

# **Risk-Aware SLA Brokering using WS-Agreement**

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## **Abstract**

*Service Level Agreements (SLAs) are facilitators for widening the commercial uptake of Grid technology. They provide explicit statements of expectation and obligation between service consumers and providers. However, without the ability to assess the probability that an SLA might fail, commercial uptake will be restricted, since neither party will be willing to agree.*

*Therefore, risk assessment mechanisms are critical to increase confidence in Grid technology usage within the commercial sector. This paper presents an SLA brokering mechanism including risk assessment techniques which evaluate the probability of SLA failure. WS-Agreement and risk metrics are used to facilitate SLA creation between service consumers and providers within a typical Grid resource usage scenario.*