

The Cisco Unified MeetingPlace Web Conferencing installation is completed in four parts:

1. Installing the Operating System on the Cisco MCS Server
2. Configuring Network Settings on the Cisco MCS Server
3. Default Hostname Values and Changing the Order of the IP Addresses
4. Installing Web Conferencing

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Installing the Operating System on the Cisco MCS Server

Before you begin, confirm that your system meets the network and system requirements. (See the System Requirements.)

To Install the Operating System on the Cisco MCS Server

1. Dedicate a networked Cisco MCS on which to install Cisco Unified MeetingPlace Web Conferencing.
2. Install the required Cisco MCS operating system on the Cisco MCS server.

The operating system CD was shipped with your Cisco Unified MeetingPlace application software.

Follow the installation procedure in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*, which is included with the operating system software. Although the document refers to Cisco Unified CallManager and other applications, it also applies to Cisco Unified MeetingPlace integration applications.

Note: Return to this document before performing the Post-Installation Tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*.
3. Continue with the next section, Configuring Network Settings on the Cisco MCS Server.

Configuring Network Settings on the Cisco MCS Server

Once the operating system is installed, you must configure the network interfaces. Cisco Unified MeetingPlace Web Conferencing has the following networking requirements:

- Two separate IP addresses are required.
- The IP addresses must be on the same network segment. (Both must be connected to the same Layer 3 subnet and the same Layer 2 Ethernet broadcast domain.)
- The two IP interfaces cannot share the same hostname or be aliased to each other in DNS. (Hostnames are only required if the server will be configured for Secure Sockets Layer.)
- Based on the NIC binding order, the system assigns the first IP address to the Host Name [Web Conferencing] and the second IP address to the Hostname [Home Page].

Cisco Unified MeetingPlace Web Conferencing supports assigning the two required IP addresses by using the following Network Interface Card (NIC) configurations:

<p>One NIC enabled and configured with two IP addresses; second NIC is disabled</p>	<ul style="list-style-type: none"> • Only utilizes one of the two NICs on the system. • The NIC is a single point of failure. • This configuration is available for both HP and IBM MCS server models • For configuration instructions, see To Configure a Single NIC with Both IP Addresses on the Cisco MCS Server.
<p>Both NICs enabled, one IP address per NIC</p>	<ul style="list-style-type: none"> • Each NIC on the system is used, although one NIC may be more heavily used than the other. • Each NIC is a single point of failure. If either NIC fails, Cisco Unified MeetingPlace Web Conferencing will be unavailable. • If the Cisco Unified MeetingPlace Web Conferencing server is connected to a 100 MB/sec. network, the NIC capacity may be exceeded in large meetings with heavy application sharing. • This configuration is available for both HP and IBM MCS server models. • For configuration instructions, see To Configure One IP Address per NIC on the Cisco MCS Server.
<p>Both NICs enabled, teamed, configured in Transmit Load Balancing (TLB) mode</p>	<ul style="list-style-type: none"> • The two NICs act together to handle traffic for both IP addresses; one NIC receives inbound traffic, both NICs send outbound traffic. • If either NIC fails, the other NIC can take over. • We strongly recommend this configuration if the Web Conferencing server is connected to a 100 MB/sec. network. • We do not recommend this configuration if your network requires two interconnecting switches.

	<p>Complete the configuration in Network Fault Tolerance (NFT) mode instead.</p> <ul style="list-style-type: none"> • This configuration is available only for HP MCS server models. • For configuration instructions, see To Configure NIC Teaming on the Cisco MCS Server (HP Models Only).
Both NICs enabled, teamed, configured in Network Fault Tolerance (NFT) mode	<ul style="list-style-type: none"> • One NIC is active, handling traffic for both IP addresses. • The other NIC is passive and takes over if the primary NIC fails. • This configuration is available only for HP MCS server models. • For configuration instructions, see To Configure NIC Teaming on the Cisco MCS Server (HP Models Only).
One NIC enabled and configured with two IP addresses; second NIC enabled and configured with a secure IP address	<ul style="list-style-type: none"> • Each NIC on the system is used, although one NIC may be more heavily used than the other. • Each NIC is a single point of failure. If either NIC fails, Cisco Unified MeetingPlace Web Conferencing will be unavailable. • If the Cisco Unified MeetingPlace Web Conferencing server is connected to a 100 MB/sec. network, the NIC capacity may be exceeded in large meetings with heavy application sharing. • This configuration is available for both HP and IBM MCS server models. • For configuration instructions, see To Configure One NIC with Two IP Addresses and One NIC with One Secure IP Address on the Cisco MCS Server.

To Configure a Single NIC with Both IP Addresses on the Cisco MCS Server

1. Follow the procedure for "Configuring Network Settings" in the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)* . In this procedure, configure the primary NIC on the system with 2 static IP address and with DNS, WINS, or the LMHosts file for both hostnames resolution.
2. Add the secondary IP address to the primary NIC:
 1. On the Start menu, click **Settings > Network Connections** .
 2. Right-click **Local Area Connection** , then click **Properties** .
 3. Double-click **Internet Protocol (TCP/IP)** .
 4. Click **Advanced** .
 5. On the IP Settings tab, in the IP Addresses area, click **Add** .
 6. Enter the secondary IP address and subnet mask and click **Add** .
 7. Click **OK** three times to close the Local Area Connection Properties window.
3. (Optional) Continue performing the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*.

Note: We highly recommend that you configure the duplex of your network adapters for Full Duplex (either 100/Full or 1000/Full, as applicable). Autonegotiation may impact Web Conferencing traffic flow.
4. Proceed to the [Installing Web Conferencing](#) section.

To Configure One IP Address per NIC on the Cisco MCS Server

1. Follow the procedure for "Configuring Network Settings" in the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)* . In this procedure, configure the primary NIC on the system with a static IP address and with DNS, WINS, or the LMHosts file for hostname resolution.
2. Repeat [Step 1](#) for the secondary NIC on the system, using a different IP address on the same subnet, with the same subnet mask and default gateway. If you receive a warning about using the same default gateway, click OK to accept the warning and continue.
3. Enable the secondary NIC:
 1. On the Start menu, click **Settings > Network Connections** .
 2. Right click **Local Area Connection 2** and click **Enable** .
4. (Optional) Continue performing the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*.

Note: We highly recommend that you configure the duplex of your network adapters for Full Duplex (either 100/Full or 1000/Full, as applicable). Autonegotiation may impact Web Conferencing traffic flow.
5. Proceed to the [Installing Web Conferencing](#) section.

To Configure NIC Teaming on the Cisco MCS Server (HP Models Only)

1. Follow the procedure for "Configuring Network Settings" in the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)* . In this procedure, configure the primary NIC on the system with a static IP address and with DNS, WINS, or the LMHosts file for hostname resolution.

Note: If you are using the LMHosts file for hostname resolution, add an entry for both the primary and secondary IP addresses and hostnames.
2. Enable the secondary NIC:
 1. On the Start menu, click **Settings > Network Connections** .
 2. Right click **Local Area Connection 2** and click **Enable** .
3. Configure network teaming by using the HP Network Configuration Utility, available by choosing **Start > Settings > Control Panel > HP Network** . Refer to the HP Network Configuration Utility online help for instructions.
4. Add the primary IP address to the NIC team:
 1. On the Start menu, click **Settings > Network Connections** .
 2. Right-click **Local Area Connection 3** , then click **Properties** .
 3. Double-click **Internet Protocol (TCP/IP)** .
 4. Click **Use the following IP address** ; in the appropriate fields, enter the server primary IP address, subnet mask, and default gateway that you used in [Step 1](#).
 5. If you configured DNS or WINS for the primary NIC by using the procedure in [Step 1](#), repeat the procedure for the team. If you configured the LMHosts file, skip to [Step 5](#) substep [d](#).
5. Add the secondary IP address to the NIC team:
 1. On the Start menu, click **Settings > Network Connections** .
 2. Right-click **Local Area Connection 3** , then click **Properties** .
 3. Double-click **Internet Protocol (TCP/IP)** .
 4. Click **Advanced** .
 5. On the IP Settings tab, in the IP Addresses area, click **Add** .
 6. Enter the secondary IP address and subnet mask and click **Add** .

7. Click **OK** three times to close the Local Area Connection Properties window.
6. Verify that the team is configured correctly:
 1. On the Start menu, click **Run** .
 2. Type **cmd** and press **Enter** . The command window opens.
 3. Type **ipconfig /all** and press **Enter** . The connection information displays in the command window. The Local Area Connection 3 (for the network team) should show two IP addresses.
7. (Optional) Continue performing the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*.

Note: We highly recommend that you configure the duplex of your network adapters for Full Duplex (either 100/Full or 1000/Full, as applicable). Autonegotiation may impact Web Conferencing traffic flow.
8. Proceed to the [Installing Web Conferencing](#) section.

To Configure One NIC with Two IP Addresses and One NIC with One Secure IP Address on the Cisco MCS Server

1. Check the binding order of the NICs by following these steps:
 1. On the Start menu, click **Settings > Control Panel > Network Connections**.
 2. Click **Advanced > Advanced Settings**.
 3. Perform [Step 2](#) and [Step 3](#) on the first NIC (LAN or LAN2).
 4. Perform [Step 4](#) on the second NIC.
2. (To be performed on the first NIC only) Follow the procedure for "Configuring Network Settings" in the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*. This document is included with the operating system software.

For this procedure, configure the first IP address on the first NIC in the binding order with a static IP address and with DNS, WINS, or the LMHosts file for both hostnames resolution.
3. (To be performed on the first NIC only) Add the secondary IP address to the same NIC that you configured in [Step 2](#) by following these steps:
 1. On the Start menu, click **Settings > Network Connections**.
 2. Right-click **Local Area Connection**, then click **Properties**.
 3. Double-click **Internet Protocol (TCP/IP)**.
 4. Click **Advanced**.
 5. On the IP Settings tab, in the IP Addresses area, click **Add**.
 6. Enter the secondary IP address and subnet mask and click **Add**.
 7. Click **OK** three times to close the Local Area Connection Properties window.
4. (To be performed on the second NIC only) Configure the second NIC in the binding order with a secure IP address that will be used to connect to the Audio Server.
5. (Optional) Continue performing the post-installation tasks in *Installing the Operating System on the Cisco Unified Communications Server (version 2003.1.1 or later)*.

Note: We highly recommend that you configure the duplex of your network adapters for Full Duplex (either 100/Full or 1000/Full, as applicable). Auto negotiation may impact Web Conferencing traffic flow.
6. Proceed to [Installing Web Conferencing](#).
7. Replace the IP addresses on the Web Conferencing server with the hostnames you configured previously. Hostname [Home Page] is the hostname that you configured in [Step 2](#) and Hostname [Web Conferencing] is the hostname that you configured in [Step 3](#).

Note: You only need to replace the IP addresses with hostnames if you are enabling SSL.
8. Restart the Web Conferencing server.

Default Hostname Values and Changing the Order of the IP Addresses

Based on the NIC binding order, the system assigns the first IP address to the Hostname [Web Conferencing] and the second IP address to the Hostname [Home Page].

Note: If you ever change an IP address to a hostname or FQDN, be sure that you replace it with the hostname or FQDN corresponding to that IP address. Do not switch the order of the IP addresses or hostnames as this will cause problems.

If you want to switch the order of the IP addresses, follow these steps:

1. Change the binding order of the IP addresses/NICs on the server. Depending on your system, see one of these sections: the [Changing the Binding Order for a System with One IP Address on Each NIC](#) or the [Changing the Binding Order for a System with Two IP Addresses on One NIC](#).
2. Make the corresponding change in the Cisco Unified MeetingPlace Web Conferencing application. See the [Making the Change in the Application](#).

Changing the Binding Order for a System with One IP Address on Each NIC

1. On the Start menu, click **Settings > Control Panel > Network Connections**.
2. Click **Advanced > Advanced Settings**.
3. Change the order of the IP addresses/NICs by using the up and down arrows.

Changing the Binding Order for a System with Two IP Addresses on One NIC

1. Change the primary IP address to the virtual IP address.
2. Change the virtual IP address to the primary IP address.

Making the Change in the Application

1. Sign in to Cisco Unified MeetingPlace Web Conferencing.
2. From the Welcome page, click **Admin**, then click **Web Server**.
3. From the bottom section of the page, click the name of the web server that you want to configure. This populates the top section of the page with predefined settings.
4. Change the order of the IP addresses for the Hostname [Web Conferencing] and the Hostname [Home Page].
5. Restart all Cisco Unified MeetingPlace Web Conferencing services.

Installing Web Conferencing

The Cisco Unified MeetingPlace Web Conferencing executable takes approximately 45 minutes to install the following components:

- Cisco Unified MeetingPlace Gateway SIM.

Cisco_Unified_MeetingPlace,_Release_6.x_--_Installation_Tasks:_Web_Conferencing

- Cisco Unified MeetingPlace Web Conferencing software. This requires an automatic reboot.
- (If the local server option is chosen) SQL Server 2000. This requires an automatic reboot.
- (If the local server option is chosen) The appropriate release of the SQL Server 2000 service pack. This requires an automatic reboot.
- Cisco Unified MeetingPlace Web Conferencing engine. This requires an automatic reboot.

Note that there are a total of four automatic reboots if you are installing SQL Server 2000 locally, or two if you are using a remote SQL server.

Note: Check [System Requirements](#) for the required SQL Server 2000 service pack.

Note: The installation executable disables antivirus software for the duration of the installation.

Note: There is a known problem installing Cisco Unified MeetingPlace Web Conferencing on an IBM MCS-7835I by using VNC when Cisco Unified Communications Manager was installed earlier by using VNC on a server that is running IBM Director version 4.11 or later. To avoid this problem, we strongly recommend that you do not use VNC for a new installation or an upgrade of Cisco Unified MeetingPlace Web Conferencing on an IBM MCS-7835I.

For additional information, look for caveat CSCsa39488 in the Cisco Bug Toolkit. For information, see the "Using Bug Toolkit" section of the Release Notes.

Before You Begin

- Confirm that the Cisco MCS server is configured with the correct time zone and daylight savings time settings. The installation may fail if you do not configure the system to automatically observe daylight savings time in a time zone that requires it.
- Confirm that your installation drive has sufficient disk space to allow for the storage of applications, attachments, recordings, and meeting and profile database information, which will grow over time. (See the [System Requirements](#).)
- Confirm that the Cisco Unified MeetingPlace 8100 series server has Cisco Unified MeetingPlace Audio Server Release 6.0 or later installed.
- Have the information that you gathered in the [Gathering Web Conferencing Installation Values](#) section available.
- Complete the [Installing the Operating System on the Cisco MCS Server](#) section.


Restriction

We do not support installing or upgrading to Web Conferencing Release 6.x by using Terminal Services.

Caution! Do not interrupt the server during program installation or during automatic system shutdown or reboot.

To Install Cisco Unified MeetingPlace Web Conferencing

1. Exit any open applications.

2. Insert the Cisco Unified MeetingPlace Web Conferencing DVD into the DVD-ROM drive and double-click the **CiscoUnifiedMeetingPlaceWebConferencing.exe** file to begin installation.
Note: The Cisco Unified MeetingPlace Web Conferencing CD contains multiple executable files. Verify that you are double-clicking the correct executable file.
3. After the install files are extracted, click **Next** and follow the instructions in the installer windows using the information you gathered in the Gathering Web Conferencing Installation Values section. Note the following considerations:
 - ◆ If you enter an IP address instead of a hostname for the Audio Server system, a warning message appears regarding reverse connection.
 - ◆ If this machine is in a network segment, such as a DMZ, and you are interested in reverse connection, enter a hostname instead of an IP address, then proceed with the installation.
 - ◆ If this machine has a connection to the Audio Server system—that is, if they are in the same network segment, port 5003 is open, and the Audio Server system is running—and you are not interested in reverse connection, then use the IP address and proceed with the installation.
4. The installer installs the Gateway SIM first. When the InstallShield Wizard Complete window appears, click **Finish**. The Gateway SIM is installed.
Note: If a Missing Server Version error message appears, confirm that Audio Server Release 6.0 or later is installed on the Cisco Unified MeetingPlace 8100 series server. If the correct version is installed, proceed with the Web Conferencing installation. If not, click **Cancel** and upgrade the Audio Server software to version 6.0 or later before proceeding.
5. Continue following the instructions in the installer windows using information from the Gathering Web Conferencing Installation Values section.
Note: If you chose Local Server as your SQL Server location, after the first reboot, you must log in to the system as an administrator in order for the installer to begin installing SQL Server. When SQL Server installation is complete, the server reboots automatically. During installation, remember the following information:
 - ◆ If the installer detects a local SQL Server installation, after the second reboot, the installer begins installing the SQL Server service pack. When the service pack installation is complete, the server reboots automatically.
 - ◆ Installations of SQL Server and the SQL Server service pack are slow, and depending on your server hardware, installations may take 40 minutes or more to complete. Status updates appear from the Cisco Unified MeetingPlace icon in the system tray during the installation.
 - ◆ The Cisco Unified MeetingPlace icon appears as a red door .
 - ◆ If the SQL Server installation appears to be taking too long (over 35 minutes), check Task Manager to confirm that SQLInstall.exe is running.
 - ◆ After the server reboots, the installer invokes SQLInstall.exe to create the MPWEB SQL database. This process may take 5 to 10 minutes.
 - ◆ After creating the database and installing the Web Conferencing engine, the server reboots automatically.
6. After the final automatic reboot (the fourth reboot if you are installing SQL Server 2000 locally, or the second if you are using a remote SQL server), open the Gateway SIM event log to monitor Web Conferencing application activities.
 - ◆ While the system is coming up, you should see the event text, ?Waiting for Connect.?
 - ◆ When the Web Conferencing engine is ready, you should see response text similar to the following:

```
MPAgent (0x116C) Information: Conf Tech Provider "MeetingPlace Breeze Gateway" is active
```
7. Continue with the next section, Postinstallation Tasks: Web Conferencing.