

implementing next generation
IT and communications solutions



NETvisor
ANMS

| telecommunication networks | it networks | research and development | cost effective operation

ANMS

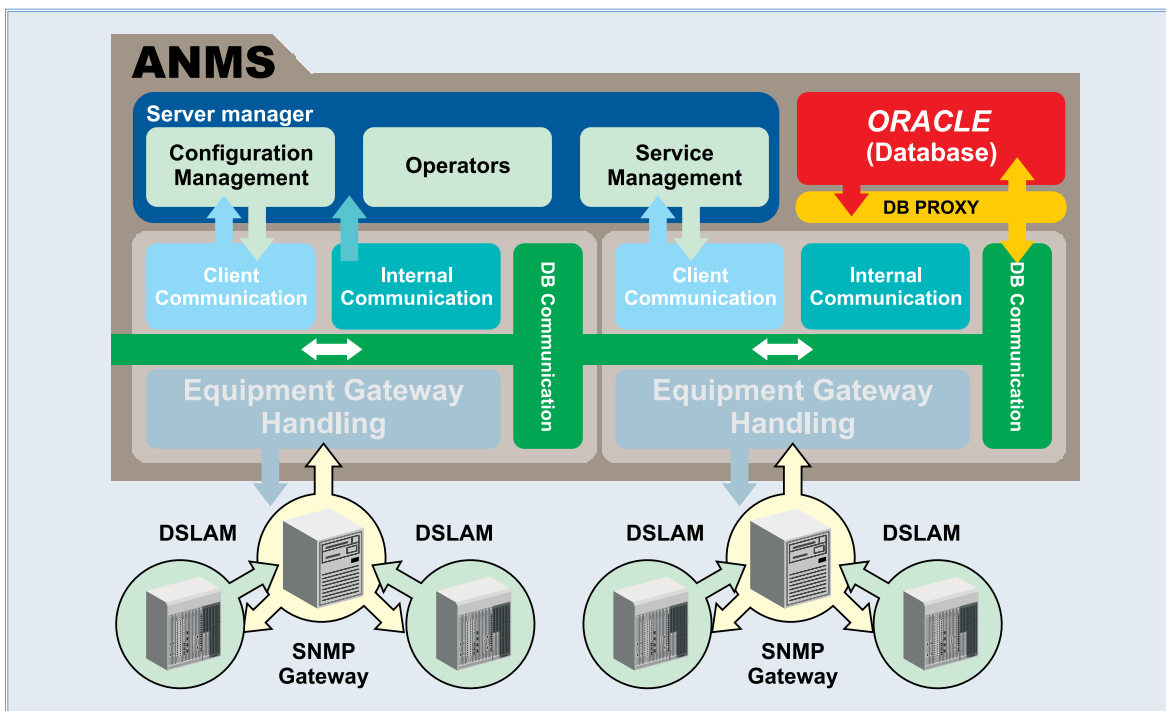
For Telecommunication Service Providers

ANMS is a state-of-the-art vendor and technology (xDSL, GPON, PMP Micro) independent element management system, providing comprehensive management and monitoring for broadband access network elements, including Siemens XPressLink V2, V3, Hix 5625/5635, Alcatel Fastmux 2000, Ericsson EDA, ECI HiFOCUS, Huawei MA series. Since its first release in 2000, the system has proven its scalability, versatility and maturity on the broadband service of several thousands of subscribers at Magyar Telekom, the premier wireline provider in Hungary.

ANMS in itself delivers the integrated functionality of configuration, inventory, alarm and performance management, including support for basic customer data as well complemented by its fault-tolerant system architecture and secure, feature-rich operator authentication, authorization and auditing (AAA) mechanisms.

Benefits

- Telco grade performance, scalability and availability
- Scripting support for network-wide equipment reconfiguration
- Simplified power-up process with mass configuration options
- Value-added services support
- Powerful system integration capabilities



As a consequence of its novel approach and architecture, the efficiency and usability of ANMS is underlined by the following features:

Elimination of polling load on devices

to improve user experience in term of responsiveness, and also to reserve network bandwidth, the status of the entire network is tracked primarily through signals generated by the devices themselves.

Provisioning en-masse

due to the support of "range" parameters on most ANMS commands, it is possible to execute thousands of configuration steps with a single command.

The screenshot displays the ANMS software interface. On the left, a hierarchical tree view shows network components like 'EpsilonDe-Region' and 'EpsilonDe-Region (127.0.0.0/24)'. The central area features a satellite map of a city. On the right, there are several panels: a table of configurations, a configuration form for 'ACD', and a status panel. The configuration table has columns for 'ConfName', 'ConfStatus', 'AdminStatus', 'License', 'OperStatus', and 'Age'. The configuration form includes fields for 'Name', 'Part', 'Customer info', 'Line identifier', 'ACD status', and 'Subscriber'. The status panel shows 'ACD parameters' and 'Transmission order'. At the bottom, there is a table with columns for 'ID', 'Type', 'LastProfile', 'Type', 'Name', and 'Open time'. The interface also includes a status bar at the bottom with system information like 'CPU 100%' and 'MEM 1000K'.



Batch processing

command scripts can be created or generated (e.g. using data exported from other operation support systems) and executed or scheduled for later or repeated execution.

Key customer management

the severity designation of alarms received may be specific for individual connections, thus enabling priority processing for alarms on services used by the most valuable accounts.

Full-feature and Open application programming interface

ANMS has an open interface towards higher-level management systems. All implemented system functions are accessible through this interface (dslam parameters, structures, line parameter, maximum line capability changes in time, etc). Self- or zerotouch provisioning, VIP customer portals, etc. can all be implemented through this unified API.

Key features

Scalability

A single ANMS installation is capable of handling a single region of more than 1M broadband subscribers.

Cost efficient

The software is licensed on a per-line basis. Hardware requirements are low even with millions of managed broadband services.

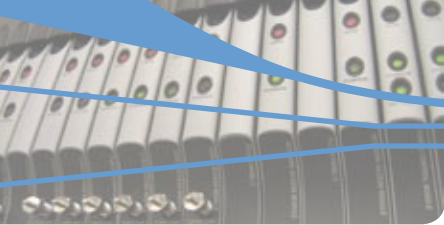
Distributed architecture

Due to the multi-tier design (client – server – database - gateway), processing load is removed from the client machines and distributed on the server and gateway tiers.

Fault tolerance

High availability is provided by redundancy built in on several levels. ANMS Server – Equipment (DSLAM, MSAN, etc) connections can not only be multiplied, but are also selected by the server machines on an availability basis, completely transparent to the operator. HA configuration is applied for server redundancy.





Ease of use (advanced, feature-full graphical user interface)

- Straightforward alarm interface,
- maps to present topological and physical location,
- en-masse provisioning through a wizard-like interface, instant terminal access for expert-level configuration, user-configurable screen setup including roaming profile,
- script editor with syntax hints and highlighting,
- dialog-based support for additional complex commands

Parallel client task processing

The GUI works with powerful MDChild windows that allows inspection and configuration of several lines at the same time in the same graphical client application

Modularity

Easily extendible to add support for additional Telecommunication Equipments (generally any IP managed equipment).

Integration (full-feature application programming interface)

The ANMS external API (a text based protocol over TCP/IP secured by SSL) grants programmatic access to all system functions, providing easy integration of higher-level management systems (including SLA, inventory, CRM etc. applications). NETvisor. has great experience in system integration; ANMS is already integrated with Telecordia XPercom/Xng, Agilent Netexpert, and Fornax WFMS.

Batch provisioning

Schedulable and repeatable execution of predefined configuration tasks is available.

Proactive fault management

Unified alarm categories defined for all managed interfaces, filtering and suppression of redundant / consequential alarms, adjustable severity by alarm type, device, interface card or individual connection. Among other things, this can be used to configure priority monitoring for selected services.

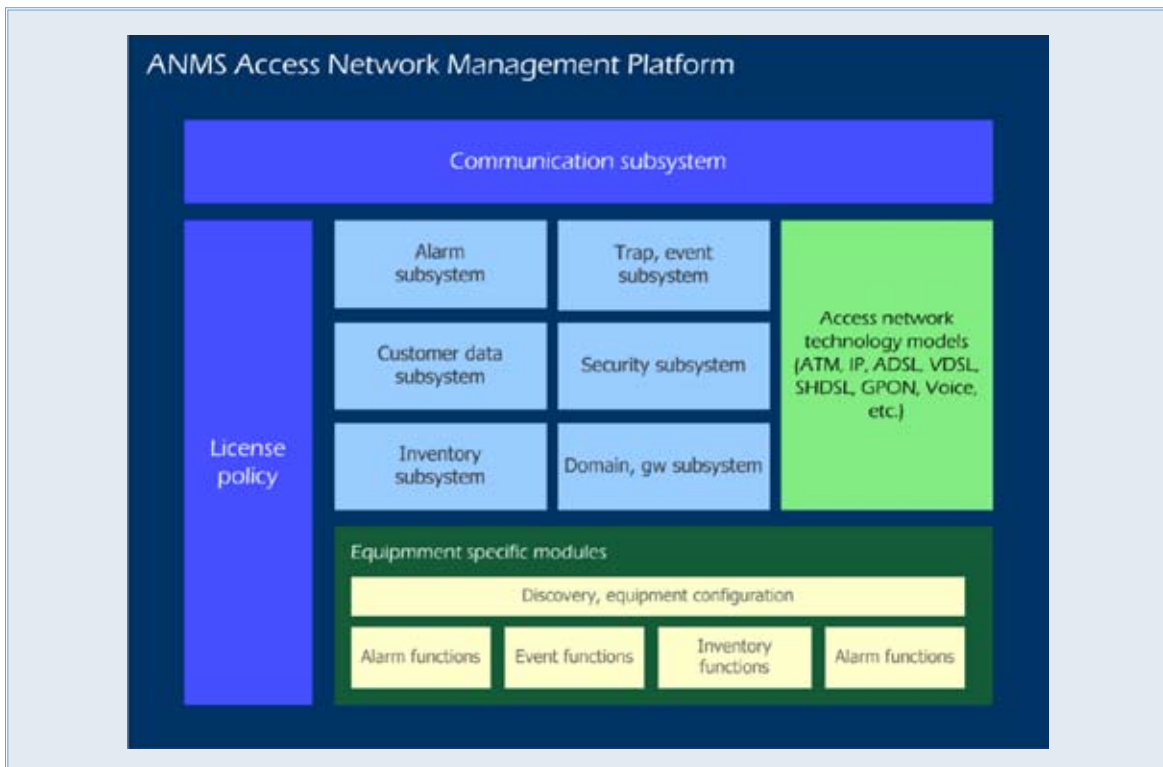
Service dependent fault management

Fault management parameters (alarm severity, alarm logging, ADSL parameter logging, etc.) can be organized into profiles (so called LineProfiles) and can be assigned as one unit to customer lines

Auditing

Comprehensive logging of all system events, including alarms, device status changes, inventory changes, operator commands, and command execution results. Significant changes to ADSL line parameters are also recorded (instant changes, not caused by user interaction are also logged).





Security

The system and the underlying services are protected through the sophisticated security system, which includes authorization, authentication, auditing and optional encryption of communication. Capability to work with central LDAP server.

Reporting

Equipment structure, alarms, event, job execution are all stored in the database enabling extensive reporting capabilities.



NETvisor



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