

Mobile Distributed Information Systems

Minitrack Chairs:

Andreas Meissner
Fraunhofer IPSI
meissner@ipsi.fraunhofer.de

Zhou Wang
Fraunhofer IPSI
zwang@ipsi.fraunhofer.de

Lars Wolf
University of Braunschweig
wolf@ibr.cs.tu-bs.de

In today's mobile society, access to relevant information and to context-specific services "anytime, anywhere" is becoming increasingly important. Mobile users are often particularly interested in information *about* and services *in* their immediate vicinity, thus Mobile Distributed Information Systems must address location-dependent distribution *of* and access *to* services and information from mobile devices. In addition to location, other environmental aspects, such as the user's current situation, topology and available bandwidth of wireless networks, battery power and characteristics of mobile devices, are also relevant for determining information and service requirements. For mobile applications, a dynamic reconfigurable architecture is thus required to support flexible reaction to changing contexts and seamless operation in foreign environments, with little or no need for manual reconfiguration. In addition, the wide deployment of mobile devices requires appropriate solution to the design of optimized user interfaces and interaction models. With mobile devices becoming more and more popular and powerful, communication and cooperation between mobile users in an ad-hoc manner are strongly desired. Consequently, the long-established distinction between clients and servers is blurred, which calls for an extension of the architectural paradigm towards peers or alternating roles. This HICSS Minitrack addresses such issues and is intended to serve as a forum for the exchange of ideas in this fast-moving field.

Out of thirty-two submissions addressing a wide range of aspects related to Mobile Distributed Information Systems, twelve excellent papers have been selected for presentation in the four sessions of this Minitrack.

Session I: Service Discovery and Provisioning

Jan Mischke and Burkhard Stiller: *Peer-to-Peer and Distributed Search in Fixed and Mobile Environments*

Teemu Koponen and Teemupekka Virtanen: *A Service Discovery: A Service Broker Approach*

Seng Wai Loke and Arkady Zaslavsky: *Integrated Ambient Services as Enhancement to Physical Marketplaces*

Session II: Mobile Computing with Agents

T.D. Lowen, P.T. O'Hare and G.M.P. O'Hare: *The WAY Ahead: Entity Rendezvous through Mobile Agents*

Christian Erfurth, Arndt Döhler and Wilhelm Rossak: *A First Look at the Performance of Autonomous Mobile Agents in Dynamic Networks*

Nataliya Hristova and G.M.P. O'Hare: *Ad-me: wireless advertising adapted to the user location, device and emotions*

Sessions III: User Interaction with Mobile Devices

Wolfgang Müller, Robbie Schäfer and Steffen Bleul: *Interactive Multimodal User Interfaces for Mobile Devices*

Frode Eika Sandnes, Haavard W. Thorkildssen, Alexander Arvei and Johannes O. Boverud: *Techniques for fast and easy mobile text-entry with three-keys*

Daniel Fällman, Andreas Lund and Mikael Wiberg: *ScrollPad: Tangible scrolling with mobile devices*

Session IV: Cellular Networks and Security

Roger M. Whitaker, Larry Raisanen and Steve Hurley: *A Model for Conflict Resolution between Coverage and Cost in Cellular Wireless Networks*

G. Keith Roberts and James B. Pick: *Technology Factors in Corporate Adoption of Mobile Cell Phones: A Case Study Analysis*

Otto Kolsi and Teemupekka Virtanen: *MIDP 2.0 Security Enhancements*

The following leading experts in the Program Committee have provided valuable help in the preparation of this Minitrack: Heribert Baldus, Maria Francesca Costabile, Carsten Griwodz, Junzhong Gu, Pål Halvorsen, Haiming Huang, David Hutchison, Jae-Yong Lee, Andreas Meissner, Jochen Schiller, Jens Schmitt, Jochen Seitz, Wolfgang Schönfeld, Zhou Wang and Lars Wolf.