Electronic Communications of the EASST Volume 43 (2011)



Proceedings of the 4th International DisCoTec Workshop on Context-aware Adaption Mechanisms for Pervasive And Ubiquitous Services (CAMPUS 2011)

Preface

4 pages

Guest Editors: Gabriel Hermosillo, Russell Nzekwa, Michael Wagner Managing Editors: Tiziana Margaria, Julia Padberg, Gabriele Taentzer ECEASST Home Page: http://www.easst.org/eceasst/

ISSN 1863-2122



Preface

Nowadays, there is a global exponential increase in the use of portable smart devices, such as tablets, smart phones, GPS, etc. These small devices have a huge impact on the everyday life of its users, either for work or leisure. As a consequence to this, the availability and behavior of the services that can be used with such devices has become a big concern. Moreover, the existing tools still have some limitations to face these concerns properly, given the heterogeneity and the unstable presence of devices and platforms, and the great variability of situations that users might encounter. To overcome these difficulties, and promote the development and widespread deployment of innovative mobile applications, more and more projects are addressing the development of context-aware adaptation mechanisms for leveraging the development of mobile applications interacting in pervasive and ubiquitous environments. Thus, these projects, as well as other projects, tackle the growing complexity of building large and dynamic distributed systems. With regards to this challenge, the CAMPUS workshop will focus on the promising approaches in the domain of context-aware adaptation mechanisms supporting the dynamic evolution of the execution context (e.g., network/device/service failures).

This volume contains the proceedings of the fourth workshop on Context-aware Adaptation Mechanisms for Pervasive and Ubiquitous Services, held in Reykjavik, Iceland, on June 9, 2011. The CAMPUS workshop is jointly organized by the MUSIC, CONNECT, and DiVA IST projects. It provides a forum for scientists and engineers in academia and industry to present and discuss their latest research. The focus of the conference is the design, implementation, deployment, and evaluation of adaptive platforms and architectures for context-aware environments. This year, the workshop intends to encourage submissions related adaptation issues addressed by some emerging themes in the service computing community: Sensor as a Service, Ambient Social Services and Green IT. We had 4 submissions from 4 different countries, among which only 3 papers were selected for inclusion in the program of the workshop. All papers were evaluated by at least four reviewers with respect to their originality, technical merit, presentation quality, and relevance to the workshop themes. The selected papers present the latest results and breakthroughs on middleware research in areas of automotive systems, ubiquitous environments, pervasive environments, ambient computing and multimedia computing. We would like to express our deepest appreciation to the authors of the submitted papers, to all Program Committee members for their diligence in the paper review and selection process, and to all external reviewers for their help in evaluating submissions.

June, 2011

Gabriel Hermosillo Russel Nzekwa Michael Wagner





Organization

Steering Committee

Sonia Ben Mokhtar	CNRS, France
Frank Eliassen	University of Oslo, Norway
Kurt Geihs	University of Kassel, Germany
Svein Hallsteinsen	SINTEF ICT, Norway
Geir Horn	SINTEF ICT, Norway
Valérie Issarny	INRIA, France
Romain Rouvoy	University Lille 1, France
Lionel Seinturier	University Lille 1, France

Organisation Committee

Program chair	
Gabriel Hermosillo	INRIA Lille Nord Europe, France
Publicity chair	
Russel Nzekwa	INRIA Lille Nord Europe, France
Publication chair	
Michael Wagner	University of Kassel, Germany



Program Committee

Olivier Barais University de Rennes 1, France Sonia Ben Mokhtar **CNRS**, France **Yolande Berbers** K.U.Leuven, Belgium Gordon Blair Lancaster University, UK Johann Bourcier Irisa - Univ. Rennes 1 & INRIA, France Franck Chauvel Peking University, China Ruzanna Chitchyan Lancaster University, UK **Diana** Comes University of Kassel, Germany Denis Conan Institut Telecom, France Geoff Coulson Lancaster University, UK Wolfgang De Meuter Vrije Universiteit Brussel, Belgium Schahram Dustdar Vienna University of Technology, Austria Frank Eliassen University of Oslo, Norway Gabriel Hermosillo INRIA – Nord Europe, France Geir Horn SINTEF ICT, Norway Joseph Loyall **BBN** Technologies, Massachusetts Ilaria Matteucci Istituto di Informatica e Telematica, Italy René Meier Trinty College Dublin, Ireland Nearchos Paspallis University of Cyprus, Cyprus Pascal Poizat University of Evry, France Hongyang Qu Oxford University, UK University Lille 1, France Romain Rouvoy Rachid Saadi **INRIA**, France Antonino Sabetta SAP Research Sophia-Antipolis, France Lionel Seinturier University Lille 1, France Sotirios Terzis University of Strathclyde, UK Massimo Tivoli University of L'Aquila, Italy Guido Urdaneta Vrije Universiteit, Netherlands Michael Wagner University of Kassel, Germany

External Referees

Kevin Pinte

Vrije Universiteit Brussel, Belgium

Preface



Contents

Volatile Sets: Event-driven Collections for Mobile Ad-Hoc Applications Dries Harnie, Elisa Gonzalez Boix, Andoni Lombide Carreton, Christophe Scholliers and Wolfgang De Meuter

Context awareness: Challenges and opportunities in modern smartphone use *Nearchos Paspallis and Gabriel Panis*

Towards a Flexible and Evolvable Framework for Self-Adaptation *Lucas L. Provensi and Frank Eliassen*