

## Cisco MCS 7816-I3

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...whenver 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-I3 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-I3 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-I3 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 (must be installed in pairs)
- 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 Enterprise 6.x
- Cisco Unified Contact Center Enterprise 7.x
- Cisco Unified Contact Center Express 4.x
- Cisco Unified Contact Center Express 5.x
- Cisco Unified Contact Center Hosted 7.x
- Cisco Unified Intelligent Contact Management Enterprise 6.x
- Cisco Unified Intelligent Contact Management Enterprise 7.x
- Cisco Unified Intelligent Contact Management Hosted 7.x
- Cisco Unified IP Interactive Voice Response (IVR) 4.1
- Cisco Unified IP IVR 5.x

## Key Features and Benefits

### Performance

The Cisco MCS 7816-I3 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-I3 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-I3 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-I3 server.

## Product Specifications

**Table 1.** Product Specifications

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

**Table 2.** Memory Specifications

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

**Table 3.** RAID Controller Specifications

<b>Controller model</b>	None
<b>Interface</b>	
<b>Cache</b>	
<b>Battery-backed write cache</b>	
<b>RAID levels supported</b>	

**Table 4.** Hard Disk Specifications

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

**Table 5.** Network Interface Specifications

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

**Table 6.** Interface Port Specifications

<b>Serial ports</b>	1
<b>Parallel ports</b>	0
<b>USB 2.0 ports</b>	4
<b>Keyboard ports</b>	1
<b>Mouse ports</b>	1
<b>Audio ports</b>	None
<b>Video Graphics Array (VGA) ports</b>	1
<b>System management ports</b>	None

**Table 7.** Security Capabilities

<ul style="list-style-type: none"> <li>Power-on password and privileged access password functions control access to the data and server setup program on the server.</li> <li>A selectable boot sequence can be used to prevent unauthorized installation of software or removal of data from the diskette drive.</li> </ul>
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**Table 8.** Standards Compliance

<ul style="list-style-type: none"> <li>PCI specification 2.2</li> <li>Hardware enabled to meet the International Organization for Standardization (ISO) 9241, Part 3 standard</li> </ul>
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**Table 9.** Expansion Options and Interfaces

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

**Table 10.** System Unit Specifications

<b>Dimensions (H x W x D)</b>	1.75 x 17.32 x 22.0 in.	43 x 440 x 559 mm
<b>Weight (maximum)</b>	28 lb	12.7 kg
<b>Input requirements (per power supply)</b>	Rated line voltage	100–127 VAC and 200–240 VAC
	Rated input current	6A (100 VAC), 6A (120 VAC), and 3A (200 VAC)
	Rated input frequency	50–60 Hz
<b>BTU rating (maximum)</b>	BTU/hr	1048
<b>Power supply output power</b>	Rated steady-state power	351W
<b>Temperature range</b>	Operating	50° to 95°F (10° to 35°C) at 0 - 3000 feet (0 - 914.4 meters) 50° to 89.6°F (10° to 32°C) at 3000 - 6998 feet (914.4 - 2133 meters)
	Nonoperating	50 to 109.4°F (10 to 43°C)
	Shipment	–40 to 140°F (–4 to 60°C)
<b>Relative humidity (RH; noncondensing)</b>	Operating	8 to 80%
<b>Maximum altitude</b>	7000 ft	2133m
<b>Acoustic noise</b>	Operating minimum (random seeks to fixed disks)	L WAd (BELS) 6.5

**Table 11.** Equipment Approvals and Safety

- FCC—Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 4, Class A
- UL/IEC 60950-1\*
- CSA C22.2 No. 60950-1-03
- NOM-01913

\* This server model is certified by the respective UL and NOM agencies.

**Table 12.** Ordering Information

Product Name	Part Number
Cisco MCS 7816-I3 for Cisco Unified Communications Manager 4.3	MCS-7816-I3-IPC1
Cisco MCS 7816-I3 for Cisco Unified Contact Center Enterprise 6.x	MCS-7816-I3-CCE1
Cisco MCS 7816-I3 for Cisco Unified Contact Center Enterprise 7.x	MCS-7816-I3-CCE1
Cisco MCS 7816-I3 for Cisco Unified Contact Center Express 4.x	MCS-7816-I3-CCX1
Cisco MCS 7816-I3 for Cisco Unified Contact Center Express 5.x	MCS-7816-I3-CCX1
Cisco MCS 7816-I3 for Cisco Unified Contact Center Hosted 7.x	MCS-7816-I3-CCE1
Cisco MCS 7816-I3 for Cisco Unified Intelligent Contact Management Enterprise 6.x	MCS-7816-I3-CCE1
Cisco MCS 7816-I3 for Cisco Unified Intelligent Contact Management Enterprise 7.x	MCS-7816-I3-CCE1
Cisco MCS 7816-I3 for Cisco Unified Intelligent Contact Management Hosted 7.x	MCS-7816-I3-CCE1
Cisco MCs 7816-I3 for Cisco Unified IP IVR 4.1	MCS-7816-I3-CCX1
Cisco MCs 7816-I3 for Cisco Unified IP IVR 5.x	MCS-7816-I3-CCX1
Spare Two 1024-MB SDRAM DIMM for Cisco MCS 7816-I3	MEM-7816-I3-2GB=
Spare 160-GB cold swap SATA drive for Cisco MCS 7816-I3	HDD-7816-I3-160=

