2005 EDOC: Meeting the Challenges of Enterprise Computing

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With advances in services computing technologies and infrastructure, there are increasing demands for ubiquitous access to networked services to support enterprise business processes. An *enterprise service* refers to an application component that provides either some e-business functionality or information to accomplish some business task through Web and wireless technologies.

An increasing demand for interoperable applications exists, sparking the real-time exchange of data across borders, applications, and IT platforms. To perform these tasks, *enterprise computing* now encompasses a new class of ground-breaking technologies such as Web services and service-oriented architecture (SOA); business process integration and management; and middleware support, like that for utility, grid, peer-to-peer, and autonomic computing. Enterprise computing also influences the processes for business modeling, consulting, and service delivery; it affects the design, development, and deployment of software architecture, as well as the monitoring and management of such architecture.

LATEST TREND: WEB SERVICES

In particular, enterprise computing has come to encompass Web services—network-based application components that work within a service-oriented architecture by using standard interface description lan-

As enterprises demand increasing levels of networked information and services to carry out business processes, IT professionals need conferences like EDOC to discuss emerging technologies and issues in enterprise computing.

guages and uniform communication protocols. Web services let individuals and organizations do business over the Internet using standardized protocols

that facilitate application-to-application interaction. Because of this field's importance, standards organizations such as the Web Services Interoperability (WS-I) Organization, the World Wide Web Consortium (W3C), the Organization for the Advancement of Structured Information Standards (Oasis), and the Liberty Alliance are actively developing standards for Web services.

To tackle this new and challenging research area, the IEEE Computer Society officially launched the Technical Steering Committee for Services Computing (TSC-SC) in November 2003. IBM also recently proposed an emerging research area called *services science* that, aside from technical issues, also addresses cultural transformation or integration methods based on the beliefs, assumptions, principles, and values of two enterprises doing business together. These initiatives underscore the increasing importance and relevance of research into enterprise services computing.

EVOLVING CONFERENCE

For these reasons, what started out as the Enterprise Distributed Object Computing (EDOC) Conference has come to encompass much more than just distributed objects. So this event now uses the name International EDOC Enterprise Computing Conference, to recognize this broader scope yet also retain the initial conference's name recognition.

Since 1997, EDOC has grown into an annual event focusing on the con-

vergence of the paradigms, technologies, and methods involved in enterprise computing. Now in its ninth year, this conference brings together leading researchers, architects, and practitioners from both academia and industry to discuss enterprise computing challenges and solutions. This year, EDOC convened from 19 to 23 September in Enschede, Netherlands.

EDOC's ongoing goal is to identify emerging technologies and trends, and focus discussion on the most promising solutions. EDOC focuses on integration and interoperability issues as they relate to business, application, and middleware levels of IT.

EDOC 2005

EDOC 2005 included 25 research papers in eight sessions:

- Enterprise Computing—Support for Business Processes,
- Real-Time Applications for the Extended Enterprise,
- Interoperability Models, Platforms, and Techniques,
- Model-Driven Architecture (MDA) and Other Model-Driven Approaches,
- Modeling and Description Languages,
- Inter-Enterprise Collaboration and Virtual Enterprises,
- Trust, Security, Privacy, and QoS Issues in Enterprise Computing, and
- Service- and Component-Oriented Development and Architecture.

An article in session 6, "Improving IT Management at the BMW Group by Integrating Existing IT Management Processes," is of particular interest to *IT Pro* readers. It discusses BMW's integrated IT management process, which relies on a four-pronged division of processes into strategy, architecture, planning, and control.

There were also three keynote speakers for this year's conference. Frank Leymann from the University of Stuttgart delivered the talk, "Web

Services—A New Way to Think About IT," which discussed the research views and trends of Web services technology and grid infrastructures. Fabio Casati from Hewlett-Packard Laboratories

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delivered the talk, "IT Can Run, but IT Can't Hide: The Quest for Visibility and Control in Business Process Management," in which he discussed the importance of achieving visibility, measurability, and control in business process management. Finally, Thomas J. Greene of the Massachusetts Institute of Technology spoke about "Changing the Way the Enterprise Works: Operational Transformations," which documented the personal changes in the ways enterprise customers use the Internet and Web.

Five workshops rounded out the EDOC program, including those on Middleware for Web Services; Open Distributed Processing for Enterprise Computing; Interoperability; Vocabularies, Ontologies, and Rules for The Enterprise; and Contract Architectures and Languages.

For example, the workshop on Interoperability included presentations from the Interop Network of Excellence, a three-year project supported by the European Commission. The Interop NOE aims to create the conditions and alliances necessary for innovative research in the domain of interoperability for enterprise applications and software.

EDOC 2005 continued to strengthen the foundation for tackling the research challenges inherent in enterprise computing. The other organizers and I look forward to

the next EDOC in Hong Kong, 16 to 20 October 2006. For more details, visit <http://www.edocconference.org>. ■

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