
Preface

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Biographical notes: Carlos Delgado Kloos obtained the Degree in Telecommunication Engineering from the Technical University of Madrid in 1978 and the PhD Degree in Computer Science from the Technical University of Munich in 1986. Since 1996 he is Full Professor of Telematics Engineering at the Carlos III University of Madrid, where he has held a number of relevant posts. His research interests include internet-based applications, such as electronic publishing, e-learning, and e-commerce. He has been involved in many projects with European, national, and bilateral funding. He has written a book and co-edited four, and published over 140 papers in national and international conferences and journals.

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One of the most active research and development areas in *Internet Technology* today is *Mobile Networked Applications*. Around this topic, many technological research efforts converge: mobile services creation and delivery architectures, integration of the internet world through 3G open service architectures, security trust access control and authorisation in ubiquitous computing, context-aware services, middleware for mobile and pervasive computing, service discovery, multimedia transport over wireless networks, power-aware applications, ... All these topics give just an overall picture of the complexity and diversity of technologies involved in facing the challenging goal of making internet services available everywhere at any time.

This special issue includes selected works in this area covering a comprehensive the state of the art of different key aspects in mobile applications, along with original contributions for the development and deployment of mobile services. These papers were presented at the EUNICE'2005 conference (<http://www.it.uc3m.es/eunice> 2005) held July 2005 at the Colmenarejo campus of the Universidad Carlos III de Madrid. The theme of this years'

edition of the conference series was 'Networked Applications'.

In this special issue, we include seven papers from the EUNICE'2005 conference.

The first one is an interesting work in the area of security; in particular on the analysis of the optimised enhancement of PKI proposed by the WAP forum: the WPKI (Wireless Application Protocol Public Key Infrastructure). An assessment of WPKI limitations and cost in terms of computational complexity and storage capacity is made in this paper.

The second paper in this special issue makes an interesting analysis of the need for application level adaptation to enable full mobility over multiple accesses and terminals such as promised by 3G systems. An architectural framework to accomplish this latter objective in the case of the messaging service is proposed.

The third contribution moves to the context of smart environments. The paper makes a novel proposal with the application of Smart Cards to intelligent network configuration.

Two contributions in the area of context-awareness in m-health (mobile healthcare) services unveil the most important issues addressed by the state of the art. The first one focuses on architectural requirements and functional structure of service frameworks for applications providing permanent remote monitoring and location of patients, while the second addresses solutions to

make active usage of contextual QoS of the access in service delivery.

Additionally, this special issue features two relevant works about networked applications, although not directly related to mobile applications. The two papers show the latest advances towards the design of peer-to-peer-based file systems and multimedia gateways.