How Swisscom Achieved Broadband Access Operational Excellence Utilizing Alcatel-Lucent Network Analyzer

CASE STUDY

Swisccom is the leading services provider in Switzerland offering world class fixed and mobile telecommunications services to residential users and enterprises. The company's philosophy is to provide broad services that are easy to use while delivering superior quality of experience.

Swisscom launched its first DSL offering in early 2001. In just four short years the service had grown to reach one million customers and by the end of 2008, they had nearly 2 million registered customers. In 2006, Swisscom launched its IPTV services under the brand name Bluewin TV. With more than 120 channels and rich array of premium sports and entertainment content, Bluewin TV is the reference digital TV offering available on the Swiss market today.

When Swisscom was working on its future IPTV deployment, the company experts feared DSL line quality issues could affect the IPTV service. Swisscom determined that these issues would need to be under control from the beginning of the IPTV deployment cycle.

To help them address these new challenges Swisscom teamed with Alcatel-Lucent to conduct a series of workshop and technology trials centered around Alcatel-Lucent's 5530 Network Analyzer. As a result Swisscom made the decision to adopt and perform wide-scale rollout of 5530 Network Analyzer to address and solve DSL quality and stability problems.

Alcatel-Lucent recognized early on that a solution had to be crafted around Swisscom's established approach to DSL line management. Swisscom handles access lines activation and service (HSI, IPTV) provisioning as two separate processes. As a result, managing access line speed and service performance were to be handled as separate processes as well. This is approach, also known as the "open pipe" approach, is when access lines are configured to their maximum attainable speed.

To meet their needs around access line provisioning Swisscom uses 5530 Network Analyzer to establish the initial configuration of a DSL line. Further on, as the line is put in operational mode, it is put under the Alcatel-Lucent 5530 Network Analyzer supervision in order to promptly detect possible errors and quality deviations.

Today Alcatel-Lucent 5530 Network Analyzer provides extended support to service activation and service assurance processes of DSL lines at Swisscom. It is actively used by broad category of users within the company as well as by the 3rd party ISP providing broadband access services over the Swisscom DSL network.

Alcatel-Lucent 5530 Network Analyzer is also heavily used in the service assurance domain. The tool interfaces with vari-

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Roland Di Gregorio – Swisscom business architect

ous operational systems. Alcatel-Lucent 5530 Network Analyzer measurements and line diagnostics can be accessed by a variety of Swisscoms key customer service and service delivery stakeholders, including customer care agents, 1st and 2nd level support agents, network experts (xDSL, IPTV) and NOC personnel. The tool performs daily tests on 1.8 million DSL lines. Swisscom also uses the tool to perform in the range of 150 to 200 detailed diagnostic tests per day.

Swisscom and Alcatel-Lucent have also collaborated for the development of a SMS testing module connected to the Alcatel-Lucent 5530 Network Analyzer. When visiting customer homes, technicians have a simple and cost effective way to test the line before considering their task closed. This has reduced the need for Swisscom to deploy costly handheld test equipment in the field, and considerably reduced the investment and time to market for new services.

Swisscom has been using Alcatel-Lucent 5530 Network Analyzer successfully since 2007. In addition to the day to day support of key operational processes, the solution has allowed the following benefits:

- Reduce line problems by a factor of 10 from 6% to 0.6%
- Deliver highest trusted bandwidth to customers
- Minimize service interruption and enable fast problem resolution
- Enable early VDSL2 deployment
- Eliminate the need of costly on-site technician test equipment management tools
- NA integrated in to call center application

Figure 1: 5530 Network Analyzer home page provides links to inspections that have been performed (left) and an overview of network-wide DSL service stability (right)

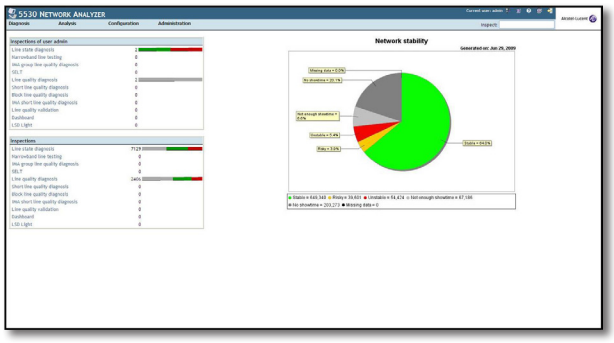


Figure 2: Inspection report for a Line Quality Diagnosis

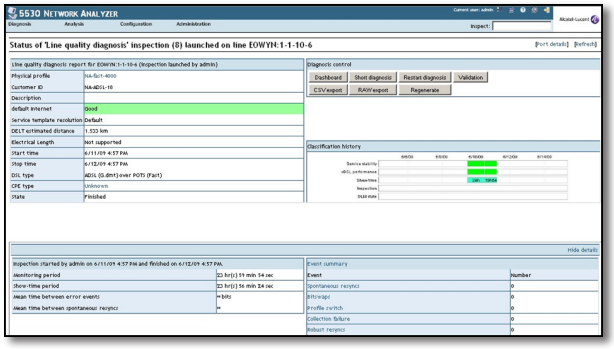
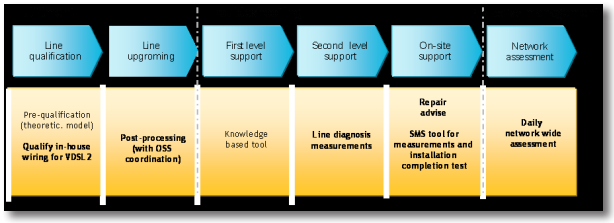


Figure 3: 5530 Network Analyzer role in fulfillment & assurance process



"Thanks to the integration of 5530 Network Analyzer in our troubleshooting processes we can identify problems on the spot and immediately arrange for further actions while the customer is on the line. This streamlines and accelerates the troubleshooting process to a great extent."
Roland Di Gregorio – Swisscom business architect

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