



## Installation Prerequisites

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## Supported Platforms

The following table describes the supported platforms for installing Cisco UCS Central.

<b>Hypervisors</b>	<b>Supported Versions</b>
Microsoft Hyper-V	Windows 2008 R2 with SP1 Windows 2012 Microsoft Hyper-V Server 2012 R2
VMware ESX	<ul style="list-style-type: none"><li>• ESX 5.0 U3</li><li>• ESX 5.1</li><li>• ESX 5.5</li><li>• ESX 6.0</li></ul>
KVM Hypervisor	KVM Hypervisor on RedHat Enterprise Linux 6.5

## Supported Web Browsers

The web browser support for the Cisco UCS Central GUI depends on the operating system of the computer on which you plan to run Cisco UCS Central GUI.

Operating System	Supported Web Browsers
Microsoft Windows	<ul style="list-style-type: none"> <li>• Internet Explorer 10 and above</li> <li>• Firefox 29 and above</li> <li>• Chrome 34 and above</li> </ul> <p><b>Note</b> If you plan to use the flash-based UI, then you also need to install Adobe Flash Player 11.7 and above.</p>
Mac OS	<ul style="list-style-type: none"> <li>• Firefox 29 and above</li> <li>• Chrome 34 and above</li> <li>• Safari 6 and above</li> </ul> <p><b>Note</b> If you plan to use the flash-based UI, then you also need to install Adobe Flash Player 11.7 and above.</p> <p>For the Chrome browser, remove the bundled flash player and install the flash player from Adobe.</p>
Linux RHEL	<ul style="list-style-type: none"> <li>• Firefox 29 and above</li> <li>• Chrome 34 and above</li> </ul> <p><b>Note</b> If you plan to use the flash-based UI, then you also need to install Adobe Flash Player 11.7 and above.</p>

## Required Ports

Cisco UCS Manager communicates with Cisco UCS Central using the individual IP addresses of the FIs (FI-A or FI-B IP address) as the source destination. Cisco UCS Central communicates back to Cisco UCS Manager using the VIP as the destination address.

### Communication between Cisco UCS Central and Cisco UCS Domain

Typically, the IP addresses for all existing Cisco UCS Management domains exist on a common administrative network. If this is not the case, Cisco UCS Central will work, provided that routing access is assured from Cisco UCS Central to all subordinate management domains. For this reason, care must be taken to ensure that

any firewalls, proxies, and other security systems are configured to permit read/write access on the following ports for continuous communications between Cisco UCS Central and all registered Cisco UCS domains.

The ports listed in the following tables need to be opened on Cisco UCS Central. These ports are accessed by UCS domains.

**Note**

Depending on the version and UI that you are using, some ports may not be necessary. For example, NFS ports are not required for Cisco UCS Manager release 2.2(2) and above.

**Table 1: Ports required for Cisco UCS Manager release versions 2.1(x) and 2.2(1) and below.**

Port Number	Daemon	Protocol	Usage
32803	LOCKD_TCPPOINT	TCP/UDP	Linux NFS lock
892	MOUNTD_PORT	TCP/UDP	Linux NFS mount
875	RQUOTAD_PORT	TCP/UDP	Linux remote quota server port (NFS)
32805	STATD_PORT	TCP/UDP	Linux lock recovery - used by NFS file locking service
2049	NFS_PORT <b>Note</b>	TCP/UDP	Linux NFS listening port
111	SUNRPC	TCP/UDP	Linux RCPBIND listening port (NFS)
443	HTTPS_PORT	TCP/UDP	Enable communication through firewall from Cisco UCS Central to Cisco UCS Domain(s) and UCS Central GUI
80	HTTP	TCP	Communication from Cisco UCS Central to UCS domains with the Flash UI. This port can be configured using the Cisco UCS Central CLI. <b>Note</b> This port is not required if you are using the Cisco UCS Manager HTML5 UI.
843	PRIVATE_PORT	TCP/UDP	UCS Central communications from Flash UI to UCS Central VM <b>Note</b> This port is not required if you are using the Cisco UCS Manager HTML5 UI.

**Table 2: Ports required for Cisco UCS Manager release versions 2.2(2) and above, including UCS Mini, Cisco UCS Manager 3.0(1) or 3.0(2).**

Port Number	Daemon	Protocol	Usage
443	HTTPS_PORT	TCP/UDP	Enable communication from Cisco UCS Central to Cisco UCS Domain(s) and the UCS Central GUI.
80	HTTP	TCP	Communication from Cisco UCS Central to UCS domains with the Flash UI. This port can be configured using the Cisco UCS Central CLI.  <b>Note</b> This port is not required if you are using the Cisco UCS Manager HTML5 UI.
843	PRIVATE_PORT	TCP/UDP	UCS Central communications from Flash UI to UCS Central VM  <b>Note</b> This port is not required if you are using the Cisco UCS Manager HTML5 UI.

### Communication between Cisco UCS Central and Client browser

The following ports must be open on Cisco UCS Manager. The ports are accessed by Cisco UCS Central to enable communication between Cisco UCS Central and the client browser:

Port Number	Daemon	Protocol	Usage
443	HTTPS_PORT	TCP	Enable communication from Cisco UCS Central to UCS domains. This port is always required.
80	HTTP	TCP	Communication from Cisco UCS Central to UCS domains with the Flash UI. This port can be configured using the Cisco UCS Central CLI.  <b>Note</b> This port is not required if you are using the Cisco UCS Manager HTML5 UI.

### AD Server Communication

The LDAP port 389 must be open on the AD server. This port is accessed by Cisco UCS Central for MS AD LDAP integration and communication.

**Note**

Cisco UCS Central uses STARTTLS for supporting LDAP over SSL/TLS. Port 389 is the only port required.

## System Requirements

### Standalone Installation

If you are installing Cisco UCS Central in a standalone mode, make sure you have the following system requirements.

### Server Type

We recommend that you deploy Cisco UCS Central on a VMware or Hyper-V hypervisor running on standalone rack server(s) that is not managed by Cisco UCS Manager or integrated into a Cisco UCS domain. The server must have a high-speed data store, preferably one provisioned from a high-speed storage array.

### Server Requirements

The following table describes the minimum requirements for installing Cisco UCS Central in the following platforms:

- ESX
- Hyper-V
- KVM Hypervisor

Item	Minimum Requirements for ESX, Hyper-V and KVM Hypervisor
Disk 1	40 GB
Disk 2	40 GB
RAM	12 GB 32 GB for large scale
vCPU cores	4 cores
Disk read speed	> 75 MBps >125 MBps is the recommended speed.

**Note**

- If you want to manage more servers, for example 500 domains/10000 servers, make sure to increase RAM to at least 32 GB.
- Performance of Cisco UCS Central is not guaranteed if you deploy it on a server that does not meet the minimum requirements for vCPU, RAM or Disk Speed.
- Make sure to power off before making any changes to the VM settings.
- If you are using NFS for cluster setup, make sure the network latency is less than .5ms to ensure good system performance.

If the disk read speed on the server is lower than the required minimum during the deployment of Cisco UCS Central, the installer displays a warning message but you can complete the deployment. However, if the disk read speed is lower than the required minimum during operation, Cisco UCS Central raises a fault, as shown in the following table, depending upon how low the disk read speed is:

Disk Read Speed on Server	Fault Level
<75 MBps	Critical fault
75 to 100 MBps	Major fault
100 to 125 MBps	Minor fault
>125 MBps	N/A

**Supported Database Servers**

The following are the supported database servers for statistics collection:

- Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64-bit Production or higher
- PostgreSQL Server 9.1.8 64-bit or higher
- Microsoft SQL Server 2012 (SP1) - 11.0.3000.0 (X64) or higher
- Microsoft SQL Server 2008 R2 10.50.1600.1 (X64) SP1 or higher

When the statistics data is stored in external database server, consider the following as a reference data for disk space requirements on the database server:

- If you register 20 Cisco UCS domains , the minimum storage space required to store statistics data for 1 year would be 400 GB.
- If you register 100 Cisco UCS domains , the minimum storage space required to store statistics data for 1 year would be 2 TB.

**Client System**

The minimum memory required for client system is 4 GB. However if you have 40 or more registered Cisco UCS Domains, it is recommended to have at least 8 GB memory on the client system.

### Cluster Installation

If you want to enable high availability and install Cisco UCS Central in cluster mode, you must have all the requirements specified for standalone installation, and have the following Shared Storage:

- **ESX Minimum Requirement** : 40 GB
- **Hyper-V Minimum Requirement**: 40 GB

### NFS Requirements for Windows

Make sure that you create a Windows translation file before installing Cisco UCS Central in cluster mode using Windows NFS.

**Note**

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For more information, see [How to Enable File Name Character Translation](#).

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### Managing Cisco UCS Domains in Remote Locations

To manage Cisco UCS domains in remote locations such as remote branch offices, the following are the minimum requirements for network connectivity between Cisco UCS domain and Cisco UCS Central:

- Bandwidth - 1.5 Mbps or higher
- Latency - 500 ms (round trip) or lower

## Important Prerequisites for Installing Cisco UCS Central

You must have the following information before beginning to install Cisco UCS Central:

- Static IPv4 address for Cisco UCS Central
- IPv4 netmask
- Default gateway
- Password to be assigned to the Cisco UCS Central admin account. You will create this new password.
- Hostname for the virtual machine (VM)
- IPv4 address for the DNS server, if you plan to use one
- Name of the DNS domain in which you want to include Cisco UCS Central, if you plan to use one
- Shared secret. This is the required password when you register Cisco UCS domains with Cisco UCS Central
- Shared storage. This is optional for standalone installation and is required for cluster installation.

