

**COMARCH**



**IMPLEMENTATION OF  
COMARCH NG SERVICE ASSURANCE  
MTS RUSSIA**

## THE BUSINESS NEED

**The customer's perception of the service quality becomes the key issue which operators should try to address and assure that the various variables which influence it are prioritized. However, this is only possible by changing their approach to network management. MTS decided to face this challenge with a structured transformation.**

When MTS decided to start the OSS transformation, their network monitoring was distributed over eight macro-regions. The network management processes and procedures were established centrally, however their implementations had regional specifications. This huge OSS landscape was not completely standardized, therefore it was difficult to maintain all the systems and the network. The situation pushed MTS to make some radical changes.

The project aimed to optimize network management, in order to lower operational costs and increase network and service quality. MTS knew this required a centralized network management, standardized processes and procedures and a unified OSS landscape. Centralization of the monitoring structure in the Global Network Operation Center (GNOC) was also a necessary and important part of the project.

MTS decided to go even one step further and move their network monitoring process into the service layer, in order to fill the gap between the network and the services offered to customers. The aim was to determine, which customers are mostly affected by network problems and establish, which services should be restored first.

## THE CHALLENGE

The transformation project encompassed two parts. The first part was establishing the GNOC, and the second part – implementing Comarch's Next Generation Service Assurance (NGSA), Service Inventory and SLA Monitoring solutions. Both parts were closely connected, and even a single modification in the GNOC concept would cause changes in the NGSA project. Comarch was ready to face those challenges and showed full commitment e.g. in adding new resources to the project and accelerating the schedule of NGSA implementation. The definition of the GNOC concept was based on best practices and the results of joint Comarch-MTS audits performed in the macro-regional NOCs. The joint team also defined a "step-by-step" approach to the handover of the network monitoring from regional NOCs to the centralized GNOC, thus enabling to avoid the network quality degradation.

## CLIENT:

MTS, RUSSIA

## INDUSTRY:

TELECOMMUNICATIONS

Mobile TeleSystems OJSC ("MTS") is the leading telecommunications group in Russia and the CIS, offering mobile and fixed voice, broadband, pay TV as well as content and entertainment services in one of the world's fastest growing regions. Including its subsidiaries, the Group services over 100 million mobile subscribers. The Group has been awarded GSM licenses in Russia, Ukraine, Turkmenistan, Armenia and Belarus, a region that boasts a total population of more than 200 million. Since June 2000, MTS' Level 3 ADRs have been listed on the New York Stock Exchange (ticker symbol MBT). Additional information about the MTS Group can be found at [www.mtsgsm.com](http://www.mtsgsm.com).

## IMPLEMENTED SOLUTION:

- Next Generation Service Assurance (NGSA):
  - Comarch Fault Management
  - Comarch Service Monitoring
  - Comarch Process Management
- Comarch Service Inventory
- Comarch SLA Monitoring

## THE APPROACH

A transition from existing legacy, silo-based OSS to an NGOSS environment that MTS decided to make, requires a strong partnership between a client and a vendor, who is able to adapt the solution to the customer's requirements. Comarch can offer this kind of flexibility, as its solutions are highly configurable and enable a high degree of automation. Comarch's competitive advantage in the OSS area lies in the fact that its products contain sets of ready-to-use profiles, rules, correlations and views.

On the other hand, MTS saw Comarch as a reliable partner, who is not only able to provide high-quality software, but also a comprehensive set of accompanying services, together with specialized knowhow and support. MTS valued Comarch's consulting services in the area of centralizing network operations and the company's consequent participation in the process of defining the concept of a centralized NOC as well as in the project rollout phase.

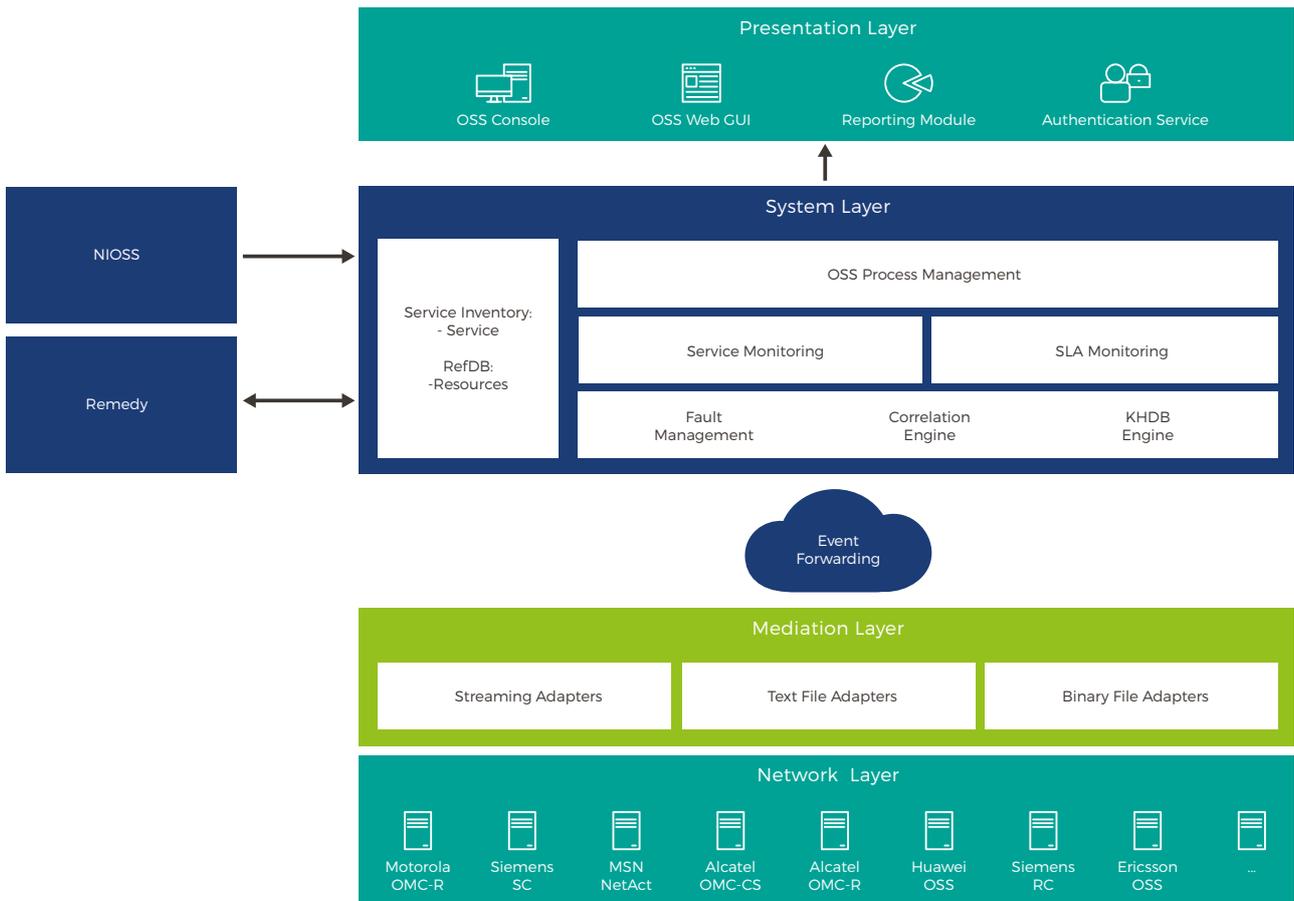


Fig. 1 Proposed architecture of the Comarch NGSA solution

## THE SOLUTION

After an analysis of various areas of MTS' network, a "unified umbrella solution" concept was created, based on the following assumptions:

- **Unification and simplification of MTS' environment**, by providing a single, unified GUI, thus facilitating problem solving without having to use any additional systems
- **Reducing the number of alarms presented and handled by the system operators**, thanks to automating alarm processing through rules utilized by the built-in correlation engine
- **Unifying the structure of the alarms and their enrichment to full meaning alarms**

- **Easier alarm handling** through an introduction of an automated root cause analysis, integrated scripts, as well as alarm qualification and correlation rules
- **Creation of a Know-How Database (KHDB)**, thus assuring fast and simple access to the information
- **Native integration of the service and network layers** in one solution, allowing to capture various dependencies between both layers
- **Inclusion of an embedded process engine**, thus improving relations between processes and other data such as events, related resources or services Inclusion of an embedded process engine, thus improving relations between processes and other data such as events, related resources or services

## THE RESULTS

Comarch successfully implemented its OSS solutions and centralized MTS' network monitoring. A Global Network Operations Center has been located in Krasnodar. Consequently, all the monitoring tasks were smoothly moved to the GNOC. The transition period proceeded without network quality degradation. The new organizational structure and work approach have been established and orchestrated by the newly defined processes.

Comarch NGSAs solution is now used as MTS' main centralized and unified "umbrella solution" for access and core networks almost all around Russia.

Network reliability has been improved – system automation has decreased alarms presented to operators by 50%, with further decrease expected after subsequent improvements towards higher automation. The Know Event Database (KEDB) defines event types and actions with a library of predefined event enrichment rules. The KEDB supports rules such as delaying, suppressing, trashing, acknowledging, changing severity, setting specific values on the events and even more.

MTS shortened problem solving times thanks to the simplification of their system operators' working environment. The main Operator's View provides quick access to the desired information, such as most wanted info, Know-How Database, related TT and processes, information about affected objects, root causes etc. From the same view it is also possible to trigger fixing actions, as well as incident and problem processes. Moreover, seamless integration with existing systems feeds the data required for alarm enrichment and incident solving to the NGSAs solution.

Service quality has been improved by moving network monitoring to the service layer. Comarch Service Inventory is responsible for modeling and storing information about service topologies. The solution is also used to set up propagation rules in the monitored services. Each one of them sets a pattern of system behavior, on how to react in situation when one or more children signal alarm appears.

### Summary of NGSAs project results:

- 300,000 network elements being monitored
- 100 alarms per second gathered on average
- 50% reduction in the number of alarms presented to operators
- 80 concurrent users of the NGSAs Console

## WHY COMARCH?



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Comarch's NCSA solution will enable us to better control service and network quality, while also reducing the amount of manual tasks related to network management. As a result, we will not only improve our customer experience, but also cut operational costs related to managing the network and services..

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**Andrey Seregin, Director**  
Global Network Operations Center  
MTS Group HQ

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## ABOUT COMARCH

Comarch is a provider of complete IT solutions for telecoms. Since 1993 the company has helped CSPs on 4 continents optimize costs, increase business efficiency and transform BSS/OSS operations. Comarch solutions combine rich out-of-the-box functionalities with high configurability and are complemented with a wide range of services. The company's flexible approach to projects and a variety of deployment models help telecoms make networks smarter, improve customer experience and quickly launch digital services, such as cloud and M2M. This strategy has earned Comarch the trust and loyalty of its clients, including the world's leading CSPs: Vodafone, T-Mobile, Telefónica, E-Plus, KPN and MTS.

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