

Cisco MCS 7845-H2

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

Product Overview

The Cisco MCS 7845-H2 Media Convergence Server is a high-availability server platform for Cisco Unified Communications Solutions. It is an integral part of a complete, scalable architecture for a new generation of high-quality IP voice solutions that run on enterprise data networks. It delivers the high performance and availability demanded by today's enterprise networks and represents an innovative solution that is easy to deploy and highly cost-effective. At only 2 rack units (2RUs) high, the Cisco MCS 7845-H2 packs tremendous power in a low-profile chassis that minimizes rack space.

Supported Applications

The Cisco MCS 7845-H2 can run any of the following Cisco applications:

- Cisco Unified Application Environment
- Cisco Unified Communications Manager: Up to 7,500 Cisco Unified IP Phones per server
- Cisco Emergency Responder; Up to 30,000 Cisco Unified IP Phones per server
- Cisco Unified Presence
- Cisco Unified Intelligent Contact Management Enterprise
- Cisco Unified Intelligent Contact Management Hosted
- Cisco Unified Contact Center Enterprise
- Cisco Unified Contact Center Hosted
- Cisco Unified Contact Center Express
- Cisco Unified Expert Advisor
- Cisco IPICS
- Cisco Unified IP IVR
- Cisco Unified Customer Voice Portal
- Cisco Unified MeetingPlace® conferencing
- Cisco Unified MeetingPlace Express
- Cisco Unity® unified messaging

Key Features and Benefits

Performance

The Cisco MCS 7845-H2 is a robust, highly available server platform designed to support today's Cisco 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 server occupies only 2RU of space while providing the features most requested in a high-availability

server platform. At product introduction, the Cisco MCS 7845-H2 will ship with two Intel Xeon 2.33-GHz processors.

High Availability

High availability on the Cisco MCS 7845-H2 is achieved through the following mechanisms:

- Redundant hot-swap power supplies
- Redundant hot-swap fans
- Hot-swap SAS hard drives configured using RAID 1

Serviceability

System Health LEDs

The Cisco MCS 7845-H2 provides system health LEDs and unit identification lights on the front and back of the server to make pinpointing system problems easier than ever. When an internal component fails, this indication is made on an internal component LED (amber) and on the front panel of the Cisco MCS 7845-H2. If the item is serviceable without removing the server hood, as in the case of a redundant power supply, the external health LED illuminates. If the item is serviceable 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 2

The Integrated Lights Out 2 (iLO 2) standard is included on the motherboard. Combining essential management functions and diagnostics with basic lights-out functions as standard components of the server, iLO 2 is available at no charge.

- iLO 2 provides fundamental server control and monitoring by integrating essential lights-out technology directly into the Cisco MCS 7845-H2 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.
- iLO 2 saves a valuable Peripheral Component Interconnect (PCI) slot for additional functions and reduces installation and setup time.
- iLO 2 eliminates the need for an external power adapter or any other internal or external cables.
- iLO 2 provides a rich suite of security features, including Secure Sockets Layer (SSL).
- iLO 2 provides a scalable solution by allowing group administration of iLO 2 processors.

DAT Tape Support

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

Product Specifications

Tables 1 and 2 list the configurations of the Cisco MCS 7845-H2.

Table 1. Currently Shipping Configuration

Component	Value
Product part number	MCS-7845-H2-CCE2 MCS-7845-H2-CCX2 MCS-7845-H2-IPC2 MCS-7845-H2-RC2 MCS-7845-H2-PSBU
Preload	None
OS included	None
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	PC2-5300 667-MHz DDR2 synchronous dynamic RAM (SDRAM) Fully Buffered DIMMs
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Remote management	HP iLO Advanced License

Component	Value
Product part number	MCS-7845-H2-ECS3 MCS-7845-H2-CCE3
Preload	None
OS included	None
Processor	Dual Intel E5345 2.33-GHz 2x4M L2
Memory	4-GB (four 1-GB) PC2-5300R
Hard disks	Four 146-GB SAS 2.5-in. hot-swap
Remote management	HP iLO Advanced License

Component	Value
Product part number	MCS-7845-H2-ECS4 MCS-7845-H2-CCE4
Preload	None
OS included	None
Processor	Dual Intel E5345 2.33-GHz 2x4M L2
Memory	4-GB (four 1-GB) PC2-5300R
Hard disks	Eight 146-GB SAS 2.5-in. hot-swap
Remote management	HP iLO Advanced License

Table 2. Previous Shipping Configuration

Component	Value
Product part number	MCS-7845-H2-CCE1 MCS-7845-H2-CCX1 MCS-7845-H2-ECS2 MCS-7845-H2-IPC1 MCS-7845-H2-RC1 MCS-7845-H2-UC1 MCS-7845-H2-S31
Preload	None

OS included	None
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	2-GB (two 1-GB) PC2-5300R
Hard disks	Four 72-GB SAS 2.5-in. hot-swap
Remote management	HP iLO Advanced License

Component	Value
Product part number	MCS-7845-H2-ECS1
Preload	None
OS included	None
Processor	Dual Intel 5140 2.33-GHz 4M L2
Memory	2-GB (two 1-GB) PC2-5300R
Hard disks	Eight 72-GB SAS 2.5-in. hot-swap
Remote management	HP iLO Advanced License

Tables 3 through 10 give specifications of the Cisco MCS 7845-H2.

Table 3. Processor Specifications

Maximum processors	2
Processors installed	2
Basic input/output system (BIOS) type	Flash

Table 4. Memory Specifications

Memory maximum	32 GB
Memory bus clock	667 MHz
Memory technology	PC2-5300 667-MHz DDR2 synchronous dynamic RAM (SDRAM) Fully Buffered DIMMs
Multibit error mitigation	Advanced Error Checking and Correcting (AECC)
Total RAM slots	8

Table 5. RAID Controller Specifications

Controller model	HP Smart Array P400 Controller
Interface	PCI Express
Cache	256 MB
Battery-backed write cache	Yes
RAID levels supported	1

Table 6. Hard Disk Specifications

Hot-swappable bays	8
Hard disk interface type	SAS
Hard disk revolutions per minute (rpm)	10,000
Hard disk average seek time	4 ms
Data-transfer rate	300 MB per second

Table 7. Network Interface Specifications

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, 5 UTP (2 pair) up to 328 ft (100m)

Table 8. Interface Port Specifications

Serial ports	1
Parallel ports	0
USB 2.0 ports	5 (2 front, 2 back, and 1 inside)
Keyboard ports	1 PS/2
Mouse ports	1 PS/2
Audio ports	None
System management ports	RJ-45 for HP iLO 2 dedicated Ethernet ports
Video Graphics Array (VGA) ports	1 front and 1 back

Security capabilities of the Cisco MCS 7845-H2 follow:

<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

The Cisco MCS 7845-H2 complies with the following standards;

<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

Table 9. Expansion Options and Interfaces

Expansion Options	
8x PCIe non-hot plug slots	2

Table 10. System Unit Specifications

Dimensions (H x W x D)	3.38 x 17.54 x 26.01 in.	8.59 x 44.54 x 66.07 cm
Weight	60 lb	27.22 kg
Input requirements (per power supply)	Rated line voltage	100–132 VAC, 200–240 VAC
	Rated input current	10A (100 VAC), 10A (120 VAC), and 6.1A (200 VAC)
	Rated input frequency	50–60 Hz
	Rated input power	1000, 1056, and 1205W
BTU rating	BTU/hr	3490, 3680, and 4150
Power supply output power	Rated steady-state power	800, 850, and 1000W
Temperature range	Operating	<ul style="list-style-type: none"> • 50 to 95°F (10 to 35°C) at sea level with an altitude de-rating of 1.8°F per 1000 ft (1.0°C per 304.8m) to 10,000 ft (3048m) • No direct sunlight allowed • Maximum rate of change: 18°F/hr (10°C/hr) • Upper operating limit: 10,000 ft (3,048m) or 70 Kpa/10.1 psia • System performance may be reduced if operating with a fan fault at or above 86 degrees Fahrenheit (30 degrees Celsius)
	Nonoperating	<ul style="list-style-type: none"> • –22 to 140°F (–30 to 60°C) • Maximum rate of change: 36°F/hr (20°C/hr) • Upper nonoperating limit: 30,000 ft (9,144m) or 30.3 KPa/4.4 psia
Maximum wet-bulb temperature	101.7°F	38.7°C
Relative humidity (RH; noncondensing)	Operating	10 to 90%, 28°C [[pls add deg F for this and next entry]] maximum wet-bulb temperature
	Nonoperating	5 to 95%, 38.7°C maximum wet-bulb temperature
Acoustic noise	Idle minimum (fixed disk drives spinning)	L WAd (bels) 6.4 L pAm (dBA) 47
	Operating minimum (random seeks to fixed disks)	L WAd (bels) 6.6 L pAm (dBA) 49

Ordering Information

To place an order, visit the [Cisco Ordering Home Page and refer to Tables 11 through 14.](#)

Table 11. Ordering Information

Product Name	Part Number
Cisco Unified Application Environment	Refer to Cisco Unified Application Environment data sheet
Cisco Unified Communications Manager 4.3	CALLMANAGER-4.3
Cisco Emergency Responder	Refer to Cisco Emergency Responder data sheet
Cisco Unified Presence	Refer to Cisco Unified Presence Server data sheet
Cisco Unified Intelligent Contact Management Enterprise	ICME-HOSTED
Cisco Unified Intelligent Contact Management Hosted	HOSTED-BUNDLE
Cisco Unified Contact Center Enterprise	IPCE-BUNDLE
Cisco Unified Contact Center Hosted	HOSTED-BUNDLE

Cisco Unified Contact Center Express	CCX-50-STANDARD CCX-50-ENHANCED CCX-50-PREMIUM CCX-60-STANDARD CCX-60-ENHANCED CCX-60-PREMIUM CCX-70-NEW
Cisco Unified Expert Advisor	EA-BUNDLE
Cisco Unified IP IVR	IVR-5.0-NEW IVR-6.0-NEW IVR-70-NEW-BUNDLE
Cisco Unified Customer Voice Portal	CVP-3.1 CVP-3.X CVP-4.X CVP-7.X
Cisco Unified MeetingPlace conferencing	Refer to Cisco Unified MeetingPlace data sheet
Cisco Unified MeetingPlace Express	Refer to Cisco Unified MeetingPlace Express data sheet
Cisco Unity Unified Messaging	See Server Spares below
Cisco IPICS Server Bundle for Operations Center	CIS-7845-H2-K9

Server Spares

Table 12. Ordering Information for Spare Servers by Application

Application	Spare Part Number
Cisco Unified Application Environment	MCS-7845-H2-IPC2
Cisco Unified Communications Manager	MCS-7845-H2-IPC2
Cisco Emergency Responder	MCS-7845-H2-IPC2
Cisco Unified Presence	MCS-7845-H2-IPC2
Cisco Unified Contact Center Express	MCS-7845-H2-CCX2
Cisco Unified IP IVR	MCS-7845-H2-CCX2
Cisco Unified Intelligent Contact Management Enterprise	MCS-7845-H2-CCE2
Cisco Unified Intelligent Contact Management Hosted	MCS-7845-H2-CCE2
Cisco Unified Contact Center Enterprise	MCS-7845-H2-CCE2
Cisco Unified Contact Center Hosted	MCS-7845-H2-CCE2
Cisco IPICS	MCS-7845-H2-S31
Cisco Unified Customer Voice Portal	MCS-7845-H2-CCE2
Cisco Unified Expert Advisor	MCS-7845-H2-CCE2
Cisco Unified MeetingPlace conferencing	MCS-7845-H2-RC2
Cisco Unified MeetingPlace Express	MCS-7845-H2-RC2
Cisco Unity Unified Messaging	MCS-7845-H2-ECS3 (off-box unified messaging or voicemail) (four 146-GB hard disk configuration) MCS-7845-H2-ECS4 (on-box voicemail only) (eight 145-GB hard disk configuration)

Field Replaceable Spares

Table 13. Ordering Information for Server Spare Parts

Spare Part Number	Description
Spare 1024-MB SDRAM DIMM for Cisco MCS 7845-H2	MEM-7845-H2-1GB=
Spare 72-GB SAS drive for Cisco MCS 7845-H2	HDD-7845-H2-72=
Spare 146-GB SAS drive for Cisco MCS 7845-H2	HDD-7845-H2-146=
Spare 800W power supply for Cisco MCS 7845-H2	PWR-7845-H2=
Spare fan for Cisco MCS 7845-H2	FAN-7845-H2=

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 was terminated. Table 14 provides the replacement part numbers for those products that are no longer orderable.

Table 14. Replacement Part Numbers

Old Part Number	Replacement Part Number
MCS-7845-H2-CCE1	MCS-7845-H2-CCE2
MCS-7845-H2-CCX1	MCS-7845-H2-CCX2
MCS-7845-H2-ECS1	MCS-7845-H2-ECS4
MCS-7845-H2-ECS2	MCS-7845-H2-ECS3
MCS-7845-H2-IPC1	MCS-7845-H2-IPC2
MCS-7845-H2-RC1	MCS-7845-H2-RC2
MCS-7845-H2-UC1	NA

Warranty Information

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

http://www.cisco.com/univercd/cc/td/doc/es_inpck/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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