

ASCOM

DEVELOPING AN INTEGRATED QOS SYSTEM FOR USE WITH WIRED AND MOBILE NETWORKS

Challenges

Ascom wanted to widen the customer base of its QVoice product

QVoice required new module to operate across all mobile networks

QVoice needed to expand supportable network standards

Solution

Introduced changes to interface, data presentation and reports

Newly developed software passed rigorous field testing process

Effectuated expansion of supportable mobile network standards

Scalable software can constantly gain new functionality

QVoice can now be used by operators all over the world

Result

Development of QVoice broadened Ascom's customer base

QVoice now compatible with major mobile phone standards and networks

More than 70 mobile network operators worldwide have chosen QVoice

QVoice is also used by the world's leading manufacturers



Client

Ascom, headquartered in Bern, Switzerland is an international solution provider with comprehensive technological know-how. The company's Wireless Solutions division concentrates on high-value, customer-specific on-site communications solutions. The company has subsidiaries in 18 countries and a workforce of 2600 employees worldwide.

“For the last 15 years that we have been working together with Reksoft, we always felt that we can fully rely on them. Their technical excellence puts us ahead of our competitors and results in smooth cooperation with on-time delivery and superb quality. Reksoft ensures high performance standards and a clear communications framework.”

Martin Heusser,
Head of R&D,
Ascom AG Mobile Test Solutions

Challenge

In European countries, where there are typically between three and five competing mobile operators, a key differentiator for their subscribers is call quality. Customers will switch operators if they experience problems due to inadequate services or weak network performance, so maximising customer satisfaction through accurate problem assessment is paramount for mobile operators striving to minimise churn.

Ascom offers operators an analytical tool called QVoice, a sophisticated post-processing system for data and voice measurement and performance that streamlines analysis and report generating tasks. QVoice generates quality-of-service test data that can be compiled by mobile operators' quality departments, and whose engineers can then carry out network optimisation and tuning as required. To widen the customer base for the QVoice system, Ascom needed to develop a new version of its presentation module that would operate across all major mobile networks.



Technology

Borland Delphi, Microsoft SQL Server, Oracle Database, C++, MapInfo

Type of service

Custom application development, consulting, R&D, testing

Scale

40+ man-years

Timeframe

1995 - 1998

Challenge (continued)

This in turn necessitated an expansion in the network standards that the system could support.

Solution

We set up an offshore development centre to develop a new version of QVoice's presentation module with the capability to operate across all major network technologies. After specifications had been agreed on with Ascom, an application prototype was designed by our team, with adjustments to the user interface, data presentation and application-generated reports. All modifications suggested by the client over the course of the application design process were taken into consideration.

The application was based on client/server architecture, with Borland Delphi used as the development environment, and the application uses Microsoft SQL Server as its database management system. A rigorous field test was undertaken to test the effectiveness of the newly developed software. Having met all Ascom's requirements, the newly-developed application replaced the previous presentation module of QVoice.

The implementation of the new application represents a considerable advance over the previous version of QVoice. The most significant enhancement is the expansion in the number of mobile network standards now supported: in addition to GSM/DCS/PCS, QVoice is now available for use with all major mobile phone standards, such as the CDMA, TDMA and iDEN networks. The software upgrade also supports new standards and network protocols like UMTS and GPRS.

The scalable, flexible software we developed is capable of gaining new functionalities to support the latest information technologies, and can be used for routine benchmark drive-testing, indoor performance monitoring, overall trouble shooting and network optimisation by operators all over the world.

Result

Our development of the new QVoice presentation module enabled Ascom to offer a quality measurement system that is available for use with all major mobile phone standards and networks. This increased level of interoperability allowed Ascom to substantially broaden its potential customer base.

Today, QVoice is a flagship product within the Ascom Carrier Systems business unit, which is used by more than 120 mobile network operators worldwide including Vodafone, T-Mobile, Telia Mobile, Swisscom, Orange, Omnitel and BellSouth.

QVoice has also been embraced by the world's leading manufacturers of telecommunications equipment, including Motorola, Ericsson, Siemens, Alcatel Lucent and Nokia.

About Reksoft

Since 1991, Reksoft has been building great teams to develop, migrate or maintain complex, mission-critical software.

We have mastered the dynamics of distributed software engineering, developing a workflow and methodology that improves our performance on every key customer metric, including product quality, time to market, budget adherence, project transparency and issue resolution.

That's why over 97% of our clients come back for more.

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