



## TANDBERG Codian MSE 8000 Series

High-capacity voice and videoconferencing media services engine. This powerful, fault tolerant solution is ideal for the large scale communication needs of large enterprises and service providers requiring a high-availability, high-performance, scalable solution.

#### DESIGN FEATURES

- 10-hot swappable option slots
- Redundant and hot-swappable fan trays and power supplies
- Dual 48-volt power option
- Active environmental monitoring
- High speed backplane and management bus

#### APPLICATION FEATURES

- Multiple and interchangeable functionality, including supervisor, media, recording and gateway blades
- Extends the capabilities of large service providers by providing feature-rich conferencing, recording, ISDN Gateway as well as system management and configuration in an all-in-one device
- Unprecedented capacity — up to 360 ports of multipoint
- Call control and firewall traversal capabilities through the TANDBERG Video Communication Server
- Integrated with TANDBERG Management Suite

#### PERFORMANCE FEATURES

- More than 1 Gbps of conferencing bandwidth
- Wide range of network and protocol support, including H.323, SIP, H.320
- AES Encryption
- Codian Packet Safe™ technology provides intelligent downspeeding, packet pacing and packet loss concealment to ensure optimum quality
- Extensive approvals and compliance



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SYSTEM COMPONENTS	DESCRIPTION
MSE 8000 Chassis	10-slot media services engine chassis with high speed backplane
MSE 8010 Fan tray	Hot-swap fan tray (for use in both top and bottom slots) with environmental monitoring
MSE 8025 Single shelf PSU	100-240 VAC single shelf power supply
MSU 8026 Dual shelf PSU	100-240 VAC dual shelf power supply

OPTION BLADES	DESCRIPTION
MSE 8050 Supervisor	Supervisor blade, required for system management and configuration
MSE 8420 Media	40 ports of video plus 40 ports of voice multipoint conferencing
MSE 8220 VCR	10 ports of video recording with streaming server
MSE 8321 ISDN GW	8 E1 or T1 ISDN primary rate interfaces

#### CHASSIS

10-hot swappable option slots  
 Redundant and hot-swappable fan trays and power supplies  
 Dual 48-volt power option  
 Active environmental monitoring  
 High speed backplane and management bus

#### CAPACITY

More than 1 Gbps of conferencing bandwidth  
 Up to 360 ports of multipoint video conferencing  
 Up to 72 T1/E1 ISDN primary rate interfaces  
 Up to 90 ports of video conference recording  
 No loss in port count due to bandwidth, resolution, codec or multipoint conference layout

#### VIDEO

H.261, H.263, H.263+, H.263++, H.264  
 From QCIF up to 720p including interlaced ICIF and ISIF  
 Up to 30 frames or 60 fields per second  
 Bandwidths from 56 kbps to 4 Mbps  
 Universal transcoding and transrating

#### AUDIO

G.711, G.722, G.723.1, G.728, G.729, MPEG-4 AAC-LC, MPEG-4 AAC-LD, Polycom® Siren14™/G.722.1 Annex C  
 Audio transcoding, Automatic gain control, DTMF

#### PROTOCOLS

H.323 v4, SIP, H.235 (AES), H.239 (dual video), VNC™, FTP, RTP, RTSP, HTTP, DHCP, SNMP, NTP, UDP, TCP, ARP, ICMP

#### RELIABILITY

Fault-tolerant, high availability chassis  
 Hot-swap option blades  
 System supervisor

#### SECURITY FEATURES

Administrator, user and guest accounts  
 Password protected conferences, recordings and streaming  
 Secure non-PC hardware and operating system  
 AES encryption, 128 bit key, H.235  
 Video firewall

#### MULTIPOINT CONFERRING

H.323/SIP dial in, or dial out from built-in 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  
 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 audio participants  
 Video association for IP and traditional PBXs

#### RECORDING

From an H.323 endpoint, MCU or Gateway  
 From two H.323 endpoints on a point-to-point call  
 H.323 dial in, or dial out from web server  
 Data from H.239 (dual video) capable endpoints  
 Up to 200 recordings  
 Folders for structured storage

#### 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

#### SYSTEM MANAGEMENT

XML management API  
 Management via built-in 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

#### ISDN

Calls up to 2 Mbps  
 Total bandwidth and number of sites supported is limited only by ISDN capacity  
 BONDING (ISO 13871)  
 H.221 aggregation  
 Automatic downspeeding on loss of ISDN B channels  
 IVR/auto attendant  
 Direct Inward Dialing (DID)  
 Default (Operator) extension  
 Call routing to MCU  
 Digit manipulation  
 Flexible dial plan  
 Dial by E.164 address  
 Dial from MCU with and without a gatekeeper  
 Data from H.239 (dual video) capable endpoints  
 ECAN

#### NETWORK RESILIENCE

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

#### ENVIRONMENTAL DATA

Operating temperature 0°C to 35°C ambient  
 Relative humidity below 90%

#### PHYSICAL DIMENSIONS

Height 33.25", 842 mm (19U)  
 Width 17.2", 437 mm  
 Depth 20.5", 520 mm  
 19" rack mountable (kit supplied)  
 Power -48 VDC, 100-240 VAC 50/60 Hz

#### APPROVALS AND COMPLIANCE

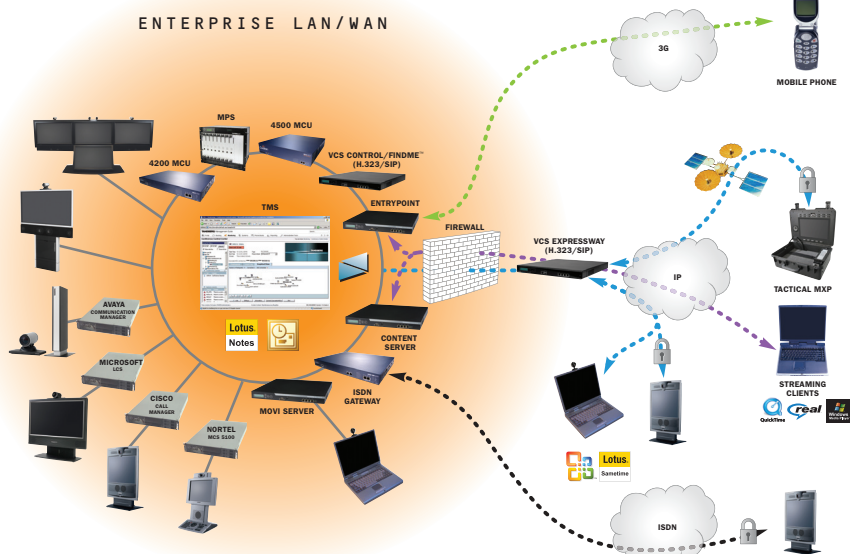
European safety: EN 60950-1:2001  
 USA safety: UL 60950-1 First Edition  
 Canada safety: CSA 60950-1-03  
 CB Scheme certificate, CE Marked  
 EMC: EN55022 class A, ETS EN300 386, EN61000-3-2, EN61000-3-3, EN55024: EN61000-4-2,-3,-4,-5,-6,-11, FCC Part 15 class A, VCCI class A, AS/NZS 3548 (C-Tick)  
 CCC - GB4943-2001, GB9254-1998, YD/T993-1998  
 Telecoms: USA TIA-968-A: October 2002, 47 CFR Part 68: October 2004  
 Canada: IC CS-03, Issue 9, Part VI,  
 Europe: ETS 300 046-3,  
 Japan: Ordinance of MPT No 31, 1984  
 NAL Certificate (China), RoHS compliant

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

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# Codian MSE 8000 Series

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