Wireless Service Quality Management
Business Scenario

How Agilent's OSS solutions help wireless service providers manage QoS for a growing range of service offerings - and reduce customer churn

CHALLENGES

- **To accelerate new service deployment and assure service quality**
- **To increase service availability**
- **To empower staff to manage increased complexity of new service infrastructures**
- **To proactively manage new and complex supply chains, including content providers, corporate interconnects and ISPs**
- **To reduce customer churn by offering top service quality and differentiated services**
- **To reduce on-going maintenance and support costs associated with in-house tools**

SOLUTIONS

- Deployment of Agilent OSS Wireless QoS Manager
- Integration with other Agilent OSS solutions

RESULTS

- Service provider gained brand differentiation
- Maximized service revenues, increased market share
- Decreased customer churn/dissatisfaction
- Increased operational efficiency, reduced operational expenses

Wireless service providers do business in an extremely competitive marketplace. Churn is an ever-present threat. New mobile data services provide significant new opportunities for operators to entice away high-value customer from other networks. Customers are quick to jump from service provider to service provider to take advantage of new service offerings, to find higher quality of service or simply to save a few Euros a month on a bill.

To compete successfully, wireless service providers need to differentiate themselves by being the first to market with new, stable, high-quality service offerings. New wireless service offerings can include innovative variants of Short Message Service (SMS), Multimedia Message Service (MMS), which includes picture messaging, streaming content, corporate data services, wireless e-mail, wireless Internet access and Unified Messaging (UM) that enables wireless access to e-mail, voice-mail, faxes, pictures and more.

To win corporate business, a service provider must be able to offer integrated service level agreements (SLAs) tied to service quality. At the same time, these SLAs must go beyond service QoS metrics, such as throughput and response times, to encompass the ability of a provider to respond to faults within agreed limits, such as mean-time-to-repair commitments.

For providers, these new services pose added QoS challenges, especially in light of today's supply chains. No longer do service providers own or control all of the components of the services being offered. Yet customers hold service providers responsible for poor service quality even if a third-party content provider is at fault. Customers expect top service wherever they are, even when they are roaming in a distant country. What's more they want immediate responses to their mobile data requests-waiting even 30 seconds for a credit card authorization is unacceptable.

Scenario:

A major European telecom company, one of the world's largest wireless service providers, was looking for a solution to help them launch new services in less time and maintain the QoS of its new offerings.

Immediate plans called for the launch of a package of bundled wireless services. These included

basic wireless phone service, SMS, MMS, UM, e-mail and an Internet portal. The service provider recognized that the success of these new service offerings would be closely tied to its ability to deliver a consistently good customer experience.

The service provider had tried earlier to build and maintain its own tools for service quality management. It discovered that these in-house tools were hard to develop, expensive to maintain and incapable of growing with the company's service portfolio. What's more, the company determined that its homegrown tools could not monitor three out of five planned new services. The service provider reviewed the situation and decided it should focus on its core competency-being a market leading mobile service provider-rather than try to run a software development business. So the service provider turned to outside technology providers in search of a best-in-class management solution.

After a careful evaluation of available products, the service provider selected Agilent's Wireless QoS Manager. The company's operations team recognized that the solution could not only meet today's service monitoring needs but could grow to meet the company's evolving service offerings such as 3G monitoring, pre-pay services and USSD services. Management saw the Agilent solution as a lower-cost, higher value alternate to the company's legacy in-house system.

The service provider deployed Agilent Wireless QoS Manager in October 2002 and immediately began realizing the associated benefits. When the company was in the process of preparing to do a live demo in conjunction with the launch of a new wireless picture service, Agilent Wireless QoS Manager detected that a critical component of the services being launched was not functioning. This information allowed the operations team to take corrective action before the public demonstration of the service, which was a success.

Today, the solution helps the company's operations team detect service outages in real time. When it detects that service quality has fallen below acceptable levels within different geographies, Agilent Wireless QoS Manager issues alerts to warn NOC operators of the QoS issues. This enables the operations team to work proactively to maintain service quality before the customer experience is affected.

The solution continuously tests a wide range of service variables, such as the amount of time it takes a user to receive a message-waiting notification, the amount of time it take to download a message and the quality of photo images delivered to wireless users.

The company has integrated Agilent Wireless QoS Manager with its Agilent acceSS7 system and GPRS QoS Analyzer tool to passively test connectivity on international roaming call. For an even more extended solution, the company is integrating Wireless QoS Manager with the Agilent OSS Service Problem Management suite, which provides drill-down diagnostic capabilities.

This world-class service provider now considers Agilent Wireless QoS Manager a mission-critical tool that is essential to the company's efforts to deliver the highest levels of service quality for new and existing services. The solution is seen as one of the company's keys to preventing customer churn and increasing revenue from its wireless services.

Solution:

Wireless QoS Manager provides proactive service quality management and analysis of mobile data services. This far-reaching solution encompasses capabilities for active testing of network accessibility, service accessibility, new service benchmarking and verification, data quality, and service success rate. Agilent Wireless QoS Manager uses end-to-end active testing as well as other data collection methods to monitor the key indicators that are necessary for the success of wireless services.

The Agilent solution includes patented SIM card multiplexing capabilities that enable the wireless operator to handle thousands of subscriber identity module cards in one central location. This provides the security, manageability and flexibility necessary to accurately model the service environment and test delivered services.

With Agilent's solution flexibility, SLAs can be created that align with internal service delivery chains. More importantly, these models can easily evolve with the business and be customized to meet the business objectives of individual customers, such as service providers, corporate customers and content providers.

Agilent Wireless QoS Manager addresses the dynamic aspect of troubleshooting and diagnostics with on-demand testing and call trace and review capabilities. On-demand testing allows any test to be executed immediately. This is important for diagnosing service problems, gathering additional information, or verifying problem resolution. The solution also enables detailed call tracing and the logging of information that is vital for efficient troubleshooting and diagnostics.

For more information about Agilent OSS Solutions, and contact information, visit our website:
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