

Common interests, common platform Open EMS Suite gets the industry talking

**Nokia Siemens
Networks**



Open EMS Suite

EMS out of the box

Nokia Siemens Networks proposes an end to “reinventing the wheel”. Its vision is of a flexible and implementable common OSS architecture based on existing industry standards and promoting the use of re-usable OSS software components. Its offering is Open EMS Suite.

Today’s OSS environment is characterized by a high systems-integration “tax” for service providers. As Dittberner states: “The high cost of OSS integration OPEX can no longer be ignored. Either telecoms must lower their operating costs or their revenue streams will be steadily siphoned off by competitors inside and outside of the telecom industry”.¹

As it is, external integration spending is expected to run at 9799 MUSD in 2007², principally because many service providers still operate a multitude of different Operations Support Systems (OSSs) and Element Management Systems (EMSs) from multiple network equipment providers (NEPs) and independent software vendors (ISVs). This situation leads to large, overly complex systems, burdened with high operational and maintenance costs.

The OSS issue is particularly urgent for traditional operators, whose new competitors, with their low-cost alternatives, put pressure on voice, data, multimedia and gaming revenue streams. This has already led to the streamlining of operations by many operators, with more to come. And since this is a major problem for the whole telecom industry, network equipment providers can expect to suffer too.

We propose an end to “reinventing the wheel”. Our vision is of a flexible and implementable common OSS architecture based on existing industry standards and promoting the use of re-usable OSS software components. Our offering is Open EMS Suite.

Cutting the integration tax

The success of Service Providers in the changing telecom industry will thus be highly dependent on OSS/BSS solutions that improve their quality of service while at the same time reducing the cost of integration. Such solutions must support these targets, either with ready-made modules or customization capabilities, thereby reducing OPEX and achieving more with one solution.

In addition, proposed OSS solutions need to integrate with operators’ future architecture, which is not a set of standalone solutions but a well-integrated, convergent solution.

By solving the Network Element (NE) and OSS adaptation and integration problem, NEPs will be able to improve their own internal R&D efficiency and focus effort on creating value add for Service Providers.

Facing the converged future

The traditional approach to building proprietary and silo EMSs is no longer sustainable. That is because today’s EMS/OSS architectures do not fully support the capability to easily adapt and integrate into multi-vendor and multi-technology networks.

Much effort is spent on keeping up with new telecom network equipment and technology releases. But telecom technologies such as VoIP, WiFi, Wimax and others continue to proliferate. NEPs struggle to harmonize the architectures of silo EMSs for different technologies and sectors (mobile, fixed, etc). The tasks of implementation, integration and maintenance grow ever more challenging.

Towards a common OSS architecture

One of the industry’s problems is that vendors have not harmonized their implementation architectures in practice, even though there are existing architecture frameworks that can be followed, such as TeleManagement Forum Next Generation OSS Software and Systems (NGOSS) and OSS through Java (OSS/J).

Most EMS work is actually aimed at achieving commonality. Thus, many EMS/OSS solution providers invest heavily in developing non-differentiating functionality from scratch in a non-competitive area. This naturally leads to overlap, duplication and inefficiency within the whole telecom software industry. And it does not solve the operator integration tax problem.

¹ Dittberner Associates:
Examination of Nokia’s OSS Middleware
Proposal, November 2005
² Gartner:
OSS Worldwide 2000-2011 Report,
May 2007.

More efficient, more productive

Reducing your OSS R&D-related OPEX

Open EMS Suite provides out-of-the-box EMS functionality and a complete O&M interface solution, based on the most advanced technology around distributed and centralized solutions. Significant savings (up to 80% in green field cases) in integration and maintenance costs can be achieved in a non-differentiating and non-competitive area.

Creating new revenue streams

The next-generation OSS software platform from us can help you convert your OPEX savings into investment in new revenue-generating projects. New applications can quickly be developed with tools, SDKs and APIs, at your customers' premises.

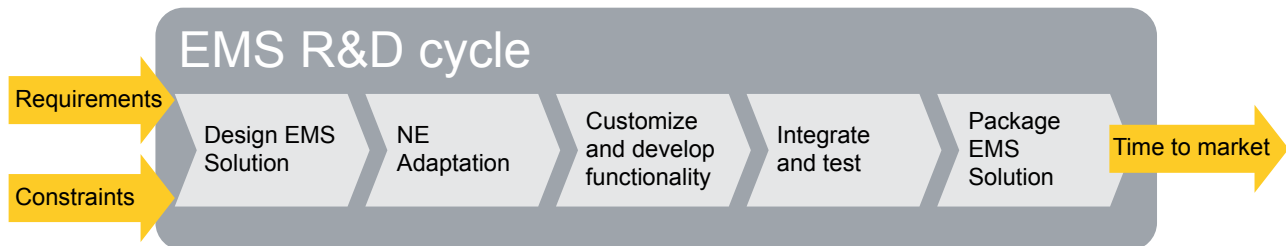
Supporting your business

We understand OSS R&D development and the support needs that go along with it. Our customer services guarantee that you can fully and successfully deploy Open EMS Suite in your OSS/EMS solution development. Our professional training, consulting and technical support services will keep your business going - from development through to commercial realization.

Developed by a NEP for NEPs

Open EMS Suite is a building block of the next generation OSS platform, combining 15+ years experience and best practice in OSS. Our in-depth domain knowledge has been turned into software products for the benefit of the entire telecom industry. Let's talk.

Open EMS Suite is a software platform designed to support easy network element adaptation and integration in the multi-vendor and multi-technology network management systems.



Focus your R&D into value-adding areas

Open EMS Suite offers basic EMS functionality out of the box and a solid base with next generation OSS architecture for efficient, EMS solution development. Open EMS Suite software and tools support instant adaptation, which in turn makes it possible to add support for new service types or network elements for EMS, with minimum interruption to the runtime system.

Out-of-the-box, configurable EMS functionality includes:

OSS Application Platform consists of Managed Object Framework (MOF) and a graphical user interface (GUI) framework. MOF provides metadata driven topology and configuration management services, the basis for easily adapting to various types of networks. Both web and rich Java client development are supported within the GUI framework.

Fault Management Platform

is a full fault management solution with a server side fault management engine for event collection, filtering, correlation and a set of GUI tools.

Performance Management Platform provides out of the box performance management functionality, which can be adapted to manage any kind of network elements. This end-to-end solution can be used to extract, load and report performance data.

In addition to EMS functionality, Open EMS Suite provides a complete O&M interface solution in order to maximize savings and efficiency in network element integration. The solution consists of off-the-shelf mediations with a set of southbound and northbound interfaces providing telco-grade O&M connectivity. The southbound interfaces enable communication with managed network elements. Northbound interfaces allow integration of the OSS product to other OSS or BSS in the Service Provider's network.

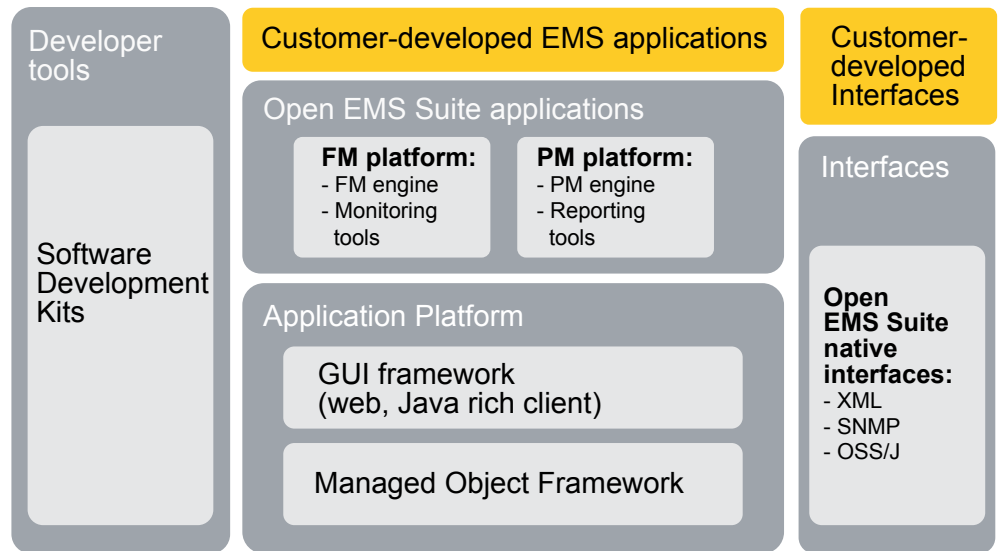
Open EMS Suite offers as well the flexibility to implement your own mediations with XML based interfaces if required. To further speed up the development of NE support in OSS, you can use an O&M Agent at the NE side, which provides out of the box, configurable support for integrating the NE to your OSS system.



Open EMS Suite developer tools

Open EMS Suite provides tools to customize and enhance Open EMS Suite into your own EMS Solution. The developer tools are optimized to perform development tasks on the Open EMS Suite, such as FM, PM and CM adaptations and application development.

Software Development Kits (SDKs) provide flexible, powerful yet open tools for common application development. SDK tools are based on Eclipse, a well-known 'standard' in the developer community. However, most of the development tasks can also be implemented without our SDKs, leaving the freedom of choice to the individual developer.



Open EMS Suite: Let's talk about your business

The high cost, complexity and inefficiency of OSS integration can no longer be ignored. There is also a pressing need to cut back overlapping and duplicated OSS R&D investments in non-differentiating, non-competitive areas.

Open EMS Suite offers a common industry software platform specifically designed to serve these common interests, with significant benefits for integration and R&D OPEX.

With a unique combination of experience, reliability and commitment to collaboration, we are ideally placed to be your partner in today's increasingly competitive telecom ecosystem.



Nokia Siemens Networks

- your reliable and future-proof business partner

Nokia Siemens Networks is a consistent supporter of industry collaboration initiatives and a major player in telecoms convergence. The advantages of working with us include:

- Our active experience in building industry platforms
 - Series 60 being one outstanding example
- A long history of co-operation with other vendors in driving key industry initiatives such as GSM, OMA, Symbian and others
- More than 15 years' experience in OSS business understanding, best practice and R&D with a large installed base and continued investment in software
- The use of future-proof and open mainstream IT technologies such as Unix/Linux, relational databases, Java, J2EE, Web, SOA and Web Services
- Our unique end-to-end expertise



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