Cisco TelePresence System Intern MXP

Figure 1. Cisco TelePresence System Intern MXP and Cisco TelePresence PrecisionHD Camera

The Cisco TelePresence® portfolio creates an immersive, face-to-face experience over the network-empowering you to collaborate with others like never before. Through a powerful combination of technologies and design that allows you and remote participants to feel as if you are all in the same room, the Cisco TelePresence portfolio has the potential to provide great productivity benefits and transform your business. Many organizations are already using it to control costs, make decisions faster, improve customer intimacy, scale scarce resources, and speed products to market.

Product Overview

Combining a Cisco TelePresence System Edge MXP with an IV stand, the Cisco TelePresence System Intern MXP is ideal for applications that require a portable, self-contained video solution, such as healthcare, homeland security, and manufacturing.

Cisco TelePresence System Intern MXP Features

Table 1 summarizes key features of the Cisco TelePresence System Intern MXP.

Table 1.   Cisco TelePresence System Intern MXP Feature Summary

Feature Summary	
Design features	• System includes a 24-in., 16:9 flat-screen LCD display. • The slim, mobile unit with shelf and basket provides for convenient connection of peripherals such as a laptop, medical peripherals, and additional cameras. • The solution combines the Intern MXP cart with a Cisco TelePresence System Edge MXP with Cisco TelePresence PrecisionHD Camera (ordered separately). • An optional accessory package includes additional storage and scope holder.
Application features	• You can join up to four video and three audio sites with optional embedded Cisco TelePresence MultiSite and bandwidth capabilities. • You can share content through a one-step PC plug-in (Natural Presenter PackageView records or images and an offsite expert or audience simultaneously with DuoVideo and H.239 dual stream). • You can traverse firewalls securely using Cisco TelePresence Expressway technology. • Cisco TelePresence Multiway intuitively and instantly integrates multiple-party video calls using a Cisco TelePresence MCU and Cisco TelePresence Video Communication Server (Cisco VCS).
Performance features	• You have a choice of network: Up to 512-kbps ISDN or external network (H.320)/2-Mbps IP (H.323 or Session Initiation Protocol [SIP]). • Standards-based embedded encryption for patient confidentiality regardless of network type. • The system is tested and listed to UL 2601-1 and CSA 601.1 regulatory standards for approval in patient-contact environments.

Product Capabilities

Table 2 lists the capability specifications for the Cisco TelePresence System Intern MXP.

Table 2.   Product Specifications

Specification	Description
Unit delivered complete with:	• Intern MXP ISDN/IP single-monitor base cart with 24-in. LCD display, 10-watt RMS powered speaker, utility tray, and unidirectional low-profile microphone; separately purchased Cisco TelePresence System Edge MXP (95 or 75) codec delivered with wireless remote control, Cisco TelePresence PrecisionHD Camera, microphone, and cables.
Bandwidth	**Cisco TelePresence System Edge 95 MXP (Edge 95 MXP):** • H.320 up to 512 kbps • H.323 and SIP up to 2 Mbps **Cisco TelePresence System Edge 75 MXP (Edge 75 MXP):** • H.320 up to 128 kbps • H.323 and SIP up to 768 kbps
Firewall traversal	• Cisco TelePresence Expressway technology • Auto-Network Address Translation (NAT) • H.460.18 and H.460.19 firewall traversal • SIP ICE
Video standards	• H.261, H.263, H.263+, H.263++ (natural video), and H.264
Video features	• Native 16:9 widescreen • Advanced screen layouts • Picture in picture (PIP) • Picture outside picture and large POP • Side by side • PC zoom • Intelligent video management • Simultaneous videoconference and local PC mode • Local auto layout

Specification	Description
Video inputs (five inputs)	• One 9-pin DSUB: HD Main Camera • One MiniDin, S-video: Auxiliary or document camera • One RCA/Phono, composite: Document camera or auxiliary • One RCA/Phono, composite: VCR • One DVI-I: PC • Input: 800 x 600 (@60, 72, 75, or 85 Hz); 1024 x 768 (@60, 70, or 75 Hz); 1280 x 720 (HD720P) (@ 50 or 60 Hz); 1280 x 1024 @ 60 Hz and 1280 x 768, 1280 x 800, 1360 x 768, and 1366 x 768 (@60 Hz) • Extended Display Identification Data (EDID)
Video outputs (four outputs)	• One MiniDin, S-video: Main monitor • One RCA/Phono, composite: Main monitor or VCR • One RCA/Phono, composite: Dual monitor or VCR • One DVI-1/XGA: Main or second monitor • XGA output • 800 x 600 @ 75 Hz, 1024 x 768 @ 60 Hz, 1280 x 768 (WXGA) @ 60 Hz, 1280 x 720 (HD720p) @ 60 Hz, and 1280x800 @ 60 Hz • VESA monitor power management
Video format	• NTSC, PAL, VGA, SVGA, XGA, WXGA, SXGA, and HD720p
Live video resolutions	**Native NTSC:** • 400p (528 x 400 pixels) • 4SIF (704 x 480 pixels), digital clarity • Interlaced SIF (iSIF 352 x 480 pixels), natural video • SIF (352 x 240 pixels) **Native PAL:** • 448p (576 x 448 pixels) • 4CIF (704 x 576 pixels), digital clarity • Interlaced CIF (iCIF 352 x 576 pixels), natural video • CIF (352 x 288 pixels) • QCIF (176 x 144 pixels) • SQCIF (128 x 96 pixels) decode only **Native PC Resolutions:** • XGA (1024 x 768) • SVGA (800 x 600 pixels) • VGA (640 x 480 pixels) • WXGA (1280x768) **Wide Resolutions:** • w288p (512 x 288 pixels) • w448p (768 x 448 pixels) • w576p (1024 x 576 pixels) • w720p (1280 x 720 pixels)
Still image transfer,	• CIF, SIF, 4CIF (H.261 Annex D), 4SIF, VGA, SVGA, XGA, and WXGA
audio standards, and	• G.711, G.722, G.722.1, G.728, and 64- and 128-bit MPEG4AAC-LD
audio features	• CD-quality 20-kHz mono and stereo • Telephone add-on through Cisco TelePresence MultiSite • Two separate acoustic echo cancellers • Audio mixer • Automatic Gain Control (AGC) • Automatic noise reduction • Audio-level meters • VCR ducking • Optional stereo package • Packet-loss management • Active lip synchronization • Global System for Mobile Communications (GSM)/Blackberry interference audio feature • Assistive Listening Devices (ALD) support with acoustic echo cancellation

Specification	Description
Audio inputs (four inputs)	• Two microphones, 24V phantom powered, XLR connector • One RCA/Phono, line level: Auxiliary (or VCR stereo L) • One RCA/Phono, line level: VCR/DVD (stereo R)
Audio outputs (two outputs)	• One RCA/Phono, S/PDIF (mono/stereo) or analogue line level: Main audio or analogue stereo L • One RCA/Phono, line level: VCR or analogue stereo R
Frame rates	• 30 frames per second @ 168 kbps and above • 60 fields per second @ 336 kbps and above (point to point)
Dual stream	• DuoVideo • H.239 dual stream • Dynamic bandwidth adjustment (H.323) • Available on H.323 and H.320 • Available in Cisco TelePresence MultiSite from any site (Cisco TelePresence System Edge 95 MXP only)
Network features	• Auto H.320/H.323 dialing • SIP • Downspeeding • Programmable network profiles • Intelligent call management • Maximum call-length timer • Automatic service profile identifier (SPID) and line number configuration (National ISDN, GR-2941-CORE) • SoftMux • H.331 broadcast mode • NATO standard KG194/KIV-7 encryptor support [**] • Uniform Resource Identifier (URI) dialing • Direct Domain Name System (DNS) dialing
Cisco TelePresence MultiSite features (Cisco TelePresence System Edge 95 MXP only)	• H.323, H.320, SIP, telephony, and voice over IP (VoIP) in the same conference • Audio and video transcoding • Video rate matching from 56 kbps-maximum conference rate • CP4 and voice switched • Best impression (automatic CP layouts) • H.264, encryption, and digital clarity • Dual stream from any site • ISDN and IP downspeeding and Intelligent Packet Loss Recovery (IPLR) • MultiSite (H.243) cascading on H.320 and H.323 • Unicode H.243 terminal names • Dial-in and dial-out • Chair control for host system • Snapshot of ongoing conference (JPEG) • Snapshot of ongoing DuoVideo/H.239 presentation (JPEG) • Separate welcome page for encrypted conferences • Conference rates up to 2.3 Mbps with optional bandwidth upgrade (1.5 Mbps is standard conference rate) • Up to four video and three audio sites • Four sites @ 768 kbps (+ Telephone calls) • Mix ISDN-Basic Rate Interface (BRI) and IP up to maximum conference rate
Embedded encryption	• H.320 and H.323 point-to-point and multipoint calls • Standards-based: H.233, H.234, H.235v2 and v3, Digital Encryption Standard (DES) and Advanced Encryption Standard (AES) • National Institute of Standards and Technology (NIST)-validated AES • NIST-validated DES • Automatic key generation and exchange • Supported in dual stream and MultiSite

Specification	Description
IP network features	• IEEE 802.1x/Extensible Authentication Protocol (EAP) network authentication • H.235 gatekeeper authentication • DNS lookup for service configuration • Differentiated Services (DiffServ) • Resource Reservation Protocol (RSVP) • IP Precedence • IP type of service (ToS) • IP adaptive bandwidth management (including flow control) • Auto gatekeeper discover y • Dynamic playout and lip-sync buffering • IPLR • H.245 dual-tone multifrequency (DTMF) tones in H.323 • IP address-conflict warning • Date and time support through Network Time Protocol (NTP) • Call services
IPv6 network support	• Dual-stack IPv4 and IPv6 simultaneous support • Net service support on IPv6: Telnet, SSH, HTTP, Secure HTTP (HTTPS), FTP, SNMP, DNS, NTP, and Dynamic Host Configuration Protocol (DHCP)" • Media support on IPv6: H.323, SIP, and streaming
Security features	• Management through HTTPS and SSH • IP administration password • Menu administration password • Dialing access code • Streaming password • H.243 multipoint control unit (MCU) password • Virtual Network Computing (VNC) password • Simple Network Management Protocol (SNMP) security alerts • Disable IP services • Message Digest Algorithm 5 (MD5) challenge • Network settings protection • SIP authentication through NT LAN Manager (NTLM) • SIP authentication through digest
Network interfaces	• Four ISDN Basic Rate Interface BRI (RJ-45) modules, S-inter face • One LAN/Ethernet (RJ-45) 10-/100-Mb (LAN, DSL, or cable modem) • One PC card slot (PCMCIA) for wireless LAN • One USB for future usage
Wireless LAN support	• Compliant with IEEE 802.11b, up to 11 Mb • Support for 64- and 128-bit encryption (Wired Equivalent Privacy [WEP]) • Infrastructure or ad-hoc mode
Ethernet, Internet, and intranet connectivity	• TCP/IP, DHCP, Address Resolution Protocol (ARP), FTP, Telnet, HTTP, HTTPS, Simple Object Access Protocol (SOAP) and XML, and MD5 challenge • SNMP enterprise management • Internal web server • Internal streaming server
Other major standards supported	• H.231, H.233, H.234, H.235 v2&v3, H.239, H.241, H.243, H.281, BONDING (ISO 13871), H.320, H.323, and H.331 • RFCs 3261, 2237, 3264, 3311, 3550, 2032, 2190, 2429, and 3407

Specification	Description
Cisco TelePresence PrecisionHD Camera	• 7x zoom, one-third–in. complementary metal oxide semiconductor (CMOS) +10°–20° tilt, +/– 90° pan • 42° vertical field of view • 72° total vertical field of view • 70° horizontal field of view • 250° total horizontal field of view • Focus distance 0.3m to infinity • 1280 x 720 pixels progressive @ 30 fps • Automatic or manual focus, brightness, and white balance • Far-end camera control • 15 near- and far-end camera presets • Voice-activated camera positioning • Daisy-chain support (Visca protocol camera)
Closed captioning and text chat	• T.140 text chat available from Telnet, web, and user interface

Presentations and collaboration	• Natural Presenter Package, including:
	  ◦ PC Presenter (DVI-I, SXGA In)
	  ◦ PC SoftPresenter
	• Digital clarity and native formats
	• Advanced video layouts
	• Streaming compatible with Cisco IP/TV, Apple QuickTime RealPlayer v8, etc.

System management	• Support for the Cisco TelePresence Management Suite (Cisco TMS) • Total management through embedded web server, SNMP, Telnet, SSH, FTP, and SOAP • Remote software upload through web server, FTP server, or ISDN • One RS-232 local control and diagnostics • Remote control and on-screen menu system • External services from Cisco TMS
Directory services	• Support for local directories (My Contacts), corporate directory, and global directory • Unlimited entries using server directory[*] supporting Lightweight Directory Access Protocol (LDAP) and H.350 • Unlimited number for corporate directory (through Cisco TMS) • Global directory with 400 numbers • Local directory with 200 numbers • Sixteen dedicated MultiSite entries • Directories in local languages • Received calls with date and time • Placed calls with date and time • Missed calls with date and time
Seventeen selectable menu languages	• Arabic, Simplified Chinese, Traditional Chinese, Danish, English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Suomi, Swedish, and Thai • Chinese, Korean, and Japanese input method editor • Import custom language through Cisco TMS
Customized welcome screen and company logo	• Picture JPEG (logo.jpg): Recommended maximum size is 704 x 576 for welcome screen and 352 x 288 for encryption required screen.
Power	• Auto-sensing power supply • 100/240 VAC, 50/60 Hz
Operating temperature and humidity	• 32 to 95° F (0 to 35°C) ambient temperature • 30 to 85% relative humidity (RH)
Storage and transport temperature	• 14 to 140°F (–10°C to 40°C) at RH 10 to 90% (noncon densing)
Unit dimensions	• Height: 66 in. (168 cm) • Diameter (base): 26 in. (66 cm) • Weight: 110 lb (50 kg)

[*] Requires Cisco Management Suite 9 or newer.
[**] Optional equipment; must be specified at the time of order. Serial Port replaces ISDN BRI.

Regulatory Compliance

- IEC 60601-1-2nd edition, UL-2601-1, CSA 601.1
- Class 1 FCC A
- CE (220V)
- FDA Class 1 Medical Device Data System (MDDS)

Ordering Information

To place an order, visit the Cisco Ordering Home Page and refer to Table 3.

Table 3.   Ordering Information

Product Name	Part Number
Cisco TelePresence System Intern MXP	**CTS-INTRN**
Comes with: Intern MXP ISDN/IP - Single LCD Base Cart and 24" Display (codec ordered separately, see below)	
Codec Ordering Requirements for Intern MXP – choose one	
Cisco Edge 95 MXP Codec, 512kbps ISDN 2 Mbps IP bandwidth, Natural Presenter Package, Multi Site, Cisco TelePresence Precision HD Camera, 720p, 1 microphone, remote control	CTS-EDGE95-K9
Cisco Edge 75 MXP codec, 128 kbps ISDN/768 kbps IP bandwidth, Natural Presenter Package, Cisco TelePresence Precision HD Camera 720p, 1 microphone, remote control	CTS-EDGE75-K9
Video Standard Options for Intern MXP – choose one	
Base Cart - Intern NTSC	CART-INTRN-N120V
Base Cart - Intern PAL	CART-INTRN-P240V
Accessories for Intern MXP	
Intern Storage Pack	STGPK-INTRN

Service and Support

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, visit: http://www.cisco.com/go/telepresenceservices.

For More Information

For more information about the Cisco TelePresence System Intern MXP, 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.