



Acme Packet Net-Net Element Management System (EMS)

data sheet

Overview

Acme Packet Net-Net® EMS is an element management application for Acme Packet network elements – session border controllers, session routing proxies and multiservice security gateways. It enables service providers and enterprises to rapidly deploy and easily manage one or multiple Acme Packet network elements. As a standalone management system, Net-Net EMS supports all required configuration, fault, performance and security management functions through an intuitive, easy-to-use, browser-based graphical user interface. Net-Net EMS can also integrate seamlessly into existing and next-generation Operational Support Systems (OSS) through industry-standard northbound interfaces.

Benefits:

- Enables efficient deployment, configuration and upgrade of Acme Packet network elements
- Monitors real-time fault and performance status so that corrective action can be taken quickly
- Delivers bulk performance data for network capacity planning
- Control access for both individual users and user groups, and provides audit trail for all changes
- Provides northbound SOAP/XML configuration interface to integrate with OSS applications

Architecture

Net-Net EMS employs a three-tier client/server architecture comprised of client, application server and database for optimum accessibility, performance and availability. A browser-based, Java thin client delivers the GUI that simplifies all management operations. The Net-Net EMS communicates with Acme Packet network elements and OSS using standard protocols such as SOAP, XML, SNMP, telnet and SSH, shielding network administrators from protocol complexities.

Net-Net EMS offers scalable performance, designed to handle the full range of small to large Acme Packet deployments. The application server and database are supported on Sun Solaris and Linux platforms. Several high availability configuration options are also available to guarantee the accessibility of the application server to client, network element and OSS connections. It provides a top-level view of the network and allows for “drill-down” into the individual management objects of each network element. This view also provides indications of the alarm and operational status.

Net-Net EMS system requirements

Server

Solaris server platform – min. req.

- Dual 1.28 GHz UltraSPARC IIIi processors
- 4 GB RAM
- 2 x 73 GB hard drives
- DVD-ROM drive

Linux server platform – min. req.

- Single 3.0 GHz Pentium IV processor
- 4 GB RAM
- 80 GB hard drive
- CD-ROM drive

Operating system

- Solaris 9 or Solaris 10 (SPARC, 32-bit)
- Red Hat Fedora Core 4 or Red Hat Enterprise Linux AS v4.0 32-bit mode
- VMware with Red Hat Fedora Core 4 guest (based on Linux server requirements)

MySQL database

- Bundled with Net-Net EMS when Net-Net EMS application and MySQL database are installed on the same server
- Requires separate purchase and installation when Net-Net EMS application and MySQL database are installed on separate servers

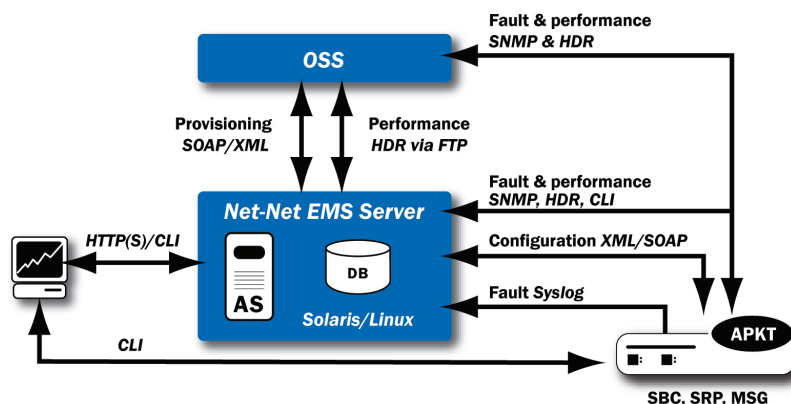
Client

- Windows XP SP1, SP2 or SP3; Windows Vista and Vista SP1
- 512 MB RAM or greater for Windows XP; 1GB or greater for Windows Vista
- Internet Explorer version 7.0 or higher; Mozilla Firefox version 3.0 or higher
- Java Runtime Engine 1.5_14 or higher (including JRE 1.6) for GUI clients
- Java Runtime Engine 1.4.2_4 or 1.5_14 for northbound SOAP/XML API provisioning clients

Configuration management

Net-Net EMS enables element configuration, provisioning and software management for multiple networks:

- Configuration via GUI client interface or SOAP/XML northbound interface to OSS provisioning applications
- Multiple networks of multiple network elements supported
- Hierarchical view of Acme Packet network elements and their physical and logical components (physical interface, virtual interface, realm, signaling service, session agents, etc.)
- System auto-discovery imports and displays system inventory component information and configuration parameter details
- File-based discovery/re-discovery provides SFTP-based retrieval of entire compressed system configuration
- EMS database storage of multiple configuration files
 - Active folder shows operationally active configurations
 - Inactive folder stores configuration backups and multiple off-line configurations
- Multiple concurrent users supported per configuration copy
- Off-line configuration support enables building multiple configuration files for future deployment
- Drag and drop feature supports moving configuration file to different network elements
- Selective configuration replication eliminates repetitive configuration operations on multiple elements
- Naming/renaming of configuration objects in navigation tree
- Global configuration parameter definition and single field editing for parameters common to all network elements
- Complete control via commands - save, activate, save and activate, reboot, switch active/standby system roles in HA configuration
- Granular save optimizes EMS performance by only saving/activating configuration changes versus entire configuration
- EMS tool tip displays Acme Packet CLI parameter name by 'mousing over' EMS GUI parameter description
- On-line, context sensitive help
- User-defined filtering support for all tables within configuration screens
- Configuration search for same-type elements within active or inactive configurations
- Configuration integrity check
- Display Net-Net OS configuration version
- Net-Net OS upgrade enables auto-initiated upgrade of multiple Acme Packet elements
- Global parameter changes allows simultaneous configuration of multiple attributes across multiple Acme Packet elements



Fault management

Net-Net EMS enables real-time monitoring of operational status by collecting and displaying alarms and fault-related statistics:

- Event delivery via SNMP traps and syslog
- Alarm synchronization with SBC
- Visual display of alarms on main GUI screen
- Alarms color-coded by severity level
- Configurable alarm severities
- Configurable audible alarms and alarm thresholds
- Alarm, event and log filtering and management
- Alarm correlation and forwarding to OSS fault management applications
- Alarm forwarding by severity to one or more e-mail addresses
- Alarm acknowledgement, clearing, deletion, and save to a file
- Real-time display and storage of syslog events via a log reader
- CLI cut-through capability (telnet or SSH) for access to “show” commands for fault management

Performance management

Net-Net EMS enables the collection, real-time monitoring and historical reporting of Acme Packet performance statistics:

- Real-time, on-demand collection and display of performance statistics, exportable to CSV formatted file
- Bulk data collection, at user configurable intervals, for use by OSS performance management applications
- Graphical reports based on statistics collected from each Acme Packet network element
- Graphical display, audit, and delete operations on registration cache
- Statistics available for all configurations objects - systems/HA nodes, physical interfaces, network interfaces (VLANs), realms, session agents
- Comprehensive performance metrics
 - Signaling - session rate and quantity, registrations, acceptance/rejection, etc.
 - Media - packets & bandwidth
 - Network - frames, packets & bandwidth
 - System resources - CPU & memory utilization, health score
- Configurable, performance-related threshold crossing alerts
- CLI cut-through capability (telnet or SSH) for access to “show” commands for performance management

Security management

Net-Net EMS enables the definition and control of access rights for both individual users and user groups and an audit trail for all changes:

- Access control lists define permitted user and user group access rights
 - EMS functional areas - fault, configuration, performance, security and EMS configuration
 - System operations and information
 - Network realm operations and information
- Access rights - read, read-write, and read-write-admin
- Support for third-party X.509 security certificates
- User and user group support
 - Users assignable to groups with pre-defined permissions
 - Override to group permissions to grant/deny permissions for individual user
 - Unique user name/passwords for each individual user for authentication
- Audit trail log of all activities performed on EMS by individual user including user name, date, time and description of action



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08/12/10