

# RADview-EMS

Scalable Element Management System



| Time                | Source               | Instance      | Description                  | Cleared                             | Acked                    |
|---------------------|----------------------|---------------|------------------------------|-------------------------------------|--------------------------|
| 2002-11-19 15:42:44 | test15/172.17.152.10 | 172.17.152.10 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 15:53:45 | test15/172.17.158.32 | 172.17.158.32 | Node disconnected            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2002-11-19 15:58:55 | test15/172.17.158.32 | 172.17.158.32 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 16:04:07 | test15/172.17.152.10 | 172.17.152.10 | Node disconnected            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2002-11-19 16:36:11 | test15/172.17.152.10 | 172.17.152.10 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 16:38:25 | test15/172.17.158.27 | 172.17.158.27 | Node disconnected            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2002-11-19 16:39:24 | test15/172.17.158.27 | 172.17.158.27 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:43:04 | la140-15             | 172.17.158.15 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:44:36 | la140-15             | 172.17.158.15 | Agent status changed.        | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:45:17 | la110-30             | 172.17.158.30 | Node disconnected            | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:45:19 | test15/172.17.158.15 | LA140         | IO1 PORT NETWORK REMOTE LOOP | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:45:20 | la140-15             | LA140         | IO1 PORT NETWORK REMOTE LOOP | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:46:42 | test15/172.17.158.16 | LA140         | Authentication failure       | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:46:43 | la140-16             | LA140         | Authentication failure       | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:46:59 | la140-16             | 172.17.158.16 | Node disconnected            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2002-11-19 17:47:24 | la140-16             | 172.17.158.16 | Node Connected               | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:47:25 | la140-16             | 172.17.158.16 | Agent status changed.        | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:48:20 | test15/172.17.158.15 | Slot2,Port1   | Link up                      | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:48:21 | la140-15             | Slot2,Port1   | Link up                      | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:48:22 | test15/172.17.158.15 | LA140         | IO2 PORT E1 REMOTE SYNC LOSS | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2002-11-19 17:48:23 | la140-15             | LA140         | IO2 PORT E1 REMOTE SYNC LOSS | <input type="checkbox"/>            | <input type="checkbox"/> |

## FEATURES

- Multi-platform scalable Element Management System (EMS), providing security configuration, fault and performance management capabilities
- Operates as standalone (without the need of an SNMP platform) or integrated with SNMPc/HP OpenView NNM
- Available for PC-based and Unix-based systems
- Integrates with third party NMS and umbrella system
- Advanced security management functions

- Two kinds of system services:
  - Core services – maintaining EMS services (naming, event services, etc).
  - EMS services – implementing the Fault, Configuration, Accounting, Performance and Security (FCAPS) model
- Command line backup and restore for maximum system uptime (for Unix-based versions only)
- Backwards compatible with RADview-HPOV over HP OpenView NNM and RADview-PC element managers over SNMPc

## DESCRIPTION

- RADview-EMS is a modular, client-server, scalable element management system, providing security, configuration and fault management capabilities.
- Advanced security management functions allow a wide span of control and command. This enables the distribution of client and server functions to separate computers.
- The system allows modular installation and management of heterogeneous networks.
- RADview-EMS is backwards compatible with other RADview-PC or RADview-HPOV modules.

# RADview-EMS

## Scalable Element Management System

- The CORBA-based northbound interface of RADview-EMS enables easy integration of the GUI and management capabilities into the customer's umbrella NMS (Unix or Windows).
- RADview-EMS can be used in a distributed network topology (see *Figure 1*) or in a single-station configuration (see *Figure 2*). It can be installed on a PC-based workstation with Windows XP or on a Unix-based workstation with Solaris 2.8.
- RADview-EMS supports distribution of servers into manageable areas.
- Management functions are divided into four different categories:
  - Fault – alarm and trap handling, test and acceptance, and polling service.
  - Configuration provisioning – configuration of Network Elements (NE) via user friendly and intuitive GUI zoom applications (see *Figure 5*).
  - Performance – real-time statistics (see *Figure 3*)
  - Security – controls NE access, enables NE functions and accesses logs.
- The following basic system services are provided:
  - CORBA name service
  - HTTP service
  - Centralized information.
- Both master and slave servers provide:
  - FCAPS services – fault detection, configuration, accounting, performance, and security management
  - Manageable administrative services, such as condition of network (status indicators), configuration, and distribution.
- RADview-EMS scalability balances the load among a number of servers (economy in infrastructure) and flexibly distributes management tasks between client and server, and between master and slave servers:
  - Server and client on a single computer, managing a group of network elements (see *Figure 2*)
  - Server and client on separate computers, managing a single group of network elements
  - Several clients working opposite a single server, managing a single group of network elements
  - Several clients working opposite a group of servers, managing together several groups/domains of network elements (see *Figure 1*).

## APPLICATIONS

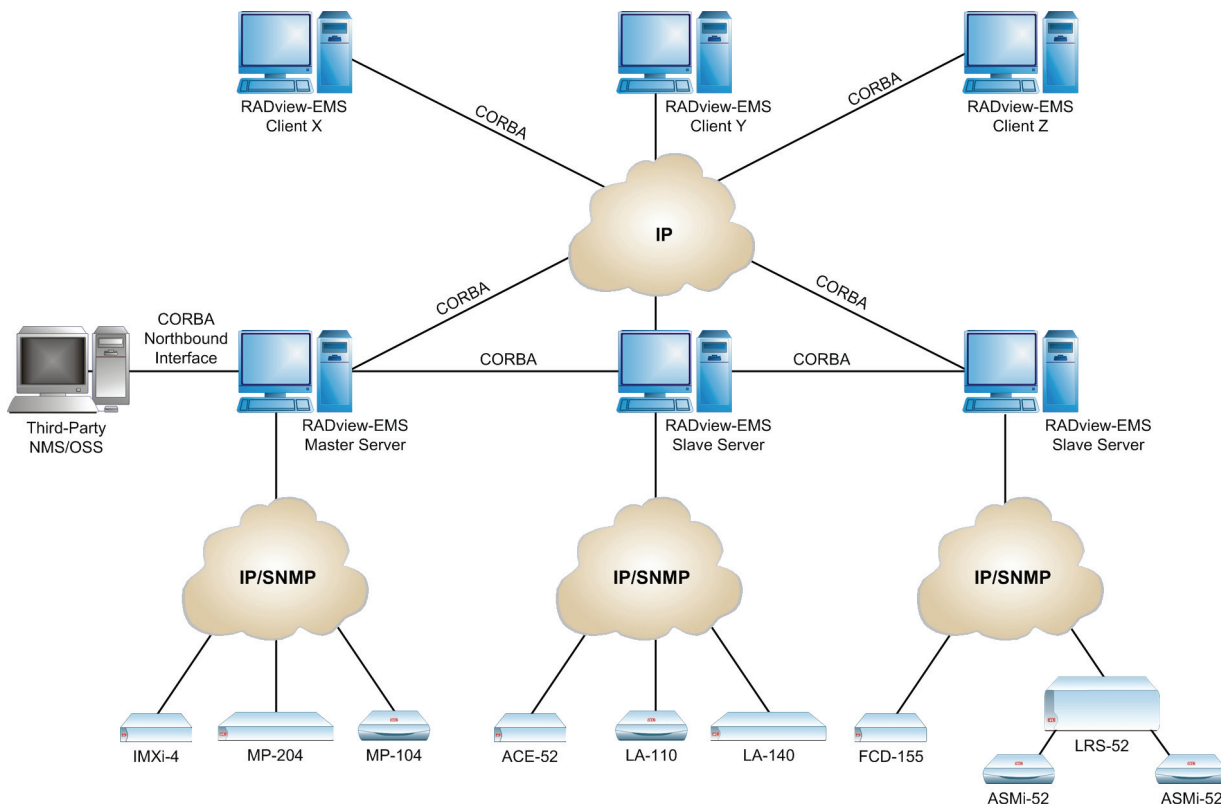


Figure 1. Fully Distributed System

- Command line backup allows faster recovery of a network management station in case of failure. The backup script can be integrated into any Unix-based scheduling mechanism in order to automate network topology and configuration backup.
- The LaunchDesk toolbar (see *Figure 4*) provides easy access to all the EMS functions:
  - Login/Logout
  - Zoom applications (see *Figure 5*)
  - Event Browser
  - Admin Console – Security Service, Fault Service, NER Explorer
  - Log Viewer
  - EMS System Console for monitoring currently active services
  - Trace Monitor, Version Browser, SNMP SPY.
- The EMS Security Admin Console allows the user to:
  - View and manage the EMS Users' security profiles in a powerful and user-friendly way
  - Create and edit security profiles
  - Manage user accounts.

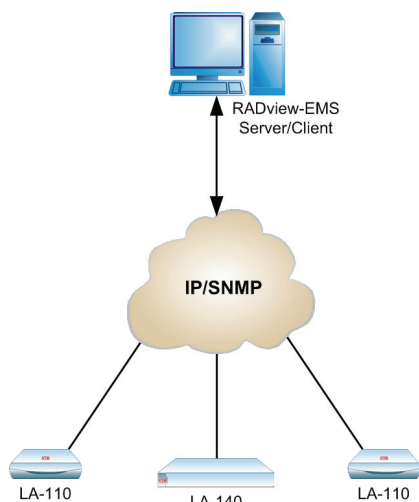


Figure 2. Non-Distributed System

## SPECIFICATIONS

### PC-BASED CLIENT OR SERVER

- **Minimum Hardware Requirements**
  - IBM PC or compatible with a Pentium 4, 1.6 GHz processor
  - 512 MB RAM
  - Hard drive with 250 MB free disk space for installation
  - CD-ROM drive
  - One NTFS-formatted hard drive (for Informix installation)
  - 17-inch color monitor, supporting 1024 × 768 resolution

**Note:** The minimum hardware requirements depend on the network size:

- For small networks (up to 100 managed nodes), the host must be Pentium 4, 2.0 GHz, 512 MB RAM.
- For medium-sized networks (up to 200 managed nodes), the host must be Pentium 4, 3.0 GHz, 1 GB RAM.

- **Minimum Software Requirements**
  - Microsoft Windows XP
  - SNMP service and SNMP Trap service
  - SNMPC platform version 5.1.7 (optional)

**Note:** RADview-EMS can also operate in standalone mode without SNMPC.

### UNIX-BASED CLIENT AND SERVER

- **Minimum Hardware Requirements**
    - SUN Blade 150 workstation
    - Hard drive with 1 GB free space under the /opt partition
    - 600 MB for Informix (under any partition)
    - 512 MB RAM
    - 768 MB swap file
    - CD-ROM drive
    - 17-inch color monitor, supporting 1152 × 900 resolution
  - **Minimum Software Requirements**
    - SUN Solaris Version 2.8, Feb 2002 or later
- Note:** No previous SUN Solaris versions are supported.
- CDE 1.4
  - HP OpenView NNM Version 6.3.1

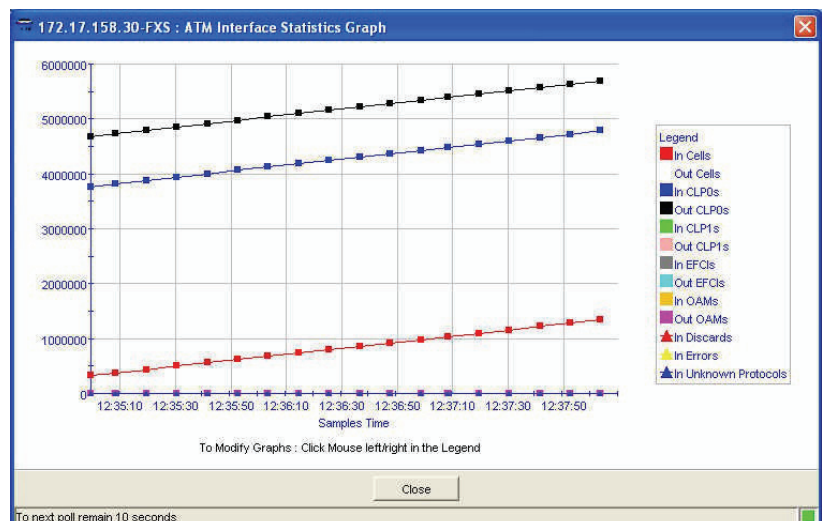


Figure 3. Statistics Graph

# RADview-EMS

## Scalable Element Management System

### ORDERING

#### RV-EMS-SW/\*/&

Scalable element management system, regular installation

#### RV-EMS-SW/\*/&/#

Scalable element management system, upgrade or evaluation version

\* Specify module (see Table 1):

**IAD** for IAD applications

**TDM** for TDM applications

**ATM** for ATM applications

**MDM** for MDM applications

& Specify operating system:

**PC** for PC-based system

**UNIX** for Unix-based system

#### Notes:

- All Unix packages include Unix-based server/client, and PC-based client.
- RADview-EMS is delivered with a relevant RADview-PC or RADview-HPOV package. For example, RADview-EMS/ATM (Unix) is supplied with RADview-HPOV/ATM.

# Specify installation type:

**UPG** for upgrade of an existing installation

**DEMO** for 60-day, fully functional evaluation version

Table 1. Supported RAD Products

| Package      | Supported Products           |
|--------------|------------------------------|
| IAD          | LA-104                       |
|              | LA-110                       |
|              | LA-140                       |
| TDM          | ASMi-52                      |
|              | DXC-30                       |
|              | FCD-155, FCD-155E            |
|              | IMXi-4E1, IMXi-4T1           |
|              | Megaplex-104, Megaplex-204   |
|              | Megaplex-2100, Megaplex-2104 |
|              | Megaplex-2100H               |
| Optimux-1551 |                              |
| ATM          | ACE-3100, ACE-3200, ACE-3400 |
|              | ACE-201                      |
|              | ACE-52                       |
| MDM          | ASMi-52, ASMi-52L            |
|              | LRs-52                       |

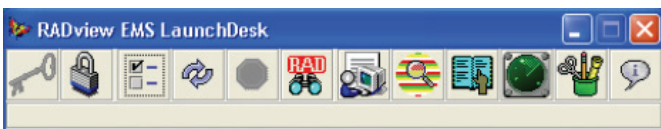


Figure 4. EMS LaunchDesk Toolbar

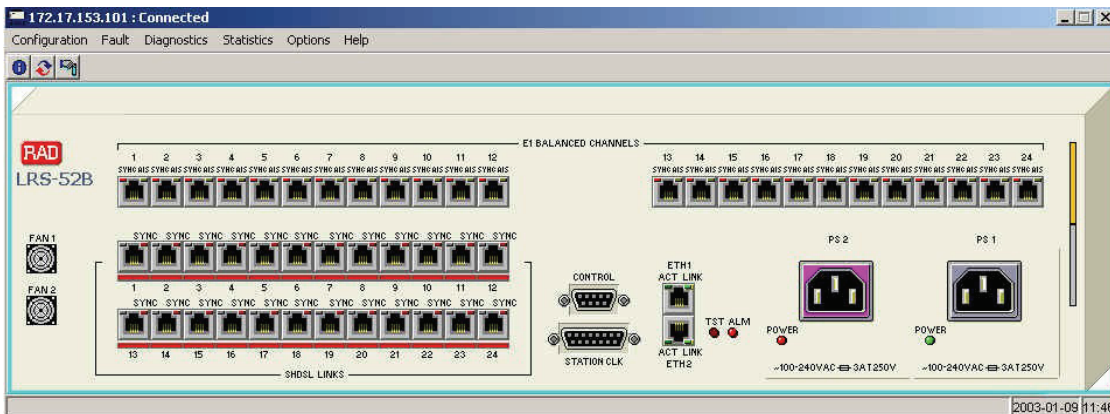


Figure 5. LRS-52 Zoom Application



data communications

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