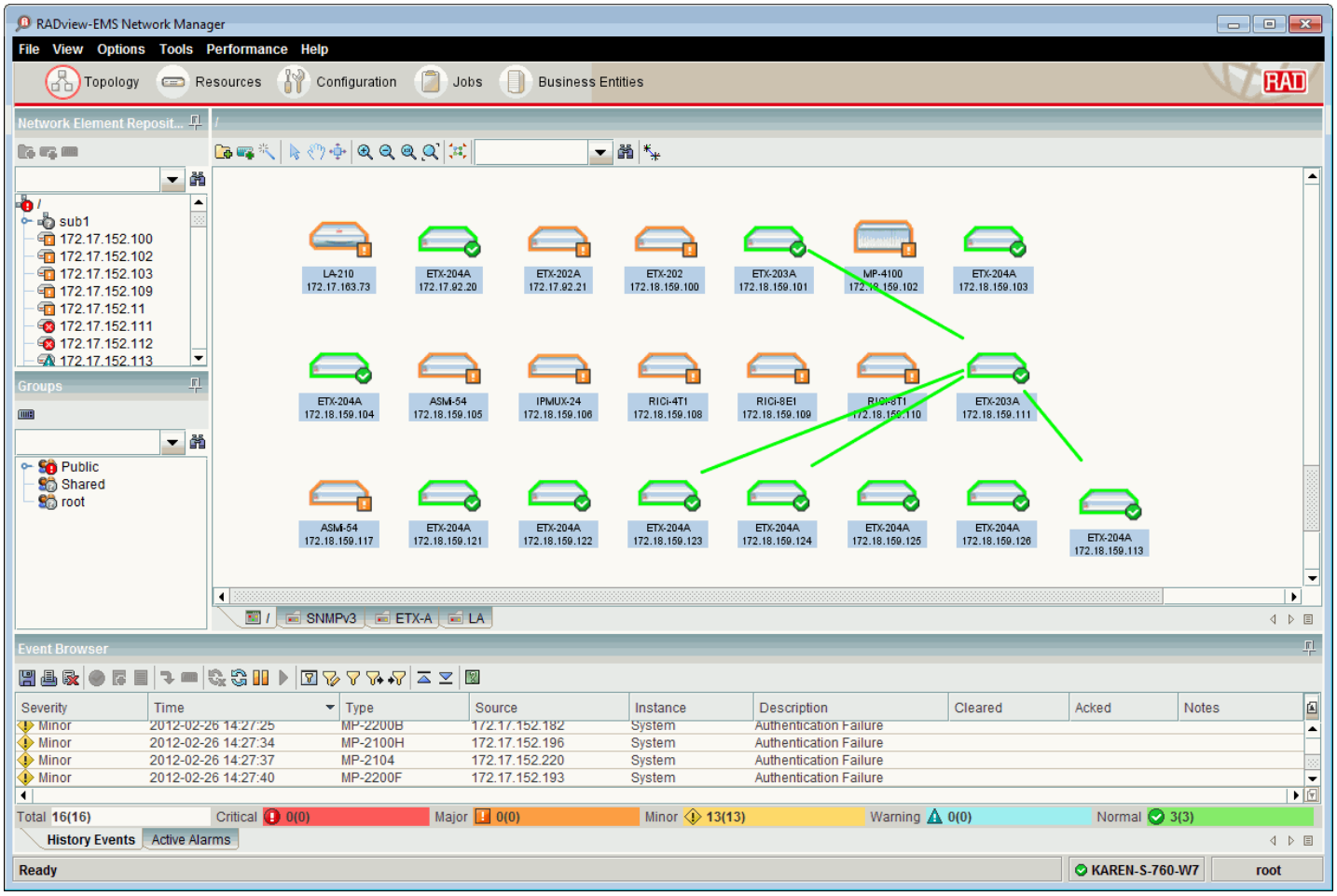
Where to buy

See the product page

Data Sheet

RADview-EMS

Carrier-Class Network Management System



Multi-platform carrier-class element management system

- Client/server architecture for flexible management deployment
- Highly scalable for growing networks, with smart configuration and provisioning tools for easy network expansion
- Advanced FCAPS functionality
- Fully compliant with TMN standards
- Interoperable with leading OSS programs, and integrates with third-party NMS and umbrella system
- Java-based, multi-platform system (Windows and Unix) for greater flexibility

RADVIEW
Complex Networks Managed Smartly

RAD
data communications
The Access Company

RADview-EMS

Carrier-Class Network Management System

RADview-EMS is a Java-based, carrier-class network management system for deployment in Windows and Unix environments. The system features an embedded Oracle/Informix database, and manages both EtherAccess and Axcess+ portfolios. In addition, the product provides third-party device monitoring to assure network reliability.

RADview-EMS conforms to the ITU-T Telecommunication Management Network (TMN) model and provides end-to-end visibility and standards-based interoperability. The system is scalable, providing solutions for small installations as well as growing networks.

DISTRIBUTED SYSTEM ARCHITECTURE

RADview-EMS is based on distributed client-server architecture, which optimizes the use of network resources (see *Figure 1*). Load sharing among master and slave servers maximizes use of infrastructure and enables flexible distribution of management tasks, transparent to the user.

OSS INTEGRATION

As a modular management system, RADview-EMS is equipped with a number of standard northbound interfaces for easy integration with OSS and umbrella systems. In addition to featuring a plug-in for connecting to IBM Tivoli's Netcool®/OMNIbus™ fault management program, the system allows seamless communication with network-wide platforms for inventory (resource) management, performance management, and service provisioning, as well as with carriers' proprietary OSS.

Supporting various APIs, such as CORBA, MTOSI, SNMP, and CSV, RADview-EMS smoothly interacts with higher management levels to communicate essential network information to service, operations and business management functions. By serving as a mediation layer between the various network elements (NEs) and the umbrella system, RADview-EMS minimizes the integration costs associated with new NE additions.

BUSINESS CONTINUITY

RADview-EMS provides the following scalable solutions for disaster recovery to assure high system availability:

- Cold standby – This solution is the most simple and cost-effective. Data is periodically backed up by the master NMS station via the RADview-EMS Backup/Restore function, and transferred to the slave NMS station without affecting service.
- High Availability local clustering – This solution provides single-site RADview-EMS recovery. Active and standby RADview-EMS servers are each connected to a storage device, enabling automatic failover and short RPO (Recovery Point Objective) and RTO (Recovery Time Objective). This solution is mainly used by large NOCs (network operation centers) with dozens of connected clients.
- Disaster Recovery wide-area clustering – This solution provides geo data protection, with two servers at two separate locations in replication mode. If there is an operating outage at the primary site, all services can be moved to the backup site by a semi-automatic switchover. This solution is mainly used by customers wishing to backup their data to a remote site.

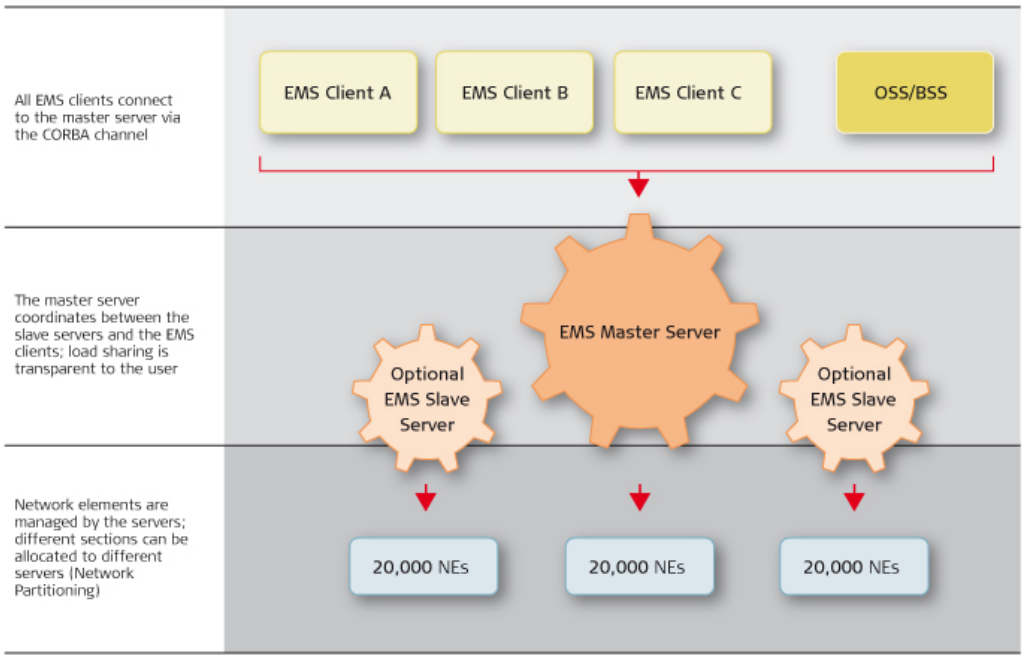


Figure 1. Distributed System Architecture

FAULT MANAGEMENT

RADview-EMS supports advanced fault detection, displaying a clear analysis of the probable causes of faults and suggested corrective measures. It allows the distribution of alarm messages to other managers in the network. In addition, users can configure sounds that play when specific alams/events are triggered.

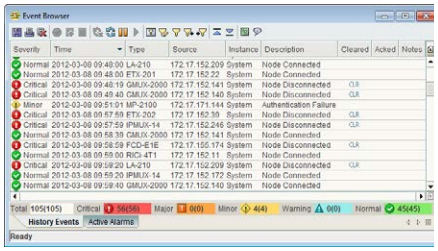


Figure 2. Fault Management

CONFIGURATION MANAGEMENT

New software, configurations and licenses can be distributed and uploaded by devices across the network. The system tracks version changes and keeps a software configuration history for backup and recovery. Easy management and provisioning is provided by a user-friendly point-and-click GUI (shelf-view application) with a realistic representation of the devices.

ADMINISTRATION

The system manages individual and group user accounts and passwords, generating network usage reports to monitor user activities.

PERFORMANCE MANAGEMENT

RADview-EMS supports real-time monitoring of QoS and CoS, producing real-time statistics and interval statistics.

You can collect full device statistics in compressed format, minimizing bandwidth use by management traffic. You can also export CSV ASCII files to OSS or third-party management systems.

The Performance Management portal is an SLA assurance sytem that is part of the RADview management system, enabling long term monitoring of Ethernet service performance by collecting KPI (key performance indicators) data from RAD devices. Measured metrics are based on ITU-T Y.1731 and include Frame Delay, Delay Variation, Frame Loss, and Availability. Latency and jitter results are based on round-trip measurements. It allows service providers to easily evaluate actual performance over time and compare it to their committed SLA guarantees. In addition, it enables immediate detection of service degradation, so that action can be taken to quickly restore performance levels.

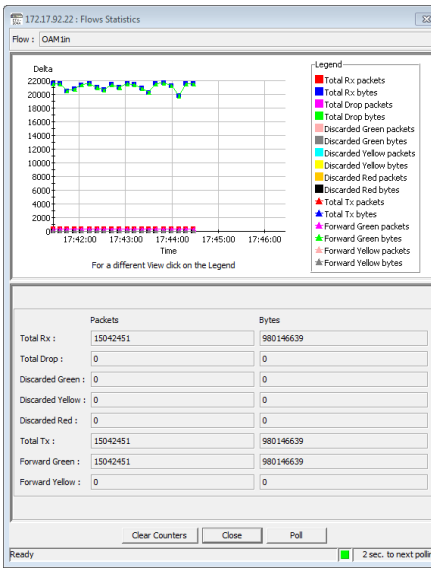


Figure 4. Performance Management

ZERO TOUCH CONFIGURATION

This enables users to automatically discover network elements and perform the tasks listed below according to user-defined rules:

- Uploading initial software and configurations
- Executing CLI scripts
- Handling the replacement of units in case of failure.

SECURITY MANAGEMENT

An unlimited number of security profiles and groups can be created with the security management console. Its advanced functions include tracking of user activities in the network and designating complex security access rights to the parameter level.

Security features include:

- SSH (secure shell)
- Web-based SSL (secure socket layer)
- SNMPv3.

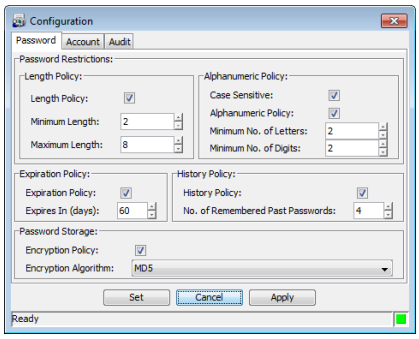


Figure 5. Security Management

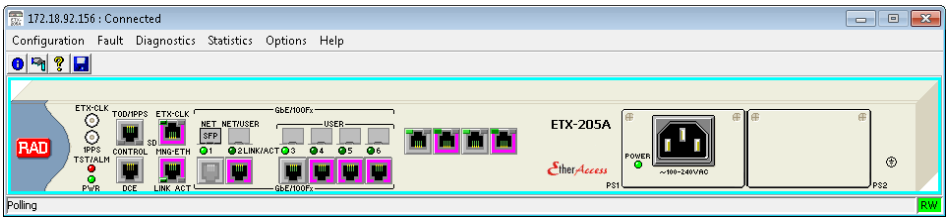


Figure 3. Configuration Management

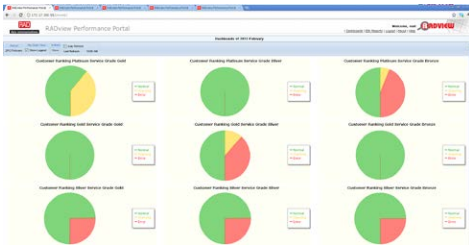


Figure 6. Performance Portal

RADview-EMS

Carrier-Class Network Management System

Specifications

WINDOWS-BASED CLIENT OR SERVER

Minimum Hardware Requirements
CPU: Core-i3-2xxx 2.1 GHz or higher (x=0–9)

RAM: 4 GB

Hard drive with NTFS-formatted partition and at least 40 GB free disk space

***Note**: Additional disk space may be required for OAM statistics collection.*

Color monitor (17-inch minimum), supporting 1280 × 1024 resolution or higher

DVD drive

***Note:** The above requirements refer to single-user installations managing up to 200 network elements. For larger networks, please consult your RAD partner.*

Minimum Software Requirements
Microsoft Windows 7 (32-bit) Professional Edition, or Microsoft Windows Server 2008 R2 (64-bit) Standard Edition

Windows default input language set to English

Mozilla Firefox installed as default web browser (required for Web-based access to devices)

Adobe Reader, latest version

TFTP/SFTP server (TFTP server required for collecting OAM statistics)

WinAgents (enterprise) TFTP server required for the Zero Touch functionality.

Google Chrome web browser if you wish to work with the RADview Performance Portal.

UNIX-BASED CLIENT AND SERVER

Minimum Hardware Requirements
Oracle Netra SPARC T4-1 Server with 1×4-core 2.85 GHz CPU

Two SAS hard drives (mirrored), with following requirements:

- At least 4 GB free disk space in **/opt** partition
- At least 40 GB free disk space for Oracle in **/opt/oracle**

***Note**: Additional disk space may be required for OAM statistics collection.*

16 GB RAM or more

Swap file at least twice RAM size

For each additional simultaneous user via X-session, add 512 MB RAM and 1 CPU core

For each additional simultaneous open shelf view application via X session, add 128 MB RAM

DVD drive

Color monitor (17-inch minimum) supporting 1152 × 900 resolution or higher with depth 24

***Note:** The above requirements refer to single user installations managing up to 300 network elements. For larger networks, please consult your RAD partner.*

Minimum Software Requirements
SUN Solaris Ver. 10, Nov 2006 or later, with CDE

***Note**: The option to include Solaris 64-Bit Support should be selected during Solaris installation.*

Adobe Reader, latest version

Mozilla browser if you wish to work with the RADview Performance Portal.

Ordering

RADview-EMS/WIN/PACK1 for Windows

RADview-EMS/UNIX/PACK1 for Unix

The RADview-EMS package includes a license for five simultaneous users, as well as 300/400 (Windows/Unix) ENW license points. Additional licenses can be ordered:

RV-LIC/@/!

@ License type

- **ENW** Equivalent Node Weight (each RAD device is assigned an ENW)
- **1-Client** Simultaneous client

! Redundancy (default = no redundancy)

- **R** Redundant license that can be installed on main and backup servers

***Note**: Refer to RAD Network Management Information for further information on licensing, hardware/software requirements, and managed products.*

International Headquarters
24 Raoul Wallenberg Street
Tel Aviv 69719, Israel
Tel. 972-3-6458181
Fax 972-3-6498250, 6474436
E-mail market@rad.com

North America Headquarters
900 Corporate Drive
Mahwah, NJ 07430, USA
Tel. 201-5291100
Toll free 1-800-4447234
Fax 201-5295777
E-mail market@radusa.com

www.rad.com

RAD data communications
The Access Company