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Preface

The beginning of the twenty-first century is characterized by global markets, and the mobility of people is becoming an important fact of life. Consequently, the mobile user is demanding appropriate technical solutions to make use of customized information and communication services.

In this context the notion of next-generation networks (NGNs), which are driven by the convergence of the entertainment sector, the mobile Internet, and fixed/mobile telecommunications, is emerging. Such NGNs are aggregating a variety of different access networks and supporting the seamless connection of an open set of end-user devices, and due to the adoption of an all-IP network paradigm they enable a much better integration of voice and data services. Coincidentally the buzzword ‘fixed mobile convergence’ (FMC) describes the current trend towards providing common services across fixed and mobile networks resulting in the medium term in the full integration of fixed and mobile telecommunication networks.

The adoption of appropriate middleware technologies and the provision of so-called service delivery platforms driven by the ongoing innovation in the field of information technologies provides today the technical foundation for supporting terminal, personal and service mobility and thus the implementation of real seamless information and communication services. Furthermore, users are nowadays looking, in light of an omnipresent service environment, for a much higher degree of customization and context awareness in the services they use.

The papers in this volume look at these enabling mobility-aware technologies and their use for implementing mobility-aware and context-aware applications. Particularly they look at NGN service delivery platform technologies and service control issues for multimedia services, mobility-aware middleware and mobile agent platform technologies, solutions for wireless networks, mobility tracking technologies, new mobile applications and intelligent appliances, context-aware and policy-based and autonomic communications, ambient networks and smart end systems, issues and applications for mobile ad hoc networks and sensor networks, and security technologies for NGNs and context-aware environments.

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August 2005

Thomas Magedanz

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