

Table of Contents

Session I: Wireless Networks and Communications

Wireless VoIP: Opportunities and Challenges	3
<i>Jin Yang, Ioannis Kriaras</i>	
GSM Mobile Phone Based Communication of Multimedia Information: A Case Study	14
<i>Y.S. Moon, H.C. Ho, Kenneth Wong</i>	
A Witness-Aided Routing Protocol for Mobile Ad-Hoc Networks with Unidirectional Links	24
<i>Ionuț D. Aron, Sandeep K. S. Gupta</i>	
Accessing Opportunities for Broadband Optical Wireless Local Loops in an Unbundled Access Network	34
<i>Edward Mutafungwa, Kamugisha Kazaura</i>	
On Simulation Modeling of Information Dissemination Systems in Mobile Environments	45
<i>Wang-Chien Lee, Johnson Lee, Karen Huff</i>	

Session II: Transaction Processing in Mobile Environments

On the Performance of Transaction Processing in Broadcast Environments	61
<i>Victor C. S. Lee, Sang H. Son, Kwok-Wa Lam</i>	
Transaction Processing in an Asymmetric Mobile Environment	71
<i>Eppie Mok, Hong Va Leong, Antonio Si</i>	
Speculative Lock Management to Increase Concurrency in Mobile Environments	82
<i>P. Krishna Reddy, Masaru Kitsuregawa</i>	
Optimistic Concurrency Control in Broadcast Environments: Looking Forward at the Server and Backward at the Clients	97
<i>Victor C. S. Lee, Kwok-wa Lam</i>	

Session III: Ubiquitous Information Services

Modelling the WAP Transaction Service Using Coloured Petri Nets	109
<i>Steven Gordon, Jonathan Billington</i>	

Enabling Ubiquitous Database Access with XML 119
Hui Lei, Kang-Woo Lee, Marion Blount, and Carl Tait

Design and Evaluation of an Information Announcement Mechanism
for Mobile Computers 135
Shigeaki Tagashira, Fumitake Inada, Keizo Saisho, Akira Fukuda

Active Rule System for Adaptive Mobile Data Access 146
Shiow-yang Wu, Shih-Hsun Ho

Preserving Smooth Traffic and High Presentation QoS for VBR-Encoded
Video 156
Se-Jin Hwang, Myong-Soon Park

Session IV: Mobile Data Replication and Caching

Peer Replication with Selective Control 169
David H. Ratner, Peter L. Reiher, Gerald J. Popek, Richard G. Guy

Cache Coherency in Location-Dependent Information Services
for Mobile Environment 182
Jianliang Xu, Xueyan Tang, Dik Lun Lee, Qinglong Hu

An Autonomous Data Coherency Protocol for Mobile Devices 194
Masahiro Kuroda, Takashi Sakakura, Takashi Watanabe, Tadanori Mizuno

Session V: Mobility and Location Management

Location Management Strategies for Reducing Both Movement Cost
and Locating Cost Simultaneously 209
Chao-Chun Chen, Chiang Lee

Internet Mobility Support Optimized for Client Access and Its Scalable
Authentication Framework 220
Sufatrio, Kwok-Yan Lam

Proxy Agent Consistency Service Based on CORBA 230
Kyung-Ah Chang, Byung-Rae Lee, Tai-Yun Kim

Keynote Speeches

Integrating Mobile Objects into the Wirelessly Wired World:
The Need for Energy Efficient Algorithms 243
Prof. Imrich Chlamtac

Databases Unplugged: Challenges in Ubiquitous Data Management 244
Prof. Michael Franklin

Author Index 245



<http://www.springer.com/978-3-540-66878-7>

Mobile Data Access

First International Conference, MDA'99, Hong Kong,
China, December 16-17, 1999 Proceedings

Leong, H.V.; Lee, W.-C.; Li, B.; Yin, L. (Eds.)

1999, XII, 239 p., Softcover

ISBN: 978-3-540-66878-7