



Element Manager

Element, Network and Sub network Managers

Equipment providers must provide well-functioning, comprehensive operations and maintenance solutions for their products. These solutions are often called element managers because they are specific to the equipment provider's network equipment. The term network element manager (NEM) is often used in a broader sense to denote the entire range of functionality for configuring and operating an equipment provider's product. This often means element and sub network management functionality; i.e. the ability to manage the capabilities provided by interconnected network elements is also included.

The Challenges of building an Element Management solution

An equipment provider faces a number of problems when trying to implement an element manager with their network elements.

Element managers normally address the entire FCAPS scope (Fault, Configuration, Account, Performance and Security management) to the extent that is applicable to the services provided by the networking equipment. This means that they are involved in supporting all of the major business processes for the service provider or telecom operator. Element managers have to provide functionality for service assurance, service

provisioning, planning and accounting. Consequently, an element manager is normally a very complex and comprehensive type of management system. The limitation in scope is that they address only the areas applicable to the specific type of equipment. Issues that can lead to problems for equipment providers when providing element managers include:

- **Flexibility:** Change is a constant theme in the data and telecom sectors and flexibility is crucial for success.
- **Ease of Use:** Implementing an element manager that is easy to use with minimal training is a complex task.
- **Integration:** It must be possible to integrate the element manager with a higher order of operations and support systems (OSS).
- **Implementation:** The element manager is usually implemented very late in the development process. To shorten time-to-market for network equipment, the element manager must be implemented quickly.
- **Scalability:** As data and telecom networks expand, the element manager must be scalable and extensible.
- **Cost:** The cost of operation and implementation must be low.

Teleca is an international consulting company building and applying advanced technology. The company's business concept is to strengthen the customers' market position and time to market. Teleca builds and integrates solutions for technology and software intensive customers worldwide. Core values are honesty, reliability and hard work. The company has 2,700 employees with operations in 15 countries in Asia, Europe and USA.

Our Service Offer

The Teleca Service offer “We build your Element Manager” is intended for equipment providers within the data and telecom sectors. It is characterized by:

- **We help you to build the right system** - a system that is competitive. We know the operators’ OSS requirements and build systems that are easily integrated into operators’ overall environments.

- **We build systems that are extensible.**

It has to be easy to add new functionality and to support new types of network elements. We know how to design a system architecture that supports this requirement.

- **We build systems that are scalable**

It is essential that an element manager can expand from supporting a limited number of network elements to many thousands.

- **We build correctly first time**

We are at the forefront in the use of state-of-the-art solutions based on Java, CORBA, Web-enabled clients, directories and certificate-based security solutions.

- **We build efficiently**

The equipment provider shortens time-to-market and can offer more price-competitive solutions. We use our own component library GEM (Generic Element Manager) and element manager frameworks from Advent-

Net (WebNMS) and other vendors to shorten development cycles and to increase cost-efficiency. Due to our experience, work progresses smoothly and quickly.

- **We build with quality**

We use PROPS for project control and Rational Unified Process (RUP) for system development. Both are well-established and proven tools for ensuring quality.

- **We take full responsibility**

We serve as a development organisation with full responsibility for 24*7 support of delivered systems and components.

- **We are your Systems Integrator partner**

When a need to customize your Element Manager for a specific customer arises, we are there for you, and can take that role as an SI partner. It means that you can focus your valuable resources on core product technology, without having to divert efforts into essential but non-critical areas such as customer specific adaptations.

We have built several NEM solutions for Ericsson. A recent engagement covers an Element Manager solution for Equipment vendor NetInsight, a transmission network vendor.

