

**Proceedings of the International Workshop on  
*Middleware for  
Pervasive Mobile and Embedded Computing*  
M-MPAC 2010**

**co-located with  
ACM/IFIP/USENIX International Middleware Conference  
November 29th, 2010  
Bangalore, India**

***Workshop Editors***

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**Published by:**



**ACM International Conference Proceedings Series  
ACM Press**

**The Association for Computing Machinery, Inc.  
2 Penn Plaza, Suite 701  
New York, New York 10121**

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ACM ISBN: 978-1-4503-0451-1/10/11

## Message from the M-MPAC 2010 Editors

*In recent years pervasive mobile and embedded computing has been spurred on by the resurgence of tablet devices, like the iPad, and the rise of powerful mobile and embedded devices, such as smart phones, netbooks, media players, e-book readers, and TV set-top boxes. These devices combine the performance and rich interaction of PCs with the portability and freedom provided by PDAs, and enable a wide spectrum of novel pervasive applications, ranging from healthcare monitoring, to enhanced shopping environments, ad-hoc gaming, and context-aware collaborative computing. Enhanced with access to cloud computing infrastructures, offering unlimited storage and computing resources, they are able to support pervasive applications of increasing sophistication.*

*Despite some successes, the development of applications for this kind of devices remains largely a complex and time-consuming process. Heterogeneous programming interfaces and platform characteristics mean that applications are built in an ad-hoc manner with little possibility for code reuse. As the number and type of devices and pervasive applications increases, so does the need to enable interoperation between them. In this context, middleware platforms can play a key role by facilitating application development, fostering software reuse, and enabling rapid prototyping of pervasive applications. However, the extent to which traditional middleware abstractions and services can be offered on this kind of devices remains largely unexplored. Simply porting existing middleware platforms on these devices is often not feasible.*

*The M-MPAC workshop, building on the success of last year's event, sought to further develop a roadmap for research on the essential middleware abstractions and infrastructures for pervasive mobile and embedded computing. This year seven papers were selected for inclusion in these proceedings. The papers cover a broad range of issues including dealing with location uncertainty, location privacy management, location and proximity-based device authentication, network communication over multiple platforms, vehicle context-awareness, model-based adaptation, and support for anywhere/anytime personal computing.*

*We would like to thank the authors for presenting their work in this forum, and the workshop participants for their insights and contributions to the workshop discussions. Special thanks go to Venu Vesudevan and Nitya Narasimhan for their help with the organisation of this workshop, Sougata Mukherjea for his keynote speech on the work of the Telecommunication Research and Innovation Center of IBM Research India, and all members of the programme committee for providing constructive reviews and helping shape the workshop program.*

*Finally, the M-MPAC organizers wish to thank the Middleware organizers, namely the Middleware Workshops Chairs.*

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# M-MPAC 2010

## International Workshop on Middleware for Pervasive Mobile and Embedded Computing

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*Ian Wakeman, University of Sussex, UK*



# M-MPAC 2010

## International Workshop on Middleware for Pervasive Mobile and Embedded Computing

### Table of Contents

#### **Exposing Position Uncertainty in Middleware**

*J. Langdal (Alexandra Institute, Denmark), M.B. Kjaergaard (Aarhus University, Denmark),  
T. Toftkjaer (Systematic A/S, Denmark), K.R. Schougaard (Aarhus University, Denmark)*

#### **Jano – Specification and Enforcement of Location Privacy in Mobile and Pervasive Environments**

*J. Simão (ISEL/ INESC ID, Portugal),  
C. Ribeiro (INESC ID/ Technical University of Lisbon, Portugal),  
P. Ferreira (INESC ID/ Technical University of Lisbon, Portugal),  
L. Veiga (INESC ID/ Technical University of Lisbon, Portugal)*

#### **The Virtual Network System**

*J. Määttä (Aalto University, Finland), R. Järvinen (Aalto University, Finland),  
R. Luostarinen (Aalto University, Finland), J. Manner (Aalto University, Finland)*

#### **Beaconing support in Publish-Subscribe Middleware for Vehicular Applications**

*V. Gianuzzi (DISI - Università di Genova, Italy), A. Merlo (DISI - Università di Genova, Italy)*

#### **A Location Based Security Framework for Authenticating Mobile Phones**

*L. Francis (Royal Holloway University of London, UK),  
K. Mayes (Royal Holloway University of London, UK),  
G. Hancke (Royal Holloway University of London, UK),  
K. Markantonakis (Royal Holloway University of London, UK)*

#### **Model-based Translucency in Middleware: Supporting Seamless Development**

*K.R. Schougaard (Aarhus University, Denmark), J. Langdal (Alexandra Institute, Denmark)*

#### **System Support for Anywhere Anytime Personal Computing Environment**

*M. Al-Mutawa (University of Colorado, USA), S. Mishra (University of Colorado, USA)*

