

## Cisco MCS 7835-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 7835-H2 is a high-availability server platform for Cisco Unified Communications Solutions. An integral part of a complete, scalable architecture for a new generation of high-quality IP voice solutions that run on enterprise data networks, the Cisco MCS 7835-H2 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 7835-H2 offers tremendous power in a low-profile chassis that minimizes rack space.

### Supported Applications

The Cisco MCS 7835-H2 can run any of the following Cisco applications:

- Cisco Unified Application Environment
- Cisco Unified Communications Manager: Up to 2500 Cisco Unified IP Phones per server
- Cisco Emergency Responder: Up to 20,000 Cisco Unified IP Phones
- 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 Unified IP IVR
- Cisco Unified MeetingPlace® conferencing
- Cisco Unified MeetingPlace Express
- Cisco Unity® unified messaging
- Cisco TelePresence Manager
- Cisco Digital Media System (DMS)

## Key Features and Benefits

### Performance

The Cisco MCS 7835-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 a 256-MB cache to provide onboard Redundant Array of Independent Disks (RAID) support. The Cisco MCS 7835-H2 occupies only 2RUs of space while providing the features most requested in a high-availability server platform.

### High Availability

High availability on the Cisco MCS 7835-H2 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 7835-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 7835-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 (iLO) 2 Standard and Advanced are included on this server. Combining essential management functions and diagnostics with basic lights-out functions as standard components of the server, iLO 2 is available at no charge. The iLO 2 standard provides fundamental server control and monitoring by integrating essential lights-out technology directly into the Cisco MCS 7835-H2 server 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 iLO 2 standard saves a valuable peripheral-component-interconnect (PCI) slot for additional functions and reduces installation and setup time.
- The iLO 2 standard eliminates the need for an external power adapter or any other internal or external cables.
- The iLO 2 standard provides a rich suite of security features, including Secure Sockets Layer (SSL).
- The iLO 2 standard provides a scalable solution by allowing group administration of iLO processors.

## DAT Tape Support

The Cisco MCS 7835-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-7825-H2 server. 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 7835-H2.

**Table 1.** Currently Shipping Configuration

| Component                   | Value   |
|-----------------------------|---|
| <b>Product part numbers</b> | MCS-7835-H2-CCE2<br>MCS-7835-H2-CCX2<br>MCS-7835-H2-ECS2<br>MCS-7835-H2-IPC2<br>MCS-7835-H2-RC2 |
| <b>Preload</b>              | None  |
| <b>OS included</b>          | None  |
| <b>Processor</b>            | Single Intel 5140 2.33GHz 4M L2   |
| <b>Memory</b>               | PC2-5300 667-MHz DDR2 synchronous dynamic RAM (SDRAM) Fully Buffered DIMMs                      |
| <b>Hard disks</b>           | Two 146-GB SAS 2.5-in. hot-swap   |
| <b>Remote management</b>    | HP iLO Advanced License   |

**Table 2.** Previous Shipping Configuration

| Component                   | Value  |
|-----------------------------|--|
| <b>Product part numbers</b> | MCS-7835-H2-CCE1<br>MCS-7835-H2-CCX1<br>MCS-7835-H2-ECS1<br>MCS-7835-H2-IPC1<br>MCS-7835-H2-RC1<br>MCS-7835-H2-UC1 |
| <b>Preload</b>              | None   |
| <b>OS included</b>          | None   |
| <b>Processor</b>            | Single Intel 5140 2.33-GHz 4M L2   |
| <b>Memory</b>               | 2-GB (two 1-GB) PC2-5300R  |
| <b>Hard disks</b>           | Two 72-GB SAS 2.5-in. hot-swap   |
| <b>Remote management</b>    | HP iLO Advanced License  |

Tables 3 through 8 give specification and compliance information about the Cisco MCS 7835-H2.

**Table 3.** Processor Specifications

|  |       |
|--|-------|
| <b>Maximum processors</b>                    | 2     |
| <b>Processors installed</b>                  | 1     |
| <b>Basic input/output system (BIOS) type</b> | Flash |

**Table 4.** Memory Specifications

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

**Table 5.** RAID Controller Specifications

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

**Table 6.** Hard Disk Specifications

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

**Table 7.** Network Interface Specifications

|                                     |   |
|-------------------------------------|---|
| <b>Network interface card (NIC)</b> | Dual onboard 10/100/1000  |
| <b>Connector</b>                    | Two RJ-45 connectors on back of server  |
| <b>10BASE-T cable support</b>       | Category 3, 4, or 5 unshielded twisted pair (UTP) (2 or 4 pair) up to 328 ft (100m) |
| <b>100BASE-TX cable support</b>     | Category 5 UTP (2 pair) up to 328 ft (100m)   |
| <b>1000BASE-T cable support</b>     | Category 5 UTP, 5E UTP, 6 UTP (2 pair) up to 328 ft (100m)                          |

**Table 8.** Interface Port Specifications

|   |                                   |
|---|-----------------------------------|
| <b>Serial ports</b>                     | 1                                 |
| <b>Parallel ports</b>                   | 0                                 |
| <b>USB 2.0 ports</b>                    | 5 (2 front, 2 back, and 1 inside) |
| <b>Keyboard ports</b>                   | 1 PS2                             |
| <b>Mouse ports</b>                      | 1 PS2                             |
| <b>Audio ports</b>                      | None                              |
| <b>System management ports</b>          | RJ-45 for HP iLO 2                |
| <b>Video Graphics Array (VGA) ports</b> | 1 front and 1 back                |

## Security Capabilities

- Power-on password
- Keyboard password
- Selectable boot device
- Diskette drive control
- QuickLock, network server mode
- Serial interface control
- Administrator's password
- Disk configuration lock

## Standards Compliance

- 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 gives expansion options and interfaces, and Table 10 gives unit specifications for the Cisco MCS 7835-I2.

**Table 9.** Expansion Options and Interfaces

|   |   |
|---|---|
| <b>PCIe non-hot plug slots</b>                  | 1 |
| <b>PCI-X non-hot plug 133-MHz, 64-bit slots</b> | 2 |

**Table 10.** System Unit Specifications

|  |   |  |
|--|---|--|
| <b>Dimensions (H x W x D)</b>                | 3.38 x 17.54 x 26.01 in.                        | 8.59 x 44.54 x 66.07 cm  |
| <b>Weight</b>                                | 60 lb   | 27.22 kg   |
| <b>Input requirements (per power supply)</b> | Rated line voltage                              | 100–132 VAC and 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  |
| <b>BTU rating</b>                            | BTU/hr  | 3490, 3680, and 4150   |
| <b>Power supply output power</b>             | Rated steady-state power                        | 800, 850, and 1000W  |
| <b>Temperature range</b>                     | Operating                                       | <ul style="list-style-type: none"> <li>• 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)</li> <li>• No direct sunlight allowed</li> <li>• Maximum rate of change: 18°F/hr (10°C/hr)</li> <li>• Upper operating limit: 10,000 ft (3,048m) or 70 Kpa/10.1 psia</li> <li>• System performance may be reduced if operating with a fan fault or above 30°F (??°C) [[pls supply number]]</li> </ul> |
|  | Nonoperating                                    | <ul style="list-style-type: none"> <li>• 22 to 140°F (–30 to 60°C)</li> <li>• Maximum rate of change: 36°F/hr (20°C/hr)</li> <li>• Upper nonoperating limit: 30,000 ft (9,144m) or 30.3 KPa/4.4 psia</li> </ul>  |
| <b>Maximum wet-bulb temperature</b>          | 101.7°F   | 38.7°C   |
| <b>Relative humidity (noncondensing)</b>     | Operating                                       | 10 to 90% relative humidity (RH); 28°C maximum wet bulb temperature  |
| <b>Relative humidity (noncondensing)</b>     | Nonoperating                                    | 5 to 95% RH; 38.7°C maximum wet bulb temperature   |
| <b>Acoustic noise</b>                        | Idle minimum (fixed disk drives spinning)       | L WAd (bels) 6.4<br>L pAm (dBA) 47   |
| <b>Acoustic noise</b>                        | Operating minimum (random seeks to fixed disks) | L WAd (bels) 6.6<br>L pAm (dBA) 49   |

## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Tables 11 through 13.

**Table 11.** Ordering Information

| Product Name  | Part Number  |
|---|--|
| Cisco Unified Application Environment                   | See Cisco Unified Application Environment data sheet   |
| Cisco Unified Communications Manager 4.3                | CALLMANAGER-4.3  |
| Cisco Emergency Responder                               | See Emergency Responder datasheet  |
| Cisco Unified Presence                                  | See Unified Presence datasheet   |
| Cisco Unified Intelligent Contact Management Enterprise | ICM-BUNDLE   |
| Cisco Unified Intelligent Contact Management Hosted     | HOSTED-BUNDLE  |
| Cisco Unified Contact Center Enterprise                 | IPC-BUNDLE   |
| Cisco Unified Contact Center Hosted                     | HOSTED-BUNDLE  |
| Cisco Unified Contact Center Express                    | CCX-50-STANDARD<br>CCX-50-ENHANCED<br>CCX-50-PREMIUM<br>CCX-60-STANDARD<br>CCX-60-ENHANCED<br>CCX-60-PREMIUM<br>CCX-70-NEW |
| Cisco Unified Expert Advisor                            | EA-BUNDLE  |
| Cisco Unified IP IVR                                    | IVR-5.0-NEW<br>IVR-6.0-NEW<br>IVR-70-NEW-BUNDLE  |
| Cisco Unified MeetingPlace conferencing                 | See Unified MeetingPlace datasheet   |
| Cisco Unified MeetingPlace Express                      | See Unified MeetingPlace Express datasheet   |
| Cisco Unity   | See Server Spares below  |
| Cisco TelePresence Manager                              | CTS-MAN1.0   |
| Cisco Digital Media System (DMS)                        | Refer to Digital Media System datasheet  |

## Server Spares

**Table 12.** Ordering Information for Spare Servers by Application

| Application   | Spare Part Number |
|---|-------------------|
| Cisco Unified Application Environment                   | MCS-7835-H2-IPC2  |
| Cisco Unified Communications Manager                    | MCS-7835-H2-IPC2  |
| Cisco Emergency Responder                               | MCS-7835-H2-IPC2  |
| Cisco Unified Presence                                  | MCS-7835-H2-IPC2  |
| Cisco Unified Intelligent Contact Management Enterprise | MCS-7835-H2-CCE2  |
| Cisco Unified Intelligent Contact Management Hosted     | MCS-7835-H2-CCE2  |
| Cisco Unified Contact Center Enterprise                 | MCS-7835-H2-CCE2  |
| Cisco Unified Contact Center Hosted                     | MCS-7835-H2-CCE2  |
| Cisco Unified Contact Center Express                    | MCS-7835-H2-CCX2  |
| Cisco Unified Expert Advisor                            | MCS-7835-H2-CCE2  |
| Cisco Unified IP IVR                                    | MCS-7835-H2-CCX2  |
| Cisco Unified MeetingPlace conferencing                 | MCS-7835-H2-RC2   |
| Cisco Unified MeetingPlace Express                      | MCS-7835-H2-RC2   |
| Cisco Unified IP Queue Manager                          | MCS-7835-H2-CCX2  |
| Cisco Unity   | MCS-7835-H2-ECS2  |

|                            |                  |
|----------------------------|------------------|
| Cisco TelePresence Manager | MCS-7835-H2-CTS1 |
| Cisco Digital Media System | MCS-7835-H2-DM21 |

## Field Replaceable Spares

**Table 13.** Ordering Information for Server Spare Parts

| Description                                    | Spare Part Number |
|--|-------------------|
| Spare 1024-MB SDRAM DIMM for Cisco MCS 7835-H2 | MEM-7835-H2-1GB=  |
| Spare 72-GB SAS drive for Cisco MCS 7835-H2    | HDD-7835-H2-72=   |
| Spare 146-GB SAS drive for Cisco MCS 7835-H2   | HDD-7835-H2-146=  |
| Spare 800W power supply for Cisco MCS 7835-H2  | PWR-7835-H2=      |
| Spare fan for Cisco MCS 7835-H2                | FAN-7835-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-7835-H2-CCE1 | MCS-7835-H2-CCE2        |
| MCS-7835-H2-CCX1 | MCS-7835-H2-CCX2        |
| MCS-7835-H2-ECS1 | MCS-7835-H2-ECS2        |
| MCS-7835-H2-IPC1 | MCS-7835-H2-IPC2        |
| MCS-7835-H2-RC1  | MCS-7835-H2-RC2         |
| MCS-7835-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\\_inpk/1y1cen\\_.htm](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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