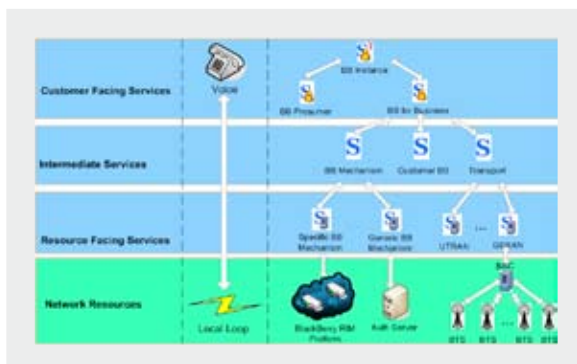


# Comarch Next Generation Service Assurance

## The challenge

The changes that have taken place in the telecommunications' market over the last decade and the transition to NGN networks have increased competitiveness in the telecommunication market and forced all operators to optimize their costs and make their offered services more attractive for end customers. However, the move from traditional architecture into a next-generation telecommunication's network introduces additional problems in network management and operation. The introduction of a multi-layer network architecture simplifies the development and introduction of advanced services, e.g. providing connectivity as a network layer service as in IMS but hides the complex relationship between the services provided and the network resources used. In simple words, Next Generation Networks require Next Generation Service Assurance to fully protect the services delivered to the customer and conserve operators' revenues.

The main challenge is that in modern networks services are no longer associated with a single device in the network. Instead, each service is composed of resources provided by many devices operating within the network or even based on many other simpler services offered by third party companies. Next Generation Service Assurance should provide visibility of states of even complex services assuring failure root cause analysis but a comprehensive solution should also proactively support the process of incident resolution to speed-up the service recovery – minimizing losses.



*Evolution of services*

## The solution

To overcome the challenges of Next Generation Networks an operator needs a comprehensive Operational Support System providing a permanent opportunity to model and monitor complex services based on the underlying network resources. The Progressive Fault Management module with advanced event processing and enrichment should be a main event source. Standard and common interfaces of external systems (e.g. Trouble Ticketing, Customer Care, SLA Management, E2E probes) should give an ability to collect events and information for alarm enrichment from non-network sources. By taking a closer look at the telecommunication market we can see that the best strategy is to choose interfaces founded on OSS/J initiative, which is seemingly becoming a 'de facto' OSS interfacing standard. Such an expanded system needs an efficient correlation engine to support the presentation of the most relevant information regarding upcoming events in an automated way as well as to implement advanced logic to support the network engineers in root cause analysis.

Automatic business impact analysis on the basis of information about possible SLA violations, affected customer importance, failures in rush-hours etc., should also be performed during the event enrichment process and incident creation. In order to deal with emerging incidents, a process management system controlling and organizing complex workflow is also crucial. To structure the business process it is very convenient to use workflows based on best practices described in ITIL and eTOM recommendations. The knowledge gained during hundreds of failure fixing related tasks should be stored in a Know-How Database to improve and speed-up the solution finding for similar cases in the future. In modern business models many maintenance tasks are outsourced so there is a strong need to include a highly configurable Web Interface for presenting dashboards or simple task panels for external partner companies. Service Assurance should also have control of Service Level Agreement fulfillment and direct communication with the customer, such as through Trouble Ticketing.

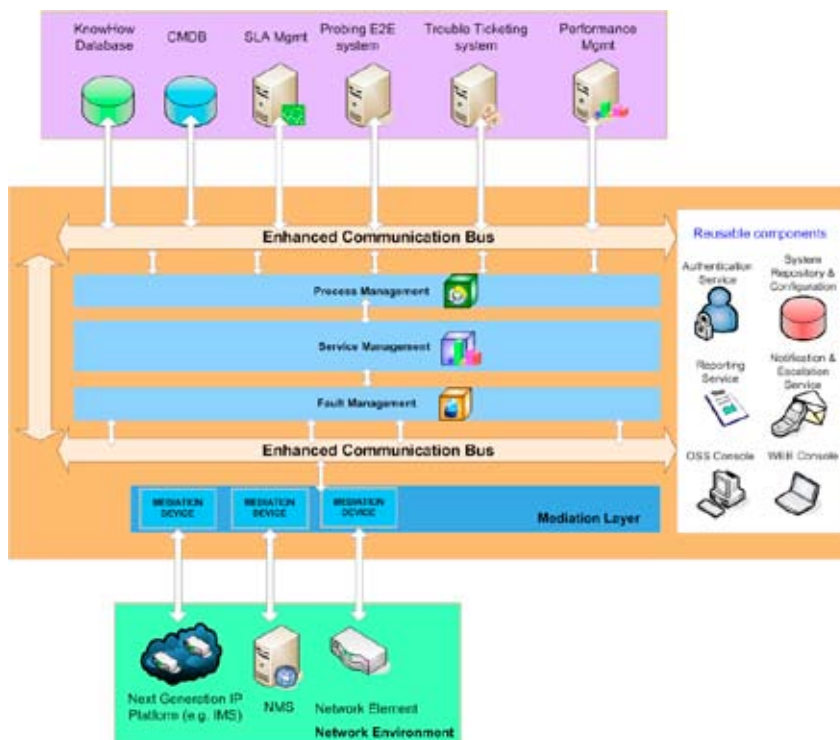
## Business and Operational Benefits

- Instant and comprehensive assurance of offered services
- Shortened time of failure root cause analysis and a speeded-up incident resolution process
- From a customer's perspective it provides more reliable services offered with higher QoS Quicker and more efficient change management
- Automatic business impact analysis giving task prioritization which prevents most important SLA violations, protects VIP customers etc. reducing potential losses
- An open interface strategy makes the solution more flexible also from the perspective of further growth and development
- Optimizes human and network resource usage reducing redundancies and ineffectiveness
- Using the available automations in incident or problem process handling it is possible to exclude human interaction by 60% on average

- A simplified network of staff's every-day activities, in combination with a Know-How Database repository allows the network staff to operate efficiently and quickly

## Comarch's Offer and Vision

Comarch's vision of the realization of the NGS solution is based on the Comarch OSS Suite 4 product modules: Service Management, Fault Management and OSS Process Management. It provides the ability through a very efficient event correlation system to monitor complex services, find a problem's root causes in an automated way, enrich events with business information and most importantly, resolve incidents through structured ITIL founded processes with high task automatization abilities. Seamless integration of all the components with 3rd party software, through OSS/J interfaces, delivers an OSS system which, we trust, moves Service Assurance to the next level.



NGSA Solution Architecture

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