

Cisco MCS 7816-H3

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.

The Cisco® MCS 7816-H3 Media Convergence Server is an entry-level server platform used 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 7816-H3 is an easily deployed, cost-effective solution that delivers the high performance and availability demanded by today's enterprise networks. At only 1 rack unit (1RU) high, the Cisco MCS 7816-H3 offers tremendous power in a low-profile chassis that minimizes rack space and offers the following features:

- Intel Celeron D 352 3.2-GHz processor with an 533-MHz front side bus (FSB) and 512 KB of Layer 2 cache
- 2-GB PC2-5300 double-data-rate 2 (DDR2) Error Checking and Correcting (ECC) memory
- 160-GB cold-swap serial advanced technology attachment (SATA) hard disk drive
- Dual-port Gigabit Ethernet controller (embedded)
- Quick-deployment third-party rail kit

Supported Cisco Applications

- Cisco Unified Communications Manager 4.3
- Cisco Unified Contact Center Express 4.X
- Cisco Unified Contact Center Express 5.X
- Cisco Unified IP Interactive Voice Response (IVR) 4.X
- Cisco Unified IP IVR 5.X

Key Features and Benefits

Performance

The Cisco MCS 7816-H3 is a robust, highly available server platform designed to support today's unified communications applications. It uses a single Intel Celeron D 352, 3.2-GHz processor with a 533-MHz FSB.

Serviceability

Serviceable SATA Disk Drives

The Cisco MCS 7816-H3 is configured with one 160-GB SATA “cold-pluggable” disk drive, which is accessible to the end user through openings in the front bezel of the server. If a drive fails, the 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.

DAT Tape Drive Support

The Cisco MCS 7816-H3 can support a 36-/72-GB universal-serial-bus (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=). This tape drive connects through one of the USB 2.0 ports provided by the Cisco MCS 7816-H3 server.

Product Specifications

Table 1. Product Specifications

Processor (CPU)	Intel Celeron D 352
Processor internal clock speed	3.2 GHz
Level 2 cache	512 KB
Maximum processors	1
Processors installed	1
Basic input/output system (BIOS) type	Flash

Table 2. Memory Specifications

Memory maximum	8 GB
Memory bus clock	667 MHz
Memory technology	PC2-5300 667-MHz DDR2 synchronous dynamic RAM (SDRAM)
Total RAM slots	4
Memory installed	2 GB (two 1-GB dual in-line memory modules [DIMMs])

Table 3. RAID Controller Specifications

Controller model	None
Interface	
Cache	
Battery-backed write cache	
RAID levels supported	

Table 4. Hard Disk Specifications

Cold-swappable bays	2
Hard disk interface type	SATA
Hard disk installed	One 160 GB
Hard disk (rpm)	7200
Hard disk average seek time	9 ms
Data transfer rate (burst)	150 MB per second

Table 5. Network Interface Specifications

Ethernet network interface card (NIC)	Dual onboard 10/100/1000
Ethernet connectors	Two RJ-45 connectors on rear of server
10BASET cable support	EIA Category 3, 4, or 5 unshielded twisted-pair (UTP) (2 or 4 pair) up to 328 ft (100m)
100BASETX cable support	EIA Category 5 UTP (2 pair) up to 328 ft (100m)
1000BASET cable support	EIA Category 6 UTP (recommended), 5E UTP, 5 UTP (2 pair) up to 328 ft (100m)

Table 6. Interface Port Specifications

Serial ports	1
Parallel ports	0
USB 2.0 ports	4 (1 front, 1 internal, 2 rear)
Keyboard ports	1
Mouse ports	1
Audio ports	None
Video Graphics Array (VGA) ports	1
System management ports	Integrated Lights Out (iLO) remote

Table 7. Security Capabilities

<ul style="list-style-type: none"> • Power-on password • Keyboard password • USB port control • Administrator's password • Ability to use selectable boot sequence to prevent unauthorized installation of software or removal of data from the diskette drive

Table 8. Standards Compliance

<ul style="list-style-type: none"> • ACPI 2.0 • PCI 3.0 compliant • PXE support • WOL support • USB 2.0
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Table 9. Expansion Options and Interfaces

Expansion Options	
8x PCI-Express full height, three-quarter length	1
8x PCI-Express low profile, half length	1

Table 10. System Unit Specifications

Dimensions (H x W x D)	1.70 x 16.78 x 24.0 in.	43.2 x 426.2 x 609.6 mm
Weight (maximum)	27 lb	12.27 kg

Input requirements (per power supply)	Rated line voltage	100–120 VAC and 220–240 VAC
	Rated input current	6A (100 - 120 VAC) 3A (220 - 240 VAC)
	Rated input frequency	47 – 63 Hz
BTU rating (maximum)	BTU/hr	1710
Power supply output power	Rated steady-state power	420W
Temperature Range	Operating	50° to 95°F (10° to 35°C)
	Non-operating	-22 to 140°F (-30 to 60°C)
	Shipment	-22 to 140°F (-30 to 60°C)
Relative humidity (RH; non-condensing)	Operating	10% to 90%
Acoustic noise	Operating minimum (random seeks to fixed disks)	L WAd (BELS) 6.3

Table 11. Equipment Approvals and Safety

<ul style="list-style-type: none"> • FCC—Verified to comply with Part 15 of the FCC Rules, Class A • CISPR 22 Class A • EN 55022 (1998) + A1 + A2 Class B • EN 55024 (1998) + A1 + A2 • IEC 61000-3-2 (2000) / EN 61000-3-2 (2000) • IEC EN 61000-3-3 (1995) + A1 (2001) / EN 61000-3-3 (1995) + A1 (2001) • KN 22 Class B (MIC Notice 2001-115) MIC certification • KN 24 (MIC Notice 2001-116) MIC certification • CNS 13438 (BSMI certification) • GB 9254 Class B (CCC certification) • VCCI Class B (VCCI certification) • CSA C22.2 No. 60950-1-03 Information Technology Equipment—Safety—Part 1: General Requirements • UL 60950-1 Information Technology Equipment—Safety- Part 1: General Requirements • IEC 60950-1 Information Technology Equipment—Safety- Part 1: General Requirements + CB report covering national deviations for intended markets. • ACA AS/ACIF S004:2001 • CCC—China Certificate for China Compulsory Product Certification • EK1-ITB2000 (2006) • DIN EN ISO 12100-2 (2004) • DIN EN ISO 7779 (2001) • EN 60951-1 (2001) + A11 (2004) • CE Mark (Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC) • WEEE
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Table 12. Ordering Information

Product Name	Part Number
Cisco MCS 7816-H3 for Cisco Unified Communications Manager 4.3	MCS-7816-H3-IPC1
Cisco MCS 7816-H3 for Cisco Unified Contact Center Express 4.x	MCS-7816-H3-CCX1
Cisco MCS 7816-H3 for Cisco Unified Contact Center Express 5.x	MCS-7816-H3-CCX1
Cisco MCS 7816-H3 for Cisco Unified IP IVR 4.x	MCS-7816-H3-CCX1
Cisco MCS 7816-H3 for Cisco Unified IP IVR 5.x	MCS-7816-H3-CCX1
Spare 1024-MB SDRAM DIMM for Cisco MCS 7816-H3	MEM-7816-H3-1GB=
Spare 160-GB cold swap SATA drive for Cisco MCS 7816-H3	HDD-7816-H3-160=

Identifying CPU Speed of Server

As the Cisco MCS 7816-H3 matures, the processor speeds will be changed as Intel replaces slower processors. The following table provides the Cisco manufacturing part number that will be shown on the chassis to help identify any processor speed of any individual server.

Table 13. Manufacturing Part Numbers by Processor Speed

Processor	Manufacturing Part Number Located on Server	Introduction
Intel Celeron D 352, 3.2 GHz	74-5013-01	Initial production of the servers with the following part numbers: MCS-7816-H3-CCE1 MCS-7816-H3-CCX1 MCS-7816-H3-IPC1

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.

Cisco Unified Communications Services and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications system. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support, and optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.



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