

CASE STUDY

**BETTER CONTROL OF NETWORK
OPERATIONS WITH "UMBRELLA"
FAULT MANAGEMENT
TELEFÓNICA O₂, GERMANY**



THE BUSINESS NEED

For this project, O₂ in Germany did not restrict itself to acquiring a solution that would act as a manager of managers, integrating with its already-existing management systems. Instead, the company aimed to completely replace the element management systems in use. This required a solution with a direct interface to thousands of network elements from different vendors. In order to achieve this, a set of specific data adapters needed to be created.

One challenge was to equip the platform with functionalities enabling the configuration of every network element. The solution should allow the operator to perform all the actions available through the dedicated element management systems used previously, including firmware upgrades, while at the same time should enhance these platforms with additional features. Further, the integration of the systems entailed the development of unified network-level management functions. Apart from that, the solution needed to correlate and subsequently present data gathered from all the managed network elements in one consistent view.

THE CHALLENGE

- Replace the element management system in use with a solution with a direct interface to thousands of network elements from different vendors
- Equip the system with functionalities enabling the configuration of every network element
- Correlate and subsequently present data gathered from all the managed network elements in one consistent view

THE APPROACH

With the implementation of Comarch OSS Suite, an advanced network and service management solution, O₂ in Germany aimed at unifying and simplifying the whole network management process while at the same time decreasing maintenance costs. Taking a closer look at the telecommunications network of any existing operator, it is noticeable that it comprises a wide range of network elements supplied by various vendors. The reason for this is quite simple: the highly-competitive nature of the equipment market allows operators to choose the most cost-effective and technologically-advanced solution paying little attention to the provider. Going one step further, it is important to remember that operators need to manage all of these network devices. Of course, this can be done with a set of disparate proprietary management systems, but this kind of approach is usually expensive and has several flaws unacceptable for O₂. What the operators should be trying to achieve is a single, comprehensive and integrated network management system that directly manages and monitors all the different network elements and services.

CLIENT:

TELEFÓNICA O₂ GERMANY

INDUSTRY:

TELECOMMUNICATIONS

Telefónica O₂ Germany GmbH & Co. OHG belongs to Telefónica Europe and is part of the Spanish telecommunication group Telefónica S.A. The Company offers its German private and business customers postpaid and prepaid mobile telecom products as well as innovative mobile data services based on the GPRS and UMTS technologies. In addition, the integrated communications provider also offers DSL fixed network telephony and high-speed internet. Telefónica Europe has nearly 49 million mobile and fixed network customers in the United Kingdom, Ireland, the Czech Republic, Slovakia and Germany.

IMPLEMENTED PRODUCTS:

- Comarch Network Inventory Management
- Comarch Configuration Management
- Comarch Fault Management

WHY COMARCH?

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The introduction of Comarch OSS Suite was a giant step forward in optimizing operations thanks to integrating the management of our transmission technologies into one homogeneous platform.

Günter Kaufmann, Head of Configuration & Provisioning Systems
Telekom Deutschland

THE IMPLEMENTED PRODUCTS

- Comarch Inventory Management constitutes the basis for other modules which operate using data collected and stored in its database. It is designed to store complete information on network resources. The information is kept up to date with changes occurring in the network thanks to the integrated network reconciliation module.
- Comarch Configuration Management supports the configuration of network elements of O2 network infrastructure in Germany. The functions of this module cover: software/firmware management including scheduled upgrades, direct configuration of each of the network elements via a dedicated GUI, population of the initial configuration of new devices as well as modeling and provisioning of end to end connections.
- Comarch Fault Management module monitors existing network elements that constitute the network infrastructure. It receives, displays and efficiently tracks alarms, all of which allows users to manage potentially debilitating network problems quickly and effectively. The system also enables users to fully configure the way alarms are processed. This is done through the creation of rules utilized by the built-in correlation engine.
- The main goal of Comarch OSS Performance Management (PM) is to provide a centralized point of performance policy monitoring and network performance reporting. Here, the module focuses on collecting all performance data (both short- and long-term) and forwarding it to O2's central PM data analysis system.
- As for the presentation of gathered data, a sophisticated visualization interface was provided. This interface is capable of displaying all elements and alarms. However, apart from simply listing devices and alarms, it is also possible to use maps in order to visualize the status of network infrastructure and services. The system offers a GIS map-based visualization, logical layout as well as a hierarchical view of the network and the devices within.



THE RESULTS

The implementation of the Comarch OSS Suite led to several benefits, including:

- Centralized and unified control across all network domains
- Information on network elements and their configuration gathered in one place
- Seamless integration with the existing environment
- Unified solution for real-time network performance management and monitoring
- Improved network reliability
- Full automation of fault management tasks, including correlation
- Future-proof design (easy to extend)

Thanks to the broad scope of its functionalities, the Comarch OSS Suite was a sure step towards an integrated network management system, simplifying the management process and reducing OPEX.

ABOUT COMARCH

Since 1993, Comarch's specialist telco solutions business unit has worked with some of the biggest telecoms companies in the world to transform their business operations. Our industry-recognized telco OSS and BSS solutions help telecoms companies streamline their business processes and simplify their systems to increase business efficiency and revenue, as well as to improve the customer experience and help telcos bring innovative services to market. Comarch's telco solutions customers include Telefónica, Deutsche Telekom, Vodafone, KPN and Orange.

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