



Cisco WebEx Meetings Server System Requirements Release 1.5

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WebEx System Requirements

This document provides system requirements for Cisco WebEx Meetings Server, Release 1.5.

- [General System Requirements, page 1](#)
- [WebEx Productivity Tools, page 4](#)
- [Minimum Hardware Requirements, page 4](#)
- [System Capacity Matrix, page 16](#)

General System Requirements

Cisco WebEx Meetings Server is compatible with Cisco UCS servers that meet or exceed the specifications presented in this section.



Note The table suggests that you deploy your internal storage in a RAID configuration. For further information, see the "Installing VMware vSphere ESXi and Configuring Storage" section of the *Cisco WebEx Meetings Server Planning Guide* at [Configuration Guides](#).



Important When you perform an *upgrade* to Cisco WebEx Meeting Server Release 2.0 from Release 1.x, the ESXi hosts (Cisco UCS server) where the Admin virtual machine is located requires 1.5 TB of disk space. Refer to the section in this document that describes the different size user systems, which begins with the [50 User System](#). For the upgrade, there will be two sets of virtual machines on your network at the same time; the *original* virtual machines running Release 1.x and the *upgrade* virtual machines to support Release 2.0. For more details, see "Upgrading the System" in the [Administration Guide](#).

Module	Requirements Notes
Host server and processors	<ul style="list-style-type: none"> • Cisco UCS <i>C-series</i> rack server or equivalent <i>B-series</i> blade server. • AES-NI instruction set support. • 2.4 GHz or faster processor clock speed.
Network interfaces	<p>These requirements apply to the NIC between the ESXi hosts (for the Cisco WebEx Meetings Server virtual machines) and the Ethernet switch (not to the external network interface).</p> <ul style="list-style-type: none"> • Minimum 1 physical NIC for a non-redundant configuration. See the 50 User System section for special requirements where the Internet Reverse Proxy (IRP) and Admin virtual machine are sharing a host. • Redundant configurations must have all NIC interfaces duplicated (<i>teamed</i> or <i>bonded</i>) and connected to independent switching fabric. • Recommend an additional NIC for VMware management network (optional).
Internal (DAS) Storage for ESXi hosts where internal virtual machines are deployed	<ul style="list-style-type: none"> • Minimum of 4 drives in a RAID-10 or RAID-5 configuration • Minimum of 1.5 TB usable storage (For example, 4 x 600 GB RAID-10) for new system deployments • Optional second array for ESXi
Internal (DAS) storage for ESXi hosts where IRP virtual machines are deployed	<ul style="list-style-type: none"> • Minimum of 2 drives in a RAID-1 configuration • Minimum of 300 GB usable storage (For example, 2 x 300 GB drives make 300 GB of usable storage) • Can use the same configurations as for the internal virtual machines

Module	Requirements Notes
SAN storage	<ul style="list-style-type: none"> • Can be used as a substitute for DAS. Cisco recommends the allocation of the same amount of storage space. • B-series blade servers have only two hard disk drives. If you are using Cisco UCS B-series blade servers and you plan to upgrade to Cisco WebEx Meetings Server Release 2.0, you must use SAN storage to meet the 4 hard disk drives in either a RAID 5 or RAID 10 configuration requirement. • Recommended only for deployments where the support staff has experience monitoring and tuning SAN performance. <ul style="list-style-type: none"> Note You take responsibility for adding storage for new VMware requirements and future growth of the system. • Fiber Channel (FC) or Fiber Channel over 10 Gb Ethernet (FCoE) only. • Performance requirements are the same as for DAS.
Hypervisor	<ul style="list-style-type: none"> • vSphere versions 5.0, 5.0 Update 1, or 5.1. • vSphere licenses: <ul style="list-style-type: none"> ◦ 5.0 or 5.0 Update 1: vSphere Enterprise Plus license for 800 and 2000 user systems. vSphere Standard license for 50 and 250 user systems. ◦ 5.1: vSphere Enterprise license for 800 and 2000 user systems. vSphere Standard license for 50 and 250 user systems. • One VMware license per processor socket. • vCenter Server 5.0, 5.0 Update 1, or 5.1. • vCenter can be co-resident with Cisco WebEx Meetings Server, providing the processor and memory requirements are added to the system requirements. <p>vCenter co-resident configurations are supported for 50-user and 250-user systems only.</p> • Co-residency with Cisco Unified Communications products on the same physical ESXi host is not supported. • Co-residency with non-Cisco WebEx Meetings Server virtual machines on the same physical ESXi host is not supported.

Module	Requirements Notes
Email server	<ul style="list-style-type: none"> Fully qualified domain name (FQDN) of a mail server that the system will use to send emails. Port number—default value of the SMTP port number is 25 or 465 (secure SMTP port number).

WebEx Productivity Tools

Cisco WebEx Meetings Server supports the latest version of WebEx Productivity Tools, which is available on the **Downloads** page of your WebEx site. If users are running an older version of WebEx Productivity Tools after you perform a system upgrade, they can schedule, start, and join meetings, but the latest features are not available. We recommend that you silently push the latest WebEx Productivity Tools .msi for an optimal experience.

Minimum Hardware Requirements

This section lists many of the Cisco UCS servers you can use for each size system. For specific requirements for each system, refer to the following sections:

- [50 User System](#)
- [250 User System](#)
- [800 User System](#)
- [2000 User System](#)

Table 1: Host Models and Required vSphere Versions

Deployment Size	Example of UCS Model	Virtual Support
50 Users	<ul style="list-style-type: none"> UCS C220 M3 UCS B200 M3 	<ul style="list-style-type: none"> vSphere ESXi 5.1 Standard Edition vSphere ESXi 5 Standard Edition
250 Users	<ul style="list-style-type: none"> UCS C240 M3 UCS B200 M3 	<ul style="list-style-type: none"> vSphere ESXi 5.1 Standard Edition vSphere ESXi 5 Standard Edition
800 Users	<ul style="list-style-type: none"> UCS C460 M2 UCS B440 M2 	<ul style="list-style-type: none"> vSphere ESXi 5.1 Enterprise Edition vSphere ESXi 5 Enterprise Plus Edition

Deployment Size	Example of UCS Model	Virtual Support
2000 Users	<ul style="list-style-type: none"> • UCS C460 M2 • UCS B440 M2 	<ul style="list-style-type: none"> • vSphere ESXi 5.1 Enterprise Edition • vSphere ESXi 5 Enterprise Plus Edition

**Note**

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

**Note**

You can use older models of the UCS hardware with your system, but for a better user experience use the hardware listed in the table. For example, you can use the UCS C220 M3 for a 250 user system if you already have that hardware available.

**Note**

When upgrading to Cisco WebEx Meetings Server Release 2.0, it's possible to use Cisco UCS B200 M3 blade servers with 2x local hard drives as long as the upgraded system uses SAN storage for its virtual machines. Using SAN storage with B-series blade servers allows your system to meet the 4 hard disk drives in a RAID 5 or RAID 10 configuration requirement for Cisco WebEx Meetings Server Release 2.0.

The supported co-resident configurations are described in these sections:

- [50 User System](#)
- [250 User System](#)

Resources Consumed by Cisco WebEx Meetings Server and the ESXi Host

Cisco WebEx Meetings Server is deployed on one or more virtual machines on ESXi hosts. CPU and memory resources, and storage space, is consumed by Cisco WebEx Meetings Server and by ESXi (VMware component that enables virtualization on the physical Cisco UCS Server). Depending on your system size, vCenter and multiple virtual machines may run on the same Cisco UCS server.

Cisco WebEx Meetings Server uses *resource reservation* for its virtual machines to guarantee system scalability. Other VMware workloads do not take CPU and other resources away from the virtual machines. The minimum requirements for each system size includes enough resources to support:

- Continued quality of service for Cisco WebEx Meeting Server at peak system usage (maximum capacity).
- VMware ESXi.
- VMware vCenter (when co-resident).

For the requirements for vCenter Server, see [Knowledge Base](#) and search for "Installing vCenter Server 5.0 best practices" or "Installing vCenter Server 5.1 best practices", respectively.

- VMware snapshots of the virtual machine (delete these as soon as possible otherwise you may experience severe performance degradation).

Extra disk space is required for snapshots, as some snapshots may be as large as the original virtual machine. In some cases, vSphere may delete snapshots to create storage space, compromising the ability to roll back to previous snapshots.

- Use of the Cisco UCS Server over the typical life cycle of the server.

**Remember**

The hardware requirements specified in the OVA file are the minimum requirements that are needed to deploy Cisco WebEx Meetings Server. These requirements *do not include* any CPU, memory, or storage requirements for VMware vCenter or ESXi.

**Important**

The requirements for the Cisco UCS Servers, as listed in the following tables, include requirements for Cisco WebEx Meetings Server 1.x, VMware ESXi 5.0 and 5.1, and vCenter 5.0 and 5.1 (in supported co-residency configurations). Be sure to purchase hardware with the specifications defined in the following tables.

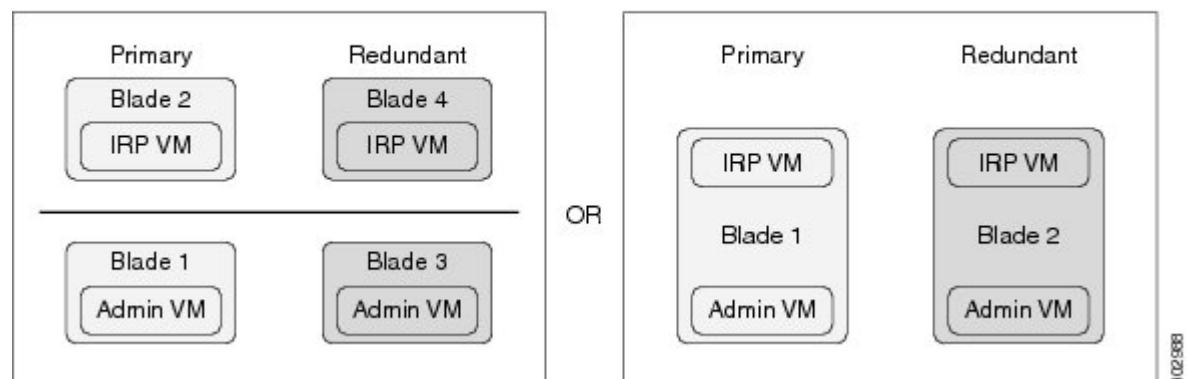
**Caution**

Co-residency, other than the configurations listed in the following tables, is not supported. If you disregard our system requirements, your virtual machines may not be able to boot. The deployment of the virtual machines may stall from within the earliest product screens during the vCenter OVA deployment.

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 minimum hardware requirements for the ESXi hosts (Cisco UCS servers) in your system. For more information, see [General System Requirements](#).

For more information about the bandwidth requirements, see [Network Bandwidth Requirements](#).



Note Because the resource requirements for ESXi 5.1 is greater than that for ESXi 5.0, Cisco requires additional CPU cores for a system deployed on vSphere ESXi 5.1.



Note Co-residency with vCenter is supported with a 50 user system deployment as configured in the following table.



Note For IOPS information, see [Advantages of Deploying Your System on VMware vSphere](#).



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

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Admin	<ul style="list-style-type: none"> • 4 (ESXi 5.0) • 6 (ESXi 5.1) 	24	<ul style="list-style-type: none"> • 2 for the Admin virtual machine, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 7,200 RPM
Admin and vCenter (co-resident)	<ul style="list-style-type: none"> • 8 (ESXi 5.0) • 10 (ESXi 5.1) 	36	<ul style="list-style-type: none"> • 2 for the Admin virtual machine, including 1 if NIC teaming is used for redundancy • 1 for vCenter • 1 recommended for ESXi management network 	1.0 TB; minimum of 7,200 RPM
IRP	<ul style="list-style-type: none"> • 4 (ESXi 5.0) • 6 (ESXi 5.1) 	12	<ul style="list-style-type: none"> • 2 for the IRP virtual machine, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	300 GB; minimum of 7,200 RPM

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Admin and IRP (co-resident)	8	36	<ul style="list-style-type: none"> • 2 for the Admin virtual machine, including 1 if NIC teaming is used for redundancy • 2 for IRP virtual machine, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 7,200 RPM
Admin and IRP and vCenter (all co-resident)	12	40	<ul style="list-style-type: none"> • 2 for the Admin virtual machine, including 1 if NIC teaming is used for redundancy • 2 for IRP virtual machine, including 1 if NIC teaming is used for redundancy • 1 for vCenter • 1 recommended for ESXi management network 	1.0 TB; minimum of 7,200 RPM

**Note**

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

Resources Reserved by the Virtual Machines in a 50 User System

This section illustrates how much media the virtual machines use and is intended for those with expert knowledge of VMware. CPU resources are specified as vCPUs (cores) and MHz (CPU cycles). The VMware VMkernel uses MHz cycles to control CPU scheduling.

Memory resources are specified by maximum memory and reserved memory. Reserved memory is not shared with other virtual machines on the same physical Cisco UCS Server.

Disk resources (storage) are controlled in two separate areas. During the OVA build, the CentOS filesystem partition sizes determine the minimum disk size. Secondly, vCenter controls the maximum disk space available.



Important

The numbers in this table do not include resources for VMware ESXi or vCenter. See [Resources Consumed by Cisco WebEx Meetings Server and the ESXi Host](#), on page 5.

Virtual Machine Type	Virtual CPU (vCPU)	CPU ¹ (MHz)	Reserved Memory/Total Memory ² (GB)	Disks (GB)
Admin	4	8000	12/14	418
Internet Reverse Proxy	4	8000	4/4	128

- ¹ Number obtained by multiplying the number of physical CPUs with the speed of the CPU chip (MHz). Hyperthreading is not included in this calculation. (The physical CPU must have a clock speed of 2.4 GHz or faster.)
- ² Virtual machines with media functionality have additional, non-reserved memory; Memory = Reserved/Total



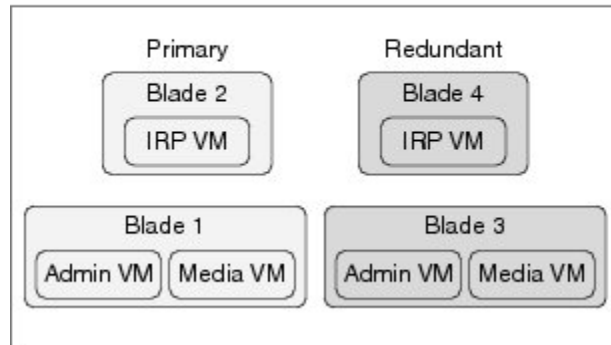
Note

If you attempt to deploy a virtual machine without the minimum number of vCPUs, then the OVA deployment of the virtual machine will fail. If you attempt to deploy a virtual machine without the minimum total MHz, then the virtual machine will not power on.

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 minimum hardware requirements for the ESXi hosts (Cisco UCS servers) in your system. For more information, see [General System Requirements](#).

For more information about the bandwidth requirements, see the [Network Bandwidth Requirements](#).



Note

Co-residency with vCenter is supported with a 250 user system deployment as configured in the following table.

**Note**

For IOPS information, see [Advantages of Deploying Your System on VMware vSphere](#).

**Note**

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

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Admin and Media	12	52	<ul style="list-style-type: none"> • 2 for Admin and Media, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 7200 RPM
(Admin and Media) and vCenter (co-resident)	16	56	<ul style="list-style-type: none"> • 2 for Admin and Media, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network • 1 for vCenter 	1.0 TB; minimum of 7200 RPM
IRP	12	36	<ul style="list-style-type: none"> • 2 for IRP, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	300 GB; minimum of 7200 RPM

**Note**

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

Resources Reserved by the Virtual Machines in a 250 User System

This section illustrates how much media the virtual machines use and is intended for those with expert knowledge of VMware. CPU resources are specified as vCPUs (cores) and MHz (CPU cycles). The VMware VMkernel uses MHz cycles to control CPU scheduling.

Memory resources are specified by maximum memory and reserved memory. Reserved memory is not shared with other virtual machines on the same physical Cisco UCS Server.

Disk resources (storage) are controlled in two separate areas. During the OVA build, the CentOS filesystem partition sizes determine the minimum disk size. Secondly, vCenter controls the maximum disk space available.



Important

The numbers in this table do not include resources for VMware ESXi or vCenter. See [Resources Consumed by Cisco WebEx Meetings Server and the ESXi Host](#).

Virtual Machine Type	Virtual CPU (vCPU)	CPU ³ (MHz)	Reserved Memory/Total Memory ⁴ (GB)	Disks (GB)
Admin	4	8000	16/16	418
Media	8	16,480	13/23	128
Internet Reverse Proxy	8	16,480	6/6	128

³ Number obtained by multiplying the number of physical CPUs with the speed of the CPU chip (MHz). Hyperthreading is not included in this calculation. (The physical CPU must have a clock speed of 2.4 GHz or faster.)

⁴ Virtual machines with media functionality have additional, non-reserved memory; Memory = Reserved/Total



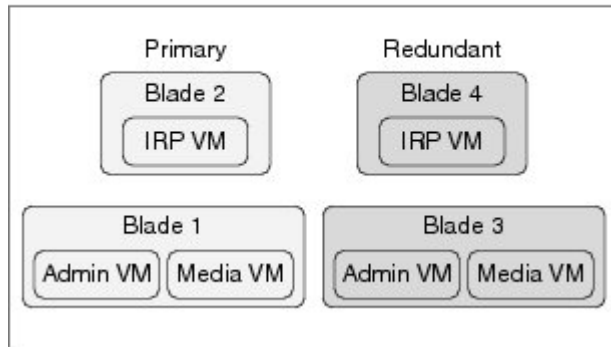
Note

If you attempt to deploy a virtual machine without the minimum number of vCPUs, the OVA deployment of the virtual machine will fail. If you attempt to deploy a virtual machine without the minimum total MHz processor speed, then the virtual machine will not power on.

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 minimum hardware requirements for the ESXi hosts (Cisco UCS servers) in your system. For more information, see [General System Requirements](#).

For more information about the bandwidth requirements, see [Network Bandwidth Requirements](#).



Note Co-residency with vCenter is not supported with an 800 user system deployment.



Note For IOPS information, see [Advantages of Deploying Your System on VMware vSphere](#).



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

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Admin and Media (combined)	40	80	<ul style="list-style-type: none"> • 2 for Admin and Media, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 10,000 RPM
IRP	40	36	<ul style="list-style-type: none"> • 2 for IRP, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	300 GB; minimum of 10,000 RPM



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

Resources Reserved by the Virtual Machines in a 800 User System

This section illustrates how much media the virtual machines use and is intended for those with expert knowledge of VMware. CPU resources are specified as vCPUs (cores) and MHz (CPU cycles). The VMware VMkernel uses MHz cycles to control CPU scheduling.

Memory resources are specified by maximum memory and reserved memory. Reserved memory is not shared with other virtual machines on the same physical Cisco UCS Server.

Disk resources (storage) are controlled in two separate areas. During the OVA build, the CentOS filesystem partition sizes determine the minimum disk size. Secondly, vCenter controls the maximum disk space available.



Important The numbers in this table do not include resources for VMware ESXi. See [Resources Consumed by Cisco WebEx Meetings Server and the ESXi Host](#), on page 5.

Virtual Machine Type	Virtual CPU (vCPU)	CPU ⁵ (MHz)	Reserved Memory/Total Memory ⁶ (GB)	Disks (GB)
Admin	10	20,600	16/16	418
Media	30	61,800	14/44	128
Internet Reverse Proxy	20	41,200	10/10	128

⁵ Number obtained by multiplying the number of physical CPUs with the speed of the CPU chip (MHz). Hyperthreading is not included in this calculation. (The physical CPU must have a clock speed of 2.4 GHz or faster.)

⁶ Virtual machines with media functionality have additional, non-reserved memory; Memory = Reserved/Total

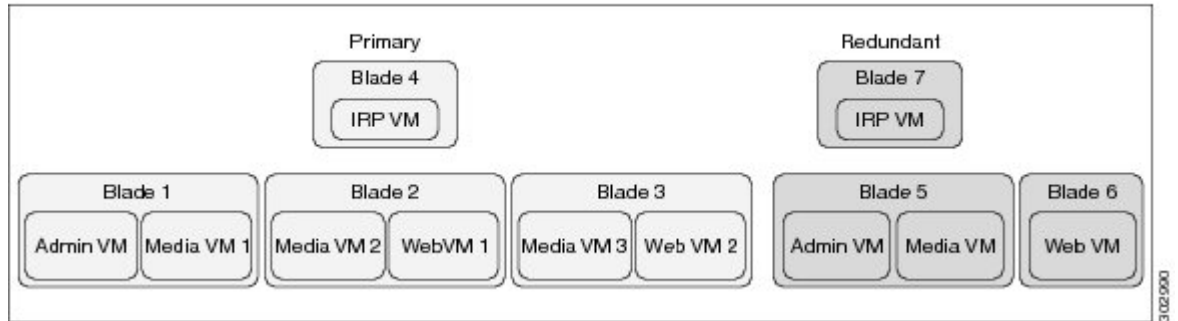


Note If you attempt to deploy a virtual machine without the minimum number of vCPUs, then the OVA deployment of the virtual machine will fail. If you attempt to deploy a virtual machine without the minimum total MHz, then the virtual machine will not power on.

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 minimum hardware requirements for the ESXi hosts (Cisco UCS servers) in your system. For more information, see [General System Requirements](#).

For more information about the bandwidth requirements, see [Network Bandwidth Requirements](#).

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 Co-residency with vCenter is not supported with a 2000 user system deployment.



Note For IOPS information, see [Advantages of Deploying Your System on VMware vSphere](#).



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

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Media1 and Admin (combined)	40	80	<ul style="list-style-type: none"> • 2 for Media1 and Admin, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 10,000 RPM
Media2 and Web1 (combined)	40	80	<ul style="list-style-type: none"> • 2 for Media2 and Web1, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1 TB; minimum of 10,000 RPM

Virtual Machines on ESXi Host (Cisco UCS Server)	CPU Cores	Memory (GB)	Ethernet Ports	DAS (local) Hard Drive
Media3 and Web2 (combined)	40	80	<ul style="list-style-type: none"> • 2 for Media3 and Web2, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1 TB; minimum of 10,000 RPM
IRP	40	36	<ul style="list-style-type: none"> • 2 for IRP, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	300 GB; minimum of 10,000 RPM
Media and Admin (combined) for HA	40	80	<ul style="list-style-type: none"> • 2 for Media and Admin, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1.0 TB; minimum of 10,000 RPM
Web for HA	40	80	<ul style="list-style-type: none"> • 2 for Web, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	1 TB; minimum of 10,000 RPM
IRP for HA	40	36	<ul style="list-style-type: none"> • 2 for IRP, including 1 if NIC teaming is used for redundancy • 1 recommended for ESXi management network 	300 GB; minimum of 10,000 RPM

Resources Reserved by the Virtual Machines in a 2000 User System

This section illustrates how much media the virtual machines use and is intended for those with expert knowledge of VMware. CPU resources are specified as vCPUs (cores) and MHz (CPU cycles). The VMware VMkernel uses MHz cycles to control CPU scheduling.

Memory resources are specified by maximum memory and reserved memory. Reserved memory is not shared with other virtual machines on the same physical Cisco UCS Server.

Disk resources (storage) are controlled in two separate areas. During the OVA build, the CentOS file system partition sizes determine the minimum disk size. Secondly, vCenter controls the maximum disk space available.



Important

The numbers in this table do not include resources for VMware ESXi. See [Resources Consumed by Cisco WebEx Meetings Server and the ESXi Host](#).

Virtual Machine Type	Virtual CPU (vCPU)	CPU ⁷ (MHz)	Reserved Memory/Total Memory ⁸ (GB)	Disks (GB)
Admin	10	20,600	16/16	418
Media	30	61,800	14/44	128
Web	10	20,600	16/16	128
Internet Reverse Proxy	20	41,200	10/10	128

⁷ Number obtained by multiplying the number of physical CPUs with the speed of the CPU chip (MHz). Hyperthreading is not included in this calculation. (The physical CPU must have a clock speed of 2.4 GHz or faster.)

⁸ Virtual machines with media functionality have additional, non-reserved memory; Memory = Reserved/Total



Note

If you attempt to deploy a virtual machine without the minimum number of vCPUs, then the OVA deployment of the virtual machine will fail. If you attempt to deploy a virtual machine without the minimum total MHz, then the virtual machine will not power on.

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 2: 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"> • G.711, G.722, G.729 audio codecs • IPv4 or IPv6 teleconferencing • TLS/SRTP audio encryption
Maximum Call Rate (calls/per second)	20	8	3	1	
Maximum Concurrent Meetings	1000	400	125	25	
Maximum Total Participants on the System for Concurrently Sharing or Receiving Video	100	100	100	50	
Maximum Concurrent Video and Video File Sharing Users	1000	400	125	25	
Maximum Concurrent Meeting Connections (Desktop, Application, or File Sharing Users)	2000	800	250	50	This number includes hosts and participants.
Maximum Meetings That Can be Recorded Simultaneously	100	40	13	3	
Maximum Concurrent Recording Playback Sessions	500	200	63	12	
Maximum User Profiles in Database	400,000	400,000	400,000	400,000	This number includes active and deactivated users.

System Capacity Matrix

System Capacity	2000 user system	800 user system	250 user system	50 user system	Notes
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	



Operating System and Browser Requirements

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

- [Common System Requirements, page 19](#)
- [Windows Operating System Requirements, page 20](#)
- [Mac Operating System Requirements, page 21](#)
- [Mobile Device Operating Systems Requirements, page 22](#)
- [Cisco WebEx Meetings Application and Productivity Tools Compatibility Matrix, page 22](#)

Common System Requirements

System requirements common to all browsers and operating systems.

Client and Browser Requirements

- JavaScript and cookies enabled
- Java 6 and Java 7 (for web browsers that support Java) enabled
- Cisco WebEx plug-ins enabled for Chrome 32 and later and Firefox 27 and later
- Plug-ins enabled in Safari
- Active X enabled and unblocked for Microsoft Internet Explorer (recommended)

**Note**

Because of Google and Mozilla policy changes, starting with Chrome 32 and Firefox 27, it might be necessary for users to manually enable the WebEx plug-in when using these browsers⁹ to join a WebEx meeting or to play a WebEx recording. More information and instructions can be found at https://support.webex.com/webex/meetings/en_US/chrome-firefox-join-faq.htm.

If a client is using a browser other than the specified versions of Chrome or Firefox and have Java enabled, the Cisco WebEx Meetings application automatically downloads onto the client system the first time that client starts or joins a meeting. We recommend that you direct all clients to install the latest update for your Java version.

SSL and TLS Requirements

Configure **Internet settings** on all user computers to use SSL and TLS encryption. For example, on a Windows PC:

- Select **Control Panel > Internet Options > Advanced > Security > Use SSL 3.0**. We recommend selecting this option for maximum compatibility.
- Select **Control Panel > Internet Options > Advanced > Security > Use TLS 1.0 and Use TLS 1.2**. We recommend selecting both options for maximum compatibility, but you must select **Use TLS 1.0**.

If your users will host meetings for guests (for example, people who do not work for your company), you must ask your guest users to manually update their operating systems and browsers to support SSL and TLS before they join your meetings. If they do not perform these steps, they will experience compatibility issues. We recommend that you include the above instructions in your meeting invitations. You can do this by editing the appropriate meeting invitations available on your Administration site at **Settings > Email > Templates**.

Windows Operating System Requirements

Supported Operating Systems

- Windows XP SP3
- Windows Vista (32-bit/64-bit)
- Windows 7 (32-bit/64-bit)
- Windows 2008 Server (64-bit)

Hardware Requirements

Intel Core2 Duo or AMD CPU 2.XX GHz or higher processor.

A minimum of 2 GB of RAM is recommended.

Tested Browsers

- Internet Explorer: 8 - 10 (32-bit/64-bit)

⁹ The exact versions of Chrome and Firefox that are impacted by this policy have not been finalized as of the publishing of this document.

- Mozilla Firefox: version 10 through the latest release
See the Firefox release schedule at <https://wiki.mozilla.org/RapidRelease/Calendar>
- Google Chrome: 23 - latest
See the Chrome release schedule at <http://www.chromium.org/developers/calendar>

Microsoft Outlook Integration

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

Cisco Jabber for Windows Integration

- Cisco Jabber for Windows 9.2.6
- Supports Cisco WebEx Meetings Server with LDAP/Active Directory integration.

Not all Cisco Jabber versions or platforms support integration with Cisco WebEx Meetings Server. For information about integrating with Cisco WebEx Meetings Server, see the Cisco Jabber for Windows documentation at http://www.cisco.com/en/US/products/ps12511/tsd_products_support_series_home.html.

Mac Operating System Requirements

Supported MAC Operating Systems

- Mac OS X 10.6 Snow Leopard
- Mac OS X 10.7 Lion
- Mac OS X 10.8 Mountain Lion

Hardware Requirements

2.0 GHz or higher CPU.

A minimum of 512 MB of RAM is recommended.

Tested Browsers

- Mozilla Firefox: 10 - latest
See the Firefox release schedule at <https://wiki.mozilla.org/RapidRelease/Calendar>.
- Apple Safari: versions supported by the supported operating systems (Mac OS X 10.6, 10.7, 10.8)
- Google Chrome: 23 - latest
See the Chrome release schedule at <http://www.chromium.org/developers/calendar>

Mobile Device Operating Systems Requirements

Cisco WebEx Meeting Server up to and including version 1.5 supports Apple iPhones and iPads using iOS 5.0 and later.

Cisco WebEx Meeting Server version 2.0 and higher supports:

- Apple iPhones and iPads using iOS 6.0 and later.
- Android mobile devices using Android 2.1 and later.
- Jabber for Android 9.6



Note You cannot record a meeting that was started by using a mobile device.



Note When using a mobile device, you cannot access a Cisco WebEx site or Administration site from a web browser.

Cisco WebEx Meetings Application and Productivity Tools Compatibility Matrix

The following table lists the build numbers for the WebEx Meetings application and Productivity Tools downloads for each release of Cisco WebEx Meetings Server.

Cisco WebEx Meetings Server Release	ISO Number	Cisco WebEx Productivity Tools Build Number	Cisco WebEx Meetings Application Build Number
1.0	1.0.1.6	2.80	27.32.0.1981
1.1	1.1.1.9	2.80.100.95	27.32.110.95
1.1 MR1	1.1.1.107	2.80.100.95	27.32.110.95
1.1 MR2	1.1.1.220	2.80.100.95	27.32.110.95
1.1 MR3	1.1.1.316	2.80.100.313	27.32.111.313
1.1 MR4	1.1.1.453	2.80.100.439	27.32.111.439
1.1 MR5	1.1.1.503	2.80.100.439	27.32.111.439
1.5	1.5.1.6	2.80.500.179	27.32.150.179
1.5 HF1	1.5.1.57	2.80.501.52	27.32.151.52

Cisco WebEx Meetings Server Release	ISO Number	Cisco WebEx Productivity Tools Build Number	Cisco WebEx Meetings Application Build Number
1.5 HF2	1.5.1.65/1.5.1.68	2.80.501.52	27.32.151.52
1.5 HF4	1.5.1.68/1.5.1.69	2.80.501.52	27.32.151.52
1.5 MR1	1.5.1.131	2.80.501.130	27.32.151.130
1.5 MR2	1.5.1.223	2.80.501.223	27.32.151.223
1.5 MR3	1.5.1.323	2.80.501.321	27.32.151.321
1.5 MR4	1.5.1.402/1.5.1.400	2.80.501.401	27.32.151.401
2.0	2.0.1.2	2.82.0.1713	27.32.200.1713
2.0 MR1	2.0.1.107	2.82.0.1713	27.32.200.1713
2.0 MR2	2.0.1.205	2.82.0.1713	27.32.200.1713
2.0 MR3	2.0.1.302	2.82.1.302	27.32.201.302



Cisco WebEx Meetings Server Integration Matrix

This document provides information for Cisco WebEx Meetings Server integration with Cisco Unified Communications and audio endpoint compatibility.

- [Cisco Unified Communications Integration, page 25](#)
- [Audio Endpoint Compatibility, page 26](#)

Cisco Unified Communications Integration

Compatibility With Cisco Unified Communications Manager

Cisco WebEx Meetings Server is compatible with the following releases of Cisco Unified Communications Manager:

- 9.1
- 9.0
- 8.6
- 7.1

Cisco Jabber Integration

Cisco WebEx Meetings Server is compatible with the following versions of Cisco Jabber:

- Cisco Jabber for Windows 9.1.2 and later

Cisco Jabber for Windows supports Cisco WebEx Meetings Server with LDAP/Active Directory integration.



Restriction

Jabber for Windows 9.2.6 supports integrations with Cisco WebEx Meetings Server Release 1.1 and later sites that are configured for SAML 2.0 single sign on (SSO). Earlier versions of Jabber for Windows do not support single sign on.

For information about integrating with Cisco WebEx Meetings Server, see the Cisco Jabber for Windows documentation at http://www.cisco.com/en/US/products/ps12511/tsd_products_support_series_home.html.

**Note**

Not all Cisco Jabber versions or platforms support integration with Cisco WebEx Meetings Server. To confirm support, refer to the appropriate Cisco Jabber documentation at <http://www.cisco.com/web/products/voice/jabber.html>.

Audio Endpoint Compatibility

You can use any standards-based audio endpoint that connects to Cisco Unified Communications Manager to join a WebEx meeting. The supported audio endpoints include the Cisco IP Phones, Telepresence endpoints, and PSTN devices such as mobile phones and land line phones. Many audio endpoints support audio and video connectivity. However, only audio connectivity to the Cisco WebEx Meetings Server is supported.

To permit users from outside the organization to join WebEx meetings by using PSTN devices, your company must deploy Analog-to-VoIP Gateways, such as Cisco Integrated Service Routers (ISR).

For a list of Cisco Unified IP Phones supported by Cisco Unified Communications Manager and the Device Packs available for each model, see [Cisco Unified IP Phone Feature and Cisco Unified Communications Manager Device Pack Compatibility Matrix](#) .