Abstract—This workshop is concerned with advances in QoS-oriented techniques and tools for managing enterprise architectures, encompassing approaches to monitoring, diagnostics, runtime analysis and prediction and adaptation. Model-driven and service-oriented approaches are a special focus of the workshop.

Keywords-quality-of-service; service management; monitoring

I. WORKSHOP GOALS

Service Level Management (SLM) is the process of managing the Quality of Service (QoS) demanded by clients and offered by providers. In the past, SLM approaches have focused on service contract definition, monitoring and reporting and have typically been handled by enterprise system management tools such as Microsoft’s SMS, CA’s Unicenter and Empirix’s OneSight.

However, traditional approaches are inadequate when dealing with complex service-oriented architectures. Service-oriented architectures are compositional, dynamic and often distributed over the internet. For such architectures, SLM becomes a difficult problem that can no longer be handled by traditional monitoring tools. This is because of the dynamic, flexible, compositional and global natures of SOAs.

This workshop is concerned with the issues that are important to modern QoS management: the modeling and analysis of QoS aspects of SOAs, the monitoring of widely distributed components, dynamic adaptation strategies and the necessity for more sophisticated prediction and diagnostic analysis techniques. Model-driven approaches to these issues are a special focus of the workshop.

The workshop brings together researchers from academia and industry interested in cutting edge formal and model-based approaches as well as utilizing current standards and middleware to meet the challenges of SLM for the 21st century.

II. THEMES

The main theme of the workshop is QoS-oriented techniques and tools for managing modern enterprise architectures, encompassing approaches to monitoring, diagnostics, runtime analysis, behaviour prediction, adaptation strategies and the interrelation of these issues within SLM.

Special focus is given to model-driven approaches. The development of standards such as the ISO/IEC QoS Framework, the RM-ODP and the UML Profile for QoS is intended to form the basis for the design and implementation of QoS management in networked enterprise architectures. A current open question is how best to use these standards within the Model Driven Architecture (MDA) refinement strategy for software development. For example, some authors are advocating the use of MDA to generate platform-specific monitorable implementations from QoS requirements specified in a platform-independent metamodel.

Topics for this workshop include, but are not limited to:
- QoS support for common enterprise middleware (such as CORBA, J2EE and .NET)
- Management issues for domain-specific architectures (such as process control architectures built using OPC)
- Managing complex systems using current industrial monitoring infrastructures and standards (e.g., Microsoft’s WMI and the DMTF’s CIM standard)
- Component-based approaches to QoS management
- Formal methods to support SLM
- Mathematical models for system diagnostics
- Industrial SLM case studies
- Model-driven approaches to monitoring, diagnostics, prediction and adaptation
- Unifying management frameworks

III. WORKSHOP FORMAT

Due to a small number of papers at several of the EDOC 2009 workshops, sessions for this workshop were combined with the Middleware for Web Services (MWS) workshop. The AQuSerM workshop program committee selected the following technical papers for presentation at the workshop:
- Toward Grid Workflow Scheduling Based on Resource Competition, Sucha Smanchat, Sea Ling and Maria Indrawan
• Flexible and Reliable Messaging using Runtime Monitoring, Sylvian Hallé and Roger Villemarie
• Characterization of Enterprise Quality Attributes, Mahsa Razavi and Fereidoon Shams Aliee

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