisor 2 Module	N7K-SUP2
Cisco Nexus 7000 Supervisor 2 Enhanced Module	N7K-SUP2E
Cisco Nexus 7700 Supervisor 2 Enhanced Module	N77-SUP2E
Cisco Nexus 7700 Supervisor 3	N77-SUP3E
<b>Supported F Line Cards</b>	
Cisco Nexus 7700 Fabric module 3	N77-C7706-FAB-3, N77-C7710-FAB-3
LC,N77, FANGIO CB100, 30PT,40GE, zQFSP+	N77-F430CQ-36
32-port 1/10 Gigabit Ethernet SFP+ I/O Module	N7K-F132XP-15
48-port 1/10 Gigabit Ethernet SFP+ I/O Module (F2 Series)	N7K-F248XP-25
48-port 1/10 Gigabit Ethernet SFP+ I/O Module (Enhanced F2 Series)	N7K-F248XP-25E
48-port 1/10 GBase-T RJ45 Module (Enhanced F2-Series)	N7K-F248XT-25E
Cisco Nexus 7700 Enhanced 48-port 1/10 Gigabit Ethernet SFP+ I/O Module (F2 Series)	N77-F248XP-23E
Cisco Nexus 7000 1 F3 100G	N7K-F306CK-25
Cisco Nexus 7000 F3-Series 6-Port 100G Ethernet Module	N7K-F306CK-25
Cisco Nexus 7000 F3-Series 12-Port 40G Ethernet Module	N7K-F312FQ-25
Cisco Nexus 7700 F3-Series 24-Port 40G Ethernet Module	N77-F324FQ-25
Cisco Nexus 7700 F3-Series 48-Port Fiber 1 and 10G Ethernet Module	N77-F348XP-23
Nexus 7000 F3-Series 48-Port Fiber 1 and 10G Ethernet Module	N7K-F348XP-25
<b>Supported M Line Cards</b>	
8-port 10-Gigabit Ethernet Module with XL Option (requires X2)	N7K-M108X2-12L

Product/Component	Part Number
32-port 10-Gigabit Ethernet SFP+ I/O Module	N7K-M132XP-12
32-port 10-Gigabit Ethernet SFP+ I/O Module with XL Option	N7K-M132XP-12L
48-port 10/100/1000 Ethernet I/O Module	N7K-M148GT-11
48-port 1-Gigabit Ethernet SFP I/O Module	N7K-M148GS-11
48-port 1-Gigabit Ethernet Module with XL Option	N7K-M148GS-11L
2-port 100-Gigabit Ethernet I/O Module with XL Option	N7K-M202CF-22L
6-port 40-Gigabit Ethernet I/O Module with XL Option	N7K-M206FQ-23L
24-port 10-Gigabit Ethernet I/O Module with XL Option	N7K-M224XP-23L
Network Analysis Module NAM-NX1	N7K-SM-NAM-K9

Table 14: Cisco Nexus 6000 Series Switches

Product/Component	Part Number
N6004X/5696 chassis	N5K-C5696Q
<b>Note</b> This has been rebranded as Cisco Nexus 5000 Series Switches Chassis	
Cisco Nexus 6001-64T Switch	N6K-C6001-64T
Cisco Nexus 6001-64P Switch	N6K-C6001-64P
Cisco Nexus 6004 EF Switch	N6K-C6004
Cisco Nexus 6004 module 12Q 40-Gigabit Ethernet Linecard Expansion Module/FCoE, spare	N6004X-M12Q
Cisco Nexus 6004 M20UP LEM	N6004X-M20UP
Cisco Nexus 6004P-96Q Switch	N6K-6004-96Q

Table 15: Cisco Nexus 5000 Series Switches

Product/Component	Part Number
Cisco Nexus 5648Q Switch is a 2RU switch, 24 fixed 40-Gbps QSFP+ ports and 24 additional 40-Gbps QSFP+ ports	N5K-C5648Q
Cisco Nexus 5624Q Switch 1 RU, -12 fixed 40-Gbps QSFP+ ports and 12 X 40-Gbps QSFP+ ports expansion module	N5K-C5624Q
20 port UP LEM	N5696-M20UP



Product/Component	Part Number
12 port 40G LEM	N5696-M12Q
4 port 100G LEM	N5696-M4C
N5000 1000 Series Module 6-port 10GE	N5K-M1600(=)
N5000 1000 Series Module 4x10GE 4xFC 4/2/1G	N5K-M1404=
N5000 1000 Series Module 8-port 4/2/1G	N5K-M1008=
N5000 1000 Series Module 6-port 8/4/2G	N5K-M1060=
Cisco Nexus 56128P Switch	N5K-C56128P
Cisco Nexus 5010 chassis	N5K-C5010P-BF
Cisco Nexus 5020 chassis	N5K-C5020P-BF N5K-C5020P-BF-XL
Cisco Nexus 5548P Switch	N5K-C5548P-FA
Cisco Nexus 5548UP Switch	N5K-C5548UP-FA
Cisco Nexus 5672UP Switch	N5K-C5672UP
Cisco Nexus 5596T Switch	N5K-C5596T-FA
Cisco Nexus 5596UP Switch	N5K-C5596UP-FA
Cisco Nexus 0296-UPT chassis and GEM N55-M12T support	N5K-C5596T-FA-SUP
16-port Universal GEM, Cisco Nexus 5500	N5K-M16UP
Version 2, Layer 3 daughter card	N55-D160L3-V2

Table 16: Cisco Nexus 4000 Series Switches

Product/Component	Part Number
Cisco Nexus 4001I Switch Module	N4K-4001I-XPX
Cisco Nexus 4005I Switch Module	N4K-4005I-XPX

Table 17: Cisco Nexus 3000 Series Switches

Product/Component	Part Number
1 RU 48 x SFP+/SFP28 and 6 x QSFP+/QSFP28	N3K-C34180YC
1RU 32 Port QSFP28 10/25/40/50/100 Gbps	N3K-C3132C-Z
Nexus 3548-XL Switch, 48 SFP+	N3K-C3548P-XL
Nexus 3264C-E switch with 64 QSFP28	N3K-C3264C-E
Cisco Nexus 3132Q Switch	N3K-C3132C-Z

Product/Component	Part Number
Cisco Nexus 3132Q-V Switch	N3K-C3132Q-V
Nexus 34180YC programmable switch, 48 10/25G SFP and 6 40/100G QSFP28 ports	N3K-C34180YC
Cisco Nexus 3016 Switch	N3K-C3016Q-40GE
Cisco Nexus 3048 Switch	N3K-C3048TP-1GE
Cisco Nexus 3064-E Switch	N3K-C3064PQ-10GE
Cisco Nexus 3064-X Switch	N3K-C3064PQ-10GX
Cisco Nexus 3064-T Switch	N3K-C3064TQ-10GT
Nexus 31108PC-V, 48 SFP+ and 6 QSFP28 ports	N3K-C31108PC-V
Nexus 31108TC-V, 48 10GBase-T RJ-45 and 6 QSFP28 ports	N3K-C31108TC-V
Cisco Nexus 3132Q Switch	N3K-C3132Q-40GE
Nexus 3132 Chassis	N3K-C3132Q-40GX
Cisco Nexus 3172PQ Switch	N3K-C3172PQ-10GE
Cisco Nexus 3548 Switch	N3K-C3548P-10G
Cisco Nexus 3636C-R Switch	N3K-C3636C-R

Table 18: Cisco Nexus 2000 Series Fabric Extenders

Product/Component	Part Number
Nexus 2348 Chassis	N2K-C2348TQ-10GE
Cisco Nexus 2348UPQ 10GE 48 x 1/10 Gigabit Ethernet and unified port host interfaces (SFP+) and up to 6 QSFP+ 10/40 Gigabit Ethernet fabric interfaces	N2K-C2348UPQ
Cisco Nexus 2148 1 GE Fabric Extender	N2K-C2148T-1GE
Cisco Nexus 2224TP Fabric Extender	N2K-C2224TP-1GE
Cisco Nexus 2232TM 10GE Fabric Extender	N2K-C2232TM-10GE
Cisco Nexus 2232TM 10GE Fabric Extender	N2K-C2232TM-E-10GE
Cisco Nexus 2232PP 10 GE Fabric Extender	N2K-C2232PP-10GE
Cisco Nexus 2248TP 1 GE Fabric Extender	N2K-C2248TP-1GE
Cisco Nexus 2248TP E GE Fabric Extender	N2K-C2248TP-E GE
Cisco Nexus 2248PQ Fabric Extender	N2K-C2248PQ-10GE
Cisco Nexus B22 Fabric Extender for HP	N2K-B22HP-P
Cisco Nexus B22 Fabric Extender for Fujitsu	N2K-B22FTS-P

Product/Component	Part Number
Cisco Nexus B22 Fabric Extender for Dell	N2K-B22DELL-P
Cisco Nexus 2348TQ-E 10GE Fabric Extender	N2K-C2348TQ-E++

**IBM Directors and switches supported in Cisco DCNM 11.1(1)**

- IBM SAN192C-6 8978-E04 (4 Module) SAN Director
- IBM SAN384C-6 8978-E08 (8 Module) SAN Director
- IBM SAN768C-6 8978-E16 (16 Module) SAN Director
- IBM SAN50C-R 8977-R50 50 Port SAN Extension Switch
- IBM SAN32C-6 8977-T32 32X32G FC SAN Switch





## CHAPTER 7

# Supported Hardware

This chapter contains information about the products and components supported in Cisco DCNM.

- [Hardware Supported in Cisco DCNM, Release 11.1\(1\), on page 33](#)

## Hardware Supported in Cisco DCNM, Release 11.1(1)

In LAN Fabric installation of Cisco DCNM 11.1(1), the Cisco Nexus 9000 and Nexus 3000 switches are supported for easy VXLAN EVPN fabric provisioning. The specific Cisco Nexus 3000 models supported are:

- Cisco Nexus 3636C-R
- Cisco Nexus C36180YC-R



### Note

In DCNM LAN Classic mode, all Nexus switches are supported.

The following tables list the products and components supported in Cisco DCNM, Release 11.1(1).

**Table 19: Cisco MDS 9000 Family**

Product/Component	Part Number
Cisco MDS 9396T 32-Gbps 96-Port Fibre Channel Switch	DS-C9396T-K9
Cisco MDS 9148T 32-Gbps 48-Port Fibre Channel Switch	DS-C9148T-K9
Cisco MDS 9700 48-Port 32-Gbps Fibre Channel Switching Module	DS-X9648-1536K9
Cisco MDS 9250i Multilayer Fabric Switch	DS-9250I-K9
Cisco MDS 9124 24-Port Multilayer Fabric Switch	DS-C9124-K9
Cisco MDS 9134 34-Port Multilayer Fabric Switch	DS-C9134-K9
Cisco MDS 9148 48-Port Multilayer Fabric Switch	DS-C9148-K9
Cisco MDS 9148 48-Port Multilayer Fabric Switch	DS-C9148S-K9

Product/Component	Part Number
Cisco MDS 9216i Multilayer Fabric Switch	DS-C9216i-K9
Cisco MDS 9222i Multilayer Fabric Switch	DS-C9222i-K9
Cisco MDS 9506 Multilayer Director	DS-C9506
Cisco MDS 9509 Multilayer Director	DS-C9509
Cisco MDS 9513 Multilayer Director	DS-C9513
Cisco MDS 9706 Multilayer Director	DS-C9706
Cisco MDS 9710 Multilayer Director	DS-C9710
Cisco MDS 9718 Multilayer Director	DS-C9718
Cisco MDS 9000 32-Port 2-Gbps Fibre Channel Switching Module	DS-X9032
Cisco MDS 9000 32-Port Storage Services Module	DS-X9032-SSM
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 12-port 4-Gbps Fibre Channel Switching Module	DS-X9112
Cisco MDS 9000 24-port 4-Gbps Fibre Channel Switching Module	DS-X9124
Cisco MDS 9000 48-port 4-Gbps Fibre Channel Switching Module	DS-X9148
Cisco MDS 9000 24-Port 8-Gbps Fibre Channel Switching Module	DS-X9224-96K9
Cisco MDS 9000 32-port 8-Gbps Advanced Fibre Channel Switching Module	DS-X9232-256K9
Cisco MDS 9000 48-port 8-Gbps Advanced Fibre Channel Switching Module	DS-X9248-256K9
Cisco MDS 9000 4/44-Port Host-Optimized 8-Gbps Fibre Channel Switching Module	DS-X9248-48K9
Cisco MDS 9000 48-Port 8-Gbps Fibre Channel Switching Module	DS-X9248-96K9
Cisco MDS 9000 Family 14-Port Fibre Channel and 2-port Gigabit Ethernet Module	DS-X9302-14K9
Cisco MDS 9000 18/4-Port Multiservice Module (MSM-18/4)	DS-X9304-18K9
Cisco MDS 9000 4-port 1-Gbps IP Storage Module	DS-X9304-SMIP
Cisco MDS 9000 8-port 1-Gbps IP Storage Module	DS-X9308-SMIP

Product/Component	Part Number
Cisco MDS 9000 Family 16-Port Storage Services Node (SSN-16)	DS-X9316-SSNK9
Cisco MDS 9000 Family 24/10 SAN Extension Module	DS-X9334-K9
Cisco MDS 9000 48-port 16-Gbps Fibre Channel Switching Module with SFP LC connectors	DS-X9448-768K9
Cisco MDS 9500 Series Supervisor-1 Module	DS-X9530-SF1-K9
Cisco MDS 9500 Series Supervisor-2 Module	DS-X9530-SF2-K9
Cisco MDS 9500 Series Supervisor-2A Module	DS-X9530-SF2A-K9
Cisco MDS 9000 Family 4-Port 10-Gbps Fibre Channel Switching Module	DS-X9704
Cisco MDS 9000 8-port 10-Gbps Fibre Channel over Ethernet (FCoE) Module	DS-X9708-K9
Cisco MDS 48-Port 10-Gigabit Fibre Channel over Ethernet (FCoE) Module with SFP LC connectors	DS-X9848-480K9
Cisco MDS 9132U 1RU Switch 32x32G-FC	DS-C9132U

Table 20: Cisco Nexus 9000 Series Switches

Product/Component	Part Number
<b>Cisco Nexus 9000 Series Switches</b>	
32P 40/100G QSFP28, 2P 1/10G SFP	N9K-C9332C
1 RU 48x1/10GT + 6x40G/100G Ethernet Ports	N9K-C93180TC-FX
Cisco Nexus 7700 F4 40G Line card	Cisco Nexus 7700 F4 40G Line card
Cisco Nexus 9336C-FX2, 1-RU, fixed-port switch	N9K-C9336C-FX2
Cisco Nexus 9000 Fixed with 48p 1/10G/25G SFP and 12p 40G/100G QSFP28	N9K-C93240YC-FX2
32-port 100Gigabit EthernetQuad Small Form-Factor Pluggable 28 (QSFP28) line card	N9K-X9732C-FX
48-port 1 and 10GBASE-T plus 4-port 40/100Gigabit Ethernet QSFP 28 line card	N9K-X9788TC-FX
FabricModule for Nexus 9516 chassis 100G support (100G/flow), NX-OS and ACI Spine	N9K-C9516-FM-E2
FabricModule for Nexus 9504 R-Series LC, NX-OS only	N9K-C9504-FM-R
Fretta 48p 1/10/25G + 4p 100G Line card	N9K-X96160YC-R

Product/Component	Part Number
100-Gigabit N9K-C9508-FM-E2 Fabric Module	N9K-C9508-FM-E2
48P 1/10/25G + 6x100G QSFP28 1RU	N3K-C36180YC-R
36 40/100G Ethernet module for Nexus 9500 Series	N9K-X9736C-FX
64x100G QSFP28 + 2x10GSFP 1RU	N9K-C9364C
36x100G Ethernet module for Nexus 9000 Series	N9K-X9636C-RX
1RU TOR, fixed module 48 100/1000Mbps + 4 25G SFP28 + 2 100G QSFP28	N9K-C9348GC-FXP
1RU TOR, fixed module 48 10/25G SFP28 + 6 40/100G QSFP28	N9K-C93180YC-FX
1RU TOR, fixed module for Nexus 9300 Series 6 40G/100G QSFP28 + 48 10G BASE-T	N9K-C93108TC-FX
Broadwell CPU based Supervisor module for Nexus 9400 Series	N9K-SUPA-PLUS
Broadwell CPU based Supervisor module for Nexus 9400 Series	N9K-SUPB-PLUS
Nexus 9K Fixed with 48p 10G BASE-T and 6p 40G/100G QSFP28	N9K-C93108TC-EX
N9K-C92300YC-Fixed Module	N9K-C92300YC
48-port 1/10/25 Gigabit Ethernet SFP+ and 4-port 40/100 Gigabit Ethernet QSFP Line Card	N9K-X97160YC-EX
Nexus N9K-C9232C Series fixed module with 32x40G/100G	N9K-C9232C
Nexus 9K Fixed with 48p 1/10G/25G SFP+ and 6p 40G/100G QSFP28	N9K-C93180YC-EX
<b>Cisco Nexus 9000 Series 40GE Modules</b>	
N9K 32p 40G Ethernet Module	N9K-X9432PQ
36p 40G Ethernet Module	N9K-X9636PQ
<b>Cisco Nexus 9000 Series 10GE Fiber and Copper Modules</b>	
8-port 100-Gigabit CFP2 I/O module	N9K-X9408PC-CFP2
100 Gigabit Ethernet uplink ports	N9K-M4PC-CFP2
Cisco Nexus 9500 Line Card support	N9K-X9564PX
N9K 48x1/10G-T 4x40G Ethernet Module	N9K-X9464PX
Cisco Nexus 9500 Line Card support	N9K-X9564TX



Product/Component	Part Number
N9K 48x1/10G SFP+ 4x40G Ethernet Module	N9K-X9464TX
<b>Cisco Nexus 9000 Series GEM Module</b>	
N9K 40G Ethernet Expansion Module	N9K-M12PQ
N9K 40G Ethernet Expansion Module	N9K-M6PQ
<b>Cisco Nexus 9200 Switches</b>	
Nexus 92160YC-X with High performance 1RU box, 48 1/10/25-Gb host ports	N9K-C92160YC-X
Nexus 9272Q with High-performance, 72-port/40-Gb fixed switching 2RU box, 5.76 Tbps of bandwidth	N9K-C9272Q
Nexus 9200 with 56p 40G QSFP+ and 8p 100G QSFP28	N9K-C92304QC
Nexus 9200 with 36p 40G 100G QSFP28	N9K-C9236C
Nexus 9200 with 48p 1/10G/25G SFP+ and 6p 40G QSFP or 4p 100G QSFP28	N9K-C92160YC-X
Nexus 9200 with 72p 40G QSFP+	N9K-C9272Q
<b>Cisco Nexus 9300 Fixed Switches</b>	
Nexus 9300 with 24p 40/50G QSFP+ and 6p 40G/100G QSFP28	N9K-C93180LC-EX
9372-PXE - 48 1/10-Gbps (SFP+) ports and 6 Quad SFP+ (QSFP+) uplink port, 1 RU box	N9K-C9372PX-E
Cisco Nexus 9396PX Switch	N9K-C9396PX
Cisco Nexus 9396TX Switch	N9K-C9396TX
Cisco Nexus 9372PX Switch	N9K-C9372TX
Cisco Nexus 9372PX Switch	N9K-C9372TX
Cisco Nexus 9372TX Switch	N9K-C9372TX
Cisco Nexus 9372TX Switch	N9K-C9372PX
Cisco Nexus 9332PQ Switch	N9K-C9332PQ
Cisco Nexus 93128TX Switch	N9K-C93128TX
Nexus 9300 with 48p 1/10G-T and 6p 40G QSFP+	N9K-C9372TX-E
<b>Cisco Nexus 9500 Modular Chassis</b>	
New fabric module for the Cisco Nexus 9516 Switch chassis	N9K-C9516-FM-E
40/100G Ethernet Module for Nexus 9500 Series chassis	N9K-X9736C-EX

Product/Component	Part Number
Cisco Nexus 9504 Switch	N9K-C9504
Cisco Nexus 9508 Switch	N9K-C9508
Cisco Nexus 9516 Switch	N9K-C9516
Nexus 9500 linecard, 32p 100G QSFP aggregation linecard	N9K-X9732C-EX
Nexus 9500 linecard, 32p 100G QSFP28 aggregation linecard (Linerate >250 Bytes)	N9K-X9432C-S
<b>Cisco Nexus 9500 Fabric Modules</b>	
Fabric Module for Nexus 9504 with 100G support, NX-OS and ACI spine	N9K-C9504-FM-E
Fabric Module for Nexus 9504 with 100G support, NX-OS only	N9K-C9504-FM-S
Fabric Module for Nexus 9508 chassis 100G support, NX-OS and ACI spine	N9K-C9508-FM-E
Fabric Module for Nexus 9508 chassis 100G support, NX-OS only	N9K-C9508-FM-S

Table 21: Cisco Nexus 7000 Series Switches

Product/Component	Part Number
<b>Supported Chassis</b>	
Cisco Nexus 7004 chassis	N7K-C7004
Cisco Nexus 7706 chassis	N77-C7706-FAB2
Cisco Nexus 7009 chassis	N7K-C7009
Cisco Nexus 7010 chassis	N7K-C7010
Cisco Nexus 7018 chassis	N7K-C7018
Cisco Nexus 7710 chassis	N7K-C7710
Cisco Nexus 7718 chassis	N7K-C7718
Fabric module, Cisco Nexus 7009 chassis	N7K-C7009-FAB-2
Fabric module, Cisco Nexus 7010 chassis	N7K-C7010-FAB-1
Fabric module, Cisco Nexus 7010 chassis	N7K-C7010-FAB-2
Fabric module, Cisco Nexus 7018 chassis	N7K-C7018-FAB-1
Fabric module, Cisco Nexus 7018 chassis	N7K-C7018-FAB-2
Fabric module, Cisco Nexus 7710 chassis	N77-C7710-FAB-1
Fabric module, Cisco Nexus 7710 chassis	N77-C7710-FAB-2

Product/Component	Part Number
Fabric module, Cisco Nexus 7718 chassis	N77-C7718-FAB-2
<b>Supported Supervisor</b>	
Cisco Nexus 7000 Supervisor 1 Module	N7K-SUP1
Cisco Nexus 7000 Supervisor 2 Module	N7K-SUP2
Cisco Nexus 7000 Supervisor 2 Enhanced Module	N7K-SUP2E
Cisco Nexus 7700 Supervisor 2 Enhanced Module	N77-SUP2E
Cisco Nexus 7700 Supervisor 3	N77-SUP3E
<b>Supported F Line Cards</b>	
Cisco Nexus 7700 Fabric module 3	N77-C7706-FAB-3, N77-C7710-FAB-3
LC,N77, FANGIO CB100, 30PT,40GE, zQFSP+	N77-F430CQ-36
32-port 1/10 Gigabit Ethernet SFP+ I/O Module	N7K-F132XP-15
48-port 1/10 Gigabit Ethernet SFP+ I/O Module (F2 Series)	N7K-F248XP-25
48-port 1/10 Gigabit Ethernet SFP+ I/O Module (Enhanced F2 Series)	N7K-F248XP-25E
48-port 1/10 GBase-T RJ45 Module (Enhanced F2-Series)	N7K-F248XT-25E
Cisco Nexus 7700 Enhanced 48-port 1/10 Gigabit Ethernet SFP+ I/O Module (F2 Series)	N77-F248XP-23E
Cisco Nexus 7000 1 F3 100G	N7K-F306CK-25
Cisco Nexus 7000 F3-Series 6-Port 100G Ethernet Module	N7K-F306CK-25
Cisco Nexus 7000 F3-Series 12-Port 40G Ethernet Module	N7K-F312FQ-25
Cisco Nexus 7700 F3-Series 24-Port 40G Ethernet Module	N77-F324FQ-25
Cisco Nexus 7700 F3-Series 48-Port Fiber 1 and 10G Ethernet Module	N77-F348XP-23
Nexus 7000 F3-Series 48-Port Fiber 1 and 10G Ethernet Module	N7K-F348XP-25
<b>Supported M Line Cards</b>	
8-port 10-Gigabit Ethernet Module with XL Option (requires X2)	N7K-M108X2-12L
32-port 10-Gigabit Ethernet SFP+ I/O Module	N7K-M132XP-12

Product/Component	Part Number
32-port 10-Gigabit Ethernet SFP+ I/O Module with XL Option	N7K-M132XP-12L
48-port 10/100/1000 Ethernet I/O Module	N7K-M148GT-11
48-port 1-Gigabit Ethernet SFP I/O Module	N7K-M148GS-11
48-port 1-Gigabit Ethernet Module with XL Option	N7K-M148GS-11L
2-port 100-Gigabit Ethernet I/O Module with XL Option	N7K-M202CF-22L
6-port 40-Gigabit Ethernet I/O Module with XL Option	N7K-M206FQ-23L
24-port 10-Gigabit Ethernet I/O Module with XL Option	N7K-M224XP-23L
Network Analysis Module NAM-NX1	N7K-SM-NAM-K9

Table 22: Cisco Nexus 6000 Series Switches

Product/Component	Part Number
N6004X/5696 chassis <b>Note</b> This has been rebranded as Cisco Nexus 5000 Series Switches Chassis	N5K-C5696Q
Cisco Nexus 6001-64T Switch	N6K-C6001-64T
Cisco Nexus 6001-64P Switch	N6K-C6001-64P
Cisco Nexus 6004 EF Switch	N6K-C6004
Cisco Nexus 6004 module 12Q 40-Gigabit Ethernet Linecard Expansion Module/FCoE, spare	N6004X-M12Q
Cisco Nexus 6004 M20UP LEM	N6004X-M20UP
Cisco Nexus 6004P-96Q Switch	N6K-6004-96Q

Table 23: Cisco Nexus 5000 Series Switches

Product/Component	Part Number
Cisco Nexus 5648Q Switch is a 2RU switch, 24 fixed 40-Gbps QSFP+ ports and 24 additional 40-Gbps QSFP+ ports	N5K-C5648Q
Cisco Nexus 5624Q Switch 1 RU, -12 fixed 40-Gbps QSFP+ ports and 12 X 40-Gbps QSFP+ ports expansion module	N5K-C5624Q
20 port UP LEM	N5696-M20UP
12 port 40G LEM	N5696-M12Q

Product/Component	Part Number
4 port 100G LEM	N5696-M4C
N5000 1000 Series Module 6-port 10GE	N5K-M1600(=)
N5000 1000 Series Module 4x10GE 4xFC 4/2/1G	N5K-M1404=
N5000 1000 Series Module 8-port 4/2/1G	N5K-M1008=
N5000 1000 Series Module 6-port 8/4/2G	N5K-M1060=
Cisco Nexus 56128P Switch	N5K-C56128P
Cisco Nexus 5010 chassis	N5K-C5010P-BF
Cisco Nexus 5020 chassis	N5K-C5020P-BF N5K-C5020P-BF-XL
Cisco Nexus 5548P Switch	N5K-C5548P-FA
Cisco Nexus 5548UP Switch	N5K-C5548UP-FA
Cisco Nexus 5672UP Switch	N5K-C5672UP
Cisco Nexus 5596T Switch	N5K-C5596T-FA
Cisco Nexus 5596UP Switch	N5K-C5596UP-FA
Cisco Nexus 0296-UPT chassis and GEM N55-M12T support	N5K-C5596T-FA-SUP
16-port Universal GEM, Cisco Nexus 5500	N5K-M16UP
Version 2, Layer 3 daughter card	N55-D160L3-V2

Table 24: Cisco Nexus 4000 Series Switches

Product/Component	Part Number
Cisco Nexus 4001I Switch Module	N4K-4001I-XPX
Cisco Nexus 4005I Switch Module	N4K-4005I-XPX

Table 25: Cisco Nexus 3000 Series Switches

Product/Component	Part Number
1 RU 48 x SFP+/SFP28 and 6 x QSFP+/QSFP28	N3K-C34180YC
1RU 32 Port QSFP28 10/25/40/50/100 Gbps	N3K-C3132C-Z
Nexus 3548-XL Switch, 48 SFP+	N3K-C3548P-XL
Nexus 3264C-E switch with 64 QSFP28	N3K-C3264C-E
Cisco Nexus 3132Q Switch	N3K-C3132C-Z
Cisco Nexus 3132Q-V Switch	N3K-C3132Q-V

Product/Component	Part Number
Nexus 34180YC programmable switch, 48 10/25G SFP and 6 40/100G QSFP28 ports	N3K-C34180YC
Cisco Nexus 3016 Switch	N3K-C3016Q-40GE
Cisco Nexus 3048 Switch	N3K-C3048TP-1GE
Cisco Nexus 3064-E Switch	N3K-C3064PQ-10GE
Cisco Nexus 3064-X Switch	N3K-C3064PQ-10GX
Cisco Nexus 3064-T Switch	N3K-C3064TQ-10GT
Nexus 31108PC-V, 48 SFP+ and 6 QSFP28 ports	N3K-C31108PC-V
Nexus 31108TC-V, 48 10GBase-T RJ-45 and 6 QSFP28 ports	N3K-C31108TC-V
Cisco Nexus 3132Q Switch	N3K-C3132Q-40GE
Nexus 3132 Chassis	N3K-C3132Q-40GX
Cisco Nexus 3172PQ Switch	N3K-C3172PQ-10GE
Cisco Nexus 3548 Switch	N3K-C3548P-10G
Cisco Nexus 3636C-R Switch	N3K-C3636C-R

**Table 26: Cisco Nexus 2000 Series Fabric Extenders**

Product/Component	Part Number
Nexus 2348 Chassis	N2K-C2348TQ-10GE
Cisco Nexus 2348UPQ 10GE 48 x 1/10 Gigabit Ethernet and unified port host interfaces (SFP+) and up to 6 QSFP+ 10/40 Gigabit Ethernet fabric interfaces	N2K-C2348UPQ
Cisco Nexus 2148 1 GE Fabric Extender	N2K-C2148T-1GE
Cisco Nexus 2224TP Fabric Extender	N2K-C2224TP-1GE
Cisco Nexus 2232TM 10GE Fabric Extender	N2K-C2232TM-10GE
Cisco Nexus 2232TM 10GE Fabric Extender	N2K-C2232TM-E-10GE
Cisco Nexus 2232PP 10 GE Fabric Extender	N2K-C2232PP-10GE
Cisco Nexus 2248TP 1 GE Fabric Extender	N2K-C2248TP-1GE
Cisco Nexus 2248TP E GE Fabric Extender	N2K-C2248TP-E GE
Cisco Nexus 2248PQ Fabric Extender	N2K-C2248PQ-10GE
Cisco Nexus B22 Fabric Extender for HP	N2K-B22HP-P
Cisco Nexus B22 Fabric Extender for Fujitsu	N2K-B22FTS-P
Cisco Nexus B22 Fabric Extender for Dell	N2K-B22DELL-P

Product/Component	Part Number
Cisco Nexus 2348TQ-E 10GE Fabric Extender	N2K-C2348TQ-E++

**IBM Directors and switches supported in Cisco DCNM 11.1(1)**

- IBM SAN192C-6 8978-E04 (4 Module) SAN Director
- IBM SAN384C-6 8978-E08 (8 Module) SAN Director
- IBM SAN768C-6 8978-E16 (16 Module) SAN Director
- IBM SAN50C-R 8977-R50 50 Port SAN Extension Switch
- IBM SAN32C-6 8977-T32 32X32G FC SAN Switch







## CHAPTER 8

# Caveats

- [Caveats, on page 45](#)
- [Resolved Caveats, on page 45](#)
- [Open Caveats, on page 47](#)

## Caveats

Caveats describe unexpected behavior in a product. The Open Caveats section lists open caveats that apply to the current release and may apply to previous releases. A caveat that is open for a prior release and is still unresolved applies to all future releases until it is resolved.

To view the details of the software bugs pertaining to your product, perform the following task:

- Click the Caveat ID/Bug ID number in the table.

The corresponding **Bug Search Tool** window is displayed with details of the Caveat ID/Bug ID.

The Bug Search Tool (BST), which is the online successor to the Bug Toolkit, is designed to improve the effectiveness in network risk management and device troubleshooting. The BST allows partners and customers to search for software bugs based on product, release, and keyword, and aggregates key data, such as bug details, product, and version. The tool has a provision to filter bugs based on credentials to provide external and internal bug views for the search input.

To view the details of a caveat whose ID you do not have, perform the following procedure:

1. Access the BST using your Cisco user ID and password at:  
<https://tools.cisco.com/bugsearch/>
2. In the **Bug Search** window that is displayed, enter the necessary information in the corresponding fields.

For more information about how to use the Cisco Bug Search Tool effectively, including how to set email alerts for bugs and to save bugs and searches, see [Bug Search Tool Help & FAQ](#).

This chapter lists the Open and Resolved Caveats in Cisco DCNM, and contains the following section:

## Resolved Caveats

The following table lists the Resolved bugs for Cisco DCNM, Release 11.1(1).

Caveat ID Number	Description
<a href="#">CSCvk11305</a>	LAN Fabric: Fail to change channel mode if po has > 1 member
<a href="#">CSCvm05536</a>	LAN Fabric: BGP neighbors not detected on leaf switches after NXOS image upgrade
<a href="#">CSCvm62784</a>	DCNM SAN Client gets timeout error when enabling FC-SP on ISLs between 2 9700s
<a href="#">CSCvn52673</a>	LAN Fabric: After Brownfield migration, Refresh L2 / L3 migrated networks does not seem to work
<a href="#">CSCvn58071</a>	LAN Fabric: TRM Flooding occurs in fabric resulting from missing BGP peers between BorderSpine nodes
<a href="#">CSCvn64425</a>	LAN Fabric: No diff if name-server is changed from default vrf to management vrf
<a href="#">CSCvn68148</a>	when we delete and add Vcenter too qucik , VMM app is not running
<a href="#">CSCvn68243</a>	LAN Fabric: vPC entry created with trunk_host policy should be deletable
<a href="#">CSCvn72577</a>	LAN Fabric: Restore backup do not remove all freeform configs
<a href="#">CSCvn73214</a>	No operational heat-map table visible after inline upgrade. (Aragon to Aragon MR S21)
<a href="#">CSCvn86194</a>	Limit in UCS FI switch dashboard blades tab
<a href="#">CSCvn60045</a>	LAN Fabric: MSD tabular view should not allow update device credentials and rediscover switch
<a href="#">CSCvn69463</a>	LAN Fabric: Attach pop-up UI issue on changing VRF tabs
<a href="#">CSCvn70067</a>	LAN Fabric: Failed to Load Topology error if pop-up is closed during import in External fabric
<a href="#">CSCvo92748</a>	Openwsman process_connection() Remote Denial of Service Vulnerability
<a href="#">CSCvi25521</a>	DCNM: Getting Java.lang.NullPointer error from multiple places.
<a href="#">CSCvo62346</a>	Out of order cli for interface speed command
<a href="#">CSCvo77421</a>	Special handling for Nxapi http port 80 upgrade from nxos.7.0.3.I7.5a - > 7.0.3.I7.6
<a href="#">CSCvo79435</a>	brownfield: deploy failed with \"command running on the device beyond timeout period\"
<a href="#">CSCvo99226</a>	Cannot login in DCNM GUI when connecting with IPv6 address.
<a href="#">CSCvp07873</a>	Caveats when adding device via bootstrap with AAA authentication
<a href="#">CSCvp75809</a>	Seen TCAM config missing after ascii replay while write-erase/reload on T2 N9504

# Open Caveats

The following table lists the Open bugs for Cisco DCNM, Release 11.1(1).

Caveat	Description
<a href="#">CSCvk03946</a>	Auto-populated dot1q release does not happen if it is edited with used value and cancelled
<a href="#">CSCvk11305</a>	Fail to change channel mode if po has > 1 member
<a href="#">CSCvk19306</a>	LAN Fabric: FEX will show up in fabric builder topology even if cleaned up
<a href="#">CSCvk21156</a>	Scale: Outlier detection gets stuck in loading the scatter plot. Needs multiple waits to load data.
<a href="#">CSCvk22938</a>	Elasticsearch-database: Spike in IOPS at midnight
<a href="#">CSCvk31375</a>	LAN Fabric: unreachable switch will be shown as in sync during deploy
<a href="#">CSCvm05536</a>	BGP neighbors not detected on leaf switches after NXOS image upgrade
<a href="#">CSCvm62784</a>	Cisco DCNM SAN Client gets timeout error when enabling FC-SP on ISLs between two Cisco MDS 9700 series switches.
<a href="#">CSCvm90923</a>	Configure: Display warning upon configuring different query types on switches in the same fabric
<a href="#">CSCvn24439</a>	FEX GUI remains in the topology and associated HIF ports info dangling in the link page after deletion
<a href="#">CSCvn36807</a>	Unable to import switch via bootstrap due to inadvertent assignment of ip address
<a href="#">CSCvn52673</a>	After NFM migration, Refresh L2 / L3 migrated networks does not seem to work
<a href="#">CSCvn55041</a>	BROWNFIELD:Spine switches get out of migration mode with some diff after Save&Deploy
<a href="#">CSCvn58071</a>	TRM: Flooding occurs in fabric resulting from missing BGP peers between BorderSpine nodes
<a href="#">CSCvn60044</a>	ES-DB: ECT is non-zero when IOPS metric is zero
<a href="#">CSCvn60045</a>	LAN Fabric: MSD tabular view should not allow update device credentials and rediscover switch
<a href="#">CSCvn64425</a>	No diff if name-server is changed from default vrf to management vrf
<a href="#">CSCvn68148</a>	When you delete and add vCenter too qucik, VMM app is not running
<a href="#">CSCvn68243</a>	vPC entry created with trunk_host policy should be deletable
<a href="#">CSCvn69463</a>	LAN Fabric: Attach pop-up UI issue on changing VRF tabs

Caveat	Description
<a href="#">CSCvn69775</a>	Failed to fetch running config after re-adding switch back into the fabric
<a href="#">CSCvn70067</a>	Failed to Load Topology error if the Add Switch pop-up is closed during the switch import in External fabric
<a href="#">CSCvn71460</a>	LAN Fabric: Attach/unattach of network and deploy without preview puts the network in pending state
<a href="#">CSCvn72577</a>	Restore backup does not remove all freeform configurations
<a href="#">CSCvn73161</a>	When you click on the topology page, popup window appears 2 times.
<a href="#">CSCvn73214</a>	No operational heat-map table visible after inline upgrade. (DCNM 11.0(1) to DCNM 11.1(1))
<a href="#">CSCvn73354</a>	LAN Fabric: delete switch from fabric prior to upgrade from 10.4(2) could result in topdown failures
<a href="#">CSCvn86194</a>	Cisco DCNM Web Client does not show any blades in the switch dashboard blades tab if Cisco UCS has more than 16 blades.
<a href="#">CSCvn95975</a>	LAN Fabric: Brownfield: Save and Deploy gets stuck when fabric has multiple of 10 devices
<a href="#">CSCvp15046</a>	After you migrate an NFM-managed VXLAN fabric to DCNM, if you perform a write erase and a reload operation, then the SNMP user may be deleted. To address this issue, manually create the SNMP user.
<a href="#">CSCvq03395</a>	Real time job failing for default vrf for group level jobs
<a href="#">CSCvq08970</a>	Unable to modify the repeat interval for created archive jobs
<a href="#">CSCvq61767</a>	\ " is getting replaced by " and \ is getting removed during template save
<a href="#">CSCvt42395</a>	DCNM 11.3.1 and earlier version extremely slow with Chrome version 80 and above.



## CHAPTER 9

# Related Documentation

This chapter provides information about the documentation available for Cisco Data Center Network Manager (DCNM) and the platforms that Cisco DCNM manages, and includes the following sections:

- [Navigating the Cisco DCNM Documentation, on page 49](#)
- [Platform-Specific Documents, on page 50](#)
- [Documentation Feedback, on page 51](#)
- [Communications, Services, and Additional Information, on page 51](#)

## Navigating the Cisco DCNM Documentation

This document describes and provides links to the user documentation available for Cisco Data Center Network Manager (DCNM). To find a document online, use one of the links in this section.

### Cisco DCNM 11.1(1) Documentation Roadmap

*Table 27: Cisco DCNM 11.1(1) Documentation*

Document Title	Description
<a href="#">Cisco DCNM Release Notes, Release 11.1(1)</a>	Provides information about the Cisco DCNM software release, open caveats, and workaround information.
<a href="#">Cisco DCNM Compatibility Matrix, Release 11.1(1)</a>	Lists the Cisco Nexus and the Cisco MDS platforms and their software releases that are compatible with Cisco DCNM.
<a href="#">Cisco DCNM Scalability Guide, Release 11.1(1)</a>	Lists the supported scalability parameters for Cisco DCNM, Release 11.1(1)
<a href="#">Cisco DCNM Configuration Guides</a>	These configuration guides provide conceptual and procedural information on the Cisco DCNM Web GUI. <ul style="list-style-type: none"><li>• <a href="#">Cisco DCNM LAN Fabric Configuration Guide, Release 11.1(1)</a></li><li>• <a href="#">Cisco DCNM Media Controller Configuration, Release 11.1(1)</a></li><li>• <a href="#">Cisco DCNM Classic LAN Configuration, Release 11.1(1)</a></li><li>• <a href="#">Cisco DCNM SAN Management Configuration, Release 11.1(1)</a></li></ul>

Document Title	Description
<a href="#">Cisco DCNM Installation Guides</a>	These documents guide you to plan your requirements and deployment of the Cisco Data Center Network Manager. <ul style="list-style-type: none"> <li>• <a href="#">Cisco DCNM Installation Guide for SAN Deployment, Release 11.1(1)</a></li> <li>• <a href="#">Cisco DCNM Installation Guide for Classic LAN Deployment, Release 11.1(1)</a></li> <li>• <a href="#">Cisco DCNM Installation Guide for Media Controller Deployment, Release 11.1(1)</a></li> <li>• <a href="#">Cisco DCNM Installation Guide for LAN Fabric Management Deployment, Release 11.1(1)</a></li> </ul>
<a href="#">Cisco DCNM Licensing Guide, Release 11.1(1)</a>	Describes the procedure used to generate, install, and assign a Cisco Data Center Network Manager (DCNM) license.
<a href="#">Software Upgrade Matrix for Cisco DCNM 11.1(1)</a>	Lists the software upgrade paths that are supported for DCNM.
<a href="#">Cisco Data Center Network Manager Open Source Licensing, Release 11.1(1)</a>	Provides information about the Cisco Data Center Network Manager Open Source Licensing, Release 11.1(1).
<a href="#">Cisco DCNM REST API Guide, Release 11.1(1)</a>	Cisco DCNM provides REST APIs that allow third parties to test and develop application software. The REST API documentation is packaged with Cisco DCNM, and can be accessed through any browser.
<a href="#">Cisco Data Center Network Manager Troubleshooting Guide, Release 11.x</a>	Describes some common issues you might experience while using Cisco DCNM, and provides solutions.
<a href="#">Cisco DCNM SMI-S and Web Services Programming Guide for SAN, Release 11.x</a>	Provides an industry standard application programming interface (API) using the Storage Management Initiative Specification (SMI-S).
<a href="#">Videos: Cisco Data Center Network Manager, Release 11</a>	Lists all the videos created for Cisco DCNM 11.

## Platform-Specific Documents

The documentation set for platform-specific documents that Cisco DCNM manages includes the following:

### Cisco Nexus 2000 Series Fabric Extender Documentation

<https://www.cisco.com/c/en/us/products/switches/nexus-2000-series-fabric-extenders/index.html>

### Cisco Nexus 3000 Series Switch Documentation

<https://www.cisco.com/c/en/us/support/switches/nexus-3000-series-switches/series.html>

**Cisco Nexus 4000 Series Switch Documentation**

<https://www.cisco.com/c/en/us/support/switches/nexus-4000-series-switches/series.html>

**Cisco Nexus 5000 Series Switch Documentation**

<https://www.cisco.com/c/en/us/support/switches/nexus-5000-series-switches/series.html>

**Cisco Nexus 6000 Series Switch Documentation**

<https://www.cisco.com/c/en/us/support/switches/nexus-6000-series-switches/series.html>

**Cisco Nexus 7000 Series Switch Documentation**

<https://www.cisco.com/c/en/us/support/switches/nexus-7000-series-switches/series.html>

**Cisco Nexus 9000 Series Switch Documentation**

<https://www.cisco.com/c/en/us/support/switches/nexus-9000-series-switches/series.html>

**Day-2 Operation Applications Documentation**

- [Cisco Network Insights for Data Center](#)
- [Cisco Network Insights Base \(Cisco NIB\)](#)

## Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, please send your comments to:

[dcnm-docfeedback@cisco.com](mailto:dcnm-docfeedback@cisco.com).

We appreciate your feedback.

## Communications, Services, and Additional Information

- To receive timely, relevant information from Cisco, sign up at [Cisco Profile Manager](#).
- To get the business impact you're looking for with the technologies that matter, visit [Cisco Services](#).
- To submit a service request, visit [Cisco Support](#).
- To discover and browse secure, validated enterprise-class apps, products, solutions and services, visit [Cisco Marketplace](#).
- To obtain general networking, training, and certification titles, visit [Cisco Press](#).
- To find warranty information for a specific product or product family, access [Cisco Warranty Finder](#).

### Cisco Bug Search Tool

[Cisco Bug Search Tool](#) (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.