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# Middleware 2008

ACM/IFIP/USENIX

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Proceedings



Springer

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# Preface

This volume contains the proceedings of the International Middleware Conference, held in Leuven, Belgium during December 1–4, 2008. This year marked the ninth rendition of this annual conference in its current format initially adopted in 1998, aspiring to serve as the premier venue focusing exclusively on important middleware results. A lot has happened over the intervening 10-year span. Middleware has become pervasive in an increasingly interconnected world, with its concepts now securely embedded in the notional architectures driving forward the information age. The conference continues to be a focal point for important new initiatives and results for new generations of middleware. With each succeeding year, it has become an even more competitive publishing venue, further extending its selectivity this year as well. Of the 117 submissions, only 21 were able to receive acceptance invitations, for an acceptance rate of less than 18%. Competitive indeed. Additionally, these submissions continue to come from all over the globe, spanning authors from 23 countries. A truly world-wide endeavor.

But other things have also changed as we turn the corner on the first decade of this conference. In many ways, middleware has achieved significant success where it really counts: in terms of technical innovations, advanced capabilities, successful ideas, and fielded systems which permeate society, industry, government, and academia. With this success comes maturity. Many of the themes which kicked off the focus on these intermediary technologies have long since transitioned, and with each new middleware conference, the field takes on a slightly different view from earlier. This year, the topics were a bit more diverse, and represent a blend of maturing themes and new areas of focus for the conference. Accepted papers in this proceedings volume fall roughly under four categories: four papers concerned with platforms extended to new capabilities (e.g., mobility, off-line operation), six papers concerned with advanced software engineering focusing on specific system properties, five papers focusing on overall system management techniques, and six papers concerned with components and system algorithms and properties. Notably, new avenues of investigation are coupled with application initiatives and focused properties in deriving new uses and more detailed scenarios of operation. And more attention is now focused on keeping systems running or running correctly, in place of merely creating the system; moreover, focus is shifting to managing resources of the “virtual” variety, in addition to real and countable ones. Those are all measures of maturing, but they also leave wide open-space for another wave of innovation. In seeking these new tributaries from the earlier basics, we are in fact laying a foundation for new generations of middleware pursuits.

The proceedings contain 21 papers covering a wide-range of recent research. Each paper submitted to Middleware 2008 was reviewed by a minimum of three

members of the Program Committee (PC), with many having four PC member reviewers. After initial reviews were posted, papers with multiple positive reviews were subject to interactive conferencing among the reviewers and PC Chairs to debate the pros and cons of each and to allow discussion of differing viewpoints among reviewers. From these, a more manageable set was selected, discussed and debated among the entire PC to arrive at the final program. New to this conference was a shepherding process for a number of papers which were conditionally accepted pending changes suggested and requested by reviewers toward an improved quality of the submission. From this extensive and interactive, multi-pass process, we believe the proceedings capture the best of the submissions and provide the reader with the highest quality, most readable results. We hope you agree. The PC Co-chairs thank each and every one of the 47 members of the PC for putting forth the timely and extra effort involved with this process; as a result of their diligence these results are available to all.

In addition to the regular papers in the proceedings, this year we introduced a separate industry track, with its own call for papers, and its own mini-PC. It was our intent to provide an avenue for papers better suited to industry concerns and perspectives than to more traditional research papers. These additional papers are made available separately. The industry track session, along with continuing venues for a Work in Progress (WiP) session providing an early look at emerging new research, keynote speakers, panel and demos and posters sessions, complemented by two days of workshops, and the third annual Doctoral Symposium, round out the program for Middleware 2008.

We hope you share our enthusiasm for the results. In closing we would also like to express our deepest gratitude to the General Conference Chairs, Wouter Joosen and Yolande Berbers, the Special Session Chairs, Fred Douglass, Cecilia Mascolo and Bert Lagaisse, the Publicity Co-chairs, Michael Atighetchi and Sonia Ben Mokhtar, and to Richard van de Stadt and Davy Preuveneers for help with online tools for the conference and program selection process, each contributing significantly to a successful conference.

September 2008

Valérie Issarny  
Rick Schantz

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