Custom Search:

For international, non-US English deployments: See the Cisco Unified MeetingPlace SMTP E-Mail Gateway requirement in the Integration Requirements: Cisco Unified MeetingPlace SMTP E-Mail Gateway.

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Hardware Requirements

- Web Server Requirements
- Audio Server Requirements

Web Server Requirements

The Cisco Unified MeetingPlace Web Conferencing system is a software product loaded onto a hardware server. New installations of Web Conferencing require a Cisco MCS that is dedicated to Cisco Unified MeetingPlace applications.

For information about the Cisco MCS, go to http://www.cisco.com/en/US/partner/products/hw/voiceapp/ps378/index.html. (You need your Cisco.com username and password to access this page.)

Table: Supported Cisco 7800 Series MCS Models lists supported Cisco 7800 Series MCS models. The Cisco MCS must have a DVD-ROM drive, keyboard, mouse, and monitor.

Exact equivalent third-party servers are also supported. For information, go to http://www.cisco.com/go/swonly.

Table: Supported Cisco 7800 Series MCS Models

System (Cisco MCS Model Number)	Voice Conferencing Capacity	Web Conferencing Capacity
• Cisco MCS-7835-H2-RC1 • Cisco MCS-7835-I2-RC1 • Cisco MCS-7835-H1-RC1 • Cisco MCS-7835-I1-RC1 • Cisco MCS-7835-H2-RC2 • Cisco MCS-7835-I2-RC2	Up to 480 voice user licenses per server.	Up to 50 web-conferencing user licenses per server.
• Cisco MCS-7835-I3-RC1 • Cisco MCS-7845-I3-RC1* • Cisco MCS-7845-H2-RC1 • Cisco MCS-7845-I2-RC1 • Cisco MCS-7845-H1-RC1 • Cisco MCS-7845-I1-RC1 • Cisco MCS-7845-H2-RC2	Up to 1,152 voice user licenses per server.	Up to 500 web-conferencing user licenses per server. If you have more than 50 web-conferencing user licenses, move your Cisco Unified MeetingPlace applications (for example, Cisco Unified MeetingPlace for Outlook, Cisco Unified MeetingPlace SMTP E-Mail Gateway) to a Cisco MCS 7845 or a Cisco MCS 7835-I3-RC1 that is dedicated to web conferencing. **NOTES:** • Add a dedicated Cisco MCS 7845 or Cisco MCS 7835-I3-RC1 for each additional 500 web-conferencing user licenses. • If you host Cisco Unified MeetingPlace Web Conferencing and Cisco Unified MeetingPlace for

• Cisco MCS-7845-I2-RC2		Outlook on the same server, the system capacity for supporting web-conferencing user licenses is reduced by 20 percent. For example, if your system supports 500 web users and you add Cisco Unified MeetingPlace for Outlook on the same server, the system capacity for supporting web-conferencing user licenses is reduced by 20 percent, from 500 to 400. • The Cisco MCS 7845-I3-RC1 is supported in Release 6.1 MR1 and later.

Additional Requirements

- NT File System (NTFS) with more than 2.5 GB free space available.
- 700 MB of additional disk space per expected hour of recording over the base level. For more information, see the "Recording Size" section in Configuring the Web Conferencing System for Optimal Data Storage.

Web Server Capacities

The number of ports that a Cisco Unified MeetingPlace Web Conferencing server can support depends on the following:

- The type of hardware.
- Whether SSL is used. (Cisco Unified MeetingPlace Web Conferencing systems configured with SSL support 30 percent fewer ports than systems that do not use SSL.)
- The collocation of other Cisco Unified MeetingPlace components on the hardware. Cisco Unified MeetingPlace Web Conferencing servers collocated with either Cisco Unified MeetingPlace for Microsoft Outlook or Cisco Unified MeetingPlace for IBM Lotus Notes support 20 percent fewer ports than systems without either of those components collocated.

The following table lists the number of Web Conferencing ports supported per server based on the most common configurations.

Table: Web Conferencing Ports Supported Per Server Type

Number of Web Conferencing Ports Supported Per Server	7835 H1/I1	7835 H2/I2	7845 H1/I1	7845 H2/I2	7845 I3*	7835 I3
MP Web: • without SSL • with or without Cisco Unified MeetingPlace SMTP E-Mail Gateway • collocated with or without Cisco Unified MeetingPlace video	100	200	250	500	500	500
MP Web: • with SSL • with or without Cisco Unified MeetingPlace SMTP E-Mail Gateway	70	140	175	350	350	350

• collocated with or without Cisco Unified MeetingPlace video						
MP Web: • without SSL • collocated with either Cisco Unified MeetingPlace for Microsoft Outlook or Cisco Unified MeetingPlace for IBM Lotus Notes • collocated with or without Cisco Unified MeetingPlace video	80	160	200	400	400	400
MP Web: • with SSL • collocated with either Cisco Unified MeetingPlace for Microsoft Outlook or Cisco Unified MeetingPlace for IBM Lotus Notes • collocated with or without Cisco Unified MeetingPlace video	50	110	140	280	280	280

NOTE: The Cisco MCS-7845-I3-RC1 is supported in Release 6.1 MR1 and later.

Enter the values from the table above into the **Max Concurrent Web Conference Users** field on the Web Server page of the Cisco Unified MeetingPlace Administration Center.

Note that if you have a Cisco Unified MeetingPlace web cluster configuration (two or more web servers operating in cluster mode), you must enter the same value for each web server. The value that you enter is the sum of the ports supported by the cluster configuration. For example, if you have two Cisco MCS 7845-H2 servers with SSL enabled and Cisco Unified MeetingPlace for Microsoft Outlook is configured on one web server, then use the value for that configuration from the table above and multiply it by two. (You do not need to factor in that the second web server does not host Cisco Unified MeetingPlace for Microsoft Outlook.) In this example, the value for that specific configuration is 280 so you should enter 560 for the Max Concurrent Web Conference Users parameter. Enter this value for each server in your cluster.

NOTE: There is no table available showing the number of Web Conferencing ports supported for deployments involving other Cisco Unified MeetingPlace components such as Cisco Unified MeetingPlace Directory Services or the Cisco Unified MeetingPlace H.323/SIP IP Gateway. We highly recommend that you use a dedicated Cisco MCS for these other integrations if you cannot reduce the values documented above to accommodate the collocation of these other components. Note that the Cisco Unified MeetingPlace H.323/SIP IP Gateway and Cisco Unified MeetingPlace Directory Services loads are directly connected to the size of your deployment, including the volume of voice conferencing and the number of Cisco Unified MeetingPlace end-user profiles.

System Capacity

The Cisco Unified MeetingPlace 8112 Audio Server can scale to 960 IP, 1152 T1-CAS, 960 E1-PRI, or 768 T1-PRI concurrent users, whereas the Cisco Unified MeetingPlace 8106 Audio Server can scale to half the size of the 8112 platform. A single meeting can support up to 550 participants. Cisco Unified MeetingPlace Release 6.1 Web Conferencing can support up to 1000 concurrent Web conferencing users with a cluster of two Cisco MCSs. Each server in a cluster can support up to 500 concurrent web conferencing users and 100 concurrent meetings, and the maximum meeting size is 1000 participants (refer to Web Server Capacities for details). Participants can join at a maximum rate of 4 connections per second per cluster.

When voice, video, and web conferencing are deployed together, the maximum simultaneous use capacity is 1000 combined voice, video, and web connections per system. For example:

- If you have 1,000 voice and video connections, you can have 0 web connections.
- If you have 800 voice and video connections, you can have 200 web connections.
- If you have 500 voice and video connections, you can have 500 web connections.
- If you have 200 voice and video connections, you can have 800 web connections.
- If you have 0 voice and video connections, you can have 1,000 web connections.

Cisco Unified MeetingPlace Video Integration supports up to 72 videoconferencing participants per chassis from 128 kbps to 2 Mbps per participant on the Cisco Unified Videoconferencing 3500 Series MCUs. Multiple chassis can be deployed in a single cluster, with up to 240 video participants per cluster.

Audio Server Requirements

Cisco Unified MeetingPlace Web Conferencing requires connection to a Cisco Unified MeetingPlace Audio Server system for full functionality. The Audio Server software component must reside on a Cisco Unified MeetingPlace 8112 server or Cisco Unified MeetingPlace 8106 server.

Networking Requirements

Confirm that the system meets the following requirements so that the web server can communicate with the Cisco Unified MeetingPlace Audio Server system:

- TCP ports 5003 and 5005 are open bidirectional between the web server and Cisco Unified MeetingPlace Audio Servers (primary server and shadow server, if one exists).
- The Cisco Unified MeetingPlace Audio Server can initiate a reverse connection to the web server, thus eliminating the need for you to open port 5003 from the web server to the Audio Server. For the reverse connection to be initiated, you must enter the MeetingPlace Server name as a host name instead of an IP address during the Cisco Unified MeetingPlace Web Conferencing installation. You will also have to manually configure this web server unit on the Audio Server.
- Connectivity between the web server and its host Cisco Unified MeetingPlace Audio Server is of high quality and not subject to interruptions because of traffic congestion. Any time the round-trip latency exceeds 100 ms or there is more than 1 percent packet loss, you should expect a noticeable reduction in service quality.
- The Cisco Unified MeetingPlace Audio Server must be connected to a network switch port that is configured for auto-negotiate.
- Cisco Unified MeetingPlace gateways must be connected to network switch ports that are configured for 100/1000 MB Full Duplex.

The following additional networking requirements must also be met for Web Conferencing:

- The web server must be configured with two static IP addresses on the same subnet.
- TCP port 1433 must be open bidirectional between the Web Conferencing server and SQL Server if SQL is installed remotely.

Software Requirements

- Web Server Software Requirements
- Integration Requirements: Cisco Unified MeetingPlace Audio Server
- Integration Requirements: Cisco Unified MeetingPlace for Outlook
- Integration Requirements: Cisco Unified MeetingPlace SMTP E-Mail Gateway
- Integration Requirements: Jabber Server
- (Optional) Integration Requirements: Third Party Audio Conversion and Playback

Web Server Software Requirements

The Cisco Unified MeetingPlace Web Conferencing software runs on the Cisco MCS operating system. This operating system is included with the application. Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires Cisco MCS OS 2003.1.1 or later.

Additional Windows Requirements

- Microsoft Internet Information Server (IIS) 6.0.

  This is installed and configured on the Cisco MCS when the operating system is installed.

- All corporate fonts and standard Microsoft fonts, including Microsoft PowerPoint fonts, installed.

SQL Server Requirements

Microsoft SQL Server 2000 and Service Pack 4 are included with the Web Conferencing Release 6.1 installer. These required components install automatically on the Cisco MCS if you choose the local SQL Server installation option.

To use Microsoft SQL Server 2005, you must first use the Microsoft installation program called SQLServer2005_BC.msi (Microsoft SQL Server 2005 Backward Compatibility Components) to install the version of SQL Distributed Management Objects (DMO) that is compatible with Microsoft SQL Server 2000 onto the Cisco Unified MeetingPlace Web Conferencing server. You only need to upgrade the SQL-DMO part and not the other four components covered by this installation program.

NOTES:

- If you are deploying Web Conferencing by using the remote SQL Server option, you must preinstall SQL Server 2000 with Service Pack 4 before you install Web Conferencing. You are responsible for the maintenance of any remote SQL Servers.
- If you need to manually install SQL Server, you must install and configure your SQL Server to be case-insensitive because Web Conferencing supports only SQL Server case-insensitive configurations. If you configure your SQL server to be case-sensitive, Web Conferencing will not function properly.

SQL Server Requirements?Remote (Off Box) SQL Installation

For better performance, install full customer-provided software and hardware SQL Server 2000 or 2005 (in backward compatibility mode) on a separate server before installing Cisco Unified MeetingPlace Web Conferencing. During the Web Conferencing installation, specify the SQL Server installation location as **Remote**.

You may choose to deploy more complex, remote SQL Server topologies, such as a server farm. To properly operate in a remote SQL Server configuration, Cisco Unified MeetingPlace Web Conferencing requires an Open DataBase Connectivity (ODBC) Data Source Name (DSN) that points to an installation of Microsoft SQL Server 2000 with Service Pack 4 or Microsoft SQL Server 2005 with Service Pack 2 (in backward compatibility mode) with correct permissions to the MPWEB database, and on the Cisco Unified MeetingPlace Web Server the Microsoft SQL Server 2005 backward compatibility software ? DMO (Distributed Management Objects) component.

In any remote SQL server deployment, particularly in complex remote topologies, customers are responsible for supporting and ensuring the stability and performance of the deployment. Any decrease in SQL Server transaction performance or network latency between the Cisco Unified MeetingPlace Web Conferencing server and the remote SQL Server can have a negative impact on Web Conferencing performance up to and including a complete system outage depending on the scale of the slow down. Cisco assumes that the SQL environment is appropriately sized and properly installed by the customer prior to installing Cisco Unified MeetingPlace Web Conferencing, and is monitored and maintained properly after installing Web Conferencing.

NOTE: You must install and configure a remote SQL Server to be case-insensitive because Web Conferencing supports only SQL Server case-insensitive configurations. If you configure your SQL Server to be case-sensitive, Web Conferencing will not function properly.

Integration Requirements: Cisco Unified MeetingPlace Audio Server

Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires Cisco Unified MeetingPlace Audio Server Release 6.1, which must reside on an 8106 or 8112 server.

Additional Requirements

- Access ports (voice)
- Cisco Unified MeetingPlace WebPublisher Option Key
- Cisco Unified MeetingPlace Data Conferencing Option Key (required for application sharing and presentations)
- Cisco MeetingNotes Data Option Key (required for presentations and attachments)
- Cisco MeetingNotes Voice Option Key (required for meeting recordings)
- Cisco Unified MeetingPlace Video Integration Option Key (required for video conferencing)

Integration Requirements: Cisco Unified MeetingPlace for Outlook

Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires Cisco Unified MeetingPlace for Outlook Release 6.1.

You must upgrade both Web Conferencing and Cisco Unified MeetingPlace for Outlook at the same time.

Integration Requirements: Cisco Unified MeetingPlace SMTP E-Mail Gateway

Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires Cisco Unified MeetingPlace SMTP E-Mail Gateway Release Release 6.0.

Integration Requirements: Jabber Server

Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires Cisco Unified MeetingPlace Jabber Integration Release 6.0 installed on a Jabber XCP 4.2 server with Sun Java Runtime Environment (JRE) 1.4.2.xx.

See also Requirements for Cisco Unified MeetingPlace for Jabber Release 6.0.

(Optional) Integration Requirements: Third Party Audio Conversion and Playback

Audio Conversion

- A third-party audio service is not required to convert audio files to MP3, WAV or WMA format. Cisco Unified MeetingPlace Web Conferencing uses its internal audio service component and bundled encoders to convert audio attachments into these formats.

Streamed Playback

- Windows Media Services

  For full installation and configuration instructions, refer to the "Configuring the Windows Media Server" section in Configuring the Web Conferencing System for Optimal Data Storage.

(Optional) Cisco WebEx Requirements

The following are the system requirements for a Cisco Unified MeetingPlace system integrated with Cisco WebEx:

Cisco Unified MeetingPlace

- Cisco MCS 7835 or Cisco MCS 7845 in your DMZ for hosting the Cisco Unified MeetingPlace Cisco WebEx gateway software and Cisco Unified MeetingPlace web conferencing scheduler
- Cisco Unified MeetingPlace Audio Server Release 6.1
- Cisco Unified MeetingPlace Web Conferencing Release 6.1
- No new ports need to be opened for this integration. The system uses the existing 80 and 443 ports exclusively.

- Cisco Unified MeetingPlace web load balancing or cluster deployments are not supported. Only single internal and DMZ web server deployments are supported.
- The maximum combined audio and web capacity is a total of 1000 audio and web (Cisco WebEx) session combined total. Actual combinations depend on a sliding scale.
  For example,
  - 500 audio with 500 web
  - 800 audio wut 200 web
  - 400 audio with 600 web

- SIP RSNA deployments are not supported, such as multi-site and Reservationless Single Number Access (RSNA) using SIP.
- WebConnect is not supported with Cisco WebEx.

Cisco WebEx

- Cisco WebEx WBS26 system release on your Cisco WebEx site
- Cisco WebEx MeetingCenter or Cisco WebEx MeetingCenter Pro.
- Cisco WebEx Sales Center is optional in Maintenance Release 2, 3, and 4. We do not support Cisco WebEx Sales Center in Maintenance Release 5 and later.

Limitations and Restrictions

- If you currently have a Cisco WebEx site provisioned, you cannot add the Cisco Unified MeetingPlace TSP integration to that existing site. You must provision a new site for TSP use with Cisco Unified MeetingPlace. This affects the notification dial in numbers on all notifications for future meetings. Also, current Cisco WebEx recording links must remain on the "current" Cisco WebEx site and any new recordings on the Cisco Unified MeetingPlace or Cisco WebEx site will use the new Cisco WebEx site. Contact your Cisco WebEx Sales teams to coordinate this integration.

- During the scheduling process, the scheduler can choose to define certain users to be "alternate hosts". Alternate hosts can start the meeting if the meeting scheduler does not arrive on time. However, to be listed as an alternate host, a user must have an e-mail address, first name, and last name set in his user profile.

  If any user who is defined as an alternate host does *not* have this information, the system marks the meeting invalid, and it is locked and no one can attend it, not even the meeting scheduler or other attendees. Even if all the other alternate hosts and the meeting host have an e-mail address, first name, and last name set in their user profiles, if just one alternate host does not, the meeting cannot

be attended by anyone. The system will set the user profile of anyone who tries to attend the meeting (even users with e-mail address, first name, and last name set in their user profiles) to inactive on Cisco WebEx and they will lose the ability to attend any meetings.

Therefore, we highly recommend that you populate the user profile for anyone who will ever be invited to a Cisco WebEx meeting with an e-mail address, first name, and last name.

- If you invite an alternate host whose Cisco WebEx user account is inactive, the system will "hang" and the alternate host will see a blank window.

Customer Network to Cisco WebEx Cloud IP Ranges for Firewall Settings

To ensure traffic to and from the WebEx domain is routed appropriately through your firewall or proxy servers, review the settings below:

Web browser exceptions:

- Add an exception for the entire webex.com domain = *.webex.com.
- At the minimum, the following addresses should be added as exceptions: YOURSITENAME.webex.com and akamaicdn.webex.com.

- ActiveX and/or JavaScript will need to be allowed through the firewall and web browsers should be configured to not restrict ActiveX and/or JavaScript.
- We ask that WebEx sites are not cached (content, IP-path) on proxy servers.
    - Cisco WebEx Production IP Exceptions
        - 64.68.96.0/19 (CIDR) or 64.68.96.0 - 64.68.127.255 (net range)
        - 66.114.160.0/20 (CIDR) or 66.114.160.0 - 66.114.175.255 (net range)
        - 66.163.32.0/20 (CIDR) or 66.163.32.0 - 66.163.47.255 (net range)
        - 209.197.192.0/19 (CIDR) or 209.197.192.0 - 209.197.223.255 (net range)
        - 208.8.81.0/24 (CIDR) or 208.8.81.0 - 208.8.81.255 (net range)
        - 210.4.192.0/20 (CIDR) or 210.4.192.0 - 210.4.207.255 (net range)
        - 62.109.192.0/18 (CIDR) or 62.109.192.0 - 62.109.255.255 (net range)
        - 173.243.0.0/20 (CIDR) or 173.243.0.0 - 173.243.15.255 (net range)
        - 114.29.192.0/19 (CIDR) or 114.29.192.0 - 114.29.223.255 (net range)

Types of Cisco WebEx Service Contracts

Minutes

With this model, Cisco WebEx charges the customer for web-meeting minutes consumed by attendees.

Concurrent Ports

With this model, the customer purchases a certain number of Cisco WebEx ports. A port corresponds to a web-meeting attendee. The number of attendees that can join meetings system-wide is limited to the number of ports purchased; hence the term "concurrent ports".

Named Host

With this model, only someone who is explicitly named as a host can schedule a meeting.

The Named Host license has two types:

- Limited Named Hosts: Only allows a certain number of hosts on the Cisco WebEx site.
- Unlimited Named Hosts: Allows an unlimited number of hosts on the Cisco WebEx site.

Limitation for Cisco WebEx Named Host contracts:

- If the user profile for User A has the "Hide Web Conference Provider" field set to Yes and the "Default Provider" field set to either MeetingPlace or Group Default, then User A has access to Cisco Unified MeetingPlace scheduling only and not to Cisco Webex scheduling.
- However, if User B invites User A to be an alternate host or attendee for a Cisco WebEx meeting, then the system creates an account for User A as a host on the Cisco WebEx site.

This limitation may potentially result in Cisco WebEx overage charges if end users schedule meetings from the Cisco Unified MeetingPlace web-based scheduler. To avoid this, we strongly recommend that end users schedule their Cisco WebEx web and Cisco Unified MeetingPlace audio meetings using the Cisco Unified MeetingPlace Outlook Plug-In, which does not expose the same limitation.

Load Balancing Requirements

Cisco Unified MeetingPlace Web Conferencing load balancing makes use of an algorithmic formula to evenly distribute web-conferencing requests within clusters of web servers. The following section lists additional requirements for load balancing configurations.

Audio Server Requirements

- All web servers within both internal and external clusters must point to the same Cisco Unified MeetingPlace Audio Server.
- You can attach a maximum of 16 Cisco MCSs running Cisco Unified MeetingPlace applications (for example, Cisco Unified MeetingPlace Web Conferencing, Cisco Unified MeetingPlace SMTP E-Mail Gateway) to the same Cisco Unified MeetingPlace Audio Server.

Internal Web Server Cluster Requirements

If you have an internal web server cluster in your load balancing configuration, ensure the following:

- All web servers within the internal cluster must share a single SQL Server database.
- All web servers within the internal cluster must have access to a shared storage location for attachments.
- Install Cisco Unified MeetingPlace Web Conferencing on each server sequentially (internal web server 1, internal web server 2, and so forth) with the following option: for Server Location, choose Internal (Full Access).

- Make sure that all web servers within the internal cluster have the same deployment settings and configurations (for example, the same Replication Service and Audio Service parameters).

External Web Server Cluster Requirements

If you have an external web server cluster in your load balancing configuration, ensure the following:

- All web servers within the external cluster must share a single SQL Server database.

  NOTE: Make sure the internal cluster and external cluster use different databases.

- All web servers within the external cluster must have access to a shared storage location (for attachments).
- Install Cisco Unified MeetingPlace Web Conferencing on each server sequentially (external web server 1, external web server 2 and so forth) with the following option: for Server Location, choose External (Limited Access).
- Make sure that all web servers within the external cluster have the same deployment settings and configurations (for example, the same Replication Service and Audio Service parameters).

Mixed Cluster Requirements

A mixed cluster has at least one internal cluster and one external cluster. If you have a mixed cluster in your load balancing configuration, ensure the following:

- All requirements for internal web server clusters and external web server clusters are met.
- The internal cluster's database and external cluster's database must contain identical GUIDS.

Port Access Requirements

- TCP ports 8506 and 8507 must be open bidirectional between each Web Conferencing server in a load balancing cluster.

SSL Requirements

Secure Sockets Layer (SSL) is not compatible with Cisco Unified IP Phone integration and is not compatible with Windows Integrated Authentication (WIA).

Segmented Meeting Access Requirements

Cisco Unified MeetingPlace Web Conferencing supports Segmented Meeting Access - 2 Server (SMA-2S) deployments for external access.

NOTE: The Segmented Meeting Access - 1 Server (SMA-1S) deployment is no longer supported in Release 6.1.

The following requirements are in addition to standard Cisco Unified MeetingPlace Web Conferencing hardware and software system requirements as indicated in Hardware Requirements and Software Requirements. Make sure that you meet the following requirements before you attempt the SMA-2S deployment.

Hardware Requirements

- Two single Cisco MCSs or clusters of Cisco MCSs (in the case of load balancing)
    - One server or cluster of servers deployed inside the private corporate network functioning as internal web servers.
    - One server or cluster of servers deployed in a network segment, such as a DMZ, functioning as external web servers.

Software Requirements

- On internal web servers, Cisco Unified MeetingPlace Web Conferencing Release 6.1 installed with the "Internal (Full Access)" server location option.
- On external web servers, Cisco Unified MeetingPlace Web Conferencing Release 6.1 installed with the "External (Limited Access)" server location option.

DNS Configuration Requirements

- For segmented DNS, the same host name must resolve to the internal web server on the internal DNS and resolve to the external web server on the external DNS.
- For information on configuring notification templates to accommodate nonsegmented DNS, see the administration guide for your particular Cisco Unified MeetingPlace notification application.
- Make sure that the internal host names and IP addresses are accessible only from the internal network.
- Make sure that the external host names or IP addresses are accessible from both the internal network and the Internet.

Port Access Requirements

- Make sure that the following ports are open between the DMZ and the internal network:
    - TCP ports 5003 and 5005 are open bidirectional between the web server and the Cisco Unified MeetingPlace Audio Servers (primary server and shadow server, if one exists).

      If you configured your network for reverse connection, where your web servers are configured with a MeetingPlace Server hostname instead of an IP address, the Audio Server can initiate a reverse connection to the web server in the DMZ when port 5003 inbound is blocked.

- Make sure that the following ports are open inbound from the Internet to the DMZ:

- TCP Port 80
- TCP Port 1627 (strongly recommended for higher performance of the meeting console)
- TCP Port 443(if SSL is implemented)

Additional Requirements

- Synchronized GUIDS between Internal and DMZ servers

  The database of the internal server and external server must contain identical GUIDS.

WebConnect Requirements

WebConnect is used to make web scheduling and meeting attendance seamless across multiple Cisco Unified MeetingPlace systems. Make sure that your system meets the following requirements before you configure WebConnect.

NOTE: We do not support the WebConnect feature on UNIX systems.

Cisco Unified MeetingPlace Audio Server Requirements

- For Cisco Unified MeetingPlace Web Conferencing Release 6.1: Cisco Unified MeetingPlace Audio Server Release 6.1
- Cisco Unified MeetingPlace MeetingTime Release 6.1 with the following settings:
  - User profile > Sched only on scheduling home server? > No
  - User profile > Sched only on NS home site? > No
  - System Parameters > Allow Vanity Mtg IDs? > Yes

Additional Requirements

- Make sure that all sites within the Cisco Unified MeetingPlace Image are running the same build-level release of Cisco Unified MeetingPlace Audio Server.
- Make sure that all systems within a site have the same system options and notification vehicles. For example, MeetingNotes, Cisco Unified MeetingPlace SMTP E-Mail Gateway, Microsoft Outlook.
- For external dedicated sites, make sure that you are using VPN (T1 or Frame Relay).
- For rollover map configurations, make sure that you assign all users to a group.

  Note: You must assign all groups to a rollover map (even if the rollover map only has one site).

- You must have Cisco Unified MeetingPlace Directory Services or a similar profile synchronization procedure deployed on a dedicated server.

End-User Requirements

Make sure that user workstations meet the client requirements in this section, or provide these requirements to your users. All client machines must have separate Internet and telephony access for attending voice and web conferences. The recommended minimum bandwidth is a 56K modem connection. A lesser connection can slow down web-conferencing performance.

Service packs (SPs) listed are required minimums, and service pack releases later than the ones listed are assumed to work unless documented otherwise.

- Client Requirements: Microsoft Windows
- Client Requirements: Apple Mac
- Client Requirements: Sun Solaris
- Client Requirements: RedHat Linux

Client Requirements: Microsoft Windows

Table: Supported Web Browsers by Microsoft Windows Operating System Version

Operating System Version	Supported Web Browsers
Windows 7 (Professional, Business, Ultimate) (64-Bit and 32-Bit)	• Microsoft Internet Explorer 8
Windows Vista	• Microsoft Internet Explorer 7.x • Microsoft Internet Explorer 8.x • Mozilla Firefox 1.5 or 2.0 • Mozilla Firefox 3.0
Windows XP (with SP1 or later)	• Microsoft Internet Explorer 6.0 with SP1 or SP2 • Microsoft Internet Explorer 7.x • Microsoft Internet Explorer 8.x • Mozilla Firefox 1.5 or 2.0 • Mozilla Firefox 3.0
Windows 2000 (with SP2 or later)	• Microsoft Internet Explorer 5.5 SP2 • Mozilla Firefox 1.5 or 2.0 • Netscape 7.1

Requirements for Participating in a Cisco Unified MeetingPlace Web Conference

- Adobe Flash Player 6.0.79 - Release 9.x
- Adobe Flash Player 10
- (Optional) Audio player that plays WAV, WMA, or MP3 files.
- (Optional, but strongly recommended) TCP port 1627 open from client-to-server on your firewall for direct inbound access.

  If this port is not open, the meeting console establishes a slightly slower connection by tunneling

through port 80.

NOTE: If you are using Adobe Flash Player 10, make sure that you install Flash Player separately from your installation of Internet Explorer or Mozilla FireFox. If you are using both Internet Explorer and Mozilla Firefox for web conferencing, install Flash Player from both interfaces.

Installing Adobe Flash Player on Internet Explorer 8

1. Go to the Adobe Flash Player download page at www.adobe.com.
2. From the Download page, click **Install**.
3. Download and install the Adobe Flash Player.

Installing Adobe Flash Player on FireFox 3.6

1. Go to the Adobe Flash Player download page at www.adobe.com.
2. From the Download page, click **Install**.
3. Install the Adobe Download Manager add-on (the message appears below the toolbar).
4. Restart FireFox.
5. Go to the Adobe Flash Player download page again.
6. Click **Install**.

   The previously installed Download Manager appears and the Adobe Flash Player is installed.

Requirements for Sharing Desktop Content and Applications

- Cisco Unified Presenter Add-In (can be downloaded from the Browser Test link on the Web Conferencing home page or from within the meeting console).
- After you download and install the Cisco Unified Presenter Add-In, you must log in to Cisco Unified MeetingPlace locally and not by using a roaming profile. Cisco Unified MeetingPlace does not support roaming profiles because in that case, your settings (including the add-in) are not stored locally but on a server drive.

NOTE: You must have administrator privileges on your computer to install or use the Cisco Unified Presenter Add-In.

Additional Requirements for Video Conferencing

To make sure that your end-user system is set up for video conferencing, see Cisco Unified MeetingPlace Video Integration, Release 6.0 For Use With Release 6.1.

Requirements for Playing Meeting Recordings

To listen to voice recordings, users must have a corresponding audio player installed on their end-user systems. The following table lists the audio file formats supported by Cisco Unified MeetingPlace Web Conferencing as well as the encoder used to convert the format, the player, and media server responsible for each format.

Table: Audio Services Compatible with Cisco Unified MeetingPlace Web Conferencing

Media Service	Encoder	Player	File Type
Windows Media	Windows Media 9	Requires Windows Media Player 7 or a later release.	.wma
N/A	LAME	MP3 Player	.mp3

NOTE: See also the topics on About Audio File Conversion.

For example: We recommend that you configure Windows Media Server to enable streaming playback of your audio recordings. See To Configure the Windows Media Server. You must install and configure supported services and end-user applications in order for playback to work.

Typically, WAV files are supported by common web browsers and do not require a dedicated server, encoder, and player.

NOTE: If the server is running out of disk space while a current recording is being made, the system notifies all users that there is no more space available. To reduce the likelihood of this occurrence, see About Audio File Conversion.

Client Requirements: Apple Mac

Operating System

OS 10.2, 10.3, 10.4, or 10.5

Web Browser

- Mozilla Firefox 1.5 or 2.0
- Mozilla Firefox 3.0
- Mac Safari 1.1, 1.2, or 2.0
- Mac Safari 3.0, 3.1, or 3.2

Requirements for Participating in a Cisco Unified MeetingPlace Web Conference

- Adobe Flash Player 6.0.79 - Release 9.x
- Adobe Flash Player 10
- (Optional) Audio player that plays WAV, WMA, or MP3 files.

- (Optional, but strongly recommended) TCP port 1627 open from client-to-server on your firewall for direct inbound access.

  If this port is not open, the meeting console establishes a slightly slower connection by tunneling through port 80.

NOTE: If you are using Adobe Flash Player 10 with Mozilla Firefox, make sure that you install Flash Player separately from your installation of Mozilla FireFox.

Requirements for Sharing Desktop Content and Applications

- Cisco Unified Presenter Add-In (can be downloaded from the Browser Test link on the Web Conferencing home page or from within the meeting console).

NOTE: You must have administrator privileges on your computer to install or use the Cisco Unified Presenter Add-In.

Restrictions and Limitations

The Cisco Unified Presenter Add-In, when used with Macs, can use almost all of the CPU.

Client Requirements: Sun Solaris

Operating System

Solaris 9 or a later release

Web Browser

- Mozilla Firefox 1.5

Requirements For Participating in a Cisco Unified MeetingPlace Web Conference

- Adobe Flash Player 6.0.79 - Release 9.x
- Adobe Flash Player 10

  Screen sharing and file sharing from the desktop are not available on Unix systems. Users on these systems can share a whiteboard or meeting attachment, view shared files and make annotations, but they cannot share files that reside on their systems with other participants.

- (Optional) Audio player that plays WAV, WMA, or MP3 files.

NOTES:

- You must have administrator privileges on your computer to install or use the Cisco Unified Presenter Add-In.
- If you are using Adobe Flash Player 10 with Mozilla Firefox, make sure that you install Flash Player separately from your installation of Mozilla FireFox.

Client Requirements: RedHat Linux

Operating System

RedHat 9 or a later release

Web Browser

Mozilla Firefox 1.5 or later

Requirements For Participating in a Cisco Unified MeetingPlace Web Conference

- Adobe Flash Player 6.0.79 - Release 9.x
- Adobe Flash Player 10

  Screen sharing and file sharing from the desktop are not available on Linux systems. Users on these systems can share a whiteboard or meeting attachment, view shared files and make annotations, but they cannot share files that reside on their systems with other participants.

- (Optional) Audio player that plays WAV, WMA, or MP3 files.

NOTES:

- You must have administrator privileges on your computer to install or use the Cisco Unified Presenter Add-In.
- If you are using Adobe Flash Player 10 with Mozilla Firefox, make sure that you install Flash Player separately from your installation of Mozilla FireFox.

Upgrade Requirements

Upgrading a legacy system to Cisco Unified MeetingPlace Web Conferencing Release 6.1 requires the following:

- Either a supported Cisco MCS H1/I1 or H2/I2 series model (Cisco MCS 3.0 series is not supported), or an exact HP or IBM equivalent. For information on Cisco MCS specifications, go to http://www.cisco.com/en/US/products/hw/voiceapp/ps378/index.html.

  Note: If you are not using a HP or IBM exact equivalent, you must install Release 6.1 as a new installation on a supported Cisco MCS. For installation requirements, see the Hardware Requirements.

- Windows Server 2003 Enterprise Edition
- Microsoft Internet Information Server (IIS) 6.0

  Microsoft IIS 6.0 is installed with Windows Server 2003

- SQL Server 2000 (SP 4)
  - Cisco Unified MeetingPlace Web Conferencing requires the SQL Server Processor License option. For more information, see the Microsoft website.
- Cisco Unified MeetingPlace Web Conferencing Release 6.1.

Caution! Do not delete the SQL Server database if you want to maintain your current click-to-attend links, attachments, and meeting recordings. Deleting or rebuilding your current database deletes all this information.

Note: To upgrade to a Cisco MCS 7835-I3-RC1, upgrade from a legacy system to 6.1 and replace the Web Server with the MCS 7835-I3-RC1 according to How to Replace a Web Server and Retain the SQL Database.