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This document provides information for all releases of Cisco Unified MeetingPlace Release 8.5, including the following:

- Release 8.5.5 (also referred to as MR3)
- Release 8.5.4 (also referred to as MR2)
- Release 8.5.3 (also referred to as MR1)
- Release 8.5.2
- Release 8.5.1

Any release-specific information is indicated as such.

For deployment specific requirements, see the following:

- System Requirements for Audio-Only Deployments
- System Requirements for WebEx-Scheduling Deployments (multinode)
- System Requirements for MeetingPlace-Scheduling Deployments

Contents

Cisco Unified MeetingPlace 8.5 Hardware Specification for Cisco UCS Platforms

Notes:

- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.
- For information about how to configure RAID settings on the UCS B or C series server, see the "Installing on a Virtual Machine" section of the *Installation, Upgrade, and Migration Guide for Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html.

Virtual Machine Requirements

- VMware ESXi 5.0 and 5.0 Update 1 (Release 8.5.5 [8.5 MR3] only) supports both the VMware Standard license and the VMware Enterprise Plus Edition license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS C200 M2, the Cisco UCS B200 M3, and the UCS B200 M2.
- VMware ESXi 4.1 supports only the VMware Enterprise Plus Edition VMware license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS B200 M3, the Cisco UCS B200 M2.
- For the Cisco UCS C200 M2, VMware ESXi 4.1 supports the VMware Standard or Enterprise Plus Edition license.
- Install one virtual machine, per blade on a supported Cisco Unified Computer Server (UCS)
- VMWare Tools must be installed and configured to run at all times (See Notes below)
- LAN connection must support up to 1GB/s
- Component-specific requirements are indicated in the following table:

Cisco Unified MeetingPlace Component	Minimum Virtual Machine Requirements
Application Server/Express Media Server or combined Meeting Director/Application Server/Express Media Server (Less than 4 Audio node total allowed)	8 virtual CPU (2.4 GHz), 8GB RAM, 300GB hard drive (C240 M3, C220 M3, C210 M2, B200 M3, B200 M2) • Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) 4 virtual CPU, 8GB RAM, 300GB hard drive, (C200 M2) • Standard or Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only)
Meeting Director (Standalone for more than 4 Audio node deployment)	8 virtual CPU (2.4 GHz), 8GB RAM, 300GB hard drive (C240 M3, C220 M3, C210 M2/B200 M3/B200 M2) • Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) 4 virtual CPU, 8GB RAM, 300GB hard drive, (C200 M2) • Standard or Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5

	[8.5 MR3] only)
Cisco WebEx Node for MCS	8 virtual CPU (2.4 GHz), 8GB RAM, 300GB hard drive (C240 M3, C220 M3, C210 M2, B200 M3, B200 M2) • Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) 4 virtual CPU, 8GB RAM, 300GB hard drive, (C200 M2) • Standard or Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only)
MeetingPlace Web Server	4 virtual CPU (2.4 GHz), 4GB RAM, 300GB hard drive (C240 M3, C220 M3, C210 M2, C200 M2, B200 M3, B200 M2) • Standard or Enterprise Plus VMware 4.X • Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) • MeetingPlace Web Server release 8.5.1 is NOT supported on UCS

Notes:

- Cisco UCS does not support co-resident virtual machine (VM) images. This means that you cannot install a VM image of Cisco Unified MeetingPlace if you have a VM image of another application installed on the same physical server. Examples of other applications are Cisco Unified Communications Manager and Cisco Unity Connection.
- You must install and configure VMware Tools when installing Cisco Unified MeetingPlace on a virtual machine. For instructions on installation and configuration of VMWare Tools please go to the *Installing on a Virtual Machine* section of the Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5 Guide at http://www.cisco.com/en/US/docs/voice_ip_comm/meetingplace/8_5/english/administration/inst_vm.html#wp106

For more information about the Enterprise Plus Edition VMware license, see http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1010839.

Supported Cisco UCS C Series Servers (General-purpose rack-mountable servers)

Note: Cisco UCS requires dedicated servers for each component of Cisco Unified MeetingPlace software.

Cisco UCS C220 M3

- C220 M3 - UCS-CPU-E5-2665 2x8 cores @ 2.4 GHz, 4x8GB memory

Cisco C220 M3S (SFF) LSI 2008 RAID

Ordered Item	Quantity	Description
UCSC-C220-M3S	1	UCS C220 M3 SFF w/o CPU, mem, HD, PCIe, w/ rail kit
UCS-CPU-E5-2665	2	2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS-MR-1X082RY-A	4	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v
A03-D500GC3	4	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted
UCSC-RAID-11-C220	1	LSI 2008 SAS RAID Mezzanine Card for UCS C220 server
UCSC-PCIE-IRJ45	1	Intel i350 Quad Port 1Gb Adapter
UCSC-PSU-650W	2	650W power supply for C-series rack servers
UCSC-HS-C220M3	2	Auto-included: Heat Sink for UCS C220 M3 Rack Server-10 (Sub-component of UCS C220 M3 SFF w/o CPU, mem, HDD, PCIe, PSU, w/ rail kit)
UCSC-RAIL-2U	1	Auto-included: 2U Rail Kit for UCS C-Series server
N20-BBLKD	4	Auto-included: UCS 2.5 inch HDD blanking panel

Cisco C220 M3S (SFF) 9266-8i RAID

Ordered Item	Quantity	Description
UCSC-C220-M3S	1	UCS C220 M3 SFF w/o CPU, mem, HD, PCIe, w/ rail kit
UCS-CPU-E5-2665	2	2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS-MR-1X082RY-A	4	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v
A03-D500GC3	4	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted
UCS-RAID-9266	1	MegaRAID 9266-8i + battery backup for C240 and C220-5
UCSC-PCIE-IRJ45	1	Intel i350 Quad Port 1Gb Adapter
UCSC-PSU-650W	2	650W power supply for C-series rack servers
UCSC-HS-C220M3	2	Auto-included: Heat Sink for UCS C220 M3 Rack Server-10 (Sub-component of UCS C220 M3 SFF w/o CPU, mem, HDD, PCIe, PSU, w/ rail kit)
UCSC-RAIL-2U	1	Auto-included: 2U Rail Kit for UCS C-Series server
N20-BBLKD	4	Auto-included: UCS 2.5 inch HDD blanking panel

Cisco UCS C240 M3

- C240 M3 - UCS-CPU-E5-2665 * *2x8 cores* *@ 2.4 GHz{*}*, 4x8GB memory

Cisco C240 M3S (SFF) 9266-8i RAID

Ordered Item	Quantity	Description
UCSC-C240-M3S2	1	UCS C240 M3 SFF w/o CPU, mem, HD, PCIe, w/ rail kit
UCS-CPU-E5-2665	2	2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS-MR-1X082RY-A	4	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v
A03-D500GC3	4	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted
UCS-RAID-9266	1	MegaRAID 9266-8i + battery backup for C240 and C220-5
UCSC-PCIE-IRJ45	1	Intel i350 Quad Port 1Gb Adapter

UCSC-PSU-650W	2	650W power supply for C-series rack servers
UCSC-HS-C240M3	2	Auto-included: Heat Sink for UCS C240 M3 Rack Server
UCSC-RAIL-2U	1	Auto-included: 2U Rail Kit for UCS C-Series servers
UCSC-SD-16G-C240	1	Auto-included: 16GB SD Card Module for C240 Servers
N20-BBLKD	20	Auto-included: UCS 2.5 inch HDD blanking panel
UCSC-PCIF-01F	3	Auto-included:Full height PCIe filler for C-Series

Cisco UCS C210 M2

The Cisco UCS C210 M2 is supported with all releases of Cisco Unified MeetingPlace Release 8.5.

The UCS-C210M2-VCD2 (TRC#1) is fully supported with VMware vSphere Enterprise Plus License (2 CPU), same capacity as bare metal configuration.
http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware

OR

The following table describes a component level description of the Cisco UCS C210 M2 for bare metal UCS server specification. This configuration is validated as a supported platform for Cisco Unified MeetingPlace Release 8.5. This configuration also includes VMware vSphere Enterprise Plus License (2 CPU), and hardware and software support contracts.

- 2xCPU
- 6x300GB HD
- 16GB RAM
- vSphere Enterprise Edition Plus

Note: Periodically UCS SKUs may change. Make sure that you reference the description for the proper part and the following Data Sheet: http://www.cisco.com/en/US/products/ps10889/index.html.

Ordered Item	Quantity	Description
R210-2121605W	1	UCS C210 M2 Srvr w/1PSU, w/o CPU, mem, HDD, DVD or PCIe card
CAB-9K12A-NA	2	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America
N20-AE0002	1	UCS M71KR-E Emulex Converged Network Adapter/PCIe/2port 10Gb
N01-M304GB1	4	4GB DDR3-1333MHz RDIMM/PC3-10600/dual rank 1Gb DRAMs
A03-D300GA2	6	300GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted
R210-ODVDRW	1	DVD-RW Drive for UCS C210 M1 Rack Servers
R200-TPM1	1	TPM Module for UCS C200 M1 and C210 M1 Rack Server
R210-SASXPAND	1	SAS Extender (servers requiring </= 8 HDDs) for UCS C210 M1
R2X0-PSU2-650W-SB	1	650W power supply, w/added 5A Standby for UCS C200 or C210
A01-X0105	2	2.66GHz Xeon X5650 95W CPU/12MB cache/DDR3 1333MHz
VMW-VS-ENTP-1A	2	VMware vSphere Enterprise Plus (1 CPU), 1yr support required
CON-ISV1-VSENTP1A	1	ISV 24X7 VMware vSphere EntPlus1CPU 1Yr RQD
R2XX-PL003	1	LSI 6G MegaRAID 9261-8i card (RAID 0,1,5,6,10,60) - 512WC
R2XX-LBBU	1	Battery Backup for the RAID controller (Highly recommended)
N20-BBLKD	10	HDD slot blanking panel for UCS B-Series Blade Servers
R200-PCIBLKF1	4	PCIe Full Height blanking panel for UCS C-Series Rack Server

SASCBLSHORT-003	2	Short SAS Cable for C210
R210-BHTS1	2	CPU heat sink for UCS C210 M1 Rack Server
R2X0-PSU2-650W-SB	1	650W power supply, w/added 5A Standby for UCS C200 or C210
CON-UCS7-R210W	1	UC SUPPORT 24X7X4OS UCSC210 M2Svr w/1PSU w/o CPU Mem HDD
R2XX-CMAG3-1032	1	Cable Mgmt Arm for R2XX-G31032RAIL for C200/C210
R2XX-G31032RAIL	1	G3 shorter stronger Rail Kit for UCS 200, 210 Rack Servers

Release 8.5 also supports the following CPUs for M2 models: X5670, (2.93GHz), X5650 (2.66GHz), E5640 (2.66GHz).

Cisco UCS C200 M2

The Cisco UCS C200 M2 is supported with Cisco Unified MeetingPlace **Release 8.5.2 and later**. This platform is supported with the following deployments:

UCS-C200M2-VCD2 (TRC#1)
http://docwiki.cisco.com/wiki/Unified_Computing_System_Hardware#Hardware_Requirements

- Audio-only in an active/standby deployment OR
- WebEx-scheduling with two Meeting Directors/Application Server/Express Media Server with maximum of 2 nodes
    - ♦ Provides active/active redundancy for 500 ports using G.711 Codecs, less if G.729/G.722 is used (minimal configuration with only 1 CPU)
- VMware vSphere Standard and VMware VSphere Advanced are both supported with this smaller configuration
- VNWare vSphere Enterprise Plus will support 1000 G.711 Audio on the VCD2 hardware spec only, requires the 2 CPU VCD2 spec to achieve this capacity.

OR

Use the Netformx tool to complete the Cisco UCS C200 M2 configuration using the following specification:

- 1xCPU
- 4x300GB HD
- 16GB RAM
- 1 vSphere Standard or Advanced

Notes:

- Periodically UCS SKUs may change. Make sure that you reference the description for the proper part and the following Data Sheet: http://www.cisco.com/en/US/products/ps10889/index.html.
- Both VMware vSphere Standard and VMware vSphere Advanced are supported with the Cisco UCS C200 M2. However, Standard edition is not orderable through Cisco. Customers are responsible for providing their own VMware vSphere Standard edition.

Ordered Item	Quantity	Description

R200-1120402W	1	UCS C200 M2 Srvr w/1PSU, DVD w/o CPU, mem, HDD or PCIe card
R200-BHTS1	1	CPU heat sink for UCS C200 M1 Rack Server
R200-PCIBLKF1	1	PCIe Full Height blanking panel for UCS C-Series Rack Server
R200-SASCBL-001	1	Internal SAS Cable for a base UCS C200 M1 Server
R2X0-PSU2-650W-SB	1	650W power supply, w/added 5A Standby for UCS C200 or C210
R2XX-PSUBLKP	1	Power supply unit blnking pnl for UCS 200 M1 or 210 M1
A01-X0111	1	2.40GHz Xeon E5620 80W CPU/12MB cache/DDR3 1066MHz
CAB-9K12A-NA	1	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America
N01-M304GB1	4	4GB DDR3-1333MHz RDIMM/PC3-10600/dual rank 1Gb DRAMs
R200-D300GB03	4	Gen 2 300GB SAS 15K RPM 3.5in HDD/hot plug/C200 drive sled
R200-PL004	1	LSI 6G MegaRAID 9260-4i card (RAID 0,1,5,6,10,60) - 512WC
R200-TPM1	1	TPM Module for UCS C200 M1 and C210 M1 Rack Server
R2XX-LBBU	1	Battery Back-up
VMW-VS-ADV-1A	1	VMware vSphere Advanced (1 CPU), 1yr support required
CON-ISV1-VSADV1A	1	ISV 24X7 VMware vSphere Adv 1 CPU 1 Yr RQD
CON-UCS7-R200W	1	UC SUPPORT 24X7X4OS UCSC200 M2Svr w/1PSU DVD w/o CPU Mem

Supported Cisco UCS B Series Servers (General-purpose blade servers)

Cisco UCS B200 M2

Release 8.5 supports the Cisco UCS B200 M2.

UCS-B200M2-VCS1 (TRC#1) with 2x vSphere Enterprise Edition Plus, same capacity as bare metal specification http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware

Notes:

- Cisco UCS requires dedicated servers for each component of Cisco Unified MeetingPlace software.
- For more information about the chassis, see the Data Sheet at http://www.cisco.com/en/US/products/ps10279/index.html.
- For more information about the blades, see the Data Sheet at http://www.cisco.com/en/US/products/ps10280/index.html.

Use the Netformx tool to complete your B series bare metal order configuration if desired. Here is a sample with one blade:

- 2xCPU
- 2x146GB HD
- 16GB RAM
- 2x vSphere Enterprise Edition Plus

Note: Periodically UCS SKUs may change. Make sure that you reference the description for the proper part and the above Data Sheet references.

Ordered Item	Quantity	Description
N20-C6508-UPG	1	UCS 5108 Blade Svr AC Chassis/0 PSU/8 fans/0 fabric extender
N20-B6625-1D	1	UCS B200 M2 Blade Server w/o CPU, memory, HDD, mezzanine
A01-X0100	2	3.33GHz Xeon X5680 130W CPU/12MB cache/DDR3 1333MHz
N01-M304GB1	4	4GB DDR3-1333MHz RDIMM/PC3-10600/dual rank 1Gb DRAMs
A03-D146GA2	2	146GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted
N20-AE0002	1	UCS M71KR-E Emulex Converged Network Adapter/PCIe/2port 10Gb
N20-BHTS1	2	CPU heat sink for UCS B200 Blade Server
N20-CAK	1	Access. kit for 5108 Blade Chassis incl Railkit, KVM dongle
N20-PAC5-2500W	2	2500W AC power supply unit for UCS 5108
CAB-C19-CBN	2	Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors
N20-CBLKB1	7	Blade slot blanking panel for UCS 5108/single slot
N20-CBLKP	2	Power supply unit blanking panel for UCS 5108
N20-FAN5	8	Fan module for UCS 5108
N01-UAC1	1	Single phase AC power module for UCS 5108
N20-CBLKI	1	Fabric extender slot blanking panel for UCS 5108
N20-I6584	1	UCS 2104XP Fabric Extender/4 external 10Gb ports

Notes:

- The above configuration is based on 1 chassis and 1 blade. Additional interconnect, fabric extender, and other components are required for redundant configurations.
- Release 8.5 also supports the following CPUs for M2 models: X5680 (3.33GHz), X5670 (2.93GHz), X5650 (2.66GHz), and E5640 (2.66GHz). The E5640 is supported with **Release 8.5.2 and later**.
- VMware vSphere Enterprise Plus license is not included in the specifications above.
- Cisco product and service contracts are not included in the specifications above.
- Additional network equipment (i.e., Nexus switch) and accessories (i.e., 10Gb SFP + Cables) are not included in the specifications above.

Cisco UCS B200 M3

- B200 M3 - UCS-CPU-E5-2665 * *2x8 cores* *@ 2.4 GHz{*}*, 4x8GB memory

B200 M3 Blade WITH 8 slot UCS chassis

Ordered Item	Quantity	Description
N20-B6625-1-UPG	1	UCS 5108 Blade Svr AC Chassis/0 PSU/8 fans/0 fabric extender-1
UCSB-B200-M3-D	1	UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz
UCS-CPU-E5-2665	2	2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS-MR-1X082RY-A	4	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v
A03-D500GC3	4	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted
UCSB-MLOM-40G-01	1	Cisco UCS VIC 1240 modular LOM for M3 blade servers
N20-I6584	2	UCS 2104XP Fabric Extender/4 external 10Gb ports-12
N20-FW010	1	UCS 5108 Blade Server Chassis FW package
N01-UAC1	1	Single phase AC power module for UCS 5108-18

UCSB-PSU-2500ACPL	2	2500W Platinum AC Hot Plug Power Supply for UCS 5108 Chassis
UCSB-HS-01-EP	2	Auto-included: Heat Sink for UCS B200 M3 server-16
N20-CAK	1	Auto-included: Access. kit for 5108 Blade Chassis incl Railkit, KVM dongle-19
N20-CBLKB1	6	Auto-included: Blade slot blanking panel for UCS 5108/single slot-20
N20-CBLKP	2	Auto-included: Power supply unit blanking panel for UCS 5108-21
N20-FAN5	8	Fan module for UCS 5108-22

B200M3 BLADE ONLY (requires UCS 8 slot chassis, UCS Manager SW, Fiber interconnect & Nexus switch)

Ordered Item	Quantity	Description
UCSB-B200-M3-U	1	UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG)-1
UCS-CPU-E5-2665	2	2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz-2 (Sub-component of UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG))
UCS-MR-1X082RY-A	4	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v-3 (Sub-component of UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG))
A03-D500GC3	2	500GB 6Gb SATA 7.2K RPM SFF hot plug/drive sled mounted-4 (Sub-component of UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG))
UCSB-MLOM-40G-01	1	Cisco UCS VIC 1240 modular LOM for M3 blade servers
UCSB-HS-01-EP	2	Heat Sink for UCS Blade Servers (EP Socket R)-6 (Sub-component of UCS B200 M3 Blade Server w/o CPU, mem, HDD, mLOM/mezz (UPG))

B Series Blade Specification

A Cisco UCS B-series chassis can host eight blades. Blades can be ordered separately. VMWare ESXi Enterprise Edition is included here.

Following is a sample configuration:

Ordered Item	Quantity	Description
N20-B6625-1-UPG	1	UCS B200 M2 Blade Server w/o CPU, memory, HDD, mezzanine
A03-D146GA2	2	146GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted
N20-AE0002	1	UCS M71KR-E Emulex Converged Network Adapter/PCIe/2port 10Gb
A01-X0100	2	3.33GHz Xeon X5680 130W CPU/12MB cache/DDR3 1333MHz
N20-BHTS1	2	CPU heat sink for UCS B200 Blade Server
VMW-VS-ENTP-1A	2	VMware vSphere Enterprise Plus (1 CPU), 1yr support required
CON-ISV1-VSENTP1A	1	ISV 24X7 VMware vSphere EntPlus1CPU 1Yr RQD

N01-M304GB1	4	4GB DDR3-1333MHz RDIMM/PC3-10600/dual rank 1Gb DRAMs
CON-UCS7-B66251U	1	UC SUPPORT 24X7X4OS UCSB200 M2 Blade Svr w/o CPU Mem HDD Mez

B-Series SAN Specifications

Release 8.5 supports EMC Clarion CX4-120 or better SAN storage systems. SAN recommendations are:

- 300GB HD space allocated for each image
- 4GB FC link between SAN system and switch
- 10K RPM or faster SAS hard drives
- RAID 5 with 5-8 spindles (hard drives)
- Logical Unit Number (LUN) running on separate controllers and ports.
- Minimum LUN performance specifications are:
    - ♦ Throughput - I/O Operations per Second (IOPS): >1000
    - ♦ Latency: <10ms
    - ♦ Bandwidth: >50MBps

Application Server Requirements

Cisco Unified MeetingPlace Application Server software is installed on either a Cisco Media Convergence Server (MCS), or on VMware ESXi running on top of Cisco Unified Computer Servers (UCS).

- The Express Media Server (EMS) is co-resident with the Application Server.
- If your system has four or less Conferencing nodes, Meeting Director components can also be installed co-resident with the Application Server/EMS on the same MCS or UCS hardware.

Notes:

- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.

Hardware

Release 8.5 supports the following hardware for installing the Cisco Unified MeetingPlace Application Server.

- Cisco UCS C series as described in the following table for bare metal data center SKUs or UCS-C210M2-VCD2(TRC #1) or UCS-C200M2-VCD2 for smaller capacity customer systems (max of two servers only)

http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware

- Cisco UCS B200 M2 as described in the following table for bare metal data center SKUs or UCS-B200M2-VCS1(TRC #1)

http://docwiki.cisco.com/wiki/UC_Virtualization_Supported_Hardware

- Cisco MCS-7845, MCS-7835 or third-party equivalent as described in the following table

Notes:

- VMware is the only supported environment for Cisco UCS. A physical installation without VMware is not supported. For more information, see Virtual Machine Requirements.
- If you are using a Cisco Media Convergence Server, we recommend that you use a Cisco MCS 7845. Performance degradation will occur on the Cisco MCS 7835 due to its lower specifications.
- Cisco MCS 7835-I3 and 7845-I3 require a firmware update before use. For more information, see the "Updating the Firmware on a Cisco MCS 7835-I3 or 7845-I3" section of the see the *Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html.

Cisco Server	Description
UCS C210 M2 or UCS-C210M2-VCD2	Bare Metal 2xCPUs (as indicated below), 6x300GB HDD, 16GB RAM, 2 vSphere Enterprise Edition Plus **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz • UCS-C200M2-VCD2: 2xE5506 2.13GHz CPUs, 4x1TB HDD, 24GB RAM, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 edition and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only)
UCS C200 M2 or UCS-C200M2-VCD2 **Note:** This system is supported with Release 8.5.2 and later and is less scalable.	UCS C200 M2: Bare Metal 1xCPU (as indicated below), 4x300GB HDD, 16GB RAM, 1 vSphere Standard or Advanced Edition Supported CPUs: • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz

	• E5620 2.4 GHz • E5506 2.13 GHz(2xE5506 2.13GHz CPU,24GB RAM,4x1TB HDD) • UCS-C200M2-VCD2: 2xE5506 2.13GHz CPUs, 4x1TB HDD, 24GB RAM, Standard or Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 edition (Release 8.5.5 [8.5 MR3] only)
UCS C220 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 edition (Release 8.5.5 [8.5 MR3] only)
UCS C240 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 edition (Release 8.5.5 [8.5 MR3] only)
UCS B200 M2 or UCS-B200M2-VCS1	2xCPUs (as indicated below), 2x146GB HDD, 16GB RAM, 2 vSphere Enterprise Edition Plus, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 edition and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5680 3.33 GHz • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz (Supported with Release 8.5.2 and later)

UCS B200 M3	2xCPUs (as indicated below), 2x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 edition and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) Note: RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
MCS 7845-I3-RC2	Dual Intel E5540 2.53 GHz, 4x300 HDD, 8GB RAM HP equivalent: DL380-G6 Server, part number AX693A
MCS 7845-I2-RC2 (end-of-sale 12/09)	Dual Intel 5140 2.33 GHz, 4x146GB HDD, 4GB RAM
MCS 7845-H2-RC2 (end-of-sale 7/09)	Dual Intel 5140 2.33 GHz, 4X146 GB HDD, 4GB RAM HP equivalent: DL380-G5 Server, part number 470064-887
MCS 7835-I3-RC1	Single Intel 5504 Quad-core 2.00 GHz, 2x146 HDD, 4GB RAM HP equivalent: DL380-G6 Server, part number AX690A **Note:** The MCS 7835-I3-RC1 does not support multinode deployments.

IMPORTANT: The DL380-G6 Server (AX690A, AX693A) is shipped with an internal USB Drive. The drive conflicts with the Cisco Unified MeetingPlace Linux OS and causes an illegal opcode error. The workaround is to remove the USB Drive from the system.

- There is a video clip at the following URL that illustrates how to remove the USB drive: https://videosharing.cisco.com:8443/vportal/VideoPlayer.jsp?ccsid=C-2fbbdacb-65d5-4101-a070-ada46c84ecb7:1
- If the URL does not work, visit https://videosharing.cisco.com:8443/ and search for MeetingPlace.
- You can also use the following steps:
    1. Remove the top cover of the server
    2. Look on the left side of the server all the way toward the middle, near the edge of the secondary (internal) cover, next to the connectors for two cables coming from the HDDs,you should see a USB flash drive plugged in
    3. Pull the drive out and close the cover.

For additional information about supported IBM server equivalents, see: http://www.cisco.com/en/US/prod/collateral/voicesw/ps6790/ps5748/ps378/product_solution_overview0900aecd8009161

For additional information about Cisco UCS specifications, see Cisco Unified MeetingPlace 8.5 Hardware Specification for Cisco UCS Platforms.

Setting the Write Cache on a RAID Controller

For optimal system performance you should check the Default Write setting on your RAID controller. You can set Default Write to three settings: Write Back with BBU, Write Through and Always Write Back.

- Set Default Write to **Write Back with BBU** if you have installed a battery backup unit on your RAID controller. In the event of a system power loss, the battery backup unit preserves the content of the controller cache memory.
- In the event that the battery backup unit fails or goes offline to a re-learn cycle, the **Write Back with BBU** setting automatically fails back to **Write Through** mode. Without a working battery backup unit, the **Write Through** setting is safer, but it also brings a performance penalty on the I/O subsystem of the host device.
- If you need to remove the battery backup unit for repairs, you should explicitly set Default Write to **Write Through** mode and enable the cache explicitly (Disk Cache option). This should give you better but not optimal performance. When the faulty battery is replaced, you can safely return the Default Write setting to **Write Back with BBU** mode.
- If the host that houses your RAID controller is connected to an uninterruptible power supply unit, you can set Default Write to **Always Write Back** mode.
- For additional information on how to view and configure the RAID Write Cache on Cisco UCS Servers, please review the Cisco UCS Servers RAID Guide

Express Media Server Requirements

The Express Media Server (EMS) is a set of software modules that reside on the Application Server.

Notes:

- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.
- During installation, you will have the option to choose between the Hardware Media Server and Express Media Server. You canot enable both EMS and HMS on an Application Server.

Audio Codecs

- G.711, G.729, G.722

Video Codecs

- H.264 AVC
  - ♦ Video-mode setting: per user profile configuration
  - ♦ Levels available: Mobile, Compatibility, High Quality, High Definition at 720p
- H.263
  - ♦ Video-mode setting: per user profile configuration
- Standard Definition (SD) quality
  - ♦ Decode: QCIF, CIF, 4CIF, QSIF, SIF, 4SIF, VGA, 480p, 640 x 360 (quarter 720p) and 320 * 180 (one-eight 720p)
  - ♦ Encode: QCIF, CIF, and VGA
- High Definition (HD) quality
  - ♦ Encode/Decode: 720p (16:9 Widescreen Aspect Ratio)

Note: If you are deploying the Express Media Server you are responsible for providing adequate echo cancellation in your voice gateways. For calls within a single continent, we recommend a minimum of 64ms of echo cancellation in all voice gateways that are connected to the PSTN. For calls between North America, Europe, and Japan, we recommend 128ms. If you are unable to provide this protection in voice gateways, or if you are taking intercontinental calls across satellite links or from outside North America, Europe, and Japan we recommend that you consider deploying the hardware media server instead, which has a built-in echo cancellation capability.

Express Media Server and Secure Audio Conferencing in Release 8.5.2 and Later

Release 8.5.2 and later supports secure audio conferencing (TLS/SRTP) in audio-only and MeetingPlace-scheduling deployments with the following restrictions:

- TLS is supported on SIP interfaces. It is not supported on SCCP interfaces.
- SRTP is supported on audio streams only. It is not supported for video streams.
- The system supports a maximum of 249 ports when it is configured in secure conferencing mode.
- Secure audio conferencing is not supported on the Cisco UCS C200 M2.

Note: Secure audio conferencing is also supported on the Hardware Media Server (HMS) in Release 8.5.1 and later.

Hardware Media Server Requirements

The Cisco Unified Hardware Media Server (HMS) is comprised of a set of Audio Blades and/or Video Blades.

- Each Hardware Media Server supports a maximum of four Blades.
- You can mix and match Hardware Media Servers.

For example, if you deployed a Cisco Unified MeetingPlace solution using a Cisco Unified MeetingPlace 3515 Media Server, you could add more video ports to the solution by adding a Cisco Unified MeetingPlace 3545 Media Server chassis plus a Cisco Unified MeetingPlace 3545 Media Server Video Blade.

The Hardware Media Server supports the escalation of audio calls to video if the endpoint is video-enabled.

Notes:

- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.

Hardware

Cisco Unified MeetingPlace 3515 or 3545 Media Server

- The 3515 Media Server is delivered with a predetermined number of ports.
- The 3545 Media Server can be configured to support a wide range of audio and/or video ports.

Audio Blade

Cisco Unified MeetingPlace Release 8.5 supports a maximum of eight Audio Blades. Each Audio Blade must be configured with at least one Video Blade. In other words, if your system is configured with eight Audio Blades, you must also purchase eight Video Blades so that each Audio Blade has an associated Video Blade.

Time must be synchronized between the MeetingPlace application server and Audio Blades. Audio Blades are configured by default to use MeetingPlace application server as its NTP server. **Important Note:** If your system is patched with security patch 6 (MP85MR3_PA6_Security_8552.bin) or above, MeetingPlace application server will no longer serve NTP requests from other machines, so you need to configure Audio Blades to use the same NTP server as MeetingPlace application server to which they are connected.

Maximum system audio capacity is dependent on your deployment type, the global audio mode of your Cisco Unified MeetingPlace system, and whether or not you have secure audio conferencing (TLS/SRTP) enabled. If you have a MeetingPlace-scheduling or audio-only deployment with secure audio conferencing enabled, the system is limited to 249 audio ports.

Number of Audio Blades	Number of Supported Audio Ports in 250 Ports/Blade Mode	Number of Supported Audio Ports in 166 Ports/Blade Mode	Number of Supported Audio Ports in TLS/SRTP Mode in a MeetingPlace-Scheduling/Audio-Only Deployment
1	250	166	120
2	500	332	200
3	750	498	249
4	1000	664	249
5	1250	830	249
6	1500	996	249
7	1750	1162	249
8	2000	1328	249

In other words:

- If the global audio mode is set to **G.711, G.729 without LEC**, the system supports 250 ports per blade for a maximum of 2000 audio ports per node.
- If the global audio mode is set to **G.711, G.722, G.729**, the system supports 166 ports per blade for a maximum of 1328 audio ports per node.
- If you have secure audio conferencing enabled (TLS/SRTP) in a **MeetingPlace-scheduling** or **audio-only** deployment, there is a system maximum of 249 audio ports.

Notes:

- Secure audio conferencing is not supported in WebEx-scheduling deployments.
- Configuration of G.729 with or without LEC occurs on the **Call Configuration > Media Parameters** page of the Cisco Unified MeetingPlace Administration Center.

Video Blade

Cisco Unified MeetingPlace Release 8.5 supports a maximum of eight Video Blades. Maximum system video capacity is dependent on whether hardware video resources are scheduled as High Rate video ports or Standard Rate video ports. High Rate/Standard Rate is configured in the user profile.

Number of Video Blades	Number of Supported Standard Rate Video Ports	Number of Supported High Rate Video Ports
1	40	20
2	80	40
3	120	60
4	160	80
5	200	100
6	240	120
7	280	140
8	320	160

Note: In practice, some users may be restricted to scheduling Standard Rate video ports while others are able to schedule High Rate video ports. The total maximum system video capacity, therefore, is between 160 and 320 based on the maximum allowable hardware of eight Video Blades.

Media Server Administration Pages

The following browsers are supported for configuring the Media Server Administration pages:

- Microsoft Windows
  - ♦ Internet Explorer 6, 7, or 8 (recommended)
  - ♦ Mozilla Firefox 3.5.7
- Apple Mac
  - ♦ Internet Explorer 6, 7, or 8 (recommended)

- Mozilla Firefox 3.5.7

Related Information

For information about physically installing and configuring the Hardware Media Server, see the *Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html

Cisco WebEx Node for MCS Requirements

The primary purpose of the Cisco WebEx Node is to receive conferencing data from meeting presenters and distribute it to other meeting participants. Cisco WebEx Nodes are used by internal network connections for web meetings only. They do not provide any audio/video mixing.

Notes:

- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.

This release of Cisco Unified MeetingPlace supports the following variations of the Cisco WebEx Node:

Component	Description
Cisco WebEx Node for MCS	Cisco WebEx Node is deployed on Cisco Media Convergence Servers (MCS) or for Virtual Machines (VM) on Cisco Unified Computing Servers (UCS). Supports the following: • Cisco WebEx web meetings mixed for internal network users. • In **WebEx-scheduling deployments**, a maximum of four Cisco WebEx Nodes per system for a total of 2000 web sessions. • In **MeetingPlace-scheduling deployments**, a maximum of three Cisco WebEx Nodes per system for a total of 1500 web sessions using the HMS and 1200 web sessions using the EMS. • (Release 8.5 MR2 and later) In **WebEx-scheduling deployments with a single node**, a maximum of two Cisco WebEx Nodes per system for a total of 1000 web sessions. **Notes:** • Ports on the Cisco WebEx Node are *not* hot failover ports. If one of the Cisco WebEx Nodes go down, you will lose all of its port capacity (500 ports). We recommend that you have at least one Cisco WebEx Node on standby at all times. • Cisco WebEx Node for MCS does not support recordings or WebEx webcam video for internal meeting types.

	For more information about the Cisco WebEx Node for MCS, see http://www.cisco.com/en/US/products/ps10728/index.html. For system capacity information, see System Capacity Quick Reference Tables.
Cisco WebEx Node for ASR	Cisco WebEx Node is deployed as a shared port adapter for the Cisco ASR 1000 series router. Supports the following: • Cisco WebEx web meetings mixed for internal network users • Cisco WebEx high-quality or high definition webcam video for internal network users • Release 8.5 supports an unlimited number of ASR 1000 routers for capacity. • ASR software version 3.6 supports the latest Webex version of software. For more information about the Cisco WebEx Node for ASR, see http://www.cisco.com/en/US/products/ps10353/index.html.

Operating System

Cisco Unified MeetingPlace Linux OS (installed with the Cisco WebEx Node software)

Supported Hardware

One of the following:

- Cisco UCS C240 M3
- Cisco UCS C220 M3
- Cisco UCS C210 M2
- Cisco UCS C200 M2
- Cisco UCS B200 M3
- Cisco UCS B200 M2
- Cisco MCS 7845, MCS 7835 or third-party equivalent per node as described in the following table
- Cisco ASR 1000 router

Notes:

- VMware is the only supported environment for Cisco UCS. A physical installation without VMware is not supported. For more information, see Virtual Machine Requirements.
- If you are using a Cisco Media Convergence Server, we recommend that you use a Cisco MCS 7845. Performance degradation will occur on the Cisco MCS 7835 due to its lower specifications.
- VMware ESXi 5.0 and 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) supports both the VMware Standard license and the VMware Enterprise Plus Edition license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS C200 M2, the Cisco UCS

B200 M3, and the UCS B200 M2.

- VMware ESXi 4.1 supports only the VMware Enterprise Plus Edition VMware license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS B200 M3, the Cisco UCS B200 M2.
- For the Cisco UCS C200 M2, VMware ESXi 4.1 supports the VMware Standard or Enterprise Plus Edition license.
- Cisco MCS 7835-I3 and 7845-I3 require a firmware update before use. For more information, see the "Updating the Firmware on a Cisco MCS 7835-I3 or 7845-I3" section of the *Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html.

Cisco Server Version	Description
UCS C220 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only)
UCS C240 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS C210 M2	Bare Metal 2xCPUs (as indicated below), 6x300GB HDD, 16GB RAM, 2 vSphere Enterprise Edition Plus, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5670 2.93 GHz

	• X5650 2.66 GHz • E5640 2.66 Ghz
UCS C200 M2	Cisco UCS C200 M2: Tested reference configuration 1: • Cisco UCS C200 M2 General-Purpose Rack-Mount Server, Dual quad-core Intel 2.13-GHz Xeon E5506 processors, 24-GB RAM, Four 1-TB hard drives, Three motherboard built-in Ethernet ports (2 for network and 1 for Cisco UCS C-Series Integrated Management Controller, Standard or Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade.
UCS B200 M3	2xCPUs (as indicated below), 2x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) Note: RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz
UCS B200 M2	2xCPUs (as indicated below), 2x146GB HDD, 16GB RAM, 2 vSphere Enterprise Edition Plus, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5680 3.33 GHz • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz (Supported with Release 8.5.2 and later)
MCS 7845-I3-RC2	Dual Intel E5540 2.53 GHz, 4x300 HDD, 8GB RAM HP equivalent: DL380-G6 Server, part number AX693A
MCS 7845-I2-RC2 (end-of-sale 12/09)	Dual Intel 5140 2.33 GHz, 4x146GB HDD, 4GB RAM **Note:** Supports a maximum of 250 sessions per server.
MCS 7845-H2-RC2	Dual Intel 5140 2.33 GHz, 4X146 GB HDD, 4GB RAM

(end-of-sale 7/09)	HP equivalent: DL380-G5 Server, part number 470064-887
MCS 7835-I3-RC1	Single Intel 5504 Quad-core 2.00 GHz, 2x146 HDD, 4 GB RAM HP equivalent: DL380-G6 Server, part number AX690A
Cisco ASR 1000 router	For product information, see http://www.cisco.com/en/US/products/ps9343/index.html

For additional information about supported IBM server equivalents, see: http://www.cisco.com/en/US/prod/collateral/voicesw/ps6790/ps5748/ps378/product_solution_overview0900aecd8009161

For virtual machine requirements, see Virtual Machine Requirements.

For additional information about Cisco UCS specifications, see Cisco Unified MeetingPlace 8.5 Hardware Specification for Cisco UCS Platforms.

Web Server Requirements

In Release 8.5.1, a Web Server is Cisco Unified MeetingPlace Web Server software that is installed on a Cisco Media Convergence Server (MCS).

In Release 8.5.2 and later, the Cisco Unified MeetingPlace Web Server is also supported on VMware ESXi running on top of Cisco Unified Computer Servers (UCS).

Notes:

- A Cisco Unified MeetingPlace Web Server is only required with MeetingPlace-scheduling deployments. It is optional for audio-only deployments. WebEx-scheduling deployments do not require a Web Server. For more information about deployment options, see Planning Your Deployment.
- For system capacity information, see System Capacity Quick Reference Tables.
- For scalability information, see Scalability for Cisco Unified MeetingPlace Release 8.5.
- VMware ESXi 5.0 and 5.0 Update 1 (Release 8.5.5 [8.5 MR3] only) supports both the VMware Standard license and the VMware Enterprise Plus Edition license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS C200 M2, the Cisco UCS B200 M3, and the UCS B200 M2.
- VMware ESXi 4.1 supports only the VMware Enterprise Plus Edition VMware license for the Cisco UCS C240 M3, the Cisco UCS C220 M3, the Cisco UCS C210 M2, the Cisco UCS B200 M3, the Cisco UCS B200 M2.
- For the Cisco UCS C200 M2, VMware ESXi 4.1 supports the VMware Standard or Enterprise Plus Edition license.

Operating System

Cisco Platform	Cisco Unified MeetingPlace Windows OS Version
7845-I3-RC2 7845-I3-RC1 7835-I3-RC1	5.0.0.3 (MPWinOS_I3_5003.iso)
7845-I2-RC2 7835-I2-RC2	4.1.0.3 (MPWinOS_I2_4103.iso)
7845-H2-RC2	4.1.0.2 (MPWinOS_H2_4102.iso)
UCS C240 M3 UCS C220 M3 UCS C210 M2 UCS C200 M2 UCS B200 M3 UCS B200 M2	1.0.0.3 (MPWinOS_VM_1003.iso) **Note:** The MeetingPlace Windows OS is supported on virtualized Cisco UCS platforms in Release 8.5.2 and later.

Notes:

- MeetingPlace Windows OS DVD is shipped with the Cisco Unified MeetingPlace Web Server Release 8.5 software.
- If you are reusing a Cisco MCS, you will have to rebuild it first with the MeetingPlace Windows OS before installing the Web Server Release 8.5 software.
- The Cisco Unified MeetingPlace Windows operating system is provided by Cisco and is the only supported operating system on the Web Server. Customer-provided operating systems are not supported.
- The Cisco UCS and Cisco MCS platforms listed in the preceding table have Windows security patches for the Cisco Unified MeetingPlace Windows OS for Release 8.5. Windows security updates for Cisco UCS are released on a monthly basis. Security patches for the Cisco MCS are released on a quarterly basis after the first patch in mid-October.

Hardware

Cisco UCS, MCS or third-party equivalent as described in the following table.

Cisco Server	Description	Notes
UCS C210 M2	Bare Metal 2xCPUs (as indicated below), 6x300GB HDD, 16GB RAM, 2 vSphere Enterprise Edition Plus, Enterprise Plus	Supported in Release 8.5.2 and later

	VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz	
UCS C200 M2	Bare Metal 1xCPU (as indicated below), 4x300GB HDD, 16GB RAM, 1 vSphere Standard or Advanced Edition, Standard or Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only) Supported CPUs: • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz	Supported in Release 8.5.2 and later
Cisco UCS C220 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 or 5.0 Update 1 Edition (Release 8.5.5 [8.5 MR3] only)	Supported in Release 8.5.2 and later
Cisco UCS C240 M3	Bare Metal 2xCPUs (as indicated below), 4x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU:	Supported in Release 8.5.2 and later

	• UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz	
UCS B200 M2	2xCPUs (as indicated below); 2x146GB HDD; 16GB RAM; 2 vSphere Enterprise Edition Plus, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) **Note:** RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPUs: • X5680 3.33 GHz • X5670 2.93 GHz • X5650 2.66 GHz • E5640 2.66 Ghz	Supported in Release 8.5.2 and later
Cisco UCS B200 M3	2xCPUs (as indicated below), 2x500GB HDD, 32GB RAM, 2 vSphere Enterprise Plus or Standard Edition, Enterprise Plus VMware 4.X, Standard or Enterprise Plus VMware 5.0 and 5.0 update 1 (Release 8.5.5 [8.5 MR3] only) Note: RAM is configurable. However, we recommend that you have at least 8GB on a blade. Supported CPU: • UCS-CPU-E5-2665 2.40 GHz E5-2665/115W 8C/20MB Cache/DDR3 1600MHz	Supported in Release 8.5.2 and later
MCS 7845-I3-RC1	Single Intel 5540 Quad-core 2.53 GHz, 4x146HDD, 6GB RAM	--
MCS 7845-I3-RC2	Dual Intel E5540 2.53 GHz; 4x300 HDD, 8GB RAM	--
MCS 7845-I2-RC2 (end-of-sale 12/09)	Dual Intel 5140 2.33 GHz, 4x 146GB HDD, 4GB RAM	HP equivalent: DL380-G6 Server, part number AX693A
MCS 7845-H2-RC2 (end-of-sale 7/09)	Dual Intel 5140 2.33 GHz, 4X146 GB HDD, 4GB RAM	HP equivalent: DL380-G5 Server, part number 470064-887
MCS 7835-I3-RC1	Single Intel 5504 Quad-core 2.00 GHz, 2x146 HDD, 4 GB RAM	HP equivalent: DL380-G6 Server, part number AX690A
MCS 7835-I2-RC2 (end-of-sale 12/09)	Single Xeon 5140 2.33GHz Dual-Core, 2x146GB HDD, 2GB RAM, Requires +2GIG RAM (4 total)	--

For additional information about supported IBM server equivalents, see:
http://www.cisco.com/en/US/prod/collateral/voicesw/ps6790/ps5748/ps378/product_solution_overview0900aecd8009161

Notes:

- Cisco MCS 7845-I3-RC1 does not support the Application Server or Cisco WebEx Node for MCS because it is a single-processor configuration. Dual-processors are required for MCS 7845 models that are used for the Application Server/Cisco WebEx Node for MCS.
- Cisco MCS 7835-I2-RC2 must have at least 4GB of memory using the following memory module: MEM-7835-I2-2GB=
- Cisco MCS 7835-I2 and 7845-I2 require a firmware update before use. For more information, see the ?Installing the Web Server Software? section of the *Installation, Upgrade and Migration Guide for Cisco Unified MeetingPlace Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html.
- If you are using a Cisco Media Convergence Server, we recommend that you use a Cisco MCS 7845. Performance degradation will occur with the MCS 7835 due to its lower specifications.

Networking Requirements

- If you are migrating to Cisco Unified MeetingPlace Release 8.5 from Release 8.0 and want to preserve recordings, you must configure the Web Server with two static IP addresses on the same subnet.

  Two static IP addresses are not required for new installations of Cisco Unified MeetingPlace Release 8.5.
- Cisco Unified MeetingPlace Web Servers must be connected to network switch ports that are configured for 100/1000 Mb full duplex.

Related Information

- For information about physically installing the Cisco MCS, see the documentation at this location: http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html
- For information about installing the Web Server software, see the *Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5* at http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html
- For information about Cisco Security Agent, see http://www.cisco.com/en/US/products/sw/secursw/ps5057/tsd_products_support_series_home.html.

Segmented Meeting Access (SMA) Requirements

Cisco Unified MeetingPlace supports Segmented Meeting Access (SMA) deployments for external access.

Hardware

Two single Cisco Unified MeetingPlace Web Servers as described in the Web Server Requirements Hardware section:

- One Web Server deployed inside the private corporate network functioning as *internal* Web Servers.
- One Web Server deployed in a network segment, such as a DMZ, functioning as *external* Web Servers.

Software

Cisco Unified MeetingPlace Web Server Release 8.5

- Installed on the internal web server with the "Internal (Full Access)" server location option.
- Installed on the external web server with the "External (Limited Access)" server location option.

DNS Configuration

- For segmented DNS, the same hostname must resolve to the internal Web Server on the internal DNS and resolve to the external Web Server on the external DNS.
- The internal hostname and IP address is accessible only from the internal network.
- The external hostname or IP address is accessible from both the internal network and the Internet.

Port Access

The following ports must be 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 Application Servers (active server and standby server, if one exists).
- If you configured your network for reverse connection, where your Web Servers are configured with a Cisco Unified MeetingPlace hostname instead of an IP address, the Application Server can initiate a reverse connection to the Web Server in the DMZ when port 5003 inbound is blocked.

The following ports are open inbound from the Internet to the DMZ:

- TCP Port 80
- TCP Port 443 (if SSL is implemented)

The following ports are open outbound from the Web Server to Cisco WebEx:

- TCP Port 443

Synchronized Globally Unique Identifiers (GUIDs)

The database of the internal Web Server and the database of the external Web Server must contain identical GUIDs.

Related Information

- For information on installing an SMA configuration, see the *Installation, Upgrade, and Migration Guide for Cisco Unified MeetingPlace Release 8.5* in the following location: http://www.cisco.com/en/US/products/sw/ps5664/ps5669/prod_installation_guides_list.html.
- For information on configuring your system for SMA, see the *Configuration Guide for Cisco Unified MeetingPlace Release 8.5* in the following location: http://www.cisco.com/en/US/products/sw/ps5664/ps5669/products_installation_and_configuration_guides_list.htm

Cisco Unified IP Phone Requirements

See Audio Endpoint Compatibility.

Video Requirements

This release of Cisco Unified MeetingPlace supports the following video options:

Video Option	Description	Supported Deployments
WebEx webcam video	• Cisco WebEx high-quality video supports webcam devices only and is mixed in the WebEx collaboration cloud via the WebEx client when users join a meeting • Optionally, Cisco Webex Node for ASR with Video SPA is deployed to mix high-quality video on-premises.	• WebEx-scheduling • MeetingPlace-scheduling
MeetingPlace standards-based video	• MeetingPlace video is standards-based video only (H.323/SIP/SCCP) • Displays the video conference on the video devices (not inside the video window of the web meeting room). • MeetingPlace standards-based video deployed on Express Media Server (EMS) will affect capacity based on the type of video used and bandwidth settings allowed to join. EMS video is ?switched?	• Audio-only • WebEx-scheduling • MeetingPlace-scheduling

	video. It does not have transrating or transcoding capability. • Hardware Media Server (HMS) provides continuous presence and transrating and transcoding for standards-based video devices. • For the best user experience, EMS or HMS must be deployed regionally on all Conferencing nodes.	

Note: If you have a WebEx-scheduling or MeetingPlace-scheduling deployment, you must choose between the two video options. This release of Cisco Unified MeetingPlace does not support the use of both video options on the same system.

Scalability for Cisco Unified MeetingPlace Release 8.5

Cisco Unified MeetingPlace Release 8.5 is a SIP-based architecture that provides a rich-media voice, video, and web conferencing solution to large enterprises.

- Scalability for Voice and Video Systems
- Scalability for Web Conferencing

Scalability for Voice and Video Systems

Video conferencing scales up to 600 video ports in a single system using an Express Media Server and supports a wide variety of endpoints from Cisco Unified video telephony to H.323/SIP endpoints from third-party providers.

Table: Audio and Video Scalability Numbers for Cisco Unified MeetingPlace lists the maximum number of calls that are supported. The table assumes that the G.711 audio codec is being used and video is 320 Kbps. Many design external transcoding resources on DSP farms in Multiservice Routers to transcode G.722/G.729/iLBC codecs to G.711 before sending to MeetingPlace to achieve the G.711 codec capacities. See Planning the Capacity of your Cisco Unified MeetingPlace System for detailed information about System Resource Units (SRUs) that are used to calculate the capacity of the Express Media Server. The server listed is the server on which the Application Server resides.

Table: Audio and Video Scalability Numbers for Cisco Unified MeetingPlace

	Maximum Number of Calls that are Supported			
System Mode	**Application Server hosted on Cisco MCS 7835-I3-RC1**	**Application Server hosted on Cisco MCS 7845-H2-RC2 or 7845-I2-RC2**	**Application Server hosted on Cisco MCS 7845-I3-RC2**	**Application Server hosted on Cisco UCS B or C Series Server**
Hardware Media Server	Audio: 2000 (G.711) or 1328 (G.722/G.729/iLBC)	Audio: 2000 (G.711) or 1328 (G.722/G.729/iLBC)	Audio: 2000 (G.711) or 1328 (G.722/G.729/iLBC)	Audio: 2000 (G.711) or 1328 (G.722/G.729/iLBC)

	Video: 300 (160 at 2 MB or 300 at 384 Kbps)	Video: 300 (160 at 2 MB or 300 at 384 Kbps)	Video: 300 (160 at 2 MB or 300 at 384 Kbps)	Video: 300 (160 at 2 MB or 300 at 384 Kbps)
Express Media Server in high-capacity mode	Audio only: 400 (G.711) or 66 in high quality mode (G.722/G.729) Audio/Video: • 200 using H.264 AVC Level 1.1 video • 133 using H.263 or H.264 AVC Level 1.3 video • 57 using H.264 AVC Level 3.0 or H.264 AVC Level 3.1 video	Audio only: 500 (G.711) or 83 in high quality mode (G.722/G.729) Audio/Video: • 250 using H.264 AVC Level 1.1 video • 166 using H.263 or H.264 AVC Level 1.3 video • 71 using H.264 AVC Level 3.0 or H.264 AVC Level 3.1 video	Audio only: 1200 (G.711) or 200 in high quality mode (G.722/G.729) Audio/Video: • 600 using H.264 AVC Level 1.1 video • 400 using H.263 or H.264 AVC Level 1.3 video • 170 using H.264 AVC Level 3.0 or H.264 AVC Level 3.1 video	Audio only: 1200 (G.711) or 200 in high quality mode (G.722/G.729) Audio/Video: • 600 using H.264 AVC Level 1.1 video • 400 using H.263 or H.264 AVC Level 1.3 video • 170 using H.264 AVC Level 3.0 or H.264 AVC Level 3.1 video

Scalability for Web Conferencing

Release 8.5 offers customers a maximum of 14,400 ports in a multinode system. Multinode systems provide resiliency by allowing conferences to be hosted on other nodes in the system when an overflow condition occurs on the node where the meeting would normally be scheduled.

Note: Multinode systems are web conferencing deployments with Cisco WebEx scheduling for meetings. A multinode deployment is not supported for deployments with MeetingPlace scheduling or for audio only deployments.

For details on building this type of deployment, see Planning a Multinode Deployment.

Determine the number of nodes by determining the number of people who will be attending meetings, then add backup capacity at each site. For details on determining capacity, see Planning the Capacity of your Cisco Unified MeetingPlace System.

You can optionally install a Cisco WebEx Node For MCS (on a MCS or on a virtual machine) that can accommodate up to 500 web sessions. You can add additional Cisco WebEx Node For MCS to increase the number of web meetings, up to a maximum of four, for a total of 2000 web sessions (overall, not in a single meeting), in multinode deployments with Cisco WebEx scheduling.

Note: The Cisco WebEx Node For MCS does not support recordings or WebEx webcam video for internal only meetings, in deployments with Cisco WebEx scheduling.