

Nuera EMS Element Management System



- Displays the status of multiple media gateways—accessed from a central or several remote locations
- Supports real-time definition of media gateway systems
- Lowers operational costs by supporting automated deployment utilities, bulk operations
- Reduces troubleshooting time using “status at a glance”
- Increases productivity and minimize the learning curve with a user-friendly graphical user interface (GUI)
- Ensures smooth integration with higher layer network management systems

The **Nuera Element Management System (EMS)** is an advanced solution for standards-based management of the GX series, MP series VoIP Gateways and IPM series servers, covering all the areas vital to the efficient operation, administration, management and provisioning (OAM&P) of these VoP networks elements. Nuera EMS enables Network Equipment Providers (NEPs) and System Integrators (SIs) the ability to offer end-users rapid time-to-market and inclusive, cost-effective management of next-generation networks.

Deploy a Full and Comprehensive EMS

The standards-compliant EMS for Nuera media gateways and servers uses distributed SNMP-based management software, optimized to support day-to-day Network Operation Center (NOC) activities, while offering a feature-rich management framework. It supports full fault and alarm management, configuration, performance monitoring and security. Nuera EMS simultaneously manages multiple network based digital Media Gateway systems and their modules, as well as CPE based analog and digital VoIP gateways.

Easy Network Integration

Nuera EMS includes standard open interfaces to facilitate integration with higher layer management systems and enable interworking with legacy operational support systems. The Application Programming Interfaces (API) provide an extensible framework, which allow Nuera EMS to be tightly integrated into virtually any operational environment. Nuera EMS is designed to operate in conjunction with existing Network Management Systems (NMS), to provide operators with an end-to-end view of their entire network.

Easy Access to the Operator

The system solution includes an attractive Graphical User Interface (GUI) with user-friendly tools to increase operator productivity during configuration and provisioning tasks. Nuera EMS gives intuitive access to status information, as well as rapid navigation to physical and logical objects.

Benefit from Extensive Gateway Experience

Nuera, a world leader in providing packet-enabled new voice infrastructure network technologies, provides a flexible, intelligent and comprehensive Element Management System, taking advantage of the first-rate capabilities of the gateways and servers in the operator's VoP network.

Nuera EMS fully supports Nuera GX series and MP series gateways as well as IPmedia™ servers for VoP networks.

Nuera Element Management System Features

- Client /Server architecture
- Java-based architecture
- API-OEM ready
- Audit logging
- Multi-language support ready
- Open solutions environment
- Operator individual views and profiles
- Supports gradual network deployment

Element Management System

Specifications

Element Management

TMN Standards	ITU-T recommendation M.3010 series; FCAPS functionality support
Fault Management	Media Gateways status monitoring. Summary of element status in one screen with "drill down" hierarchy. Color scheme shows failure severity, redundant modules, switch-over state. Alarm & State management according to ITU X.731, X.733. Context-sensitive current and history alarms with various filtering and search options.
Configuration Management	Provisioning based on hierarchy of management objects concept Parameters search, online help with detailed description of parameters Supports multiple actions on set of small MGs: configuration download, upload, master profile apply, reset, software upgrade and regional files download. For large media gateways, support all maintenance actions including online software upgrade via Wizard.
Performance Management	Real-time and historical data monitoring Counters, periodical reports, data collection and threshold setting Statistics and graphical presentation
Security Management & Network Security	Security Management according to T1M1.5/2003-007R4 EMS client-server communication: secured using Remote Method Invocation protocol over Secure Sockets Layer. EMS Server - GX-5K / 8K: All protocols (SNMPv2c, Telnet and FTP) run over IPSec provisioned with an IKE preshared key. EMS Server - GX-1K / 2K / 3K and MP series: SNMPv2c and HTTPS.

User Interfaces

Graphical User Interface (GUI)	Complete set of operations to perform fault, performance, provisioning and administration functions
Internationalization	Multi-language support ready

External Interfaces

Northbound	Fall- through NMS into EMS application SNMP traps from media gateways and servers: send to NMS - either directly or aggregated, via the EMS
Southbound	GX-5K/8K: SNMPv2c, Telnet, FTP GX-1K/2K /3K and MP series: SNMPv2c, HTTP

Operation & Maintenance

Media Gateway Auto Detection	Automatic detection of MP series, GX-1K, 2K and 3K - upon connections to the network – and addition to the managed nodes hierarchical tree
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EMS Packages

EMS/Lite	Manages up to 100 MP series media gateways and up to 15 digital GX-1K/2K/3K media gateways and IPM 2K/3K media servers. Runs on a PC, windows-based OS.
EMS/Basic	Manages up to 500 analog MP series media gateways, up to 30 digital GX-1K/2K/3K media gateways, IPM 2K/3K media servers and up to 5 GX-5K/8K media gateways
EMS/Full	Manages up to 3000 analog MP series media gateways and up to 100 digital GX-1K/2K/3K/5K/8K media gateways, IPM 2K/3K media servers and GX-5K/8K broadband access gateways

EMS Basic and Full versions run on a Sun/Solaris based platform

Minimal Platform Requirements

Resource	EMS Full Server	EMS Basic Server	EMS Lite Server	EMS Client
Hardware	Sun™ Fire™ V240	Sun™ Sparc™ Blade 150 or equivalent	PC	PC
Operating System	Solaris™ 64-bit, version 5.9	Solaris™ 64-bit, version 5.9	Windows™ 2K/XP	Windows™ 2K/XP
Memory	1 GB RAM	1 GB RAM	512 MB RAM	512 MB RAM
Disk space	40 GB	40 GB	10 GB	300 MB
Processor	1 GHz UltraSPARC III	550 MHz UltraSPARC III	600 MHz Pentium III or higher	600 MHz Pentium III
Swap space	2 GB	2 GB	1 GB	1 GB
CD ROM			Local	

Supported Products

- GX-1K/2K/3K/5K/8K (Wireline, Wireless and Broadband Access)
- IPM 2K/3K/5K/8K Media Server
- MP series MP-114/118/124 (VoIP)

About Nuera Communications

Nuera Communications, designs, manufactures & sells packet voice gateways to communication service providers worldwide. These products work over any medium (cable, wireless, copper and fiber). Nuera's ORCA (Open Reliable Communications Architecture) product portfolio of VoIP gateways, softswitches, and management systems provide telephony solutions for cable and DSL networks, international long distance networks and enterprise networks. Nuera is a leader in the broadband telephony market.

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