

Cisco MCS 7845-H2 Unified Communications Manager Appliance

Cisco Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks enabling easy collaboration every time from any workspace.

Cisco® Unified Communications is a comprehensive IP communications system of voice, video, data, and mobility products and applications. It enables more effective, more secure, more personal communications that directly affect both sales and profitability. It brings people together by enabling a new way of communicating — where your business moves with you, security is everywhere, and information is always available...whenever and wherever it is needed. Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

Product Overview

The Cisco MCS 7845-H2 Unified Communications Manager Appliance is a high-availability server platform for Cisco Unified Communications Manager and an integral part of a complete, scalable architecture for a new generation of high-quality unified communications solutions for enterprise data networks. It delivers the high performance and availability that today's enterprise networks demand — and it is easy to deploy and highly cost-effective. The server appliance is preinstalled with an operating system and Cisco Unified Communications Manager. It is fully operational upon startup, requiring entry of just a few configuration variables such as IP address and domain. At just 2 rack units (2RU) high, the Cisco MCS 7845-H2 offers tremendous power in a low-profile chassis that minimizes rack space. The appliance supports up to 7500 Cisco Unified IP Phones per appliance and 30,000 Cisco Unified IP Phones per cluster.

Key Features and Benefits

Performance

The Cisco MCS 7845-H2 Unified Communications Manager Appliance is a robust, highly available server platform designed to support today's unified communications applications. It uses a Smart Array P400 Controller with 256-MB cache to provide onboard Redundant Array of Independent Disks (RAID) support. The appliance occupies only 2RU of space while providing the features most requested in a high-availability server platform.

High Availability

High availability on the Cisco MCS 7845-H2 Unified Communications Manager Appliance is achieved through the following mechanisms:

- Redundant hot-swap power supplies
- Redundant hot-swap fans
- Hot-swap Serial Attached SCSI (SAS) hard drives configured using RAID 1

Serviceability

System Health LEDs

The Cisco MCS 7845-H2 Unified Communications Manager Appliance provides system health LEDs and unit identification lights on the front and back of the server to ease identification of system problems. When an internal component fails, this indication is made on an internal component LED (amber) and on the front panel of the appliance. If the item can be serviced without removing the server hood, as in the case of a redundant power supply, the external health LED illuminates. If the item can be serviced by removing the hood, as in the case of a fan failure, the internal health LED illuminates. If no failures have occurred, the system health LEDs are green. If a failure has occurred but a redundant feature has enabled the system to continue running, the LED is amber. If the failure is critical and has caused the system to shut down, the LED is red.

Integrated Lights Out

The Integrated Lights Out 2 (iLO2) standard is included on the motherboard. Combining essential management functions and diagnostics with basic lights-out functions as standard components of the server, iLO2 is available at no charge. It offers maximum security, availability, and control over business-critical servers without the need to visit the systems physically.

The iLO2 standard also provides fundamental server control and monitoring by integrating essential lights-out technology directly into the Cisco MCS 7845-H2 Unified Communications Manager Appliance architecture.

- Essential lights-out features include remote power control, text-based console, logs, status, and alert forwarding.
- The easy-to-use, dedicated lights-out LAN port is accessible through a browser interface.
- The iLO2 standard saves a valuable peripheral-component-interconnect (PCI) slot for additional functions and reduces installation and setup time.
- The iLO2 standard eliminates the need for an external power adapter or any other internal or external cables.
- The iLO2 standard provides a rich suite of security features, including Secure Sockets Layer (SSL).
- The iLO2 standard provides a scalable solution by allowing group administration of iLO2 processors.

Tape Drive Support

The Cisco MCS 7845-H2 Unified Communications Manager Appliance can support an optional 36/72-GB universal-serial-bus (USB) external Digital Audio Tape (DAT) drive (part number DAT-USB-EXT-72=) or an optional USB rack-mount DAT drive (part number DAT-USB-RM-72=). This tape drive connects through one of the 4 USB 2.0 ports provided by the Cisco MCS 7845-H2 Unified Communications Manager Appliance server.

Product Specifications

Tables 1 through 7 list the appliance configurations.

Table 1. Configuration of MCS7845H2-K9-CMA2

Component	Value
Preload	Cisco Unified Communications Manager 5.1

Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 72-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 2. Configuration of MCS7845H2-K9-CMA2D

Component	Value
Pre-load	Cisco Unified Communications Manager 5.1
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 3. Configuration of MCS7845H2-K9-CMB1

Component	Value
Preload	Cisco Unified Communications Manager 6.0
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 72-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 4. Configuration of MCS7845H2-K9-CMB1D

Component	Value
Preload	Cisco Unified Communications Manager 6.0
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 5. Configuration of MCS7845H2-K9-CMB2

Component	Value
Preload	Cisco Unified Communications Manager 6.1
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 72-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 6. Configuration of MCS7845H2-K9-CMB2D

Component	Value
Preload	Cisco Unified Communications Manager 6.1
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 7. Configuration of MCS7845H2-K9-CMC2

Component	Value
Preload	Cisco Unified Communications Manager 7.1
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	4-GB (4 x 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot swap
Remote management	HP iLO Advanced License

Table 8 lists detailed product specifications for the Cisco MCS 7845-H2 Unified Communications Manager Appliance.

Table 8. Product Specifications

Processor at Product Introduction	
Maximum processors	2
Processors installed	2
Basic input/output system (BIOS) type	Flash memory
Memory	
Memory maximum	32 GB
Memory bus clock	667 MHz
Memory technology	PC2-5200 667-MHz double-data-rate 2 (DDR2) synchronous dynamic RAM (SDRAM)
Multibit error mitigation	Advanced Error Checking and Correcting (AECC)
Total RAM slots	8
RAID Controller	
Controller model	HP Integrated Smart Array P400 Controller
Interface	PCI-Express
Cache	256 MB
Battery-backed write cache	Yes
RAID levels supported	1
Maximum quantity hard-disk drives	8
Hard disk	
Hot-swappable bays	8
Hard-disk interface type	SAS
Data-transfer rate	300 MB per second
Hard-disk revolutions per minute (RPM)	10,000
Hard-disk average seek time	4 ms
Network Connectivity	
Ethernet network interface card (NIC)	Dual onboard 10/100/1000
Ethernet connectors	Two RJ-45 connectors on back of server
10BASE-T cable support	EIA Category 3, 4, or 5 unshielded twisted pair (UTP) (2 or 4 pair) up to 328 ft (100m)
100BASE-TX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
1000BASE-T cable support	EIA Category 6 UTP (recommended), 5E UTP, or 5 UTP (2 pair) up to 328 ft (100m)
Interfaces	
Serial ports	1
Parallel ports	0

USB 2.0 ports	5 (2 at front, 2 at back, and 1 inside chassis)
Keyboard ports	1 PS/2
Mouse ports	1 PS/2
Audio ports	None
System management ports	RJ-45 for HP iLO 2dedicated Ethernet port
VGA ports	1 front and 1 back
Security	
<ul style="list-style-type: none"> • Power-on password • Keyboard password • Selectable boot device • Diskette drive control • QuickLock, network server mode • Serial interface control • Administrator's password • Disk configuration lock 	
Industry-Standard Compliance	
<ul style="list-style-type: none"> • Advanced Configuration and Power Interface (ACPI) 2.0 compliant • PCI 2.2 compliant • Wake On LAN (WOL) support • Microsoft Logo certifications • USB 2.0 support 	
Expansion Options	
PCI-X non-hot plug 133-MHz 64-bit slots	1
PCI-X non-hot plug 100-MHz 64-bit slots	2
Power	
Maximum input power	735W
Steady-state output power	575W
Autoranging AC mains input	Yes
Power Factor Correction (PFC)	Yes
Maximum hot-swap power supplies	2
Hot-swap power supplies installed	2
Mains input frequency range	47–63 Hz
Operational input voltage ranges	<ul style="list-style-type: none"> • 90–132 VAC minimum • 200–264 VAC maximum
Input current range	<ul style="list-style-type: none"> • 7.5A (at 100 VAC nominal) • 3.8A (at 240 VAC nominal)
Environmental	
Air temperature: Server on	50 to 95°F (10 to 35°C)
Air temperature: Server off	–40 to 158°F (–40 to 70°C)
Humidity: Server on	10 to 90%
Humidity: Server off	5 to 95%
BTU rating (maximum configuration)	2508 BTU per hour
Sound emissions idle	7.4 bels
Sound emissions maximum	7.4 bels
Bystander sound pressure idle	58 dBa
Bystander sound pressure operating	58 dBa
Cooling system	8 fans installed

Dimensions	
Form factor	Rack-mount 2RU
Rack-mounting	Included for standard third-party rack
Weight: Maximum	60 lb (27.22 kg)
Weight: No drives	47.18 lb (20.41 kg)
Height	3.38 in. (8.59 cm)
Width	17.54 in. (44.54 cm)
Depth	26.01 in. (66.07 cm)

Ordering Information

To order this product, visit the Cisco Ordering Home Page or visit <http://www.cisco.com/en/US/ordering/index.shtml> and refer to Tables 9 and 10.

You can order the appliance in one of two ways. You can enter UNIFIED-CM-7.1, UNIFIED-CM-7.0, UNIFIED-CM-6.1, UNIFIED-CM-6.0, or CALLMANAGER-5.1 into the Dynamic Configuration tool on Cisco.com and view a list of Cisco MCS Unified Communications Manager Appliances and their associated licenses. You can also order the components individually using the following product part numbers:

- MCS7845H2-K9-CMC2 (preloaded with Cisco Unified Communications Manager 7.1)
- MCS7845H2-K9-CMC1 (preloaded with Cisco Unified Communications Manager 7.0)
- MCS7845H2-K9-CMB2D (preloaded with Cisco Unified Communications Manager 6.1)
- MCS7845H2-K9-CMB1D (preloaded with Cisco Unified Communications Manager 6.0)
- MCS7845H2-K9-CMA2D (preloaded with Cisco Unified Communications Manager 5.1)
- LIC-CM7.0-K9-7845-H2=
- LIC-CM6.1-K9-7845-H2=
- LIC-CM6.0-K9-7845-H2=
- LIC-CM5.1-K9-7845-H2=
- KEY-CCM-ADMIN-K9= (order a minimum quantity of 2)
- DAT-USB-EXT-72= (optional external USB DAT tape drive)
- DAT-USB-RM-72= (optional rack-mount USB DAT tape drive)
- LIC-CCM7.X-2500= (optional; order if you want another 2500 users per appliance on release 7.0)
- LIC-CCM6.X-2500= (optional; order if you want another 2500 users per appliance on release 6.0)
- LIC-CCM5.X-2500= (optional; order if you want another 2500 users per appliance on release 5.0)

Appliance Spares

To order spare appliances, refer to Table 9.

Table 9. Ordering Information for Spare Appliances

Application	Spare Part Number
Cisco Unified Communications Manager 7.1	MCS7845H2-K9-CMC2
Cisco Unified Communications Manager 7.0	MCS7845H2-K9-CMC1

Cisco Unified Communications Manager 6.1	MCS7845H2-K9-CMB2D
Cisco Unified Communications Manager 6.0	MCS7845H2-K9-CMB1D
Cisco Unified Communications Manager 5.1	MCS7845H2-K9-CMA2D

Field-Replaceable Spares

To order spare parts for the appliance, refer to Table 10.

Table 10. Ordering Information for Appliance Spare Parts

Spare Part Number	Description
Spare 72-GB SAS 2.5 inch hot-plug drive for Cisco MCS 7845-H2	HDD-7845-H2-72=
Spare 146-GB SAS 2.5 inch hot-plug drive for Cisco MCS 7845-H2	HDD-7845-H2-146=
Spare power supply for Cisco MCS 7845-H2	PWR-7845-H2=
Spare fan for Cisco MCS 7845-H2	FAN-7845-H2=
Spare external USB 36-/72-GB DAT drive	DAT-USB-EXT-72=
Spare rack-mount USB 36-/72-GB DAT drive	DAT-USB-RM-72=

Replacement Part Numbers

With the introduction of the new configurations using 146-GB disks in place of 72-GB disks, the orderability of the old configuration expired. Table 11 provides the replacement part numbers for those products that are no longer orderable.

Table 11. Replacement Part Numbers

Old Part Number	Replacement Part Number
MCS7845H2-K9-CMA2	MCS7845H2-K9-CMA2D
MCS7845H2-K9-CMB1	MCS7845H2-K9-CMB1D
MCS7845H2-K9-CMB2	MCS7845H2-K9-CMB2D

Warranty Information

Cisco offers a 1-year limited hardware warranty on Media Convergence Servers. For terms and conditions of this warranty, refer to

http://www.cisco.com/univercd/cc/td/doc/es_inpk/1y1cen_.htm.

Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services enhances your technology experience to accelerate true business advantage.



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