IPmedia™ 8000 Media Server Platform

The **IPmedia™ 8000** VoP Media Server enables Network Equipment Providers (NEPs), Application Developers and System Integrators (SIs) to offer Service Providers revenue-generating enhanced voice services over a high density and robust solution. The IPmedia 8000 media server is the large-scale member of AudioCodes family of media server voice network products for enhanced voice services (including the IPmedia 2000, the IPmedia 3000 and the IPmedia 5000). Building on AudioCodes' experience in the VoP market, the IPmedia 8000 supports a rich variety of VoIP vocoders, media processing capabilities and standards-compliant signaling and call control. The IPmedia 8000 is based on VoIPerfect™ architecture, AudioCodes' core media gateway technology.

DELIVER ENHANCED VOICE SERVICES

The IPmedia 8000 enables NEPs to significantly enhance their network solutions. Media processing technologies, such as voice record/playback, announcements, echo cancellation, voice mixing, DTMF detection/generation) and transcoding ensure delivery of advanced services beyond the scope of basic dial tone service. These include conferencing, network announcements, voice mail, auto-attendant, and Interactive Voice Response (IVR). AudioCodes application partners provide a variety of applications jointly with the AudioCodes IPmedia™ product line to benefit service providers.

ROBUST BUILDING BLOCK FOR CONVERGED NETWORKS

The IPmedia 8000 is designed and optimized to serve as a Multimedia Resource Function Processor (MRFP) in Wireline and 3G Wireless networks that have adopted the IP Multimedia Subsystem (IMS) architecture. As part of an IMS architecture, the IPmedia 8000 will provide a robust, scalable MRFP to provide application developers and service providers with the infrastructure to offer a wide range of applications and services.

DEPLOY A RIGHT-SIZED, RELIABLE SOLUTION

The IPmedia 8000 matches the density requirements for large scale, high density applications and locations in the network while meeting the requirements for a market-ready full-featured media-processing server. The IPmedia 8000 is specifically fine-tuned to meet demand, with a density scale from 2000 to 16,000 ports that provides high capacity for the entire gamut of interactive enhanced voice services. The IPmedia 8000 provides a cost-effective N+1 in-the-chassis redundancy scheme on the media server blades which enables a highly available service offering at all times.

LEVERAGE LEGACY INVESTMENTS

The IPmedia 8000 consists of PSTN, VoIP and VoATM interfaces, allowing NEPs and application partners to deliver enhanced voice services on legacy PSTN networks as well as on new packet-based networks. This enables easy migration to new deployments of packet infrastructure.

- Meet the need for enhanced voice services in VoIP/VoATM wireline, cable and wireless markets with a right-sized and cost-effective media server
- Enable enhanced voice services such as Network Announcements, Conferencing, Interactive Voice Response (IVR), Transcoding and Messaging
- Deliver a cost-optimized solution for high capacity deployments that demand full-featured server functionality

IPMEDIA™ 8000 FEATURES

- Extensive media processing
- Flexible deployment options
- Highly scale and dense product
- Designed for NEBS Level 3
- Redundant Common equipment (controller, power, ethernet switch)
- Optional N+1 protection of Media Server Boards
- VOIP, VoATM and PSTN support
- Optimal, cost-effective channel density
- Open architecture

AudioCodes

IPmedia™ 8000

SPECIFICATIONS

Capacity	
	Up to 16,000 protected channels
	Independent dynamic vocoder /media processing function selection – per channel

Media Processing	
Audio Processing	• Voice Activity Detection (VAD)
	• Comfort noise generation
	• DTMF detection and generation in-band/out-band (RFC 2833), T.38 compliant (real-time fax)
	• Echo Cancellation: G.168 30, 64, 128 (with reduced capacity) msec
	• Gain Control: Automatic (AGC) or Programmable
Voice Coders	G.711 PCM 64 kbps (µ-law/A-law) G.726/G.727 ADPCM/E-ADPCM (16 to 40 kbps)
	G.729AB CS-ACELP, 8.0 kbps G.723.1 MP-MLQ, 6.3 kbps ACELP, 5.3 kbps
	UMTS/GSM: GSM-FR, GSM-EFR, AMR (8 rates)
	CDMA: EVRC (with reduced capacity)
Conferencing	Maximum half-duplex parties per conference bridge: 2016
	Maximum full-duplex parties per conference bridge: 64 participants
	Conferencing Control: moderator mode, passive listener, mute, drop, coaching, volume adjustment (up/down)
Enhanced Services	Advanced Audio Server Package: Play, Play-Collect, Play-Record
	23 languages supported (including English, French, German, Italian, 2 variants of Dutch, 4 Spanish variants, Japanese and many more)
	HTTP protocol for Media streaming; Local announcement storage
	ASR[1], TTS[1]
	CALEA support
	Trunk testing per GR-822, tests: TL 100, 102 and 105,
	Multiple Vocoder Transcoding

Control and Management	
Control Protocols	H.248, H.248.9, MGCP, PacketCable BAU package, SIP, NetAnn and MSCML drafts

Transport	
IP Transport	IETF RFC 1889, RFC 1890 RTP/RTCP Transport, TCP, UDP
ATM Transport	Bearer transport over AAL1, AAL2. RFC 3108 – Use SDP for ATM Bearer Connection (Not all Media Server capabilities are supported with ATM)

Maintenance	
Management	Element Management System, SNMP v2
Maintainability	All shelf modules are hot swappable, including boards, power supplies, fans
Redundancy Scheme	CPUs, Ethernet switches, disk drives: Active/Standby
	Power supplies, fans: Load Shared Media Server Boards: N+1

Interfaces	
Ethernet	4 x (1+1) redundant aggregated 10/100/1000 Base-T Ethernet ports
ATM	8x (1+1) redundant (APS) 155 Mbs fiber optic STM1/OC-3c interfaces
PSTN	8x (1+1) redundant (APS) 155 Mbs fiber optic STM1/OC-3c, T3(DS3) interfaces

Hardware	
Enclosure	21-slot, 12U cPCI chassis
Hot Swap	Full cPCI hot swap supported for media processing board
Dimensions (HxWxD)	533 mm x 483 mm x 480 mm (21 in. x 19 in. x 18.9 in.)
Weight	Approx 60 lbs. (27 kgs.), unloaded Approx. 88 lbs. (40 kgs.), fully loaded
Mounting	Per EIA Standard RS-310-C in 19-inch rack or 23-inch rack with mounting brackets
Power	-48 V DC Dual Feed, with up to 3 DC Power modules
Cooling	Replaceable fan tray & filter

Regulatory Environment	
Telecommunication Standards	FCC part 68, TBR4 and TBR13
Safety and EMC Standards	UL60950, FCC part 15 class B, CE mark (EN55022 Class B, EN60950, EN55024, EN300 386)
Environmental	NEBS Level 3[2]: GR-63-Core (DC-powered model), GR-1089-Core, Type 1&3, ETS300 019[2]

1 Planned via integration with partner technologies
2 Designed to meet – formal approval pending

APPLICATIONS

- **Basic services** including conferencing and network announcements for wireless networks Media Resource Function, VoIP consumer and business IP Centrex services, and packet toll offices
- **Enhanced services** including Voice Mail, Messaging, Calling Cards, 1-800, Voice VPN, Conference Bridge, Color Ring Back and Dial Tones and Interactive Voice Response in voice networks
- **Speech-enabled services** for wireless networks
- **Trans-coding server**
- **CALEA server**

ABOUT AUDIOCODES

AudioCodes Ltd. (NASDAQ: AUDC) enables the new voice infrastructure by providing innovative, reliable and cost-effective Voice over Packet technology and Voice Network products to OEMs, network equipment providers and system integrators. AudioCodes provides its customers and partners with a diverse range of flexible, comprehensive media gateway and media processing technologies, based on VoIPerfect™ – AudioCodes' underlying, best-of-breed, core media gateway architecture. The company is a market leader in voice compression technology and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, and enhanced voice services markets. AudioCodes enabling technology products include VoIP and CTI communication boards, VoIP media gateway processors and modules, and CPE devices. AudioCodes' headquarters and R&D facilities are located in Israel with an R&D extension in the U.S. Other AudioCodes' offices are located in Europe, the Far East, and Latin America.

Your Gateway to VoIP