ElettraSuite NMS x50

The ideal solution to control
an entire TETRA ADAPTANET® network

tetra solutions

control rooms management

ADAPTANET®
IP solution

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SUITE

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ElettraSuite NMS x50
The ideal solution to control an entire TETRA ADAPTANET® network

PRODUCT DESCRIPTION

The **ElettraSuite NMS x50** product is designed to allow administrators to identify and resolve problems before they impact on ElettraSuite ADAPTANET® IP network services. *NMS x50* key features include:

- High level of scalability
- An open Linux based platform.
- PC with Intel Xeon 3500 series processor based hardware.
- Storage-redundant option.
- Enhanced security.

The system is characterised by an easy-to-use graphical user interface (GUI) and a high level of scalability. These increase operational efficiency, taking advantage of a customer-funded development programme. Its modular architecture distributes services over the network, enabling management workloads to be balanced.

The operator can proactively analyse the network, guaranteeing service continuity within strictly defined constraints.

The *NMS x50* GUI uses a standard Windows-based look and feel. It is implemented using the Java 2 toolkit. This provides support for "pluggable" look and feel, including Microsoft Windows emulation, OSF Motif emulation and a Java platform-neutral look and feel (also known as "Metal").

The GUI provides on-line, context-sensitive help. Its textual aspects can be adapted to a number of languages.

The interaction between the *NMS x50* and supervised network elements takes place via a Manager-Agent paradigm, with the Manager running in the NMS and the Agent in each supervised network element.

Manager and Agents comply with CORBA standard and communicate via IIOP protocol (Internet Inter-ORB Protocol) transported over TCP/IP.

Although the Manager operates over a native MIB (Model Information Base) compliant with ITU-T M-3100, it also manages MIB-II database accessed via SNMP protocol.

This enables the simple and fast integration of third party devices in the NMS application, with the benefit of having a centralised point of control for the entire hybrid network.

The Subscriber Management functionality allows the *NMS x50* operator to configure subscribers into the ADAPTANET® system. They can define allowed facilities and services interacting with the subscriber database. It is also possible to backup the Home Local Register for late upload, preventing data loss.

Several Windows-based NMS-clients can be supported by the server, with services accessed via a traditional Internet browser.

The number of clients supported by a NMS-server depends only on the server models, which differ from one another only for hardware performance and resilience capability.

The availability of NMS-clients fully exploits the capability of the NMS application of partitioning the entire TETRA network in domains. This offers the benefit for the NMS Administrator the option of assigning a specific domain to a well identified operator (NMS-client) for easier management of the TETRA network.

The *NMS x50* helps network managers to perform the following tasks:

- Monitoring the network for faults, isolating the source and root cause of network faults, and instigating corrective action;
- Maintaining, monitoring and adapting the configuration of elements in the network;
- Commissioning new network elements;
- Monitoring and analysing network performance.

It supports access from multiple concurrent users, maintaining the integrity of management information.

The high level of modularity and scalability within the product family enables it to manage any of a wide range of TETRA networks, from single site to regional, as described in the table below.

The *NMS x50* product family is characterised by the following capabilities:

- Easy-to-use GUI
- Centralised management of the network at one site
- Control of all TETRA and transmission elements
- Optimal Quality of Service and operations
- Lower costs and less downtime visiting sites
- Mission-critical configuration support
- Possibility to integrate third-party components
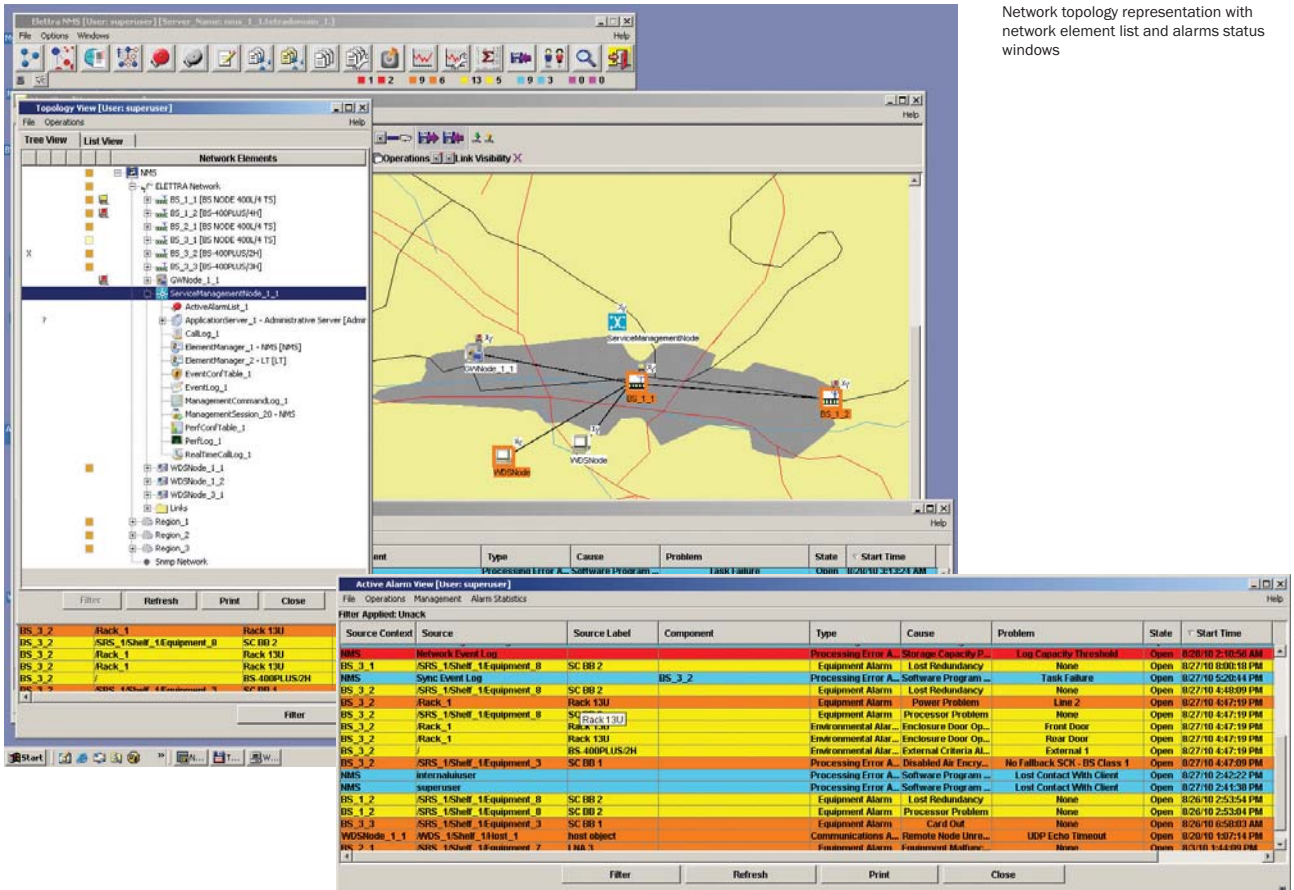- Interface towards higher layer management system

MAIN FEATURES

To optimise network operations, the system supports the following main features:

- **Fault management:**
  - Alarm management
  - Alarm event processing
  - Alarm synchronisation
  - Alarm history
  - Alarm display
  - Alarm correlation
  - Trouble ticketing

- **State management:**
  - State presentation
  - State propagation
  - State synchronisation

- **Event management:**
  - Event storag
  - Event display
  - Event synchronsation
  - Network element event management

- **Subscriber management:**
  - Define/modify/delete individual subscribers
  - Define/modify/delete static/dynamic groups of subscribers
  - Define/modify/delete group membership

- **Configuration management:**
  - Configuration control of physical resources
  - Configuration control of logical resources
  - Support for configuration activities
  - Configuration audit
  - Configuration display
  - Compatibility with multiple versions of managed elements
  - Network discovery

- **Software management:**
  - Software distribution
  - Software activation
  - Configuration file distribution
  - Inventory management
  - Software compatibility management

- **Performance management:**
  - Performance management configuration
  - Performance data collection
  - Performance data processing
  - Performance data display

- **Accounting management:**
  - Call log record collection
  - Call log record display
  - Accounting data extraction and storage
  - Accounting data display

- **Security management:**
  - User access management
  - User management domains
  - VPN management domains
  - Operator activity logging
  - Network element access control

Product Name	Managed Network Size	Max number of TETRA carriers	Max number of Access Network Elements	Max number of Clients
ElettraSuite NMSx50	Local, metropolitan, large metropolitan, regional	120	32	10

Network topology representation with
network element list and alarms status
windows

Particular of alarms report window

General topology view with zooming on a single network element (base station rack view)

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