EMS VMWare or Hyper-V s/w

is an advanced solution for
Windows™ 2000/XP/
EMS Client

8 GB RAM

SATA

512 MB RAM

500 GB

2.5 GHz single core

Disk space

300 MB

EMS VMWare or Hyper-V

The EMS may be provided as software running on Hyper-V running on Windows 2012 R2 SP1 or higher

EMS Software on VMWare

The EMS may be provided as software running on VMware ESXi Version 4.1 or higher

• Disk Space - 1.2TB RAID 0

• Memory - 32 GB RAM

• Operating System- Linux (CentOS)

• Hardware - HP DL360 with G8 processor

Device Auto Detection

• Automatic detection of MediaPack and Mediants - upon connection to the network - and addition to the managed nodes hierarchical tree

Operation & Maintenance

• 400 HD IP Phone family

• Mediant 500 up to Mediant 4000, Mediant 9000, Mediant SE, Mediant VE and MediaPack: SNMPv2c, HTTP

Southbound • Mediant 5000/8000: SNMPv2c, Telnet, FTP

• SNMP traps from media gateways, Session Border Controllers and servers: send to NMS - either directly or aggregated, Via the EMS

Northbound • Fall-through NMS into EMS application

External Interfaces

Internationalization • Multi-language support ready

Interfaces (GUI) functions

Graphical User • Complete set of operations to perform fault, performance, provisioning and administration

Security Management • Security Management according to T1M1.5/2003-007R4

• Statistics and graphical presentation

Performance Management • Real-time and historical data monitoring

• For large media gateways, support all maintenance actions including online software upgrade via Web

Configuration & Management • Provisioning based on a hierarchy of management objects concept

• Parameters search, online help with detailed description of parameters

• Supports multiple actions on set of Media Gateways and SBCs: configuration download, upload, master profile apply, reset, software upgrade and regional file download

Security Management & Network Security

• Security Management according to T1M1.5/2003-007R4

• EMS does not support communication secured using Remote Method Invocation protocol over Secure Sockets Layer

• EMS Server - Mediant 8000: B2BO - All protocols (SNMPv2c, Telnet and FTP run near-PLAIN-provisioned with a 128-bit pre-shared key

• EMS Server - Mediant 5000 up to Mediant 4000, Mediant 9000, Mediant SE, Mediant VE and MediaPack: SNMPv2c and HTTPS

User Interfaces

Graphical User Interface (GUI) functions

• Complete set of operations to perform fault, performance, provisioning and administration

Internalization • Multi-language support ready

External Interfaces

Network

• Fall-through through MS/Intranet application

• SNMP traps from media gateway, Session Border Controllers and servers: send to NMS - either directly or aggregated, Via the EMS

Southbound • Mediant 5000/8000: SNMPv2c, Telnet, FTP

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• 400 HD IP Phone family

Operation & Maintenance

Device Auto Detection

• Automatic detection of MediaPack and Mediants - upon connection to the network - and addition to the managed nodes hierarchical tree

EMS Hardware Server

EMS may be provided as h/w appliance from AudioCodes

• Hardware - HP DL360 with G8 processor

• Operating System- Linux (CentOS)

• Memory - 32 GB RAM

• Disk space - 2 TB RAID 0

EMS Software on VMWare

The EMS may be provided as software running on VMware ESXi version 4.1 or higher

EMS Software on Hyper-V

The EMS may be provided as software running on Hyper-V running on Windows 2012 R2 SP1 or higher

Minimal Platform Requirement

<table>
<thead>
<tr>
<th>Resource</th>
<th>EMS VMWare or Hyper-V v/s</th>
<th>EMS Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>2.5 GHz single core</td>
<td>600 MHz Pentium 3</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows™ 2000/XP/Vista/7/8</td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB RAM</td>
<td>512 MB RAM</td>
</tr>
<tr>
<td>Disk space</td>
<td>500 GB</td>
<td>300 MB</td>
</tr>
<tr>
<td>CD/DVD-ROM</td>
<td>SATA DVD</td>
<td></td>
</tr>
</tbody>
</table>

AudioCodes One Voice Operations Center™

The AudioCodes’ Element Management System (EMS) is an advanced solution for centralized standards-based management of AudioCodes’ One Voice™ product portfolio, including Mediant™ and MediaPack™ Session Border Controllers (SBC) and media gateways, Microsoft Survivable Branch Appliances (SBA) and IP phones.

The AudioCodes’ EMS covers all aspects of efficient operation, administration, management and provisioning (OAM&IP) of these voice network products. AudioCodes’ EMS enables service providers, hosted services and large enterprises deploying Unified Communications (UC) networks to cost-effectively manage their voice network throughout its complete life cycle.

Benefits:

• Uniform end-to-end management of AudioCodes voice network elements

• Mass upgrades, updates and operations

• Easy and secure transition to VoIP deployments including UC, hosted business services and contact centers

• OpEx and TCO reduction by using centralized tools to remotely operate the voice network components

• Efficiency and simplified device operation, administration and fault management

• Optimized to support day-to-day Network Operations Center (NOC) activities

• Easy drill-down to low level configuration

• Ensures smooth integration with higher layer network management

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AudioCodes One Voice Operations Center™

Configuration Manager
- Graphical status screen of the managed devices and their interfaces
- Hierarchical provisioning concept
- Easy drill-down to specific device configuration parameters
- Online help with detailed description of parameters
- Additional actions:
  - Export and import device configuration
  - Device reset
  - Software upgrade and regional files download

Performance Manager
- Real-time and historical network performance monitoring
- Isolate a problem after it is detected by the fault management
- Long-term network analysis and planning
- Periodical reports and data collection
- Threshold setting for performance alarm generation
- Statistics and graphical presentation

Administration Management
- Various options for managing user lists and user rights:
  - Local on EMS storage
  - Integration with Active Directory
  - RADIUS or TACACS+ server authentication & authorization
- Provides four levels of security rights configuration
- Multi-tenancy: Definable regions and users
- Activity journal to track EMS users’ activities

SBA ProConnect
- Mass upgrade of Microsoft Lync Survivable Branch Appliance software.
- Integrates with the Lync Server Topology server for seamless operation. SBA ProConnect provides the following features:
  - Mass Microsoft Cumulative Updates (CU)
  - Mass Microsoft Lync SBA versions upgrades (e.g., from Lync 2010 to Lync 2013)
  - Upgrade process monitoring and notifications
  - Task scheduling
  - Allows segmentation of SBAs into groups for selective upgrade

400 HD IP Phone Family
- Web based interface to manage up to 10,000 4XXHD IP Phones
- Integral part of the EMS application and installation
- Mass 4XXHD configuration and firmware files download
- Auto provisioning
- Comprehensive configuration templates
- Users management
- Real time IP Phone status and dashboards including:
  - Registration
  - User based information (phone number, IP address, status)
  - Device based information (health, MAC address, location)
  - Alarms

Fault Management
- Session border controller, media gateway, SBA and IP phone status monitoring
- Summary of element status in one screen with “drill-down” hierarchy
- Color scheme shows failure severity, redundant modules and switch-over state
- Alarm & state management according to ITU X.731, X.733
- Context-sensitive current and historical alarms with various filtering and search options
- Rich graphical status screen
- Traps forwarding via SNMS, e-mail, SMS and Syslog protocols to multiple trap destinations

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