CISCO MCS 7825-H2

The Cisco® Media Convergence Server 7825-H2 (MCS 7825-H2) is a powerful platform for Cisco Unified Communications applications and others. It occupies only 1 rack unit (1RU) while providing the features most requested in a server platform at a very economical price point:

- Intel dual-core, Pentium D, 2.8-GHz or 3.4-GHz processor with an 800-MHz front side bus (FSB) and 4 MB of Layer 2 cache
- 2 GB of installed PC2-4200 memory, error correction code (ECC), Double Data Rate 2 (DDR2), synchronous dynamic RAM (SDRAM) standard; 8 GB maximum
- Two integrated 10/100/1000BASE-T Gigabit Ethernet network interface card (NIC) ports
- Two 80-GB serial-advanced-technology-attachment (SATA) hard disk drives configured in Redundant Array of Independent Disks (RAID) level 1
- No floppy diskette drive installed
- Quick-deployment third-party rail kit
- 450W autoranging, Power Factor Correction (PFC) power supply
- 1RU (1.75 in./4.5 cm high) form factor
- Integrated Lights Out (ILO) remote management

Supported Applications

The Cisco MCS 7825-H2 supports the following Cisco applications:

- Cisco Unified CallManager—up to 1000 IP phones per server and 4000 IP phones per cluster
- Cisco Emergency Responder—up to 12,000 IP phones
- Cisco Unified Presence Server
- 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 IP Interactive Voice Response (IP IVR)
- Cisco IP Interoperability and Collaboration System (IPICS) Software
- Cisco Unified MeetingPlace® Express
- Cisco Unified IP Queue Manager
- Cisco Unity® Unified Messaging
- Cisco Digital Media System

Primary Features and Benefits

Performance

The Cisco MCS 7825-H2 is a robust, highly available server platform designed to support today's IP Communications applications. It uses a single Intel dual-core Pentium D, 2.8-GHz or 3.4-GHz processor with an 800-MHz FSB.

Serviceability

System-Health LEDs

The Cisco MCS 7825-H2 provides system-health LEDs and unit-identification lights on the front and back of the server to make locating 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 7825-H2. If the item can be serviced if the hood is removed, as in the case of a fan failure, the internal-health LED illuminates. If no failures have occurred, the system-health LED is green. If the failure is critical and has caused the system to shut down, the LED is red.

Redundant ROM

In the Cisco MCS 7825-H2, the ROM is divided into two logical parts. When the system boots, the primary ROM side is executed and used in server operation. During a ROM flash, the backup side is flashed. When the flash is fully completed, the backup side becomes the primary. If under rare conditions the flash does not complete safely, potentially because of a power interruption, the backup is available to boot the system. If both images are valid, the user can select which image to use at boot time.

Serviceable SATA Disk Drives

The Cisco MCS 7825-H2 is configured with two 80-GB SATA "cold-pluggable" disk drives configured in a RAID 1 mirror set. The server continues to operate if either of the two disk drives fails. The SATA disk drives are accessible to the end user through openings in the front bezel of the server. If a drive fails, the end user can schedule server downtime, power down the server, and replace the failed SATA drive by simply removing it (each drive is equipped with a front latch that positively mates the drive to the server) and replacing it with an unconfigured spare drive. After restarting the server, the RAID 1 firmware initiates a remirroring of the new drive to help ensure that drive redundancy on the Cisco MCS 7825-H2 is maintained. The serial-drive technology introduced in the Cisco MCS 7825-H2 provides Cisco Systems® customers with a highly reliable, high-performance, cost-effective solution.

DAT Tape Drive Support

The Cisco MCS 7825-H2 can support an optional 36/72-GB USB external Digital Audio Tape (DAT) drive (part number DAT-USB-EXT-72=) or an optional 36/72-GB USB rack-mount DAT drive (part number DAT-USB-RM-72=), which connects through one of the four USB 2.0 ports provided by the Cisco MCS-7825-H2 server.

Product Specifications

Table 1 gives specifications for the Cisco MCS 7825-H2.

Table 1.   Specifications for Cisco MCS 7825-H2

Processor at Product Introduction	
Processor (CPU)	Intel Pentium D dual core
Processor Internal Clock Speed	2.8 GHz or 3.4 GHz
Level 2 Cache	4 MB
Maximum Processors	1

Processors Installed	1 (with 2 cores)
Basic Input/Output System (BIOS) Type	Flash memory
Memory	
Memory Maximum	8 GB
Memory Bus Clock	533 MHz
Memory Technology	PC2-4200 DDR2 SDRAM
Bit-Error Mitigation	Advanced error checking and correction (advanced error correction code [AECC])
Total RAM Slots	4
Memory Installed	2 GB (2 x 1 GB)
RAID Controller	
Controller Model	HP-integrated SATA RAID controller
Interface	Embedded to planar
Cache	No
Battery-Backed Write Caching	No
RAID Levels Supported	1
Hard Disk	
Hard Disk Installed	2 x 80 GB
Hard Disk RPM	7200
Hard Disk I/O Transfer Rate	1.5 Gbps
Hard Disk Average Seek Time	9 ms
Hard Disk Interface Type	SATA
Network Connectivity	
Ethernet NIC	Dual onboard 10/100/1000
Connector	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 (10m)
100BASE-TX Cable Support	EIA Category 5 UTP (2 pair) up to 328 ft (10m)
1000BASE-T Cable Support	EIA category 6 UTP (recommended), 5E UTP, or 5 UTP (2 pair) up to 328 ft (10m)
Expansion Options	
PCI-Express x8	1 (full length)
PCI-Express Low Profile x8	1 (half length)
Note: The Cisco 7825-H2 is not qualified for use with Cisco Unity voice cards for traditional private-branch-exchange (PBX) integrations.	
Interfaces	
Ethernet	2
Serial Ports	1
Parallel Ports	0
USB 2.0 Ports	4 (1 at front, 1 internal, and 2 at back of chassis)
Keyboard Port	1 PS/2
Mouse Port	1 PS/2
Audio Ports	None
External Small Computer System Interface (SCSI) Port	None
Security	

- Power-On Password
- Keyboard Password
- Diskette Drive Control
- Diskette Boot Control
- USB Port Control
- Removable CD-ROM/Diskette Drive Assembly
- Administrator's Password

Power	
Power Supply Output Steady-State Power	450W (rated) Note: +3.3V and +5V total output power; 130W maximum +3.3V,+5V, and +12V total output power; 324W maximum
Autoranging AC Input	Yes
PFC	Yes
Input Requirements Range Line Voltage	90 to 264VAC
Nominal Line Voltage	100 to 120VAC and 220 to 240VAC
Rated Input Current	6A (100 to120VAC) to 3A (200 to 240VAC)
Rated Input Frequency	47 to 63 Hz
Rated Input Power	@ 115V input; rated input power = 486W (assume output wattage = 450W) @ 230V input; rated input power = 479W (assume output wattage = 450W)
Environmental	
Operating Ambient Temperature	50 to 95℉ (10 to 35℃)
Operating Temperature Derating	1.8℉ per 1000 to 10,000 ft (1℃ per 300 to 3000m)
Operating Relative Humidity	10 to 90% (noncondensing)
Operating Maximum Wet Bulb Temperature	82℉ (28℃)
Nonoperating Storage Temperature	−22 to 140℉ (−30 to 60℃)
Nonoperating Relative Humidity	5 to 95% (noncondensing)
Nonoperating Maximum Wet Bulb Temperature	102℉ (38.7℃)
BTU Rating	1710 BTU/hr (per 255W maximum configuration)
Sound Emissions, Idle	6.4 bel (operating)
Cooling System	5 fans installed
System Unit	
Form Factor	Rack-mount 1RU
Rack-Mounting	Included for standard third-party rack
Weight Maximum	27.00 lb (12.27 kg)
Dimensions (H x W x D)	1.70 x 16.78 x 24.0 in. (4.32 x 42.62 x 60.96 cm)

Ordering Information

To place an order, visit the Cisco Ordering homepage.

Table 2 gives ordering information for specific server product part numbers.

Table 2.   Ordering Information

Product Name	Part Number
Cisco CallManager 3.3	CALLMANAGER-3.3
Cisco Unified CallManager 4.0	CALLMANAGER-4.0

Cisco Unified CallManager 4.1	CALLMANAGER-4.1
Cisco Unified CallManager 4.2	CALLMANAGER-4.2
Cisco Emergency Responder	Refer to Emergency Responder data sheet
Cisco Unified Presence Server	Refer to Unified Presence Server data sheet
Cisco Unified Intelligent Contact Management Enterprise	ICM-BUNDLE
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	• IPCX-40-STANDARD • IPCX-40-ENHANCED • IPCX-40-PREMIUM • UCCX-45-STANDARD • UCCX-45-ENHANCED • UCCX-45-PREMIUM
Cisco Unified IP IVR	IPIVR-3.5=
Cisco IPICS Server Bundle for Branch Offices	CIS-7825-H2-K9
Cisco Unified MeetingPlace® Express	Refer to Cisco Unified MeetingPlace Express data sheet
Cisco Unified IP Queue Manager	IPQM-3.5=
Cisco Unity Unified Messaging	UNITY-BUNDLE
Cisco Digital Media System	Refer to Digital Media System data sheet

Server Spares

Refer to Table 3 to order spare servers.

Table 3. Ordering Information for Spare Servers by Application

Application	Spare Part Number
Cisco Unified CallManager	MCS-7825-H2-IPC2
Cisco Emergency Responder	MCS-7825-H2-IPC2
Cisco Unified Presence Server	MCS-7825-H2-IPC2
Cisco Unified Intelligent Contact Management Enterprise	MCS-7825-H2-CCE1
Cisco Unified Intelligent Contact Management Hosted	MCS-7825-H2-CCE1
Cisco Unified Contact Center Enterprise	MCS-7825-H2-CCE1
Cisco Unified Contact Center Hosted	MCS-7825-H2-CCE1
Cisco Unified Contact Center Express	MCS-7825-H2-CCX1
Cisco Unified IP IVR	MCS-7825-H2-CCX1
Cisco IPICS	MCS-7825-H2-S31
Cisco Unified MeetingPlace Express	MCS-7825-H2-RC1
Cisco Unified IP Queue Manager	MCS-7825-H2-CCX1
Cisco Unity Unified Messaging	MCS-7825-H2-ECS1
Cisco Digital Media System	MCS-7825-H2-DM21

Field-Replaceable Spares

To order spare parts for the servers, refer to Table 4.

Table 4. Ordering Information for Server Spare Parts

Spare Part Number	Description
MEM-7825-H2-1GB=	Spare 1-GB SDRAM dual in-line memory module (DIMM) for Cisco MCS 7825-H2 server
HDD-7825-H2-80=	Spare 80-GB SATA hard disk drive, cold-pluggable

Identifying Server CPU Speed

As the Cisco MCS 7825-H2 matures, the processor speeds will be changed as Intel retires slower processors and replaces them with faster processors. Table 5 provides the Cisco manufacturing part number shown on the chassis to help identify the processor speed of any individual server.

Table 5.   Manufacturing Part Numbers by Processor Speed

Processor	Manufacturing Part Number Located on Server	Introduction
Intel Dual-Core, Pentium D, 2.8 GHz	74-4485-01	Initial production of server
Intel Dual-Core, Pentium D, 3.4 GHz	74-4485-02	Processor revision due to end of life of the 2.8-GHz 920 processor by Intel. This change is reflected in the product ID of the MCS-7825-H2-IPC1 changing to MCS-7825-H2-IPC2

Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, refer to Cisco Technical Support Services or Cisco Advanced Services.

Warranty Information

Cisco offers a one-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.