COMPUTER SCIENCE COLLOQUIUM

Handling SLA-based Workflows : Achievements and Challenges

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Monday, 05 January, 2009 at 10:15
IMADA's Seminar Room

Abstract:

Service Level Agreements (SLAs) are currently one of the major research topics in Grid Computing, as they serve as a foundation for reliable and predictable Grids. SLAs define an explicit statement of expectations and obligations in a business relationship between provider and customer. Thus, SLAs should guarantee the desired and a-priori negotiated Quality of Service (QoS), which is a mandatory prerequisite for the Next Generation Grids. The complexity of an SLA-aware system for workflows grows significantly, as characteristics of correlated sub-jobs, the data transfer phases, the deadline constraints and possible failures have to be considered. Thus, an architect for an SLA-aware workflow implementation needs sophisticated mechanisms for specification and management, sub-job mapping, data transfer optimization and fault reaction. In this talk, I will discuss the gained results as well as the coming challenges in building an SLA-aware workflow system

Host: Kim Skak Larsen