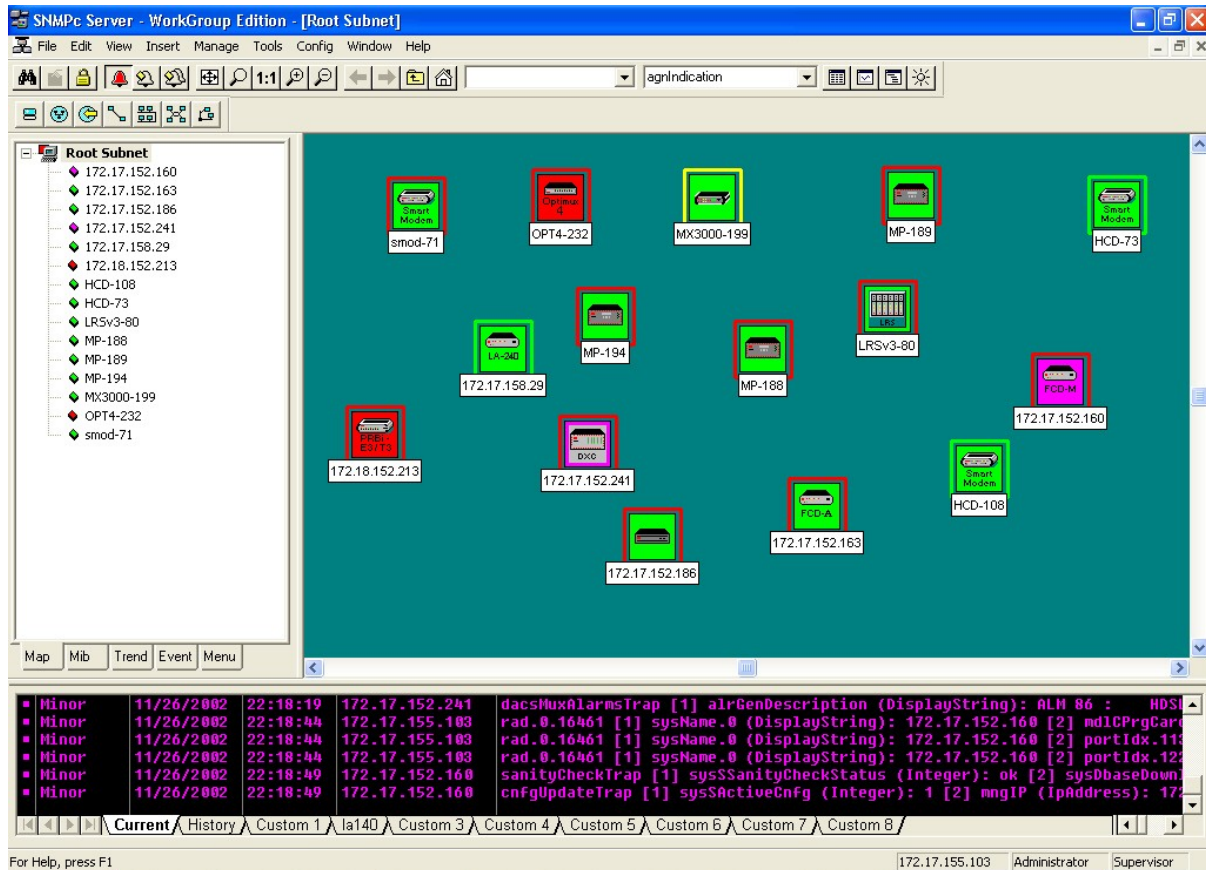


RADview-PC

PC-based Element Management System



PC-based Element Management System (EMS) providing configuration, fault, performance and security management over SNMP

- Hierarchical network view
- Fault management based on event logs and real-time status updates
- Configuration management via user-friendly GUI and centralized upload/download of software/configuration files
- Performance management including statistics counters & graphs
- Simple integration with 3rd party equipment



RADview-PC

PC-based Element Management System

RADview-PC is a powerful and user-friendly SNMP-based element management system used for planning, provisioning, and operating heterogeneous networks. It runs on the Windows™ platform.

The package provides complete monitoring, control and configuration of RAD products and networks via their SNMP agents.

RADview-PC modules are available for TDM and RADview-Lite applications.

The application operates in standalone mode (without the need for an SNMP platform), or can be integrated into CastleRock Computing's SNMPc SNMP platform, to extend its capabilities, add topology management and color-coded fault indication.

Functionality of the management platform conforms to ITU-T TMN recommendations for SNMP. The following functions specified by the TMN model are implemented by RADview-PC:

- Fault management
- Configuration management
- Performance management
- Security management

Note: RADview supports only the SNMPc Workgroup edition.

CONFIGURATION MANAGEMENT

User-friendly, intuitive and realistic zoom applications (see *Figure 1*) or Web-based ConfiguRAD (see *Figure 2*) serve as simple and powerful configuration tools.

A configuration planner available for selected Megaplex, DXC and FCD products allows offline network planning and simulation.

For RADview-Lite products, configuration and diagnostics are achieved through simple access to either Telnet or ConfiguRAD (Web-based terminal management application) directly from the topology map.

Backup and restore functions allow storage of device configuration information. Backup can be performed on groups or single network elements.

TFTP-based software and configuration upload/download applications allow distribution of new software versions to many network elements simultaneously, while collecting statistics and presenting reports on the process status. Configuration files can also be collected and distributed.

FAULT MANAGEMENT

Network events are detected, isolated and controlled. Network status changes are displayed graphically at the network, device, card and port levels. Immediate response to the fault indication can trigger network reconfiguration, thereby minimizing network downtime.

Immediate trap-based network status detection and presentation are backed up by periodic status polling.

RADview-PC supports multiple map levels enabling graphical display of the hierarchical network structure. A problem occurring at a lower level is propagated to intermediate and upper levels for display. Network events occurring at a lower level are also propagated and displayed at the higher hierarchical levels. This allows the network manager to quickly identify and isolate network problems and clearly highlight relationships between possible simultaneous network events.

A comprehensive log file of all traps is maintained. Each message includes automatic identification of the trap source, event description, and date/time stamp. Information in the log is categorized according to level of severity. A record of all trap events can be sent to a printer for hardcopy log of network problems.

A variety of tests, such as loopbacks, BERT and tone tests ensure quick fault discovery and recovery, and help reduce operational costs by avoiding unnecessary field activities.

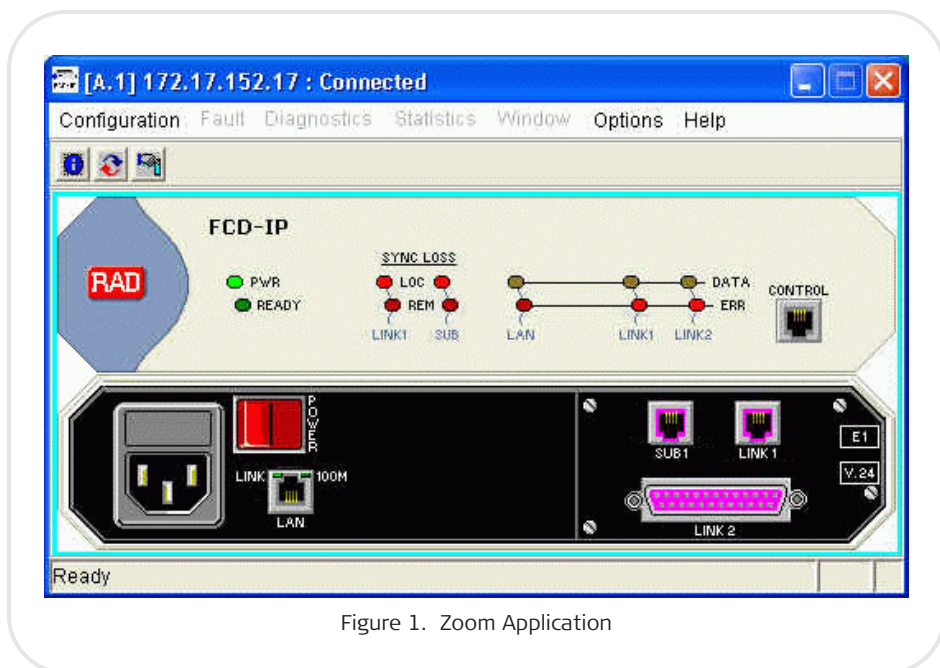


Figure 1. Zoom Application

PERFORMANCE MANAGEMENT

Network throughput and error rates are analyzed and controlled. Thresholds can be set for different variables, such as error rates or link utilization, for immediate alerts on network status and traffic usage.

Performance monitoring information in real-time or for the last 24-hours/96 intervals is available in table or chart format.

SECURITY MANAGEMENT

Three levels of security are provided:

- Windows security enforces and restricts access to the RADview-PC console
- SNMP communities ensure that SNMP GET and SET are performed only from stations with access permissions
- Limited access list stored in the network element assures that only managers with specific IP addresses are allowed to configure specific devices.

Specifications

Minimum Hardware Requirements

For networks consisting of up to 100 managed elements:

IBM PC compatible with a Pentium 4, 2.0 GHz processor

1 GB RAM (see *Notes*)

Hard drive with 1 GB free disk space for installation

Hard drive with one NTFS-formatted drive (for Informix installation)

1024 × 768 display resolution

Notes:

- *In general, installing RADview on a stronger CPU-based PC, equipped with more RAM, will result in better performance.*
- *For larger networks, consisting of more than 100 managed elements, see Table 1.*

Minimum Software Requirements

Microsoft Windows XP: SP1 or SP2, English version, Display Settings set to Normal Fonts

The following Windows services should be installed and configured to run automatically: SNMP, SNMP Trap, Server

Note: *All the requirements and Table 1 apply to a single-user scenario. If several users use RADview simultaneously, additional resources may be required to maintain satisfactory performance as indicated above.*

Table 1. HW Scaling Guidelines – Windows XP

Maximum Managed Nodes	Minimum No. of CPUs and Speed	RAM
100	1 x 2.0 GHz	1 GB
200	1 x 3.0 GHz	1 GB
500	2 x 3.0 GHz Xeon	2 GB

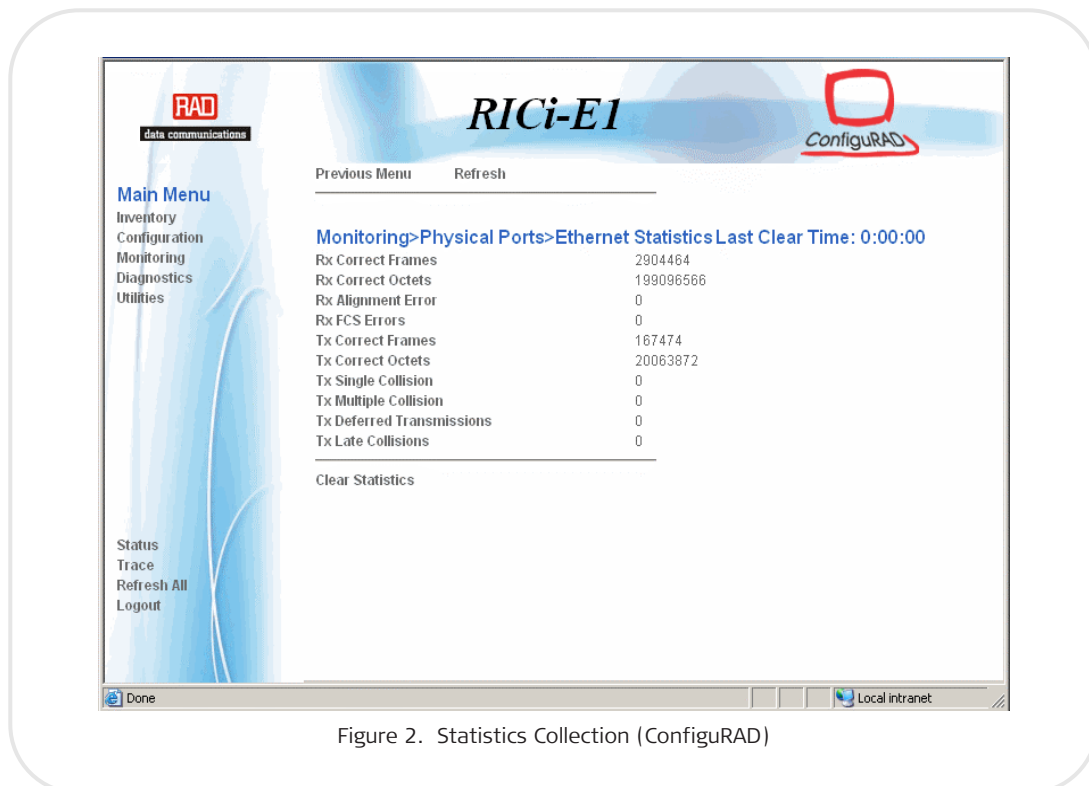


Figure 2. Statistics Collection (ConfiguRAD)

RADview-PC

PC-based Element Management System

Ordering

RV-PC-SW/*

PC-based element management system, regular installation

RV-PC-SW/*/#

PC-based element management system, upgrade or evaluation version

Legend

* Module (see *Table 2*):

TDM TDM applications
Lite RADview-Lite

Installation type:

UPG Upgrade of an existing installation
DEMO 60-day, fully functional evaluation version (TDM modules only)

RV-LIC

RADview license

Note: For licensing, each RAD device is assigned an Equivalent Node Weight (ENW) according to its complexity. Use RADview's License Calculator to determine the number of license points required for your installation.

RV-LIC/DXC-100

License activation key for DXC-100

Table 2. Supported RAD Products

Package	Supported Products
TDM	Airmux-200, DXC-8R/10A/30/30E, DXC-100, DXC-4, FCD-E1A, FCD-E1L/E1M, FCD-IP, FCD-IPD, FCD-IPM, FCD-T1L/T1M, FOMi-E3/T3, Kilomux-2100/2104, LRS-24, Optimux-4E1/4T1, Optimux-4E1L/4T1L, Optimux-4E1C/4T1C, Optimux-45/45L, Optimux-XL, Optimux-34, Optimux-25, Optimux-106, Optimux-108, PRBm-20
Lite	APD, APS, ETX-102, ETX-202, Egate-20, Egate-100, FPS, RIC-155, RIC-155GE, RICi-E1/T1, RICi-4E1/T1, RICi-8E1/T1, RICi-E3/T3, SPS, Vmux-400

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