ICDT 2012

Foreword

The Seventh International Conference on Digital Telecommunications [ICDT 2012], held between April 29th and May 4th, 2012 in Chamonix / Mont Blanc, France, continued a series of special events focusing on telecommunications aspects in multimedia environments. The scope of the conference was to focus on the lower layers of systems interaction and identify the technical challenges and the most recent achievements.

High quality software is not an accident; it is constructed via a systematic plan that demands familiarity with analytical techniques, architectural design methodologies, implementation polices, and testing techniques. Software architecture plays an important role in the development of today's complex software systems. Furthermore, our ability to model and reason about the architectural properties of a system built from existing components is of great concern to modern system developers.

Performance, scalability and suitability to specific domains raise the challenging efforts for gathering special requirements, capture temporal constraints, and implement service-oriented requirements. The complexity of the systems requires an early stage adoption of advanced paradigms for adaptive and self-adaptive features.

Online monitoring applications, in which continuous queries operate in near real-time over rapid and unbounded "streams" of data such as telephone call records, sensor readings, web usage logs, network packet traces, are fundamentally different from traditional data management. The difference is induced by the fact that in applications such as network monitoring, telecommunications data management, manufacturing, sensor networks, and others, data takes the form of continuous data streams rather than finite stored data sets. As a result, clients require long-running continuous queries as opposed to one-time queries. These requirements lead to reconsider data management and processing of complex and numerous continuous queries over data streams, as current database systems and data processing methods are not suitable.

We take here the opportunity to warmly thank all the members of the ICDT 2012 Technical Program Committee, as well as the numerous reviewers. The creation of such a high quality conference program would not have been possible without their involvement. We also kindly thank all the authors who dedicated much of their time and efforts to contribute to ICDT 2012. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

Also, this event could not have been a reality without the support of many individuals, organizations, and sponsors. We are grateful to the members of the ICDT 2012 organizing committee for their help in handling the logistics and for their work to make this professional meeting a success.

We hope that ICDT 2012 was a successful international forum for the exchange of ideas and results between academia and industry and for the promotion of progress in the field of digital communications.

We are convinced that the participants found the event useful and communications very open. We also hope the attendees enjoyed their stay in the French Alps.

ICDT Advisory Committee:

Constantin Paleologu, University Politehnica of Bucharest, Romania
Tomohiko Taniguchi, Fujitsu Laboratories Limited, Japan
Jaime Lloret Mauri, Polytechnic University of Valencia, Spain
Abdulrahman Yarali, Murray State University, USA

Michael Grottke, University of Erlangen-Nuremberg, Germany
Javier Del Ser Lorente, TECNALIA RESEARCH & INNOVATION - Zamudio, Spain
Saied Abedi, Fujitsu Laboratories of Europe Ltd. (FLE), UK
Gerard Damm, Alcatel-Lucent, USA
Dan Romascanu, Avaya, Israel
Klaus Drechsler, Fraunhofer Institute for Computer Graphics Research IGD - Darmstadt, Germany