

Swisscom Mobile uses IBM Tivoli Netcool software for 2G and 3G wireless and business service management.

Overview

■ Challenge

Integrate a telecom's fault, performance and service status across an increasingly complex network infrastructure to help operational staff improve service delivery

■ Solution

A common alarm management platform that provides a service-oriented overview of both second and third generation (2G and 3G) infrastructures

■ Key Benefits

Tripled growth of services and infrastructure without a corresponding rise in headcount; reduced volume of network alarms; enabled rapid fault detection and resolution



Swisscom Mobile's common alarm management initiative, with IBM Tivoli Netcool software at its core, helps improve service delivery while controlling operational costs.

Swisscom is Switzerland's leading telecommunications company, with 9.65 billion CHF (7.94 billion USD) in revenue in 2006, a workforce of approximately 17,000 people and a service portfolio that includes products for mobile, fixed and IP-based voice and data communications. Swisscom emerged from the separation of Switzerland's Postal, Telegraph & Telephone agency into individual post and telecommunications companies.

“Tivoli Netcool has enabled Swisscom Mobile to triple its business without increasing headcount.”

– Mr. Rene Luyten, Project Manager, Swisscom Mobile

“The Tivoli Netcool-based common alarm management initiative is a ‘living’ system – it is flexible enough to adapt and grow with us as Swisscom Mobile adds new services and technologies to its portfolio and grows its customer base.”

– Mr. Rene Luyten

Headquartered in Bern, Switzerland, Swisscom Mobile places customers at the center of its corporate vision. The company strives to maintain its market-leading position by offering pre-eminent products and services to its 4.6 million customers. Underpinning its commitment to customer satisfaction is a quality promise to operate an outstanding network for all media (voice, video and data) with worldwide coverage.

Common alarm management

Swisscom Mobile's in-house network management systems and service management solution were not sufficiently equipped to meet the challenge of increased complexity on the Global System for Mobile Communications (GSM) network. This challenge was magnified as the number of new systems — such as the General Packet Radio Service (GPRS) and Universal Mobile Telecommunications System (UMTS) — and new networks — such as Public Wireless Local Area Network (P-WLAN) — were added over the years.

Most of these networks and systems are maintained over individual management platforms and Swisscom Mobile operations staff faced the daunting task of trying to maintain a view of fault, performance and service status across this increasingly complex IT infrastructure. Compounding this challenge were the rapid rise in competition in the mobile services market, the near-saturation of the mobile market and escalating customer expectations with regards to service quality and reliability.

Swisscom Mobile recognized the need for a centralized, flexible, efficient and reliable service assurance system for monitoring existing and future wireless networks. In response, Swisscom Mobile launched a common alarm management initiative that divides its extensive operations infrastructure into three structured management layers:

- *An acquisition layer, which performs the majority of Swisscom Mobile's consolidated operations management*
- *A processing layer, which correlates fault, inventory and workflow data*
- *A presentation layer, which supports service visibility and business service management*

Integrating network information with IBM Tivoli Netcool software

At the acquisition layer, IBM Tivoli Netcool software integrates about twenty element management systems into a single screen. This has helped Swisscom Mobile control staff training costs and triple the growth of its services and infrastructure without a corresponding rise in headcount.

The Tivoli Netcool solution further consolidates event data from Swisscom Mobile's core network, operation and maintenance network, value-added services and radio access network to provide a single view of the status of services to the common application management processing layer. The volume of network alarms has been reduced, enabling Swisscom Mobile's operations teams to respond quickly and proactively to service-affecting faults to meet the company's service commitment to deliver "the best services over the best network."

At the processing layer, data provided by the acquisition layer is correlated and enriched in real time with fault information and inventory data to enable fast resolution of service-affecting and customer-impacting network faults.

Tivoli Netcool software provides event enrichment and integration with external databases, including workflow systems, which enables Swisscom Mobile to automatically dispatch engineers to fix predefined network problems. In all, Tivoli Netcool solutions replaced scripts that took two person-years to develop with 32 policies, developed in just two months. Furthermore, Tivoli Netcool software enables the automatic escalation of alerts, up to management level, for particularly large or critical service outages.

The processing layer, in turn, provides enriched, consolidated and real-time information to the common application management presentation layer. By doing so, it delivers a single, effective management interface of Swisscom Mobile's services, technologies, regions and infrastructure. Tivoli Netcool software delivers Web-based reports on network status by region and technology and can model Swisscom Mobile services and evaluate the service impact.

Key Components

Software

- IBM Tivoli® Netcool®
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“IBM Tivoli Netcool software enables us to deliver more services, to better manage service levels and to better deliver against customer expectations while controlling operating costs and improving operational efficiency.”

– Mr. Rene Luyten

Evolving to a business service management approach

The common alarm management platform, based on Tivoli Netcool software, has delivered solid operating benefits and efficiencies to Swisscom Mobile in a short span of time. These benefits include:

- *Improved and rapid fault detection and resolution*
- *Consolidated operations management and fault correlation*
- *Increased scalability and flexibility*
- *Advanced service views of the IT infrastructure*

“We were able to install and integrate Tivoli Netcool software in around three months,” comments Mr. Rene Luyten, project manager, Swisscom Mobile. “Importantly, the Tivoli Netcool-based common alarm management initiative is a ‘living’ system — it is flexible enough to adapt and grow with us as Swisscom Mobile adds new services and technologies to its portfolio and grows its customer base.”

Mr. Luyten adds, “Tivoli Netcool software has enabled Swisscom Mobile to triple its business without increasing headcount. It enables us to deliver more services, to better manage service levels and to better deliver against customer expectations while controlling our operating costs and improving operating efficiency.”

Business service management is the next step for Swisscom Mobile and will enable proactive service-level management and customer care.

“The customer cares about services, not technology,” says Mr. Luyten.

“Business service management means the definition and prioritization of the different service layers, technologies, networks and devices in our infrastructure and the association of these diverse components with the services that they support.”

For more information

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