



TDC Safeguards Cellular Roaming Network

Collaborating with leading Danish telecom operator on one of the world's first active Near Real Time Roaming Data Exchange solution guarantees risk reduction against fraud

The Situation

TDC is a leading provider of communication solutions in Denmark. Customers crossing borders challenges telecom operators to provide uninterrupted mobile services. International roaming agreements allow subscribers to use cell phones from anywhere without having to switch service providers. Under current roaming standards, it takes between 24-36 hours before an operator has information about usage by customers abroad—an opportunity that fraudsters can exploit!

In Denmark, fraud from such instances has never been a major problem, relatively. However, fraudsters don't respect borders and TDC wanted to pre-empt those targeting the Danish market. Near Real Time Roaming Data Exchange (NRTRDE) between operators significantly shortens the 24-36 hour time gap by ensuring

subscriber's host operator receives roaming usage records within four hours of a call ending.

NRTRDE would not only help TDC protect its network against fraud but also help establish its reputation as a highly sought-after roaming partner amongst global operators. TDC sought to implement the NRTRDE format well ahead of October 2008—the cut-off date for all mobile operators to either support NRTRDE or bear a liability for losses arising from fraud. In its quest for a solution, TDC turned to its technology partner, Capgemini. The stakes were high—implementation of the format in a live setting was something that no operator had achieved.

The Solution

Capgemini has worked intimately with TDC for several

Capgemini has once again proven how to use offshoring to deliver the right product at the right cost. Our NRTRDE has been up and running without error for six months now.

Anders Bækgaard, Fraud Manager, TDC





years on a number of business-critical projects. Collaboration on NRTRDE was a natural consequence. Working together, the team implemented an inbound roaming NRTRDE solution in Denmark. The goal—achieve the entire roaming data exchange process from the network all the way through to delivery of NRTRDE files to the data clearing house (MACH) flawlessly, in near-real time.

The Result

TDC's solution was deployed a full year before the deadline, making it one of the first active NRTRDE solutions in the world. The solution has reported zero errors in over six months of live operations. TDC is now at the vanguard of international roaming fraud prevention. This makes TDC a compelling player for other telecom operators looking for a preferred roaming partner and should yield more roaming traffic to TDC's networks and higher revenue.

It is estimated to help TDC reduce fraud losses by up to 75% and absolve fraud liability. If an operator in a country visited by a TDC customer does not conform to NRTRDE after the October deadline, the liability for fraud losses would transfer to the "visited" operator due to its inability to exchange call records with TDC in near real time.

How TDC and Capgemini Worked Together

NRTRDE is the future standard for international roaming fraud prevention. Despite technology to support it being nascent, TDC made the bold decision to implement NRTRDE. Being an early adopter of new technology is always a challenge, especially deploying in real-time in a live environment.

Anders Bækgaard, Fraud Manager, TDC, explains, "NRTRDE was far from being our only project at that point of time, because of which allocation of resources was a time consuming matter. On top of that, tests of data exchange require coordination between many parties. Also, establishing internal procedures to handle NRTRDE was a task in itself."

Despite numerous challenges, implementation was swift and costs were kept to a minimum. TDC had earlier outsourced its mediation department to Capgemini. The mediation team had been absorbed using Capgemini's Rightshore® approach of distributed service delivery. This meant that mediation skills were still available to TDC while supporting areas were managed by Capgemini from its India centers, adding significant roaming expertise to the project without a need to recruit. The NRTRDE project demonstrated the true value of the outsourcing arrangement. Resident knowledge was leveraged to create, analyze, design and code an NRTRDE solution within just one month.

The solution was built using a Comptel mediation system platform (Eventlink) and Oracle as the database. It went into

production after a short test phase with chosen international roaming partners. The second stage of the project, currently ongoing, will enhance the solution by adding GPRS and advanced partial rating and handling.

A fully rated, roaming fraud solution based on NRTRDE yields benefit. It allows TDC to offer a wider, better selection of roaming functionality and enhance its potential as a preferred partner to other operators in the roaming business. Anders summarizes,

collaboration with Capgemini, developed valuable experience concerning NRTRDE. It's always better to be prepared than to learn about international fraud the hard way.

About Capgemini and the Collaborative Business Experience®

Capgemini, one of the world's foremost providers of consulting, technology and

outsourcing services, enables its clients to transform and perform through technologies.

Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working - the Collaborative Business Experience® -

and through a global delivery model called Rightshore®, which aims to offer the right resources in the right location at competitive cost. Present in 36 countries, Capgemini reported 2007 global revenues of EUR 8.7 billion and employs over 83,000 people worldwide.

More information about our services, offices and research is available at **www.capgemini.com**

Capgemini Denmark
Telecom, Media & Entertainment
Technology & Outsourcing Services
Transformational Outsourcing
Advanced Development & Integration
Rightshore®

Approved by:

Anders Bækgaard, Fraud Manager, TDC Thomas Schrader, Director, Telecom Media & Entertainment - Denmark, Capgemini Sine Almstrup, Account Manager, Capgemini

In collaboration with



TDC is the leading provider of communications solutions in Denmark and a strong player in the Nordic business market. It has developed from a traditional provider of landline and mobile services into a provider of modern communications solutions. In all key markets in Denmark, it aspires to be a clear front-runner with a goal to be the most efficient telecom operator in the Nordic region, providing the best coherent services on all terminals and networks, anytime, anywhere. For more information, please visit: http://tdc.com/

Copyright ©2008 Capgemini. No part of this document may be modified, deleted or expanded by any process or means without prior written permission from Capgemini.