



NETVIEWER

NETWORK MANAGEMENT SYSTEM



INTELLIGENT NETWORK AND ELEMENT MANAGEMENT FOR SIMPLE OPERATION, ADMINISTRATION, MAINTENANCE, PROVISIONING (OAM&P) AND RAPID DEPLOYMENT OF DRAGONWAVE MICROWAVE SOLUTIONS

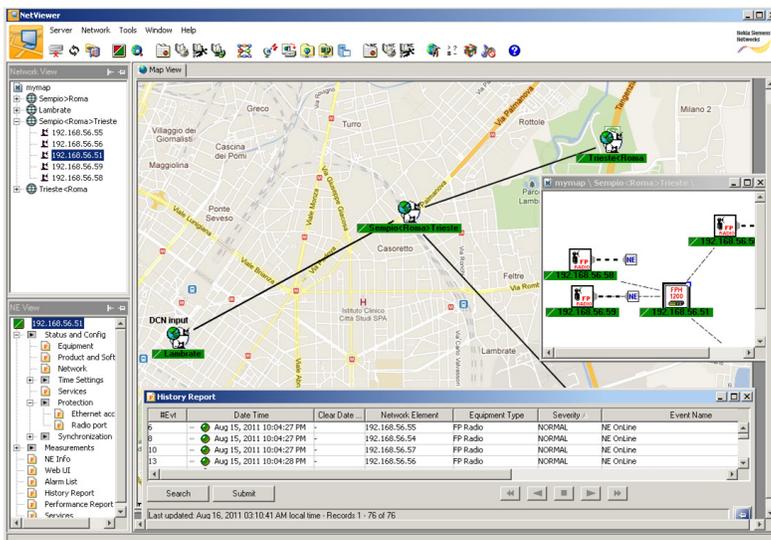
NetViewer provides a comprehensive carrier-class management solution for Service, Network and Element layers (NMS/EMS). Deployed in the service provider's Network Operation Center, NetViewer offers a broad set of tools that simplify the OAM&P of DragonWave's solutions, in addition to providing extensive fault management, performance monitoring, and inventory and security management capabilities.

The NetViewer suite has been developed according to the layered architecture specified in the Telecommunications Management Network (TMN) framework for monitoring and controlling communications networks. Its advanced architecture is based on an innovative and scalable application server, supported by a user-friendly, Java-based Graphical User Interface (GUI) that furnishes a real-time representation of the network's topology, connectivity, and operational status. Integration into any 3rd party OSS is made simple with standard real-time and batch northbound interfaces.

This highly flexible, scalable, standards based solution enables operators to respond quickly to change requirements, thereby reducing time-to-service, and delivering significant operational cost savings.

SOLUTION HIGHLIGHTS

- Intuitive point-and-click Graphical User Interface
- Comprehensive fault, configuration, administration, performance and security management
- Full set of FCAPS functionality for managed elements including network-wide SW upgrade as well as Backup & Restore
- Connectivity to Network Elements, supervision of connection and working status
- Fault Error Reporting functionality, trap loss recovery, summarization of alarm state
- Performance monitoring, collection, export to dedicated OSS applications, real-time measurement and graphical reporting capability
- Inventory data collection and reporting
- Web access, via HTTP server
- Comprehensive reporting and logging functionality
- Advanced user/sub-domain management either defined locally or synchronized with external directory
- Standard real time and batch northbound interfaces available for integration into any 3rd party OSS system
- Highly scalable architecture
- E2E Ethernet services provisioning and monitoring management
- Emailing of critical alarms (multiple configurable filters supported)
- Management of the entire DragonWave product line in addition to legacy network elements from Siemens, Nokia and NSN



FAULT MANAGEMENT

- Alarms and events collection with graphical representation
- Logging and advanced filtering capabilities
- Alarm handling - Logging of network operator comments and alarm assignment
- Cause analysis and fault correlation functionality
- Color-based alarm severity visual identification
- Every alarm presents the following information:
 - Colour-coded alarm severity
 - NE name
 - Severity
 - Probable cause
 - Alarm type
 - Specific problem
 - Acknowledged by
 - Acknowledgement date
 - Acknowledgement note
 - Time stamp
 - Emailing to Operators

SERVICE PROVISIONING

- End-to-end connections by means of a single point-and-click operation
- Interactive configuration templates to reduce overall provisioning time and time to service

PERFORMANCE MONITORING

- Performance management compliant to the ITU-T G.821/G.826 ETSI EN 301 129, Y.1731, IEEE 802.1ag and RMON standard specifications
- Per-port statistics and summary information
- Real-time performance monitoring
- Historical performance monitoring data maintained in persistent storage
- User defined performance graphing

SECURITY MANAGEMENT

- Standard access login security (user name and password)
- User classes and groups
- User-definable privileges
- Domain management
- External users management with Active Directory
- Customer identity management with Active Directory
- Operator Actions Log (OAL)

SUPPORTED NETWORK DEVICES

SUPPORTED DRAGONWAVE NETWORK ELEMENTS

- Harmony Enhanced, Harmony Eband
- Horizon Compact, Horizon Compact+, Horizon Quantum
- Harmony Radio, Harmony Hub 800, Harmony First Mile 200
- Harmony Trunk, Harmony Lite
- Avenue Link, Avenue Link Lite
- The complete Siemens, Nokia and NSN legacy MW portfolio

NETWORK INTERFACES

NORTHBOUND INTERFACES

- SNMP Agent
- TMF CORBA Agent
- OSS/XML file export
- Flat files export (ex. ASCII, CSV)

SOUTHBOUND INTERFACES

- TNMP Manager
- OSI Manager
- SNMP Manager
- TL1 Manager

E2E ETHERNET MANAGEMENT

- Service provisioning
- QoS Monitoring and SLA
- Service monitoring
- Compliance with MEF standards

NetViewer Server (Minimum Hardware Requirements)		NetViewer Client (Minimum Hardware Requirements)		Other Technical Data	
Operating System	Windows 2008, 2008 R2, and 2012 R2 Server (32bit and 64bit)	Operating System	Microsoft Windows 7	Architecture	Client/Server
Processor	2 x CPU Xeon 2.66GHz (E55xx family)	Processor	Core 2 Duo 1.86 GHz	Server Configuration	Single or Multi
Memory (RAM)	16 to 32 GB RAM (DDR2/3)	Memory (RAM)	4 GB RAM (DDR2)	Client/Server Type	x86 platform
Hard Disk	300 GB	Hard Disk	40 GB free disk space (minimum)	Max # of clients in single server	20
Network Interface	1 Gbps, 3 NIC's	Network Interface	1 Gigabit Per Second (Gbps)	Max # of clients in multi server	120
Miscellaneous	CD/DVD drive	Minimum Screen Resolution	1280x1024	Max # of NE in single server	2500
		Miscellaneous	CD/DVD Drive	Max # of NE in multi server	22,500
				Database	MS SQL Server 2008 SE, 2008 R2, and 2012 R2