Bringing a mobile operator closer to its customers

Project Brief: BT Cellnet

BT Cellnet's call tracing capability enables it to lead the world in its customer care and network quality.



BUSINESS OBJECTIVE

As the mobile network services market matures, operators are seeking differentiation through quality of service and value-added services. BT Cellnet, the leading European GSM operator, sought to address both of these challenges through advanced call tracing facilities. Tracing its customers' calling activities would enable the company to see its own network from the point of view of its customers' experiences. By bringing together information about customer experience and service quality, BT Cellnet could optimise its network coverage. And through the same technology, they could help to protect the public from mobile-originated nuisance calls.

IPL'S SOLUTION

IPL's solution draws together information from BT Cellnet's GSM base stations and from its call switches, into a Trace Centre system.

The Trace Centre extracts very high volumes of Call Detail Records (CDRs) from the switches. It decodes and summarizes them, locating the users to the cell level. The Trace Centre also acts as a clearing centre for CDRs, passing on relevant subsets to other business functions such as fraud control, audit and marketing.

Localization of a network user to the cell level can be followed by pinpointing through network-derived tracing. To do this, the Trace Centre uses BT Cellnet's network facing systems to activate tracing at selected Base Station Controllers, through the GSM A-interface.

The trace centre can also analyse subscribers' experiences in using BT Cellnet's network. Call attempts, both successful and unsuccessful, are analysed over time and geography, to build an accurate picture of the network's end-to-end performance.

The Trace Centre works closely with BT Cellnet's radio equipment. This is dual-sourced by BT Cellnet, and so offers two very different access interfaces and network models. The Trace Centre adds considerable value to BT Cellnet's network management by presenting business users with a single uniform model of the radio layer, despite its underlying heterogeneity.

As befits its high operational value, IPL's software runs on a very high performance high-availability computing platform, connected over an IP network to BT Cellnet's network facing OSS. It processes many gigabytes of CDR information daily, using a performance-optimised RDBMS and object oriented methods.

MANAGING THE PROCESS

The business value of these facilities meant that a solution was required urgently. In BT Cellnet's complex and rapidly moving technical and business environment, IPL brought its depth of experience to bear in identifying the key system features that would address the most critical business issues and bring the best return on investment for BT Cellnet.

IPL continued to add value through the definition of a tight technical specification and the rapid deployment of a pilot system. So high was the delivered quality of IPL's pilot that BT Cellnet was able to take it into operational use ahead of plan, which gave BT Cellnet a business advantage beyond their expectations. IPL proceeded to develop the system into a mature and highly functional tool, linking BT Cellnet's business issues directly to their network technology. All of IPL's deliveries were achieved in advance of schedule, re-enforcing BT Cellnet's expectations of high quality and timely systems work from IPL.

THE OUTCOME

BT Cellnet's call tracing capability enables it to lead the world in its customer care and network quality. The information provided by IPL's Trace Centre software allows BT Cellnet to optimise its network coverage, for example by adjusting cell handover criteria to maximize service availability. Its analysis of customers' interactions with the network gives BT Cellnet an unrivalled ability to manage its service offerings from its customers' point of view.

BT Cellnet has used the Trace Centre as the technical focus of its nuisance caller bureau, and also used it to guide emergency assistance to a number of 999 callers.

FURTHER INFORMATION

Contact:

IPL
Eveleigh House
Grove Street
Bath
BA1 5LR
UK

Telephone: +44(0) 1225 475000
Facsimile: +44 (0) 1225 444400
Email: telecoms@iplbath.com
http://www.iplbath.com

Project Brief IPL 001 BRF T 2.2
Copyright © IPL 2001.
All trademarks acknowledged