Billing mediation issues faced by T-Mobile in five territories

T-Mobile has been searching for a central and flexible billing mediation platform for use in five countries – Austria, Germany, the UK, the Czech Republic and the Netherlands – to improve its competitive position on the mobile operations market. Now, with help from system integrator, NEWCON it has implemented Digital Route's Mediation Zone 5, with a target to reduce the total cost of ownership for billing mediation service by 20%.

Jan Karlsson, DigitalRoute T-Mobile International contract is a milestone

T-Mobile, a subsidiary of Deutsche Telekom AG, has 150 million customers in Europe and the USA. And it was the first mobile operator in Europe to provide open internet access for its customers to view news, films, music and infotainment. But, until recently, it faced a number of problems in these European markets that were restricting its competitive position.

Improve the competitive position

Out of date technologies hampered its business support systems (BSS) performance and slowed its time to market with new products. New services and products were also difficult to implement and expensive hardware was needed to mitigate increasing traffic data volumes. So, the following project requirements were set:

Gerald Haidl, NEWCON Strategy and implementation competence

- Improvement of time to market: faster changes to network element functionalities were demanded. New services and products should be offered more easily.
- The operator wanted a next generation international Billing Mediation Device (ngiBMD), able to process the total traffic data for voice, SMS and data generated by the network on a single system.
- The mediation (transmission of data) between the network and the processing unit should be provided centrally as a service for all five countries' fully-owned subsidiaries.

- Development and maintenance should be provided by a common internal unit of T-Mobile International, the Competence Centre Mediation (CCM).
- The system should be deployed in a group data centre, operated by T-Systems Enterprise Services.

Future-oriented technology and implementation experience

After an intensive, one-year vendor selection process NEWCON was selected for the project in April 2009, leading a syndicate of Digital Route for its MediationZone™ core technology, supported by NEWCON for system integration.

Joachim Heybrock, T-Mobile's VP Shared IT Enablers, says: "Due to the fact that we can hardly influence the revenue side we must increasingly see to the expenditures. Because of the proven know-how which extends over several years, as well as the convincing savings potential of the Next Generation Mediation Technology, we decided to assign the syndicate of the two technology partners Digital Route and NEWCON."

Also among the main drivers for involving NEWCON were its long experience with T-Mobile Austria as service integrator, and its choice of next generation mediation technology. As T-Mobile was used to ▶

managing different suppliers, systems and responsibilities, the decision was taken to operate everything from one source: there should only be one software system, one hardware environment, one service partner and one licence for implementation of the data covering three areas; IT, network and finance/controlling.

Technologies used

Digital Route, is a Swedish software company providing mediation and data integration software.

Its core technology is MediationZone™, designed to retrieve, convert and process mass data in telecoms. Every phone call, SMS or internet access of every customer on the domestic market or abroad is registered and evaluated. MediationZone™ and the relevant modules developed by NEWCON enable T-Mobile to manage the commercial and technical sector with one system.

As MediationZone™ is a completely Java-based solution it is hardware-independent. At T-Mobile two Intel-based servers configured in stretched cluster are used to guarantee system stability. As all turnover and revenue-related transactions are processed by these servers, MediationZone™ has to have the highest standards of security, system stability and Sarbanes-Oxley compliance.

Being compatible with all current databases (Oracle or Open source) and operating systems, MediationZone™ does not require any third party software. Christoph Mazakarini, CTO NEWCON and project leader for T-Mobile tells VanillaPlus: "The two servers which we need for complete operation cost US$25,000 per item. This leads to a reduction in CPU costs of 50%, with remarkably better performance at the same time."

Short project lead time

The project was started in Austria last May. First of all the migration of SMS services was achieved, followed by data services. All lines of business were productive by the end of January 2010. Part of the roll-out for the next four countries is being conducted at the same time. Parallel to this the operating platform for data processing was installed in a common data centre, along with the MediationZone software at the Competence Centre Mediation in Prague, Czech Republic. Up to 12 experts from NEWCON have been working on the implementation, partly on site at the customer's premises.

Milos Cimoradsky, Senior Head of Competence Centre Mediation in T-Mobile International reports: "Personal contact is crucial for the co-operation; it helps the experts from T-Mobile and NEWCON to solve issues more efficiently than per emails, and allows for faster implementation. NEWCON experts proved to be highly flexible and technically skilled."

Change Requests are often implemented within 2-3 days. The know-how is transferred from NEWCON to T-Mobile in three stages: training for the correct operation of the data processing centre, developer training at Competence Centre and hands-on training by co-operating on site.

The benefits

The project is still in the implementation phase, however it is already clear to T-Mobile that the demands are being met and the desired benefits can be achieved. The reported benefits are:

- Modifications to active business tariffs can be implemented within a few man-days. This has noticeably improved the competitive position of T-Mobile as more flexible models can be offered to the end-consumer.
- The new platform brings improved transmission time performance. Tests have shown an improvement factor of 3.5, as well as a "remarkable" decrease in CPU costs.
- The solution allows sustainable cost reductions. T-Mobile is able to save costs to compensate for decreasing ARPU (average revenue per user).

Jan Karlsson, CEO of Digital Route, is proud of his new customer: "The conclusion of the contract with T-Mobile International is a milestone. We are proud that the close partnership with NEWCON has developed successfully and are perfectly convinced that we will celebrate further mutual success in future."

Gerald Haidl, NEWCON's CEO, sums up: "We are a partner for T-Mobile who proves competence on two levels: strategy and implementation – that means we support our customers from management consulting to service integration. We are aware of the needs of IT, Technology, Sales and Finance. Only with this overall view are we able to meet the objectives of a major international customer such as DTAG/T-Mobile." $

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T-Mobile Austria is a fully-owned subsidiary of Deutsche Telekom AG, that generated a turnover of €1.08 billion last year with approximately 1500 employees. T-Mobile in Germany, Britain, the Czech Republic and Netherlands are also wholly-owned subsidiaries and together serving roughly 70 million mobile phone customers.

"The major lines of business (GSM, SMS and GPRS) were in production within 6 months."