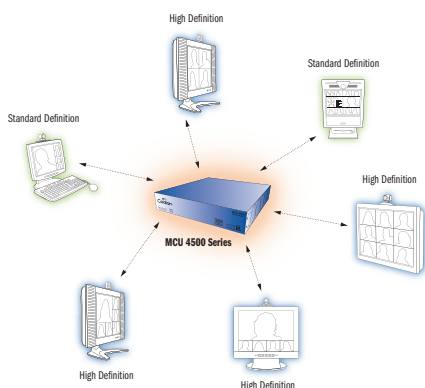




TANDBERG Codian MCU 4500 Series

The TANDBERG Codian MCU 4500 Series is the industry's leading high-definition multimedia conferencing bridge. It delivers superior video and voice with an easy-to-use, versatile management interface. Compatible with all major vendors' endpoints, each model maintains its capacity and performance in every configuration, delivering the best experience for each participant, every time.



DESIGN FEATURES

- Standards-based and compatible with all major vendors' endpoints
- Easy-to-use, versatile, management interface
- Up to 40 video plus 40 voice ports
- Over 50 custom layouts
- Comprehensive wideband audio support
- Support for both SIP and H.323 endpoints
- PacketSafe™ technology minimizes effects of network packet loss
- Compact size: 2U tall and 19" rack mountable

APPLICATION FEATURES

- Enables transition from SD to HD using TANDBERG Codian ClearVision™
- Integrated with TANDBERG Management Suite (TMS)
- Offers full interoperability with ISDN networks using standalone TANDBERG Codian or third party ISDN Gateways
- Compatible with Microsoft Office Communication Server
- Fully integrated, with built-in gatekeeper and streaming server

PERFORMANCE FEATURES

- High Definition Continuous Presence on every port
- TANDBERG Codian Universal Port™ technology ensures each participant receives the best possible experience
- Constant high capacity
- Bandwidth per site up to 5 Mbps
- Video resolutions up to 720p at 30fps
- Future proofed for 1080p and 60fps
- Latency below 30ms

GET THE MOST FROM YOUR INVESTMENT. WITH **PROFESSIONAL SERVICES**, TANDBERG EXPERTS SUPPORT TANDBERG CODIAN MCU 4500 SERIES DEPLOYMENT AND TRAINING. VISIT WWW.TANDBERG.COM

MODEL	VIDEO PARTICIPANTS	ADDITIONAL VOICE PARTICIPANTS	VIDEO STREAMING UNICAST /MULTICAST
MCU 4505	12	12	24/unlimited
MCU 4510	20	20	40/unlimited
MCU 4515	30	30	60/unlimited
MCU 4520	40	40	80/unlimited
VFO-4500	Video Firewall Option — enables MCU connection to additional networks (e.g. Internet)		
WCO-4505/WCO-4510/WCO-4515/WCO-4520	Web Conferencing Option — provides content streaming, annotation and chat capabilities		

*Maximum number of unicast streams is dependent on network topology. When using the WCO feature, the maximum number of unicast streams supported by the 4515 and 4520 is 50

HIGH DEFINITION PERFORMANCE

720p 30 fps H.264 5 Mbps continuous presence
 Future options will allow 1080p 30 fps and 720p 60fps
 Comprehensive HD audio
 Dual video H.239

VIDEO STANDARDS

H.261, H.263, H.263+, H.263++, H.264

VIDEO RESOLUTION

From QCIF up to 720p (1280 x 720) including interlaced
 iCIF and iSIF
 4:3 and 16:9 aspect ratios

FRAME RATES

30 frames or 60 fields per second

AUDIO STANDARDS

G.711, G.722, G.722.1, G.723.1, G.729, MPEG-4 AAC-LC,
 MPEG-4 AAC-LD, Polycom® Siren14/G.722.1 Annex C

PROTOCOLS

H.323, SIP, H.235 (AES), SRTP, TLS, H.239 (dual video), VNC™,
 BFCP, H.243 (chair control), FTP, RTP, RTSP, HTTP, HTTPS,
 DHCP, SNMP, NTP, NTLM (authentication)

BANDWIDTH

Up to 5 Mbps with both H.263 and H.264, for each site
 in all conference modes including advanced (symmetric)
 continuous presence

UNIVERSAL TRANSCODING AND TRANSTRATING

Combine HD and SD within the same conference
 Automatic audio/video transcoding and transrating on all calls
 Any bandwidth, any resolution, any video or audio codec can be
 used on any video call within the same conference
 Each participant has their own personal encode
 Extremely low latency; less than 30 ms

STREAMING VIDEO

Built-in streaming server
 View using Windows Media Player™, RealPlayer™ or QuickTime™
 Streaming of slides (H.239 and VNC™)
 Text chat
 Unicast and multicast
 UDP, TCP or HTTP
 Independent choice of bandwidth and codec

LOCALIZATION AND CUSTOMIZATION

Custom IVR/auto attendant audio prompts and graphics
 Uploadable multi-language support
 Unicode conference and site names

MCU FEATURES

Dial in or dial out via Web server
 Standalone or using gatekeeper
 Configurable audio and video auto attendant
 Advanced continuous presence as standard on all ports
 Automatic selection of best layout
 Individual layout selection using remote control or Web pages
 Over 50 custom layouts
 Widescreen (16:9) support
 Dual video using H.239
 Active speaker selection using remote control or voice activated
 Floor assignment through Web page or management application
 Far end camera control tunneling using remote control or Web
 Text identification of sites
 On-screen text messaging to individual or all sites
 Built-in conference scheduling and reservation
 On-demand and ad hoc conferences
 Dual video using H.239
 Presentation mode: add slides from PC using VNC™
 Preview of conference and individual camera on Web pages
 Web Conferencing Option — those without endpoints
 can still interact
 Uploadable bitmaps for voice participants
 Video association for IP and traditional PBXs

AUDIO FEATURES

Wideband audio mixing
 Built-in and uploadable auto attendant voice prompts
 Automatic gain control, adjustable gain, power indication,
 individual audio mute using web pages

BUILT-IN WEB SERVER

Complete configuration, control and monitoring of the
 system and conferences

BUILT-IN GATEKEEPER

Resolution of E.164 numbers
 Registration of conferences, endpoints and gateways
 Up to 25 devices can register

SYSTEM MANAGEMENT

XML management API
 Management via embedded web server
 RS-232 for local control and diagnostics
 Syslog for diagnostics
 Configurable event logs and full H.323 and SIP decoding
 Configuration backup to network
 Secure upgrades through Ethernet or CompactFlash
 Call Detail Records
 SNMP

QUALITY OF SERVICE

Configurable DSCP or TOS/IP precedence

NETWORK RESILIENCE

Codian Packet Safe™ technology provides intelligent
 downspeeding, packet pacing and packet loss concealment
 to ensure optimum video and audio quality
 Dynamic jitter buffering
 Alternate gatekeepers

SECURITY FEATURES

Seven levels of access rights and privileges for users
 Password-protected conferences
 Secure non-PC hardware and operating system
 AES encryption, 128 bit key, H.235
 SIP encryption
 TLS certificate verification
 Video Firewall Option using second Ethernet port

INTERFACES

2 x RJ45 Ethernet, 10/100/1000 Mbps full/half duplex,
 manual or auto sensing
 RJ45 serial port
 CompactFlash socket
 39 status LEDs

ENVIRONMENTAL DATA

Operating temperature 0°C to 35°C ambient
 Relative humidity below 95% (non-condensing)

PHYSICAL DIMENSIONS

Height 3.43", 87 mm (2U)
 Width 17.4", 442 mm
 Depth 19.25", 489 mm
 Weight 22 lbs, 15 kg
 19" rack mountable (kit supplied) or standalone
 Power 100-240 VAC, 50/60Hz
 600W maximum power consumption

APPROVALS AND COMPLIANCE

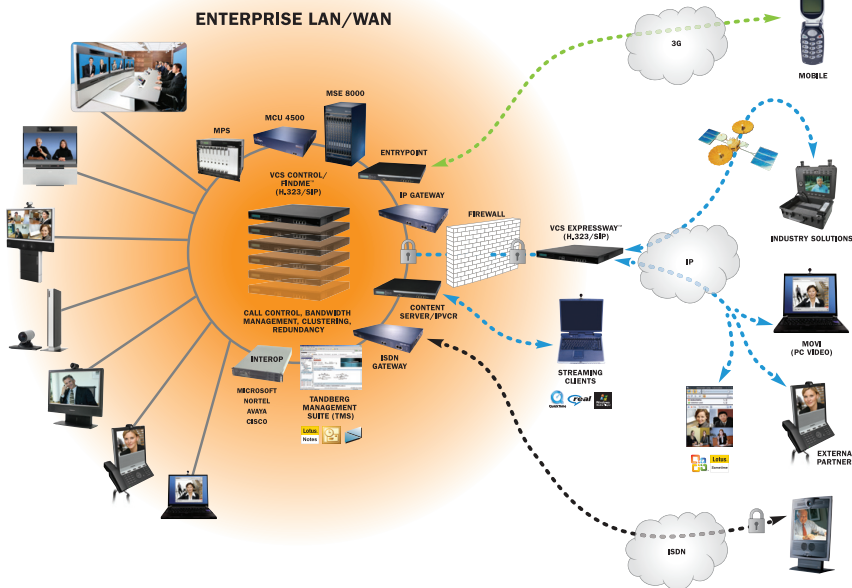
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 USA safety: UL 60950-1 First Edition
 Canada safety: CSA 60950-1-03
 CB Scheme certificate, CE Marked
 EMC:
 EN55022 class A,
 EN61000-3-2, EN61000-3-3,
 EN55024: EN61000-4-2,-3,-4,-5,-6,-11,
 FCC Part 15 class A,
 VCCI class A,
 AS/NZS 3548 (C-Tick),
 CCC Approved: GB4943-2001, GB9254-1998,
 YD/T993-1998
 NAL Certificate (China)
 RoHS compliant

All specifications subject to change without notice,
 system specifics may vary.

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TANDBERG

Codian MCU 4500 Series

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October 2008