

Cisco TelePresence System 500

The Cisco TelePresence™ solution 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, Cisco TelePresence can provide great productivity benefits and transform your business. Many organizations are already using this solution to control costs, make decisions faster, improve customer intimacy, scale scarce resources, and speed products to market.

Cisco TelePresence comprises several endpoint models to meet many types of meeting needs:

- The Cisco TelePresence System 500 is designed for 1 or 2 users, bringing the Cisco TelePresence virtual in-person experience directly into the private office.
- The Cisco TelePresence System 1000 is for small group meetings and one-on-one conversations.
- The Cisco TelePresence System 1300 Series is designed for group meetings in multipurpose conference rooms.
- The Cisco TelePresence System 3000 is for business meetings with up to 6 participants per room.
- The Cisco TelePresence System 3200 is for large group meetings of up to 18 participants per room.

These endpoints work with the complete Cisco TelePresence solution for easy call scheduling and setup; scalable, zero-latency multipoint calls; secure intercompany communications; and a host of compelling collaboration applications that scale a variety of meeting types, high-definition (HD) broadcasting, and industrial applications. This data sheet discusses the Cisco TelePresence System 500 (Figure 1).

Figure 1. Cisco TelePresence System 500



Product Overview

Cisco TelePresence combines life-like, ultra-high-definition video (1080p), quality audio, a specially designed environment, and interactive elements to create the feeling of being in person with meeting participants in remote locations. Because the solution is simple and easy-to-use, it allows you and other participants to communicate naturally and effectively.

The Cisco TelePresence System 500 (part number CTS-500) brings the virtual in-person Cisco TelePresence experience directly into the private office. The Cisco TelePresence System 500 allows individuals, subject matter experts, and executives to join Cisco TelePresence calls with equal stature — appearing life-size on Cisco TelePresence System 3000s and other endpoints.

The smaller footprint of the Cisco TelePresence System 500 can give your organization the flexibility to deploy this solution within personal offices to support intimate, remote one-on-one meetings or to join large, multipoint Cisco TelePresence calls. The Cisco TelePresence System 500 delivers the same award-winning video, audio, and environmental features that create the immersive, face-to-face experience consistent across the entire Cisco TelePresence portfolio.

Applications

The Cisco TelePresence System 500 is ideal for joining large, multilocation group meetings, such as operational reviews, status update meetings, and quarterly customer presentations. It also supports personal meetings such as negotiations, job interviews, and personnel reviews.

The remarkable video clarity of the Cisco TelePresence System 500 allows you to see every expression, and the rich, CD-quality audio helps you hear every word. The ease of use and integrated, optimized features make it easy to schedule and launch calls by just pushing a button. Integration with the highly available Cisco network offers reliability, quality of service (QoS), and security, giving you the confidence to use it for both internal and external meetings.

In addition, the Cisco TelePresence System 500 integrates transparently with the rest of the Cisco TelePresence portfolio to offer the same high-quality Cisco TelePresence experience. The solution offers the following benefits:

- The solution offers high-quality video at 720p and 1080p resolutions.
- Specially designed, high-definition cameras provide high-quality, high-definition images, with excellent eye contact and no user operation required.
- Full-duplex, CD-quality audio facilitates a full, natural conversation with no perceivable latency. The clarity of the audio allows you and other participants to talk in relaxed or soft voices and still be heard as if you are all in the same room. The microphone electronics are carefully designed to eliminate interference from mobile devices and cell phones.
- The specially designed unit is optimized to help ensure optimal lighting and audio quality.
- Multipoint meetings with up to 48 locations in any combination of Cisco TelePresence endpoints are supported.
- Like the other Cisco TelePresence endpoints, the Cisco TelePresence System 500 integrates with common calendaring software for easy and automated call start and controls; you just push a button.
- You can meet with others in person at a moment's notice anywhere there is a Cisco TelePresence endpoint — with just a phone call.

- The solution offers any-to-any interoperability with standards-based standard- and high-definition video endpoints and collaboration with many other technologies, such as Cisco WebEx™ meeting applications and the Cisco® Digital Media System.
- You can make secure and reliable inter- and intracompany calls between your organization and any other, including at public Cisco TelePresence facilities.
- Integration with the network helps ensure reliability with high availability, security, and QoS for an optimal experience with every call. Highly secure communications are enabled through encryption of both video and call signaling.

In addition to the overall benefits of the Cisco TelePresence design, the Cisco TelePresence System 500 offers the innovative features and benefits listed in Table 1.

Table 1. Cisco TelePresence System 500 Features and Benefits

Feature	Description	Benefits
Optimized for one or two participants in a private office	<ul style="list-style-type: none"> • Offers elegant design with 37-in. display, camera, microphone, speakers, and lighting • Footprint is small • Available in three configurations: Free-standing pedestal, wall-mount, or table-top 	<ul style="list-style-type: none"> • Offers sophisticated, discreet interface suited for private and executive offices • Allows you to sit 4 to 6 feet from the camera, a comfortable conversation distance in a typical office configuration • Offers flexible options to maximize room characteristics; easily installed with little or no room remediation or construction costs
Excellent audio and video quality	<ul style="list-style-type: none"> • Offers ability to project the Cisco TelePresence experience to any endpoint for large multipoint calls and intimate one-to-one meetings • Delivers the same quality virtual in-room experience as the rest of the Cisco TelePresence endpoint portfolio • Supports open microphone and speaker, with option for headset 	<ul style="list-style-type: none"> • Individual Cisco TelePresence System 500 user appears life-size and of equal stature to other participants • Extends considerably the reach of the TelePresence experience across an organization at reasonable cost • Enables you to enjoy natural meeting environment, as well as headset for increased privacy
Connection for auxiliary graphics display*	<ul style="list-style-type: none"> • Allows you to show the data or graphics content on a separate auxiliary display or in presentation-in-picture mode • Can be used as a secondary PC monitor or video output for digital signage when not in a TelePresence call 	<ul style="list-style-type: none"> • Offers flexible options for data display; presentation-in-picture mode suitable for space-constrained environments • Remains a useful productivity tool even when not involved in TelePresence calls
Lighting cues for optimal seating alignment	<ul style="list-style-type: none"> • Provides discreet positioning lights in the bezel that guide users to sit in the optimal camera location 	<ul style="list-style-type: none"> • Frames the Cisco TelePresence System 500 user in best possible manner at other Cisco TelePresence endpoints

* Cisco does not provide graphics displays or mounts. Contact your Cisco TelePresence partner for data display options.

Table 2 lists the overall features and benefits of the Cisco TelePresence portfolio.

Table 2. Cisco TelePresence Portfolio Features and Benefits

Feature	Description
Interoperability support	Cisco TelePresence systems can interoperate with standards-based H.323 video conferencing systems and other HD endpoints, both video conferencing and competitive TelePresence products. In addition to protecting existing investments, interoperability dramatically expands the number of video conferencing endpoints that can communicate with a Cisco TelePresence system.
Cisco TelePresence Expert on Demand support	Cisco TelePresence systems can be integrated with Cisco Unified Communications and Cisco Unified Contact Center to deliver high-touch customer service and point-of-sale services.
Cisco TelePresence Recording Studio	This feature transforms Cisco TelePresence units into high-definition recording studios. Using an intuitive user interface on the existing Cisco TelePresence IP Phone, you can record high-quality video to deliver rich, immersive messages for internal and external communications, training, crisis management, etc. Viewing and distributing video content is easy; you can replay recordings on Cisco TelePresence endpoints or on standard browser-based players.

Network-Adaptive Bandwidth Usage	Cisco TelePresence systems supports 720p or 1080p resolutions with three quality levels to optimize network bandwidth consumption. The system can operate at several different bandwidth levels ranging from 2 to 5 Mbps per screen for configurable, variable bandwidth consumption, maximizing the Cisco TelePresence experience while preserving frame rate and low latency and reducing packet loss. The system is supported by all existing install, deployment, and operation services.
Cisco TelePresence Extended Reach	The optimized 720p Cisco TelePresence mode is ideal for wide-area bandwidth connections as low as 1.5 Mbps per screen (T1/E1) speeds. The system maintains latency and packet loss while providing constrained bandwidth options for remote office or telecommuter deployments.
Directories	Cisco TelePresence allows up to 40 favorites entries for convenient speed dialing or for integration into the Cisco Unified Communications Manager general directory service, which features a search function for thousands of directory entries.
Speed dial	Cisco TelePresence allows up to 40 favorites entries for convenient speed dialing.
Settings	The web-based interface allows administrators to securely log in to the system to make configuration changes to the Cisco TelePresence systems.
Scheduling services	Cisco TelePresence allows for email calendaring and scheduling services from a web-enabled application. To take advantage of this feature, you must install and configure the Cisco TelePresence Manager server to work with your calendar and email applications.
Mute and hold	Cisco TelePresence supports mute and hold functions through controls on the Cisco IP Phone.
Gigabit Ethernet switch	The internal Cisco Gigabit Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network through an RJ-45 interface with single LAN connectivity for both the Cisco TelePresence system and a co-located Cisco Unified IP Phone 7975G and Ethernet-attached PC. The system administrator can designate separate VLANs (802.1Q) for the PC and Cisco IP Phones, providing improved security and reliability of voice and data traffic.
Volume control	The convenient Volume Control button on the phone provides for easy volume adjustments.
Audio mute	The mute feature has an on-screen mute indicator to remind you that the mute feature is activated on the Cisco IP Phone.
Video mute	The Hold/Resume button toggles the video and audio mute features and allows you to place Cisco TelePresence systems on hold for privacy.
Cisco TelePresence Auto Collaborate	This Cisco innovation allows people in all rooms to instantly see and share information or objects with others by simply plugging in a device such as a laptop computer or the integrated optional high-definition document camera.
High-Frame Rate Cisco TelePresence Auto Collaborate	An optional presentation codec is dedicated to the data channel to provide full motion (30 fps) graphics and multimedia content on the Auto Collaborate data channel.
Document camera controls	Software controls for the optional document camera are incorporated into the Cisco TelePresence user interface on the Cisco IP Phone, providing for a more tightly integrated solution and more natural user controls.
Dialing buttons	These buttons allow for convenient manual or address-book dialing.
Multipoint support	Cisco TelePresence systems can participate in multipoint meetings by using the Cisco TelePresence Multipoint Switch.
Encryption	Cisco TelePresence supports full media and signaling encryption with no discernable latency to the Cisco TelePresence call for up to 48 segments. In addition, you can designate Cisco TelePresence meetings as nonsecure, secure best effort, and always secure. Meeting encryption status is indicated on-screen at the start of a call or when it changes, and on the phone at all times.
Power over Ethernet (PoE) power for high-definition cameras and Cisco Unified IP Phone 7975G	The Cisco high-definition cameras and the Cisco Unified IP Phone 7975G receive power down the LAN from the Cisco IEEE 803.3af PoE Switch incorporated into the Cisco TelePresence codec.
TelePresence ring tones	Cisco TelePresence systems supports a standard ring tone and busy signal for system operation and user notification.
Americans with Disabilities Act (ADA) features	The dial pad is ADA-compliant on the Cisco Unified IP Phone 7970G and 7975G models.
U.S. Section 508 features	The Cisco Unified IP Phone 7975G dial pad conforms to U.S. Section 508 guidelines. The 5 key has a raised nib that provides a tactilely discernible home key. To access more accessibility features, you can obtain the U.S. Section 508 Voluntary Product Accessibility Template (VPAT) at: http://www.cisco.com/go/accessibility .
Signaling protocol support	Cisco TelePresence supports Session Initiation Protocol (SIP) on Cisco Unified Communications Manager.

Audio codec support	G.711 and advanced audio coding with low-delay (AAC-LD) audio compression codecs are available.
Configuration options	You can statically configure IP address assignment or configure it through the Cisco TelePresence administrator web interface.
System lighting	The solution includes an integrated lighting assembly to eliminate facial shadows and provide natural-looking video without harsh studio lighting or makeup. Lighting is activated when a Cisco TelePresence call begins.
System lighting controls	You can configure the integrated lighting assembly of the Cisco TelePresence system to turn on or off with a Cisco TelePresence call or with normal working hours. This feature reduces power consumption and provides a "greener" overall solution. (It requires Cisco TelePresence Software Version 1.4 or later.)

Product Specifications

Tables 3 through 5 list specifications for the Cisco TelePresence System 500, and Table 6 gives temperature ratings.

Table 3. Product Specifications

Specification	Description
Product compatibility	<ul style="list-style-type: none"> • Cisco TelePresence System 1000 with Cisco TelePresence System Software Version 1.4 or later • Cisco TelePresence System 1300 with Cisco TelePresence System Software Version 1.5 or later • Cisco TelePresence System 3000 with Cisco TelePresence System Software Version 1.4 or later • Cisco TelePresence System 3200 with Cisco TelePresence System Software Version 1.4 or later • Cisco Unified Communications Manager 6.0 or later • Cisco TelePresence Multipoint Switch 1.0 or later • Cisco TelePresence Manager 1.4 or later
Software compatibility	Cisco TelePresence System Software Version 1.4 or later
Protocols	Cisco Discovery Protocol, SIP, IP, Dynamic Host Configuration Protocol (DHCP), Secure Shell (SSH) Protocol, 802.1p/q, and Real-Time Transport Protocol (RTP)
Connectivity	Ethernet (1 LAN, RJ-45 connection — 100/1000m), internal 4-port Ethernet switch, and high-definition video connector
Programming interfaces	Web-based user interface; IP address assignment can be statically configured or configured through the Cisco TelePresence administrator web interface
Physical dimensions (H x W x D)	Minimum room dimensions: 8 x 6 x 8 ft (2.4 x 1.8 x 2.4m) Table top: 3 ft 0.5 in. x 3 ft 2 in. x 1 ft 4.5 in. (0.91 x 0.97 x 0.42m) Base width: 2 ft 7.5 in. (0.8m) Freestanding pedestal: Height: 5 ft 6.5 in. (1.7m); width: 3 ft 2 in. (0.97m) Base width: 2 ft 9 in. (0.84m); base depth: 2 ft 1 in. (0.64m) Wall-mounted pedestal: Height: 5 ft 6.5 in. (1.7m); width: 3 ft 2 in. (0.97m) Base width: 2 ft 9 in. (0.84m); base depth: 1 ft 1.5 in. (0.34m) Wall-mounted: Height: 2 ft 6 in. (0.76m); width: 3 ft 2 in. (0.97m)
Weight	<ul style="list-style-type: none"> • 230 lb (104.3 kg) with pedestal • 65 lb (29.47 kg) without pedestal and codec
Power	<ul style="list-style-type: none"> • 350W (3A @ 120V to 1.5A @ 240V) • Two power plugs are required
Total typical heat dissipation	<ul style="list-style-type: none"> • 0.64kW • 1700 BTU/Hr

*Typical accounts for a diversity of power consumption at 75% of max

Table 4. Video and Audio Specifications

Specification	Description
Bandwidth consumption	3 to 4 Mbps (1080p) or 1 to 3 Mbps (720p) for IP QoS connections is recommended. Note: The bandwidth recommendations for the Cisco TelePresence System 500 are identical to those for the Cisco TelePresence System 1000.
Video standards	H.264

Video frame rate	30 frames per second using H.264
Data and graphics frame rate	<ul style="list-style-type: none"> • Graphics sharing at 5 frames per second (standard configuration) • Optional graphics sharing at 30 frames per second using a dedicated presentation codec
Native National Television Standards Committee (NTSC)	720p and 1080p
Resolution	1920 x 1080 Native
Audio standards	G.711 and AAC-LD (22 kHz)
Audio features	Cisco Dynamic Echo Cancellation
Cisco TelePresence HDC High-Definition Camera	<ul style="list-style-type: none"> • Complementary Metal Oxide Semiconductor (CMOS) 2/3-in. sensor • C-mount lens • 1080p 30 • Minimum illumination 300 lux • Manual focus
H.264 interoperability	Using Common Intermediate Format (CIF) and G.711 with Cisco Unified Video Conferencing 3500 Series platforms

Table 5. Additional Specifications

Specification	Description
Firmware upgrades	Downloadable from Cisco Unified Communications Manager
Video network features	Intelligent packet loss recovery of video transmission
Network interface	<ul style="list-style-type: none"> • 1 LAN or Ethernet (RJ-45); 100/1000 Mbps • Internal 4-port Ethernet switch with 2 PoE (IEEE 802.3af) ports on codec

Table 6. Temperature Ratings

Temperature	Description
Office operating temperature	Operating: 23 to 104°F (–5 to 40°C) Nonoperating: –13 to 158°F (–25 to 70°C)
Relative humidity	10 to 95% (noncondensing)

Regulatory Compliance

- UL/CSA 60950
- IEC/EN 60950
- AS/NZS 60950
- 47CFR (Part 15) FCC Class B
- CISPR 22/ EN55022 Class B
- CISPR 24/EN55024

Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Table 7.

Table 7. Ordering Information

Product Name	Part Number
Cisco TelePresence System 500	CTS-500
Ordering Options for the Cisco TelePresence System 500	
Power cords	Select the appropriate power cord pair option to plug into the wall outlets in the country where the Cisco TelePresence system will be deployed.

Auxiliary control unit	CTS-LIGHT-CTRL This is an optional control unit that is used to turn off system lighting when not in a meeting and is not required for Cisco TelePresence System 500 operation. The built-in lighting for the system is included and does not need to be ordered separately.
Presentation codec	CTS-HFR-COLLAB This chargeable option adds a dedicated presentation codec to enable high-frame-rate Auto Collaboration.
Mounting Options (Choose one at NC)	CTS500-STRUC-PED This mounting option provides a free standing floor mount for the CTS-500 with codec integrated to the pedestal CTS500-STRUC-TABL This mounting option is for the display sitting on a table or shelf and codec sits on the floor with a cable harness CTS500-STRUC-WALL This mounting option is for the display attached to a wall and codec sits on the floor with a cable harness

Cisco Services

Critical to delivering the innovative Cisco TelePresence experience are integrated lifecycle services delivered by Cisco and our certified partners. Designed specifically for multisite organizations, these services accelerate a successful deployment and deliver a high-quality, reliable, “in-person” Cisco TelePresence experience.

Initial Prepare, Plan, and Design services prepare your network and organization to deliver the expected consistent quality level of the Cisco TelePresence experience. Operate services provide a continued TelePresence experience in addition to peace of mind for your IT staff by increasing availability with critical day-2 maintenance support, remote monitoring and management, and remote assistance service. These services use a proven lifecycle services approach to deliver on a Cisco TelePresence experience. For more information, please visit:

<http://www.cisco.com/go/telepresenceservices>.

For More Information

For more information about the Cisco TelePresence System 500, please visit: <http://www.cisco.com/go/telepresence> or contact your local Cisco account representative or authorized Cisco partner.



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