

# Cisco TelePresence MCU MSE 8510

## Product Overview

**Figure 1.** Cisco TelePresence MCU MSE 8510



The Cisco TelePresence<sup>®</sup> MCU MSE 8510 blade is the industry’s leading chassis-based, high-definition (HD) multimedia conferencing bridge (Figures 1 and 2). It delivers superior video and voice with an easy-to-use, versatile management interface. Compatible with all major vendors’ endpoints (Figure 3), it maintains its capacity and performance in every configuration, delivering the best experience for each participant, every time.

Cisco TelePresence MCU is WebEx enabled, allowing customers to enjoy fully integrated, scalable conference involving callers from WebEx clients and telepresence endpoints.

## Features and Benefits

Table 1 summarizes the key features of the Cisco TelePresence MCU MSE 8510 blade.

**Table 1.** Cisco TelePresence MCU MSE 8510 Feature Summary

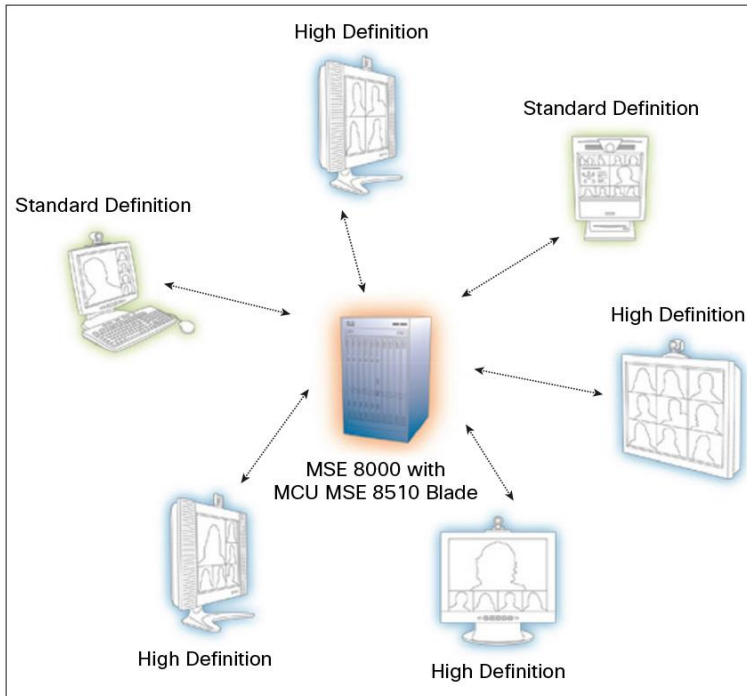
Feature	Benefit
<b>Design Features</b>	<ul style="list-style-type: none"> <li>Standards-based and compatible with all major vendors’ endpoints</li> <li>Selectable between HD 1080p, HD 720p, or 80-port standard-definition (SD) modes</li> <li>More than 50 custom layouts</li> <li>Comprehensive wideband audio support</li> <li>Support for both Session Initiation Protocol (SIP) and H.323 endpoints</li> <li>Cisco TelePresence PacketSafe technology, which minimizes effects of network packet loss</li> <li>Pay as you grow - buy the capacity you need now and upgrade in the future with a software license</li> <li>High-speed backplane to create multiblade multipoint control units (MCUs)</li> </ul>

Feature	Benefit
<b>Application Features</b>	<ul style="list-style-type: none"> <li>• Supports Cisco TelePresence ConferenceMe for multipoint desktop video</li> <li>• Supports transition from SD to high definition (HD) using Cisco TelePresence ClearVision technology</li> <li>• Integrated with Cisco TelePresence Management Suite</li> <li>• Integrated with Cisco Unified Communications Manager (v8.6 or later) for ad-hoc conferencing</li> <li>• Integrated with Cisco TelePresence Conductor</li> <li>• Offers full interoperability with ISDN networks using Cisco TelePresence ISDN Gateways</li> <li>• Compatible with Microsoft Office Communications Server</li> <li>• Fully integrated, with built-in gatekeeper and streaming server</li> <li>• Supports Cisco® Multiway technology</li> </ul>
<b>Performance Features</b>	<ul style="list-style-type: none"> <li>• Full High-definition continuous presence on every port</li> <li>• Cisco TelePresence Universal Port technology, which helps ensure each participant receives the best possible experience</li> <li>• Cisco ClearPath is supported, providing improved media resilience with lossy networks</li> <li>• Up to 20 HD 1080p or 720p video plus 20 voice ports or up to 80 SD video ports on a single blade</li> <li>• Up to 15 FullHD 1080p or 720p symmetric video plus 20 voice ports</li> <li>• Enables up to 180 HD 1080p video plus 180 voice ports or 720 SD video ports in a single chassis</li> <li>• Up to 60 HD 1080p video ports in a multiblade MCU</li> <li>• Constant high capacity</li> <li>• Bandwidth per site up to 4 Mbps</li> <li>• Video resolutions up to 1080p 30 fps and 720p 60 fps</li> <li>• SD support at up to w448p 30 fps</li> </ul>

**Figure 2.** Cisco TelePresence MCU MSE 8510 blade



**Figure 3.** Example of Endpoints Supported by Cisco TelePresence MSE 8000 Chassis with Cisco TelePresence MCU MSE 8510 Blade



## Product Specifications

Table 2 lists the product specifications; Table 3 gives video and audio specifications; and Table 4 gives network, security, and management specifications, Table 5 lists the physical specifications for the Cisco TelePresence MCU MSE 8510.

**Table 2.** Product Specifications

<b>Product Compatibility</b>	<ul style="list-style-type: none"> <li>Standards-based and compatible with all major vendors' endpoints</li> </ul>
<b>Software License</b>	<ul style="list-style-type: none"> <li>MCU (media) port licenses are required in the Cisco TelePresence MSE 8000 chassis to enable video ports:               <ul style="list-style-type: none"> <li>Four media port licenses enable one HD 1080p30 port and one additional audio port in Full HD and HD+ modes</li> <li>Two media port licenses enable one HD 720p30 port and one additional audio port in HD mode</li> <li>One media port license enables one SD w448p30 video port and no additional audio ports in 80 port SD mode</li> <li>One media port license enables two nHD w360p30 video ports and no additional audio ports in 80 port nHD mode</li> </ul> </li> </ul>
<b>High-Definition Performance</b>	<ul style="list-style-type: none"> <li>Main video up to 1080p 30 fps and 720p 60 fps H.264 4-Mbps continuous presence</li> <li>Comprehensive HD audio codecs</li> <li>Content video up to 1080p</li> </ul>
<b>Universal Transcoding and Transrating</b>	<ul style="list-style-type: none"> <li>HD and SD can be combined within the same conference</li> <li>All calls are automatically transcoded and transrated for audio and video</li> <li>Any bandwidth, any resolution, or any video or audio codec can be used on any video call within the same conference</li> <li>All participants have their own personal encodes</li> </ul>

<b>Streaming Video</b>	<ul style="list-style-type: none"> <li>• Built-in streaming server</li> <li>• Ability to view using Windows Media Player, RealPlayer, or QuickTime</li> <li>• Streaming of slides (H.239 and Virtual Network Computing [VNC])</li> <li>• Text chat</li> <li>• Unicast and multicast</li> <li>• User Datagram Protocol (UDP), TCP, or HTTP</li> <li>• Independent choice of bandwidth and codec</li> </ul>
<b>Localization and Customization</b>	<ul style="list-style-type: none"> <li>• Custom interactive voice response (IVR)/auto attendant audio prompts and graphics</li> <li>• Uploadable multilanguage support</li> <li>• Unicode conference and site names</li> </ul>
<b>MCU Features</b>	<ul style="list-style-type: none"> <li>• Ability to dial in or dial out through web server</li> <li>• Standalone or with gatekeeper/registrar/proxy</li> <li>• Configurable audio and video auto attendant</li> <li>• Advanced continuous presence as standard on all ports</li> <li>• Automatic selection of best layout</li> <li>• Individual layout selection using remote control or webpages</li> <li>• More than 50 custom layouts</li> <li>• Active speaker selection using remote control or voice activated</li> <li>• Floor assignment using remote control or management application</li> <li>• Far-end camera control tunneling using remote control or web</li> <li>• Text identification of sites</li> <li>• On-screen text messaging to individual or all sites</li> <li>• Built-in conference scheduling and reservation</li> <li>• On-demand and ad-hoc conferences</li> <li>• Automatic lecture mode</li> <li>• Preview of conference and individual camera on webpages</li> <li>• On-screen list of participants</li> <li>• Web conferencing - those without endpoints can still interact</li> <li>• Uploadable bitmaps for voice participants</li> <li>• Video association for IP and traditional private branch exchanges (PBXs)</li> <li>• Automatic connection to audio conferences</li> <li>• Integration with Cisco Unified Communications Manager v8.6 or later ad-hoc conferencing features allows Cisco video IP phones to initiate impromptu multiparty calls with other Cisco TelePresence endpoints.</li> <li>• Linked voice and video calls</li> <li>• Automatic redialing</li> <li>• Cisco TelePresence Multiway technology, which enables many Cisco video endpoints to initiate ad hoc multiparty calls</li> </ul>
<b>Content Features</b>	<ul style="list-style-type: none"> <li>• Dual video using H.239 and BFCP content sharing</li> <li>• Presentation mode: You can add slides from your PC using VNC</li> <li>• Automatic content handover</li> <li>• Widescreen (16:9) support</li> <li>• Passthrough content option to maximize capacity</li> <li>• Content transcoding for interoperability</li> <li>• Participants with no content support can receive transcoded content in main video</li> <li>• Up to 1080p in H.264</li> <li>• Up to 720p in H.263</li> </ul>
<b>Cisco TelePresence ConferenceMe</b>	<ul style="list-style-type: none"> <li>• Video, audio, and content sharing: <ul style="list-style-type: none"> <li>◦ Multiple layouts</li> <li>◦ Firewall friendly</li> </ul> </li> <li>• Independent transcode per participant</li> <li>• Up to 12 simultaneous connections</li> </ul>
<b>Built-in Web Server</b>	<ul style="list-style-type: none"> <li>• Complete configuration, control, and monitoring of the system and conferences</li> </ul>
<b>Built-in Gatekeeper</b>	<ul style="list-style-type: none"> <li>• Resolution of E.164 numbers</li> <li>• Registration of conferences, endpoints, and gateways</li> <li>• Ability for up to 25 devices to register</li> </ul>
<b>Language</b>	<ul style="list-style-type: none"> <li>• English as standard, but alternative language packs can be loaded onto the system</li> </ul>

**Table 3.** Video and Audio Specifications

<b>Bandwidth</b>	<ul style="list-style-type: none"> <li>Up to 4 Mbps with both H.263 and H.264 for each site in all conference modes, including advanced continuous presence</li> </ul>
<b>Video Standards</b>	<ul style="list-style-type: none"> <li>H.261, H.263, H.263+, H.263++, and H.264</li> </ul>
<b>Video Resolution</b>	<ul style="list-style-type: none"> <li>From QCIF up to 1080p (1920 x 1080), including interlaced iCIF and iSIF</li> <li>4:3 and 16:9 aspect ratios</li> </ul>
<b>Frame Rates</b>	<ul style="list-style-type: none"> <li>Up to 60 frames per second</li> </ul>
<b>Audio Standards</b>	<ul style="list-style-type: none"> <li>G.711, G.722, G.722.1, G.723.1, G.728, G.729 Annex A/B, MPEG-4 AAC-LC, MPEG-4 AAC-LD, and Polycom Siren14/G.722.1 Annex C</li> </ul>
<b>Audio Features</b>	<ul style="list-style-type: none"> <li>Wideband audio mixing</li> <li>Built-in and uploadable Automated-Attendant voice prompts</li> <li>Adjustable gain and individual audio mute using remote control or webpages</li> <li>Power indication and automatic gain control using webpages</li> </ul>

**Table 4.** Network, Security, and Management Specifications

<b>Protocols</b>	<ul style="list-style-type: none"> <li>H.323, SIP, H.235 (Advanced Encryption Standard [AES]), Secure Real-Time Transport Protocol (SRTP), Transport Layer Security (TLS), H.239 (dual video), VNC, Binary Floor Control Protocol (BFCP), H.243 (chair control), FTP, Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP), HTTP, Secure HTTP (HTTPS), Dynamic Host Configuration Protocol (DHCP), Simple Network Management Protocol (SNMP), Network Time Protocol (NTP), IPv4, and IPv6</li> </ul>
<b>Quality of Service (QoS)</b>	<ul style="list-style-type: none"> <li>Configurable differentiated services code point (DSCP) or type of service (ToS)/IP Precedence</li> </ul>
<b>Security Features</b>	<ul style="list-style-type: none"> <li>Seven levels of access rights and privileges for users</li> <li>Strong password policy</li> <li>Personal Identification Number (PIN)-protected conferences</li> <li>Conference locking through remote control or web interface or management application</li> <li>Secure non-PC hardware and operating system</li> <li>AES encryption, 128-bit key, and H.235</li> <li>SIP encryption</li> <li>TLS certificate verification</li> <li>Certificate-based login with OCSP certificate checking</li> <li>Second Ethernet port</li> <li>Static ARP</li> <li>Audit log</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>Two RJ-45 Ethernet, 10-/100-/1000-Mbps full or half duplex, manual or autosensing</li> <li>RJ-45 serial port</li> <li>Status LCD</li> </ul>
<b>System Management</b>	<ul style="list-style-type: none"> <li>XML-RPC management application programming interface (API)</li> <li>Management through embedded web server</li> <li>RS-232 for local control and diagnostics</li> <li>Syslog for diagnostics</li> <li>Configurable event logs and full H.323 and SIP decoding</li> <li>Automatic diagnostic reporting</li> <li>Configuration backup to network</li> <li>Secure upgrades through Ethernet</li> <li>Call detail records (CDRs)</li> <li>SNMP</li> </ul>
<b>Network Resilience</b>	<ul style="list-style-type: none"> <li>Cisco TelePresence PacketSafe technology, which provides intelligent down-speeding, packet pacing, and packet loss concealment to help ensure optimum video and audio quality</li> <li>Dynamic jitter buffering</li> <li>Alternate gatekeepers</li> <li>DNS SRV failover for SIP</li> </ul>

**Table 5.** Physical Specification

<b>Chassis Physical Dimensions (H x W x D)</b>	<ul style="list-style-type: none"> <li>Physical dimensions: 33.25 x 17.2 x 20.5 in. (842 x 437 x 520 mm) (19 rack units [19RU])</li> <li>19-in. rack-mountable (kit supplied)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>14.55 lbs (6.6 kg)</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>Power -48 VDC, 100-240 VAC, 50/60 Hz</li> </ul>
<b>Environmental Data</b>	<ul style="list-style-type: none"> <li>Operating temperature 32 to 95°F (0 to 35°C) ambient</li> <li>Relative humidity below 95% (noncondensing)</li> </ul>
<b>Approvals and Compliance</b>	<ul style="list-style-type: none"> <li>European safety: EN 60950-1</li> <li>USA/Canada safety: UL 60950-1</li> <li>CB, CE</li> <li>EMC: <ul style="list-style-type: none"> <li>EN55022 class A</li> <li>EN61000-3-2, EN61000-3-3</li> <li>EN55024: EN61000-4-2,-3,-4,-5,-6,-11</li> <li>FCC Part 15 class A</li> <li>VCCI class A</li> <li>AS/NZS 3548</li> </ul> </li> <li>RoHS compliant</li> </ul>

## Warranty Information

Find warranty information on Cisco.com at the [Product Warranties](#) page.

## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Table 6 or contact your local Cisco representative. To download software, visit the [Cisco Software Center](#).

**Table 6.** Ordering Information

Product Name	Part Number
<b>Cisco TelePresence MSE 8000</b>	CTI-8000-MSECH-K9
<b>Start with CTI-8000-MSECH-K9 in order to view the options listed below:</b>	
Cisco TelePresence MCU MSE 8510 blade	CTI-8510-MED2-K9
Conference Director Option for MSE 8510 blade	LIC-8510-CCD
AES and HTTPS Encryption Option for MSE 8510 blade	LIC-AESCDN7-K9
<b>Then separately configure L-8000-CHLIC-PAK in order to add port licenses</b>	
1 HD 720p or 2 SD MCU (media) port licenses for use with MCU MSE 8510	L-8420-2PL
<b>Cisco TelePresence MCU MSE 8510 blade for post sales upgrade</b>	CTI-8510-MED2-K9=
<b>Start with CTI-8510-MED2-K9= in order to view the options listed below:</b>	
Conference Director Option for MSE 8510 blade	LIC-8510-CCD
AES and HTTPS Encryption Option for MSE 8510 blade	LIC-AESCDN7-K9
1kW AC/DC power shelf rectifier module	CTI-8000-VALRCTF
<b>Cisco TelePresence MSE 8000 chassis port license PAK (Product Authorization Key) for post sale upgrades</b>	<b>L-8000-CHLIC-PAK</b>
<b>Start with L-8000-CHLIC-PAK in order to view the option listed below:</b>	
1 HD 720p or 2 SD MCU (media) port licenses for use with MCU MSE 8510	L-8420-2PL
<b>Cisco TelePresence MSE 8000 blade license PAK (Product Authorization Key) for post sale upgrades</b>	<b>L-8000-BLADE-PAK</b>
<b>Start with L-8000-BLADE-PAK in order to view the option listed below:</b>	
Conference Director Option for MSE 8510 blade	L-8510-CCD
<b>AES and HTTPS Encryption Option for MSE 8510 blade for post sales upgrade</b>	L-AESCDN7-K9=
<b>1kW AC/DC power shelf rectifier module</b>	CTI-8000-VALRCTF=

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## Cisco Services

Cisco and our partners provide a broad portfolio of intelligent, personalized services and support that can help you realize the full value of your Cisco TelePresence investment by increasing business agility and network availability. This portfolio of services accelerates business innovation through a network-based collaboration platform that enables businesses to collaborate anywhere, anytime. For more information about these services, please visit: <http://www.cisco.com/go/telepresenceservices>.

## For More Information

For more information about the Cisco TelePresence MCU MSE 8510, please visit <http://www.cisco.com/go/telepresence> or contact your local Cisco account representative or authorized Cisco partner. Product specifications are estimates and subject to change without notice.




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Americas Headquarters  
Cisco Systems, Inc.  
San Jose, CA

Asia Pacific Headquarters  
Cisco Systems (USA) Pte. Ltd.  
Singapore

Europe Headquarters  
Cisco Systems International BV Amsterdam,  
The Netherlands

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