



ENEA Capital Group produces almost one fifth of the electricity consumed in Poland. Its distribution network covers 20 per cent of the country and delivers electricity to 2 million households and 300 000 business customers.

Verax NMS **reduces costs of IT service delivery, shortens downtimes and increases customer satisfaction levels** through streamlining processes of business service management, problem detection and incident resolution.

Verax NMS is used to provide proactive monitoring of:

- **Data center** infrastructure: servers, virtualization, power supplies and others.
- **Enterprise applications:** databases, transaction servers, application servers and others.
- **Networks and desktop computers.**

For more information about Verax NMS, please visit our website:
veraxsystems.com/en/products/nms



One of the top energy industry groups in Europe chooses Verax Service Assurance Solution for monitoring of a mission-critical ATM network.

Integrated monitoring of an extensive ATM network with the Verax Service Assurance Solution

BACKGROUND

ENEA's ATM (*Asynchronous Transfer Mode*) network is a mission-critical element of customer service delivery and operations. The network uses multi-vendor hardware with Fore/Marconi switches at its core. The network is managed centrally from ENEA's NOC (Network Operation Center).

As a public utility provider, ENEA is obliged to meet strict governmental regulations, SLAs (Service Level Agreements) and reporting compliance. As a result, it requires accurate ATM network management to reduce and prevent downtimes and streamline the management process.

OBJECTIVES

The main objective was to provide a single monitoring solution which could present the entire ATM network information in a single view. The secondary objective was to clearly visualize the whole network topology in order to plan and develop emergency scenarios.

The prior monitoring solution consisted of a number of dedicated monitoring tools (usually vendor-provided) such as *RADview* for monitoring multiplexers and *Marconi's Service-on Data* for ATM switches. In addition, ENEA's IT department developed a set of custom tools to integrate these systems together and provide automation such as synchronizing ATM clocks in case of network failures.

AUTOMATION

One of the crucial requirements for the ENEA operations team was to be able to automate management actions based on events received from the system, such as re-synchronizing clocks in the ATM ring after a failure. Verax NMS provides the IT automation functionality through scripted user-defined business logic, which perfectly met the requirements.

REQUIREMENTS

Verax NMS was selected by ENEA as a monitoring tool for the following reasons:

- Scripted, user-defined rules across the system for elements such as: event correlation, automated actions and others.
- Advanced visualization capabilities (such as business aspects) and network topology visualization with integrated maps engine.
- Rich device plug-in library with Software Development Kit (SDK) for custom plug-in development.
- Openness, extensibility and ability to address the future needs through: device plug-ins, scripted business rules and custom reports.
- Support for full screen mode, high-resolutions, multiple displays and panel hiding – ready to be deployed at Network Operations Centers (NOCs).
- Advanced security mechanisms allowing connecting from authorized management stations only.

SOLUTION IMPLEMENTATION

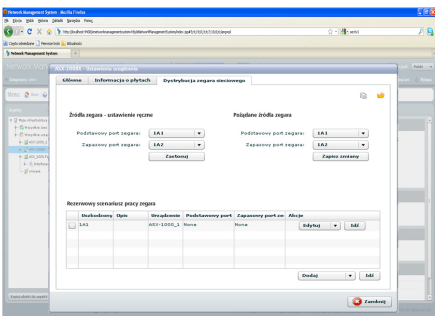
Verax NMS has been installed at ENEA's NOC on a separate MS Windows 2008 Server. After conducting a network discovery process, the effort was then focused on customizing the system's maps in order to provide industry-specific views. Strong visualization features and a detailed reporting engine of Verax NMS provided the NOC staff with a fine-grained view of entire network inventory and its dependencies.

The default set of Verax NMS plugins was sufficient enough to ensure monitoring of ENEA's ATM network devices including:

- ATM switches (Fore Systems ASX series)
- Multiservice access nodes (RAD Megaplex-4100 devices)

In addition, the default plugin for monitoring ATM devices provided ENEA's staff with a detailed insight into device configuration such as *ATM switchboard information* which was not possible with previously used tools.

The second deployment step was tuning up the probing intervals and thresholds for performance counters, including creating dedicated rules for status calculation and alarm generation. The phase was ended with configuration of SMS notifications.



BUSINESS LOGIC

Implementing an industry-specific business logic was the next step of the project. Verax NMS is capable of modeling complex services combining hardware and software elements with its internal dependencies into single logical entities.

Business aspects within Verax NMS provide information on how the individual components of the infrastructure are performing and what is their impact on particular business services.

With the input from ENEA's specialists, a number of dedicated business aspects have been created.

These provide more service-oriented insight to the on-going operations. The business logic engine within Verax NMS allowed the NOC operators to freely customize business aspects within the system to effectively eliminate alarm noise and accelerate root-cause problem discovery.

RULES

As a service assurance solution, Verax NMS provides the ability to automate and execute repeatable tasks without involvement of personnel. The initial set of automation rules, such as routing reconfiguration inside ATM ring in case of an outage, has been provided by Verax Systems as part of the project.

An additional set of complex automation scenarios were developed by the NOC staff based on the requirements gathered in project due course. The ability to execute defined actions against a particular element has significantly increased the operational efficiency of the ENEA NOC team.

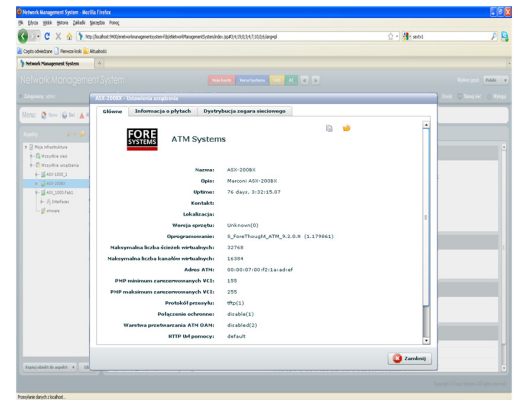
BUSINESS BENEFITS

The implementation of Verax NMS at ENEA's NOC resulted in the following business benefits:

- Reducing complexity of the monitoring process by replacing several device-dedicated tools.
- Ability to execute automated management scenarios via implemented business logic.
- Quicker problem analysis via event correlations and automated business logic.
- Gathering of infrastructure business intelligence (e.g. resource utilization) input in order to facilitate better service infrastructure planning.

SUMMARY

The whole process of providing ENEA with fine-tuned and optimized system took three weeks. The work was delivered jointly by Verax Systems consultants and a Systems Integrator (SI) who primed the entire contract. All the requirements were fully met, proving Verax NMS to be the right choice.



Future plans include creating additional event processing rules for events collected via SNMP traps.



Verax Systems is a software house and a consultancy & solution provider specializing in advanced and innovative IT solutions for the telecommunications, banking and enterprise markets. Since its incorporation, Verax Systems has successfully provided services and delivered numerous projects on five continents.

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