



# System Requirements

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This document provides system requirements for the Cisco WebEx Meetings Server, Release 1.0.

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## General System Requirements

Cisco WebEx Meetings Server is automatically compatible with Cisco UCS servers that meet or exceed the specifications.

Module	Requirements Notes
Host Server & Processors	<ul style="list-style-type: none"><li>• Cisco UCS "C-series" rack server. Equivalent B-series blade may be substituted.</li><li>• Must support "AES-NI" instruction set.</li><li>• 2.4 GHz processor clock speed or faster</li></ul>

Module	Requirements Notes
Network interfaces	<ul style="list-style-type: none"> <li>• Minimum 1 physical NIC for non-redundant configuration. See the <a href="#">50 User System</a> page below, for special requirements where the Internet Reverse Proxy (IRP) and Admin virtual machine are sharing a host.</li> <li>• Redundant configurations must have all NIC interfaces duplicated ("teamed" or "bonded") and connected to independent switching fabric.</li> <li>• Recommend an additional NIC for VMware management network (optional).</li> </ul>
Internal (DAS) Storage for ESXi hosts where internal virtual machines are deployed	<ul style="list-style-type: none"> <li>• Minimum of 4 drives in a RAID-10 or RAID-5 configuration</li> <li>• Minimum of 1 TB usable storage (For example, 4 x 600 GB RAID-10)</li> <li>• Optional 2nd array for ESXi</li> </ul>
Internal (DAS) storage for ESXi hosts where IRP virtual machines are deployed	<ul style="list-style-type: none"> <li>• Minimum of 2 drives in a RAID-1 configuration</li> <li>• Minimum of 300 GB usable storage (For example, 2 x 300 GB drives make 300 GB)</li> <li>• May use the same configurations as for the internal virtual machines</li> </ul>
SAN Storage	<ul style="list-style-type: none"> <li>• May be used as a substitute for DAS.</li> <li>• Recommended only for deployments where the support staff has experience monitoring and tuning SAN performance.</li> <li>• Fiber Channel (FC) or Fiber Channel over 10 Gb Ethernet (FCoE) only.</li> <li>• Performance requirements are the same as for DAS.</li> </ul> <p>To learn about SAN space requirements, refer to the section for your specific system in this document.</p>

Module	Requirements Notes
Hypervisor	<ul style="list-style-type: none"> <li>• vSphere Enterprise Plus license for 800 and 2000 user systems. vSphere Standard license for 50 and 250 user systems.</li> <li>• vSphere versions 5.0 or 5.0 Update 1.</li> <li>• One VMware license per processor socket.</li> <li>• vCenter Server 5.0 or 5.0 Update 1.</li> <li>• vCenter may be co-resident with the product providing the processor and memory requirements are added to the application requirements.</li> </ul> <p>Co-resident configurations are supported for 50-user and 250-user systems.</p>

## Operating System and Browser Requirements

This section lists the requirements for end users to host and access meetings.

**Table 1: Operating System Requirements**

Windows	XP SP3, Vista 32-bit/64-bit, Windows 7 32-bit/64-bit, 2008 Server 64-bit
Mac	10.6 Snow Leopard, 10.7 Lion and 10.8 Mountain Lion

**Table 2: Browser Requirements**

Browser	Windows	Mac
Internet Explorer	8 and 9 (32-bit/64-bit)	
Mozilla Firefox	10-15 See the Firefox release schedule at <a href="https://wiki.mozilla.org/RapidRelease/Calendar">https://wiki.mozilla.org/RapidRelease/Calendar</a> .	10-15 See the Firefox release schedule at <a href="https://wiki.mozilla.org/RapidRelease/Calendar">https://wiki.mozilla.org/RapidRelease/Calendar</a> .
Safari		Same browser versions supported by OS versions above
Google Chrome	latest version as of September 2012 See the Chrome release schedule at <a href="http://www.chromium.org/developers/calendar">http://www.chromium.org/developers/calendar</a> .	latest version as of September 2012 See the Chrome release schedule at <a href="http://www.chromium.org/developers/calendar">http://www.chromium.org/developers/calendar</a> .

Microsoft Outlook Requirements:

- Microsoft Outlook 2007 SP2 and later
- Microsoft Outlook 2010 (32-bit and 64-bit editions; all service packs)

System Requirements:

- Intel Core2 Duo CPU 2.XX GHz or AMD processor (2 GB of RAM recommended)
- JavaScript and cookies enabled
- Active X enabled and unblocked for Internet Explorer (recommended)
- Java 1.6.0\_33 to Java 1.6.0\_35 or Java 1.7.0\_5 to Java 1.7.0\_7

## Minimum Hardware Requirements

**Table 3: Example Host Models and Required vSphere Versions**

Deployment Size	Example of UCS Model	Virtual Support
50 Users	UCS C220 M3	vSphere ESXi 5 Standard Edition
250 Users	UCS C220 M3	vSphere ESXi 5 Standard Edition
800 Users	UCS C460 M2	vSphere ESXi 5 Enterprise Plus Edition
2000 Users	UCS C460 M2	vSphere ESXi 5 Enterprise Plus Edition



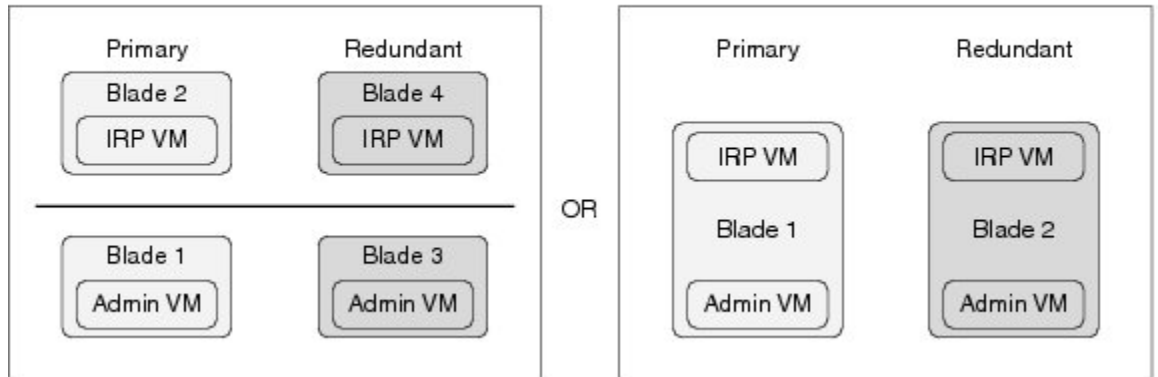
**Note**

Co-residency with vCenter is supported with 50 and 250 System deployments only. Co-residency with Cisco Unified Communications products on the same physical host is not supported.

## 50 User System

This is a schematic diagram of a 50 user system. The diagram illustrates two versions of a 50 user deployment. If you plan to add an HA system, those virtual machines are shown as the "redundant" virtual machines. If you do not want HA, then only deploy the primary system.

Virtual Machine Layout  
50 Concurrent Users Deployment



The following table lists the recommendations for your system.

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
Admin	4	26	<ul style="list-style-type: none"> <li>• 2 for the Admin virtual machine (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• Minimum 1 Gbps speed</li> </ul>	1 TB; 7200 RPM
Admin and vCenter (co-resident)	8	36	<ul style="list-style-type: none"> <li>• 2 for the Admin virtual machine (including 1 for redundancy)</li> <li>• 1 for vCenter</li> <li>• 1 recommended for ESXi management network</li> <li>• Minimum 1 Gbps speed</li> </ul>	1 TB; 7200 RPM

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
IRP	4	20	<ul style="list-style-type: none"> <li>• 2 for the IRP virtual machine (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• Minimum 1 Gbps speed</li> </ul>	1 TB; 7200 RPM
Admin and IRP (co-resident)	8	40	<ul style="list-style-type: none"> <li>• 2 for the Admin virtual machine (including 1 for redundancy)</li> <li>• 2 for IRP virtual machine (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• Minimum 1 Gbps speed</li> </ul>	1 TB; 7200 RPM
Admin and IRP and vCenter (all co-resident)	12 (2 x 6-core processors)	42	<ul style="list-style-type: none"> <li>• 2 for the Admin virtual machine (including 1 for redundancy)</li> <li>• 2 for IRP virtual machine (including 1 for redundancy)</li> <li>• 1 for vCenter</li> <li>• 1 recommended for ESXi management network</li> <li>• Minimum 1 Gbps speed</li> </ul>	1 TB; 7200 RPM

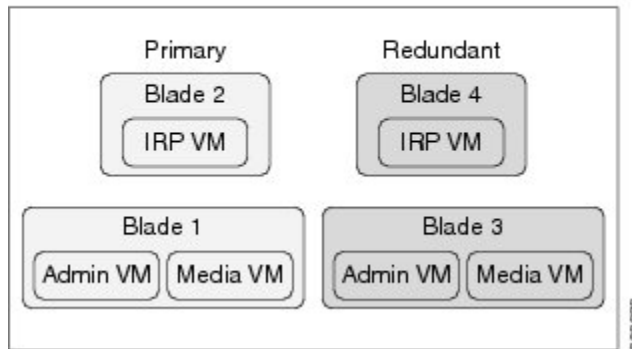


**Note** If you plan to use an HA system, purchase the same hardware requirements and quantities as the primary system.

## 250 User System

This is a schematic diagram of a 250 user system. If you plan to add an HA system, those virtual machines are shown as the "redundant" virtual machines. If you do not want HA, then only deploy the primary system.

Virtual Machine Layout  
250 and 800 Concurrent Users Deployment



The following table lists the recommendations for your system.

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
Admin and media	12	56	<ul style="list-style-type: none"> <li>• 2 for Admin and media (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• minimum 1 Gbps</li> </ul>	1 TB; 7200 RPM
(Admin and media) and vCenter (co-resident)	16 (2 x 8-core processors, 2 unused)	56	<ul style="list-style-type: none"> <li>• 2 for Admin and media (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• 1 for vCenter</li> <li>• minimum 1 Gbps</li> </ul>	1 TB; 7200 RPM

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
IRP	12 (4 cores reserved)	36	<ul style="list-style-type: none"> <li>• 2 for IRP (including 1 for redundancy)</li> <li>• 1 recommended for ESXi management network</li> <li>• minimum 1 Gbps</li> </ul>	1 TB; 7200 RPM

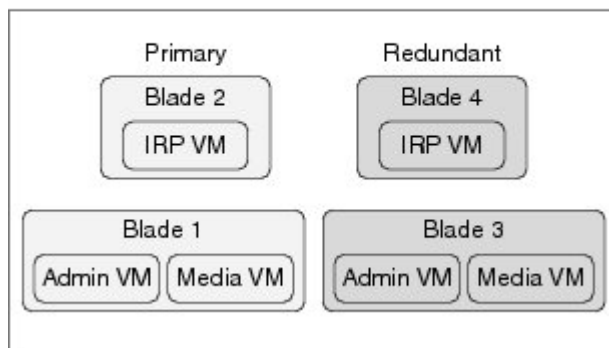
**Note**

If you plan to use an HA system, purchase the same hardware requirements and quantities as the primary system.

## 800 User System

This is a schematic diagram of an 800 user system. If you plan to add a HA system, those virtual machines are shown as the "redundant" virtual machines. If you do not want HA, then only deploy the primary system.

Virtual Machine Layout  
250 and 800 Concurrent Users Deployment



The following table lists the recommendations for your system.



Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
Admin and media (combined)	40	80	<ul style="list-style-type: none"> <li>• 2 for Admin and media (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
IRP	40	36	<ul style="list-style-type: none"> <li>• 2 for IRP (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM



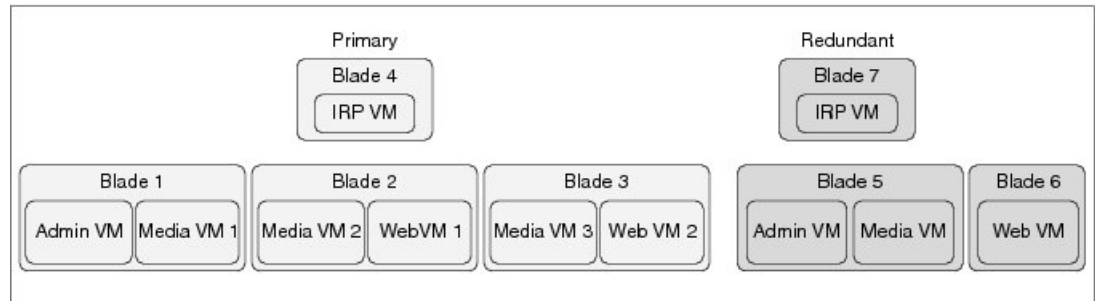
**Note**

If you plan to use an HA system, purchase the same hardware requirements and quantities as the primary system.

## 2000 User System

This is a schematic diagram of a 2000 user system.

Virtual Machine Layout  
2000 Concurrent Users Deployment



The following table lists the recommendations for your system. If you plan to add a HA system, those virtual machines are shown as the "redundant" virtual machines. If you do not want HA, then only deploy the primary system.

**Note**

For brevity, we use the acronym IRP for the Internet Reverse Proxy in the following table.

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
Media1 and Admin (combined)	40	80	<ul style="list-style-type: none"> <li>• 2 for Media1 and Admin (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
Media2 and Web1 (combined)	40	80	<ul style="list-style-type: none"> <li>• 2 for Media2 and Web1 (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
Media3 and Web2 (combined)	40	80	<ul style="list-style-type: none"> <li>• 2 for Media3 and Web2 (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
IRP	40	36	<ul style="list-style-type: none"> <li>• 2 for IRP (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM

Virtual Machines on Host (Physical Server)	CPU Cores	Memory (GB)	Ethernet Ports	Hard Drive
Media and Admin (combined) for HA	40	80	<ul style="list-style-type: none"> <li>• 2 for Media and Admin (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
Web for HA	40	80	<ul style="list-style-type: none"> <li>• 2 for Web (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM
IRP for HA	40	36	<ul style="list-style-type: none"> <li>• 2 for IRP (including 1 for redundancy), with minimum 10 Gbps</li> <li>• 1 recommended for ESXi management network, with minimum 1 Gbps</li> </ul>	1 TB; 10,000 RPM

## System Capacity Matrix

The numbers in the table below represent the design capacity for the Cisco WebEx Meetings Server system. Operating the system at a capacity higher than these specifications can result in a degraded user experience and may result in system instability. Cisco reserves the right to enforce capacity limits at these levels.

Table 4: System Capacity Matrix

System Capacity	2000 user system	800 user system	250 user system	50 user system	Notes
Maximum Simultaneous Audio Connections (Teleconference Phone Calls and Voice Connection Using Computer From Meeting Clients)	2000	800	250	50	The system capacity remains the same as shown on the left, regardless of what combination of the following features are used: <ul style="list-style-type: none"> <li>• G.711, G.722, G.729 audio codecs</li> <li>• IPv4 or IPv6 teleconferencing</li> <li>• TLS/SRTP audio encryption</li> </ul>
Maximum Call Rate (calls/per second)	20	8	3	1	
Maximum Concurrent Meetings	1000	400	125	25	
Maximum Participants in One Meeting	100	100	100	50	
Maximum Concurrent High-Quality Video Users	1000	400	125	25	
Maximum Concurrent Desktop, Application, or File Sharing Users	2000	800	250	50	
Maximum Meetings That Can be Recorded Simultaneously	100	40	13	3	
Maximum Concurrent Recording Playback Sessions	500	200	63	13	
Maximum User Profiles in Database	400k	400k	400k	400k	This number includes active and deactivated users.
Maximum Concurrent Sign-in	20 people per second	8 people per second	3 people per second	1 person per second	
Maximum Aggregate Bandwidth Utilization	5 Gbps	2 Gbps	625 Mbps	125 Mbps	



