Data Sheet

Cisco Unified Videoconferencing 3522 Gateway and Unified Videoconferencing 3527 Gateway

Connecting H.323 videoconferencing systems on IP networks to H.320-based videoconferencing endpoints on ISDN networks

Cisco® Unified Communications—a comprehensive system of powerful, enterprise-class solutions including IP telephony; video-, audio-, and Web conferencing, and customer contact solutions—helps organizations achieve business success by improving operating efficiency, increasing organizational productivity, and enhancing customer satisfaction. The Cisco® Unified Videoconferencing 3522 and 3527 Gateways—integral components of the Cisco Unified Communications system— bridge the gap between the installed base of ISDN videoconferencing group and room systems and the rapidly growing world of IP-based H.323 systems. The gateways connect H.320 ISDN to H.323 IP systems by translating calls initiated from the public switched telephone network (PSTN) to their equivalent on the packet network, and conversely. Videoconference users can have media-independent worldwide connectivity, regardless of their underlying network technology, and at the same time preserve existing investments.

The Cisco Unified Videoconferencing Gateways help enable H.323 users to dial out through the gateway to establish videoconference calls at data rates ranging from 64 kbps to 2.0 Mbps. The gateways place calls over ISDN to establish a connection with a remote H.320 system or a voice-only telephone. The gateways also accept inbound ISDN calls from H.320 videoconference systems or telephones and then route those calls to an H.323 endpoint or IP-based multipoint control unit (MCU). The gateways support a variety of call routing methods for incoming calls, including interactive voice response (IVR), direct inward dialing (DID), multiple subscriber number (MSN), and Terminal Control Session 4 (TCS4).

KEY FEATURES AND BENEFITS

The Cisco Unified Videoconferencing 3522 and 3527 Gateways offer an exceptional set of features and benefits for videoconferencing users and your organization.

- Ease of use—Users employ familiar telephone-like dialing procedures to place videoconference calls, whether from the IP or the ISDN network, making it easy for employees to start using videoconferencing and reducing the need for help-desk personnel and onsite support staff. With a minimum amount of training, workers can begin to use videoconferencing and enjoy the benefits of improved productivity and cost savings resulting from reduced travel.
- High-quality video and audio—The Cisco Unified Videoconferencing 3522 and 3527 Gateways support the broad range of H.323 video, audio, and data communications standards, helping ensure high-quality video and audio during a videoconference. The gateway design is optimized to pass the audio and video directly between IP and ISDN, streamlining the process, minimizing the delay, and maximizing the user's experience.
- Affordability—Available in compact, preconfigured appliances to support even low numbers of videoconference calls, the Cisco Unified Videoconferencing 3522 and 3527 Gateways provide an economical way to connect IP endpoints to ISDN networks in small to medium-sized businesses (SMBs) as well as to networks in remote offices of large organizations. Yet these gateways can also be combined and work together, so installations can be expanded and scaled to support larger deployments.

CISCO UNIFIED VIDEOCONFERENCING SYSTEM

When used with any of the Cisco Unified Videoconferencing 3500 Series Multipoint Control Units (MCUs), the Cisco Unified Videoconferencing 3522 and 3527 Gateways facilitate multiparticipant conferences using H.323, H.320, Skinny Client Control Protocol (SCCP), or Session Initiation Protocol (SIP) endpoints, helping ensure cost-effective local and global participation for multi-location meetings.

The Cisco Unified Videoconferencing 3522 and 3527 Gateways are part of the Cisco family of videoconferencing products that also includes the Cisco Unified Videoconferencing 3545 Series gateway modules, the Cisco Unified Videoconferencing 3515 and 3545 MCU, and the Cisco IOS® Gatekeeper and IP-to-IP gateway products. In addition to integrating room-based systems, this solution facilitates video telephony and video-enabled rich-media collaboration.

Table 1 describes the features of the Cisco Unified Videoconferencing 3522 and 3527 Gateways, and Table 2 lists the product specifications.

Table 1. Cisco Unified Videoconferencing 3522 and 3527 Gateway Features

Feature	Cisco Unified Videoconferencing 3522 Gateway	Cisco Unified Videoconferencing 3527 Gateway
Part number	IPVC-3522-GW4B	IPVC-3527-GW1P
System capacity	• Offers four ISDN Basic Rate Interface (BRI) ports providing 512 kbps of bandwidth for videoconference calls • Call capacity: ◦ Eight calls at 64 kbps (voice only) ◦ Four calls at 128 kbps ◦ Two calls at 256 kbps ◦ One call at 384 kbps and one call at 128 kbps ◦ One call at 512 kbps	• Offers a single configurable T1/E1 Primary Rate Interface (PRI) network interface providing up to 1920 (for E1) or 1472 (for T1) kbps of bandwidth for videoconference calls • E1 PRI call capacity examples: ◦ Thirty calls at 64 kbps (voice only) ◦ Fifteen calls at 128 kbps ◦ Five calls at 384 kbps ◦ Three calls at 512 kbps ◦ Two calls at 768 kbps ◦ One call at 1920 kbps • T1 PRI call capacity examples: ◦ Twenty-three calls at 64 kbps (voice only) ◦ Eleven calls at 128 kbps ◦ Three calls at 384 kbps ◦ Two calls at 512 kbps ◦ One call at 1472 or 768 kbps ◦ Calls at multiple bandwidths up to available ISDN capacity
Audio codecs and transcoding	• Supports G.711, G.722, G.722.1, G.723.1, and G.728 audio codecs • Includes two modes of audio transcoding between ISDN and IP networks: ◦ G.711 (IP) to G.728 (ISDN) ◦ G.723 (IP) to G.711 (ISDN)	• Supports G.711, G.722, G.722.1, G.723.1, and G.728 audio codecs • Includes audio transcoding between ISDN and IP networks: ◦ G.711 (IP) to G.728 (ISDN) ◦ G.723 (IP) to G.711 (ISDN)
Standards supported	• Complies with ITU H.320 and H.323 standards for multimedia conferencing • Supports the pass-through of ITU audio codecs G.711, G.722, G.723, and G.728 • Supports H.261, H.263, and H.264 video codecs • Supports T.120, T281 far-end camera control (FECC), Tandberg DuoVideo, and H.239 data protocols • Supports H.235 encryption	• Complies with ITU H.320 and H.323 standards for multimedia conferencing • Supports the pass-through of ITU audio codecs G.711, G.722, G.723, and G.728 • Supports H.261, H.263, and H.264 video codecs • Supports T.120, T281 FECC, Tandberg DuoVideo, and H.239 data protocols • Supports H.235 encryption
Call bonding	Supports bonding (Bonding Mode 1) across BRI ports, allowing calls up to 512 kbps	Supports bonding (Bonding Mode 1) of up to 2 Mbps (E1) and 1.5 Mbps (T1)

Call routing	• Supports multiple modes for routing calls coming into the gateway from ISDN: ◦ Autoattendant; IVR queries caller for a destination extension using dual tone multifrequency (DTMF) tones ◦ DID and MSN for direct routing to an IP-based destination ◦ TCS4 for a destination extension embedded in a dial string ◦ Default extension for operator assistance ◦ Flexible, configurable IP dial plan
Diagnostics	• Performs power-on self-test for CPU, interfaces, and memory when the unit is turned on • Provides front-panel error indicators • OffersTelnet and serial monitoring capabilities
Installation, configuration, and management	• Provides Web-based user interface for all configuration and administration functions • Offers administrative access controlled by passwords for system security • Provides diagnostics and real-time monitoring through direct serial connection or Telnet • Performs software upgrades over the network
Security	Provides password protection for administrative functions

Table 2. Cisco Unified Videoconferencing 3522 and 3527 Specifications

Specification	Cisco Unified Videoconferencing 3522 Gateway	Cisco Unified Videoconferencing 3527 Gateway
LAN interface	One 10/100 Ethernet port, IEEE 802.3, and 8-pin RJ-45	One 10/100 Ethernet port, IEEE 802.3, and 8-pin RJ-45
WAN interfaces	Four ISDN-BRI ports; RJ-45 connector	• One configurable PRI network termination or terminal equipment (NT/TE) interface with a standard RJ-45 connector • T1 mode—23B+D: clock rate of 1.544 Mbps, Extended Super Frame (ESF) or D4 framing, binary 8-zero substitution (B8ZS) or alternate mark inversion (AMI) encoding, and line impedance of 100 ohms • E1 mode—30B+D: clock rate of 2.048 Mbps, G.704 with CRC4 framing, high-density bipolar 3 (HDB3) or AMI encoding, and line impedance of 120 ohms
Serial port	EIA-232, 9-pin D-type	EIA-232, 9-pin D-type
Protocols	H.323, H.320, and T.120	H.323, H.320, and T.120
ISDN protocols	• AT&T 5ESS Custom/Multipoint • AT&T 5ESS PTP • Nortel DMS 100 • National ISDN • European Telecommunications Standards Institute (ETSI) • ETSI PTP • VN6 Dialing • Austel 1 Dialing • KDD • NTT • Hong Kong Dialing	• AT&T 5ESS and 4ESS • Nortel DMS 100 • National ISDN • Euro-ISDN • Hong Kong and Taiwan PRI System
Video coding	• H.261, H.263, and H.264 • Quarter Common Intermediate Format (QCIF), Common Intermediate Format (CIF), 4CIF, and 16CIF	• H.261, H.263, and H.264 • QCIF, CIF, 4CIF, and 16CIF
Audio coding	• G.711, G.722, G.723, and G.728 • Transcoding between G.711 and G.723 • Transcoding between G.711 and G.728	• G.711, G.722, G.722.1, G.723, and G.728 • Transcoding between G.711 and G.723 • Transcoding between G.711 and G.728
Data collaboration	T.120, T281 FECC, Tandberg DuoVideo, and H.239 data protocols supported	T.120, T281 FECC, Tandberg DuoVideo, and H.239 data protocols supported
Gatekeeper support	Cisco IOS Gatekeeper or equivalent required	Cisco IOS Gatekeeper or equivalent required
Panel LEDs	• Power, test, and link • Four WAN activity LEDs	• LAN: Link present; link speed of 100 Mbps • GK: Registered with gatekeeper • Alarm • PSTN: Carrier detect and activity

Dimensions	1.75 x 17.25 x 10.0 in. (4.445 x 43.815 x 25.4 cm)	1.75 x 17.25 x 10.0 in. (4.445 x 43.815 x 25.4 cm)
Weight	15.43 lb (7 kg)	15.43 lb (7 kg)
Power	• 100–240 VAC autosense, 50–60 Hz, 29W maximum • U.S. power cable included • Other power cables available	• 100–240 VAC autosense, 50–60 Hz, 29W maximum • U.S. power cable included • Other power cables available
Environment	• Operating temperature 32 to 104°F (0 to 40°C) • Storage temperature –13 to 158°F (–25 to 70°C) • Humidity 5 to 90% noncondensing	• Operating temperature 32 to 104°F (0 to 40°C) • Storage temperature –13 to 158°F (–25 to 70°C) • Humidity 5 to 90% noncondensing
Agency compliance	• Safety: ◦ UL 60950: 2000 ◦ CSA CS22.2 No. 60950-00 ◦ GS Approval (EN 60950: 2000) ◦ EN 60950: 2000 ◦ ACA: TS002-1997 ◦ AS/NZS 3260: 1993, A4: 1997 ◦ AS/NZS 60950: 2000 ◦ IEC 60950: 1999 (CB test report) • EMI: ◦ FCC Part 15 Subpart B, Class A, ◦ EN 55022: 1998, Class A ◦ ICES 003 ◦ EN 55024: 1998 ◦ EN 61000-3-2: 1995, Amendment A14: 2000 ◦ EN 61000-3-3 ◦ EN 61000-4-2: 1995 ◦ EN 61000-4-3: 1995 ◦ EN 61000-4-4: 1995 ◦ EN 61000-4-5: 1995 ◦ EN 61000-4-6: 1996 ◦ EN 61000-4-8: 1993 ◦ EN 61000-4-11: 1994 ◦ AS/NZS 3548: 1995 Class A, Amendment 1: 1997, Amendment 2: 1997 ◦ VCCI: 1999	

CISCO UNIFIED COMMUNICATIONS SERVICES AND SUPPORT

Cisco Unified Communications services and support reduce the cost, time, and complexity associated with implementing a converged network. Cisco Systems® and its partners have designed and deployed some of today's largest and most complex Unified Communications networks, meaning that they understand how to integrate a unified communications solution into your network.

Cisco design tools and best practices help ensure that the solution fits your business needs from the start, eliminating costly redesigns and downtime. The company's proven methods help ensure a sound implementation that will deliver the functions and features that you expect—on time. Support services include remote network operations, network management tools to administer the converged application and network infrastructure, and technical support services.

Through these services, your organization benefits from the experience gained by Cisco and its partners. Relying on this valuable experience, you can create and maintain a resilient converged network that will meet your business needs today and in the future.

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