



# System Requirements

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

- [System Requirements for Cisco DCNM, Release 10.4\(1\), on page 1](#)

## System Requirements for Cisco DCNM, Release 10.4(1)

### Java Requirements

The Cisco DCNM Server is distributed with into the following directory:

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

### Server Requirements

Cisco DCNM Release 10.4(1) supports the Cisco DCNM Server on these 64-bit operating systems:

- Microsoft Windows 2008 R2 SP1
- Microsoft Windows 2008 Standalone SP2
- Microsoft Windows 2012 R2
- Red Hat Enterprise Linux Release 6.6 and 7.0
- OVA and ISO with integrated operating system

Cisco DCNM Release 10.4(1) supports the following databases:

- Oracle 11g Express (XE), Standard, and Enterprise Editions, and Oracle 11g Real Application Clusters (RAC)
- PostgreSQL 9.4.5
- Oracle 12c Enterprise Edition (Conventional)–(nonpluggable installation)



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**Note** Cisco DCNM Release 10.4(1) does not support Oracle 12c pluggable database version installation.

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- Oracle 12c RAC (nonpluggable installation)



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**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.

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

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Cisco DCNM Release 10.4(1) supports ISO installation onto bare-metal server [no hypervisor] on the following server platform:

- Cisco UCS C240M4 12G / 100G 4-CPU Cores with Cisco hardware RAID Controller [UCSC-MRAID12G-1GB/2GB] for RAID operation.

Cisco DCNM Release 10.4(1) supports the running of the Cisco DCNM server on the following hypervisors:

- VMware ESXi 6.0
- VMware ESXi 6.5
- VMware ESXi 6.7
- VMware ESXi 6.7 U1
- VMware vCenter 6.0
- VMware vCenter 6.5
- VMware vCenter 6.7
- VMware vCenter 6.7 U1



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**Note**

- vCenter server is mandatory to deploy the Cisco DCNM OVA Installer.
- When you log into the VMware vSphere Web Client, the Adobe Shockwave Flash crashes with the latest Google Chrome 62.0.3202.62 (64-bit), Mozilla Firefox 56.0.1 (64-bit) and Internet Explorer 8.0.7601.17514. Hence you cannot install Cisco DCNM on VMware ESX using VMware vSphere Web Client. This is a known issue with Adobe Shockwave Flash version 27.0.0.159.

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Cisco DCNM Server resources for various installers are summarized in the following table.

**Table 1: Server Resources for LAN/Programmable Fabric and SAN**

<b>LAN: 25 Switches and up to 1000 Ports</b> <b>SAN: 50 Switches and up to 2000 Ports</b>	<b>LAN: 100 Switches and up to 3000 Ports</b> <b>SAN: 200 Switches and up to 5000 Ports</b>	<b>LAN and SAN: 400+ nodes and 20000 ports</b>
2 CPU Cores 2GHZ (or faster) 2 VCPUs for ESXi or KVM, 2GHZ (or faster)	4 CPU Cores 2GHZ (or faster) 4 VCPUs for ESXi or KVM, 2GHZ (or faster)	4 CPU Cores 2GHZ (or faster) 4 VCPUs for ESXi or KVM, 2GHZ (or faster)
8-GB memory, 80-GB free hard disk 2 servers or 2 VMs (ESXi or KVM), LAN/Programmable Fabric Native-HA or SAN federation	12-GB memory, 100-GB free hard disk 2 servers or 2 VMs (ESXi or KVM), LAN/Programmable Fabric Native-HA or SAN federation	12GB memory, 100-GB free hard disk 2 servers or 2 VMs (ESXi or KVM), LAN/Programmable Fabric Native-HA or SAN federation
PostgreSQL 9.4.5 [included], Oracle11g or Oracle 12c Standard or Enterprise	PostgreSQL 9.4.5 [included], Oracle11g or Oracle 12c Standard or Enterprise	Native-HA: PostgreSQL [Included with OVA/ISO, Oracle11g or Oracle 12c Standard or Enterprise with RAC with dedicated resources

**Note**

- If there are multiple devices in the SNMP unreachable state or if the Elasticsearch is running, Cisco DCNM (with 12GB memory) may run out of memory. This can happen when you use the Temperature monitoring or the Endpoint Locator features since both applications use Elasticsearch. In this case, you need to add an additional 12GB memory.
- Although it is not mandatory, we recommend that you register the server system with Domain Name Service (DNS) servers.

**Client Requirements**

Cisco DCNM SAN desktop client and Cisco Device Manager support Windows 7, Windows 2008, Windows 2012, and Red Hat Linux. The following table lists the minimum hardware requirements for these client systems.

**Table 2: Client Hardware Requirements**

<b>Hardware</b>	<b>Minimum Requirements</b>
RAM (free)	4 GB
CPU speed	3GHz or faster
Disk space (free)	20 GB

If you install Cisco DCNM in 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 or MDS managed platform.

### Host Requirements

The following table lists the server resource requirements for deploying Cisco DCNM Release 10.4(1) Virtual Appliance (OVA).



**Note** Resource reservations for the OVA virtual machine are required to ensure consistent performance of the Cisco DCNM server.

**Table 3: Host Requirements**

Small Deployment: Up to 50 Switches	Large Deployment: More than 50 Switches
2 vCPUs, 2 GHz (or faster)	4 vCPUs, 2 GHz (or faster)
8-GB memory, 100 GB	16-GB memory, 100 GB

### Supported Web Browsers

Cisco DCNM supports the following web browsers:

- Mozilla Firefox Version 53.0 (32-bit or 64-bit)
- Microsoft Internet Explorer Version 11.0.9600.18617CO

### Other Supported Software

The following table lists other software supported by Cisco DCNM, Release 10.4(1).

Component	Minimum Requirements
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>
DHCP Server	<ul style="list-style-type: none"> <li>• Cisco Network Registrar 8.2</li> </ul>
OVA/ISO Installers	CentOS 6.6

Additionally, Cisco DCNM supports EMC call-home events, fabric change events, and events that are forwarded by traps and e-mail.