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Databases in Telecommunications II

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Preface

Just like the previous workshop at VLDB 1999 in Edinburgh, the purpose of this workshop is to promote telecom data management as one of the core research areas in database research and to establish a strong connection between the telecom and database research communities.

As I wrote in the preface of those proceedings, data management in telecommunications is an interesting area of research given the fact that both service management and service provisioning are very data intensive, and pose extreme requirements on data management technology.

Given the feedback on the previous workshop we decided to keep the same program set-up for this workshop: an invited speaker, a collection of research papers, and a panel discussion. We received 18 good quality papers from which we selected 12 to construct a very interesting program. The program has been divided into four sections.

The first section focuses on CDR data warehouse and data mining technology. Data warehousing and data mining around customer usage data remains an important area of interest for telecommunication operators. The growing competition, especially in the mobile market, means that operators have to put more effort into customer retention and satisfaction.

The second section focuses on performance issues around databases in telecommunication. Since telecommunication databases are characterized by their extreme requirements, for example in terms of volumes of data to be processed or response times, high volume data management and embedded and real-time data management are key aspects of the telecommunication data management problems in today's operational environments.

The third section focuses on database techniques and architectures for the support of data intensive telecommunications services, such as for example broadband services or location services in the context of UMTS. This new generation of services brings new database challenges, such as the modeling and handling of continuous data streams with high quality of service, and the integration of telecommunication and Internet services.

The final section focuses on the embedding of data management technology in the broader perspective of distributed applications and enterprise information management. This is an important topic, since we see a shift from the development of specialized data management solutions by the telecommunication industry towards the application of commercial off-the-shelf technology to the overall information and service architectures.

July 2001

Willem Jonker

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Table of Contents

Telecommunications, Databases and Evolution Jan A. Audestad (Norwegian University of Science and Technology)	1
Data Warehouse Population Platform Jovanka Adzic, Valter Fiore and Stefano Spelta (Telecom Italia Lab)	9
Experimenting NT Cluster Technology for Massive CDR Processing J.E.P. Wijnands, S.J. Dijkstra, W.L.A. Derks and W. Jonker (KPN Research)	19
Mining Sequential Alarm Patterns in a Telecommunication Database Pei-Hsin Wu, Wen-Chih Peng and Ming-Syan Chen (National Taiwan University)	37
Generalized MD-Joins: Evaluation and Reduction to SQL Michael O. Akinde and Michael H. Böhlen (Aalborg University Denmark)	52
Query Processing in Embedded Control Programs David Toman and Grant Weddell (University of Waterloo, Canada)	68
Benchmark for Real-Time Database Systems for Telecommunications Jan Lindström and Tiina Niklander (University of Helsinki)	88
Replication between Geographically Separated Clusters - An Asynchronous Scalable Replication Mechanism for Very High Availability Anders Björnerstedt, Helena Ketoja, Johan Sintorn* and Martin Sköld (Ericsson Research and Development; *Independent Database Technology)	102
Yima: Design and Evaluation of a Streaming Media System for Residential Broadband Services <i>Roger Zimmermann, Kun Fu, Cyrus Shahabi, Didi Shu-Yuen Yao and Hong Zhu</i> (University of Southern California)	116
QuDAS: A QoS-Based Brokering Architecture for Data Services Nektarios Georgalas (Btexact Technologies Research)	126
LDAP, Databases and Distributed Objects: Towards a Better Integration <i>Thierry Delot*, Pascal Déchamboux, Béatrice Finance*, Yann Lepetit,</i> <i>Gilles LeBrun</i> (France Telecom, *PriSM Laboratory University of Versailles St. Quentin)	140
Network Convergence Using Universal Numbers: The UPT Project Munir Cochinwala, Harald Hauser, Naveen Suri (Telcordia Technologies)	155
Toward Universal Information Models in Enterprise Management Jean-Philippe Martin-Flatin (AT&T Labs Research)	167

Author Index

179