Cisco TelePresence EX Series

Figure 1. Cisco TelePresence EX90 in Home Office

Figure 2. Cisco TelePresence EX90 in Remote Expert Scenario with Document Camera

Product Overview

The Cisco TelePresence™ EX Series transforms the workplace by combining work, communications, and collaboration—all on the desktop with just the touch of a finger.

The EX Series is an all-in-one tool that streamlines the desktop so you can fluidly move from individual work on your laptop, to a quick video call with a colleague, to problem-solving over shared spreadsheets. Tight integration with Cisco Unified Communications Manager also provides EX Series users with powerful video and voice functionality. The series comprises the EX90 and the EX60: The EX90 is designed for the team leader or manager for immediate presence with customers, partners, and employees, while the EX60 can be scaled throughout the organization, designed especially for the knowledge worker or individual contributor.

The EX Series is part of the broad portfolio of Cisco TelePresence systems offering immersive, multipurpose, and personal endpoints to meet the needs of organizations of all sizes. Cisco TelePresence technology powers the new way of working where everyone, everywhere can be more productive through face-to-face collaboration.

Figure 3. Cisco TelePresence EX60 in Ad-hoc Conference Call

Features and Benefits

- A high-quality screen with clear high-definition (HD) resolution enables a transparent, all-in-one device to work, meet, and collaborate (24" or 21.5").
- Video resolutions of 1080p30 and 720p60 bring the Cisco TelePresence experience to the desk.
- Integration with Cisco Unified Communications Manager enables rich features including voicemail indicator, single number reach, and ad-hoc conferencing.
- The Cisco TelePresence Touch 8 user interface allows for simple control.
- Collaboration is natural with transparent one-touch sharing of high-definition content and a built-in document camera.
- A Cisco TelePresence PrecisionHD camera enables video clarity and optimal F1.7, 45-65° or 50° field of view.
- H.323 and Session Initiation Protocol (SIP) with bandwidth up to 6 Mbps point-to-point provide the possibility to establish calls with very high quality.
- Dual front speakers offer superior audio, including an integrated subwoofer on the EX90.
- A wideband handset is included; you can also add a headset input for privacy (wired or Bluetooth wireless).
- The EX60 is wall-mountable with select VESA brackets. An external wall mount solution is also available for the EX90 through Milestone http://cdn.chiefmfg.com/Flyers-Brochures/Chief_Cisco_flyer.pdf.
- The EX90 supports embedded MultiSite which brings together up to four locations into one call.
- Dual display capability (HDMI out) is also available on the EX90 to enable a second display that can be dedicated to content.
- The system is standards-based for immediate connectivity to anyone regardless of system, from a soft client to immersive telepresence system, to a meeting room around the globe.

Product Specifications

Table 1 lists the physical specifications; Table 2 gives video and audio specifications; and Table 3 gives network, security, and management specifications of the Cisco TelePresence EX Series.

Table 1. Product Specifications

Product Compatibility	Fully compatible with standards-compliant telepresence and video systems		
Software Compatibility	Cisco TelePresence Software Version TC3.1 (EX90) and TC4.0 (EX60) or later, or TE 6.0		
Components	Fully integrated unit including: • Codec • Display • Camera • Microphone and speakers • Cables including: VGA-to-DVI-I cable, DVI-D cable, 3.5-mm jack audio cable, LAN cable, power adapter, and power cable		

Display	• EX90
	  ◦ 24-in. LCD monitor
	  ◦ Resolution: 1920 x 1200 (16:10)
	  ◦ Contrast ratio: 1000:1
	  ◦ Viewing angle: 160°
	  ◦ Response time: 5 ms
	  ◦ Brightness: 300cd/m2
	  ◦ 5°—15° tilt
		• EX60
		  ◦ 21.5-in. LCD monitor (with LED backlight)
		  ◦ Resolution: 1920 x 1080 (16:9)
		  ◦ Contrast ratio: 1000:1
		  ◦ Viewing angle: 170°
		  ◦ Response time: 5 ms
		  ◦ Brightness: 225cd/m2
		  ◦ 5°—15° tilt	

PC and second-source video input	DVI-I EX90: HDMI in		
Supported PC input resolutions	EX90: SVGA (800 x 600) to WUXGA (1920 x 1200) EX60: SVGA (800 x 600) to 1080p (1920 x 1080)		
Camera	• Cisco TelePresence PrecisionHD design • Resolutions: 1080p30 and 720p60 • Auto focus • Integrated privacy shutter • Document camera mode • Multicoated all-glass optics • 1/3-in., 2.1 megapixel CMOS sensor	EX90 • Horizontal field of view: 45°-65° • Vertical field of view: 40°-27° • Focus distance 0.3-infinity • Optical, motorized zoom	EX60 • Horizontal field of view: 50° • Vertical field of view: 29° • Focus distance 0.1-infinity
Audio system	• Two stereo front speakers • Integrated full-range microphone • One 3.5-mm line-in jack for PC or other audio source • Two 3.5-mm jack for headset • Wideband handset	• Bluetooth module 2.1 + EDR • Integrated subwoofer (EX90 only) • Support for Cisco TelePresence Table Microphone 20 (EX90 only) • HDMI audio input/output (EX90 only)	
User interface	Cisco TelePresence Touch 8 • Eight-inch projected capacitive touch screen • Resolution: 800 x 480		
Language support	English, Chinese-S, Danish, Dutch, Finnish, French, German, Italian, Japanese, Korean, Norwegian, Russian, Spanish, Swedish, Portuguese-Brazilian, Czech*, Polish*, Chinese-Traditional*, Turkish* *Not supported in TE software		
Physical dimensions (H x L x D)	Cisco TelePresence EX90 main unit: 21.4 x 22.3 x 6.8 in. (54.5 x 56.7 x 17.3 cm) Cisco TelePresence EX60 main unit: 20.0 x 20.5 x 5.4 in. (50.8 x 52 x 13.8 cm)	• Cisco TelePresence Touch 8: 1.7 x 9.0 x 5.7 in. (4.4 x 22.8 x 14.5 cm) • Cisco TelePresence Touch 8 with handset: 3.0 x 11.4 x 7.4 in. (7.7 x 29.0 x 18.7 cm) • Cable length: 47 in. (120 cm)	

Weight	Cisco TelePresence EX90 main unit: 24.2 lb (11.0 kg) Cisco TelePresence EX60 main unit: 12.9 lb (5.85 kg)	• Cisco TelePresence Touch 8: 1.4 lb (0.64 kg). • Cisco TelePresence Touch 8 with handset: 2.1 lb (0.94 kg)
Power	Autosensing power supply 100-240 VAC, 50/60 Hz EX90: 150 watts max EX60: 75 watts max	Power consumption: • EX90 with Touch 8: In video call: 110W, In standby: 58W • EX60 with Touch 8: In video call: 46W, In standby: 31W
Temperature range	Operating temperature and humidity: • Ambient temperature: 32 to 95°F (0 to 35°C) • Relative humidity (RH): 10 to 90% • Storage and transport temperature at RH 10-90% (noncondensing): -4 to 140°F (-20 to 60°C)	
Approvals and compliance	• Directive 2006/95/EC (Low-Voltage Directive)—Standard EN 60950-1 • Directive 2004/108/EC (EMC Directive)—Standard EN 55022, Class A—Standard EN 55024—Standard EN 61000 3-2/-3-3 • Approved according to UL 60950-1 and CSA 60950-1-07 • Complies with FCC15B Class A	

Table 2.   Video and Audio Specifications

Bandwidth	H.323/SIP up to 6 Mbps point-to-point	
Video standards	• H.261 • H.263 • H.263+ • H.264	
Video features	• Widescreen: 16:9 • Advanced screen layouts • Intelligent video management • Local auto layout	
Live video resolutions (encode/decode)	• 176 x 144@30 fps (QCIF) • 352 x 288@30 fps (CIF) • 512 x 288@30 fps (w288p) • 576 x 448@30 fps (448p) • 768 x 448@30 fps (w448p) • 704 x 576@30 fps (4CIF) • 1024 x 576@30 fps (w576p) • 640 x 480@30 fps (VGA) • 800 x 600@30 fps (SVGA) • 1024 x 768@30 fps (XGA) • 1280 x 1024@30 fps (SXGA) • 1280 x 720@30 fps (720p30)	• 1280 x 768@30 fps (WXGA) • 1920 x 1080@30 fps (1080p30)* • 1440 x 900@30 fps (WXGA+)* • 1472 x 1080@30 fps (SXGA+)* • 1680 x 1050@30 fps (WSXGA+)* • 1600 x 1200@30 fps (UXGA)* • 512 x 288@60 fps (w288p60)* • 768 x 448@60 fps (w448p60)* • 1024x576@60 fps (w576p60)* • 1280x720@60 fps (720p60)** Requires premium resolution option Only EX90: • 1920x1200@25fps (WUXGA)*
Audio standards	• G.711 • G.722 • G.722.1 • 64/128 kbps MPEG4 AAC-LD • AAC-LD stereo	
Audio features	• CD-quality 20-kHz stereo • Acoustic echo canceling • Automatic gain control • Automatic noise reduction • Active lip synchronization	
Main channel frame rate	EX90 • Up to 1080p30 • Up to 720p60	EX60 • Up to 1080p30 • Up to 720p60

Content channel frame rate	EX90 • Up to UXGAp30 • Up to 1080p30	EX60 • Up to 720p15
Dual stream	• H.239 (H.323) dual stream • BFCP (SIP) dual stream • EX90 supports resolutions up to 1080p in both main stream and dual stream simultaneously • EX60 supports resolutions up to 720p in both main stream and dual stream simultaneously	

Table 3. Network, Security and Management Specifications

Protocols	• H.323 • SIP
Network interfaces	• Internal 2-port Ethernet switch • One LAN/Ethernet (RJ-45) 10/100/1000 Mbps for PC • One LAN/Ethernet (RJ-45) 10/100/1000 Mbps for LAN
Other interfaces	• Bluetooth support • Two USB device for future applications (EX90) • One USB device for future applications (EX60)
IP network features	• Domain Name System (DNS) lookup for service configuration • Differentiated Services (QoS) • IP adaptive bandwidth management (including flow control) • Auto gatekeeper discovery • Dynamic playout and lip-sync buffering • H.245 DTMF tones in H.323 • Date and time support with Network Time Protocol (NTP) • Packet loss-based down-speeding • DNS-based URI dialing • TCP/IP • Dynamic Host Configuration Protocol (DHCP) • IEEE 802.1x network authentication • IEEE 802.1q VLAN • IEEE802.1p QoS and class of service (CoS) • ClearPath
IPV6 Network support	• Single call stack support for both H323 and SIP • Dual-stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ • Support for both static and auto-configuration (stateless address auto-configuration)
Firewall traversal	• Cisco TelePresence Expressway Technology • H.460.18 and H.460.19 Firewall Traversal
Supported Infrastructure	• Cisco Communications Manager 5.1 and newer (8.6.2 and newer recommended) • Cisco TelePresence Video Communication Server (VCS) • Cisco WebEx TelePresence Server
Embedded encryption	• H.323/SIP point-to-point • Standards-based: H.235v3 and Advanced Encryption Standard (AES) • Automatic key generation and exchange • Supported in dual stream
Security features	• Management via Secure HTTP (HTTPS) and Secure Shell (SSH) Protocol • IP administration password • Administrator Menu password • Disable IP services • Network settings protection

MultiSite	EX90 only
	• 4-way 720p30 Continuous Presence (CP) MultiSite
	• Full individual audio and video transcoding
	• Individual layouts for each participant (CP layout without self-view feature)
	• H.323/SIP/VoIP in the same conference
	• Best Impression (Automatic CP layouts)
	• H.264, encryption and dual stream from any site
	• IP down-speeding
	• Dial In/Dial out
Multipoint support	• Cisco TelePresence Multiway support (requires Cisco TelePresence Video Communication Server [Cisco VCS] and Cisco TelePresence MCU)
	• Ability to natively join multipoint conferences hosted on Cisco TelePresence Multipoint Switch (CTMS)
	• EX90 only: Four-way embedded SIP/H.323 Multipoint, reference MultiSite
System management	• Support for the Cisco TelePresence Management Suite
	• Total management through embedded Simple Network Management Protocol (SNMP), Telnet, SSH, XML, and Simple Object Access Protocol (SOAP)
	• Remote software upload: Through web server, Secure Copy Protocol, HTTP, and HTTPS
Directory services	• Support for local directories (My Contacts)
	• Corporate directory
	• Unlimited entries using server directory supporting
	• Lightweight Directory Access Protocol (LDAP) and H.350
	• Unlimited number for corporate directory (available with Cisco TelePresence Management Suite
	• Local directory: 200 numbers
	• Received calls with date and time
	• Placed calls with date and time
	• Missed calls with date and time

Ordering Information

To place an order, please contact your Cisco representative.

Table 4. Ordering Information

Product Name	Part Number	Compliance Model Number
Cisco TelePresence EX90	CTS-EX90-K9	TTC7-19
Comes with: EX90 unit and camera, C-series Natural Presenter Package option, Cisco TelePresence Touch 8		
Ordering Options for the Cisco TelePresence EX90		
MultiSite option for Cisco TelePresence EX90	LIC-EX90-MS	
Premium Resolution option for Cisco TelePresence EX90	LIC-EX90-PR	
Dual-display option for Cisco TelePresence EX90	LIC-EX90-DD	
Cisco TelePresence EX60	CTS-EX60-K9	TTC7-20
Comes with: EX60 unit and camera, C-series Natural Presenter Package option, Cisco TelePresence Touch 8		
Ordering Options for the Cisco TelePresence EX60		
Premium resolution option for Cisco TelePresence EX60	LIC-EX60-PR	

Cisco Service and Support

Cisco and our partners provide a broad portfolio of smart, personalized services and support that can help you realize the full business value of your Cisco TelePresence investment by increasing business agility and network availability. This portfolio of services accelerates business innovation by harnessing the network as a powerful business platform. For more information about these services, visit:
http://www.cisco.com/go/telepresenceservices.

For More Information

For more information about the Cisco TelePresence EX Series, visit http://www.cisco.com/go/telepresence or contact your local Cisco account representative.

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