Call for Papers

ACM/IFIP/USENIX International Middleware Conference

`http://middleware2003.inf.puc-rio.br`

`http://gsd.ime.usp.br/middleware2003`

Rio de Janeiro, Brazil, 16-20 June 2003

Overview

Requirements for faster development cycles, decreased effort, greater software reuse, and better end-to-end control over system resources are motivating the creation and use of *middleware* and *middleware-based architectures*. Middleware is systems software that resides between the applications and the underlying operating systems, network protocol stacks, and hardware. Its primary role is to (1) *functionally* bridge the gap between application programs and the lower-level hardware and software infrastructure in order to coordinate how parts of applications are connected and how they interoperate and (2) enable and simplify the integration of components developed by multiple technology suppliers.

Next-generation distributed applications and systems will increasingly be developed using middleware. This dependency poses hard R&D challenges, including latency hiding, masking partial failure, information assurance and security, legacy integration, dynamic service partitioning and load balancing, and end-to-end quality of service specification and enforcement. To address these challenges, researchers and practitioners need to discover and validate techniques, patterns, and optimizations for middleware frameworks, multi-level distributed resource management, and adaptive and reflective middleware architectures.

Following the success of past conferences in this series (Lake District/UK, Palisades/NY, and Heidelberg/Germany) and buiding upon the success of past COOTS conferences, the 4th International Middleware Conference will be the premier event for middleware research and technology in 2003. The scope of the conference is the design, implementation, deployment, and evaluation of distributed system platforms and architectures for future computing and communication environments. Highlights of the conference include a high-quality technical program, tutorials, invited speakers, poster presentations, and workshops, all held in one of Brazil's most outstanding areas of natural beauty.

The proceedings of Middleware'2003 will be published as a volume of the Lecture Notes in Computer Science.

Topics of Interest

The topics of this conference include, but are not limited to:

- Distributed real-time and embedded (DRE) middleware platforms
- Reliable and fault-tolerant middleware platforms
- Support for multimedia in middleware platforms
- Novel quality of service (QoS) architectures and evaluation techniques
- Event-based, publish/subscribe and asynchronous middleware platforms
- Open architectures for reconfigurable middleware
- Adaptive and reflective middleware
- Middleware protocols and services for information assurance and security
- Formal Methods applied to middleware
- Management and use of component-based systems in distributed environments
- Applications of middleware technologies, including telematics and e-commerce
- Novel paradigms, APIs, and languages for distributed systems
- Integration of middleware with model-integrated computing architectures, such as OMG MDA
- Extensions and refinements to RM-ODP, CORBA, J2EE, .NET, etc.
- Impact of emerging Internet technologies and standards on middleware platforms
- Integration of middleware platforms with Web services and Java technologies
- Distributed systems management and interactive configuration and development tools
- Issues of scalability in existing and new distributed systems platforms
- Engineering distributed systems in heterogeneous and mobile networks
- Middleware for ubiquitous and mobile computing

Organization

General Chair:	Carlos J.P. Lucena (PUC-Rio, Brazil)
Program co-Chairs:	Douglas Schmidt (UC Irvine, USA)
	Markus Endler (PUC-Rio, Brazil)
Local Arrangements co-Chairs:	Alexandre Sztajnberg (UERJ, Brazil)
	Renato Cerqueira (PUC-Rio, Brazil)
Work in Progress and Posters Chair:	Guruduth S. Banavar (IBM T.J. Watson, USA)
Advanced Workshops Chair:	Gordon Blair (Lancaster University, UK)
Tutorials Chair:	Frank Buschmann (Siemens AG, Germany)
Publicity co-Chairs:	Fabio Costa (UFG, Brazil)
	Fabio Kon (IME-USP, Brazil)

Program Committee

Gul Agha (U. of Illinois, Urbana Champaign, USA)
Jean Bacon (Cambridge U., UK)
Gordon Blair (U. of Lancaster, UK)
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Chris Gill (Washington U., St. Louis, USA)
Andy Gokhale (Vanderbilt U., USA)
Rashid Guerraoui (EPF Lausanne, Switzerland)
Arno Jacobsen (U. of Toronto, Canada)
Peter Honeyman (CITI, U. of Michigan, USA)
Fabio Kon (U. of São Paulo, Brazil)
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Guy LeDuc (U. of Liege, Belgium)
Orlando Loques (UFF, Brazil)
Joe Loyall (BBN Technologies, USA)
Raimundo J. de Araujo Macedo (Federal U. of Bahia, Brazil)
Edmundo R. Mauro Madeira (U. of Campinas, Brazil)

Jan de Meer (condat AG, Germany)
Klara Nahrstedt (U. of Illinois, Urbana Champaign, USA)
Priya Narasimhan (Carnegie Mellon U., USA)
Carlos Pereira (UFRGS, Brazil)
Vijay Raghavan (DARPA, USA)
Kerry Raymond (DSTC, Australia)
Luis Rodrigues (U. of Lisboa, Portugal)
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Alexander Schill (Technical U. of Dresden, Germany)
David Sharp (The Boeing Company, USA)
Jacob Slonim (Dalhousie U., Canada)
Jean-Bernard Stefani (INRIA, Grenoble, France)
Joe Sventek (Agilent Labs, UK)
Janos Sztipanovits (Vanderbilt U., USA)
Nalini Venkatasubramanian (U. of California, Irvine, USA)
Steve Vinoski (IONA Technologies, USA)
Werner Vogels (Cornell U., USA)
Martina Zitterbart (U. of Karlsruhe, Germany)

Submission Deadlines

Full Papers:	30 December 2002
Workshop Proposals:	20 October 2002
Work in Progress Papers, Workshop Papers, and Posters :	20 February 2003
Tutorial Proposals:	15 January 2003

More Information

For further information, please visit the conference home page: **http://middleware2003.inf.puc-rio.br** or, for questions regarding the conference program, contact the PC chairs, Douglas Schmidt (schmidt@cs.wustl.edu) or Markus Endler (endler@inf.puc-rio.br). For other questions contact the local arrangements chairs, Alexandre Sztajnberg (alexszt@uerj.br) or Renato Cerqueira (rcerq@inf.puc-rio.br).