

SLA@SOI publishes final set of results – enabling machine readable SLAs for cloud-based services

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A significant milestone towards a Dependable Service Economy has been reached with the final publication of results of the recently concluded SLA@SOI research project. Launched in June 2008, this European Commission funded project has been researching, developing and proving tools and techniques that can embed SLA-aware infrastructures into the service economy.

With cloud-based services becoming ever more significant, the opportunity for machine-readable SLAs to solve key challenges for both customers and service providers has become ever more obvious. Rather than have to settle on the nearest offering and support model that providers happen to provide, customers can negotiate personalised SLAs allowing them to purchase the precise service level they require. This negotiation can even be automatic, and span multiple providers. On the provider side, all individual SLAs can be automatically monitored, comprehended and managed, allowing efficiencies previously considered infeasible to be embraced.

Announcing the publication of its most recent results, and launching an updated version of its open source framework, the SLA@SOI project has delivered an extensive list of assets. These include

- Publication of an **SLA-enabling reference architecture** suitable for both new and legacy infrastructures
- Definition of a flexible, extensible **SLA model** for describing arbitrary SLAs
- Development of an **open source framework** of tools and components to help implement SLA-aware solutions
- Release of an SLA-enabled **open reference case** to demonstrate the concepts in a retail scenario
- Integration of machine-readable SLAs into **four grounded industry use cases** covering ERP hosting, Enterprise IT, Service Aggregation and eGovernment scenarios - all of them demonstrating significant business value gains
- Significant progress in several important **open standards** including OGF's OCCI and WS Agreement, and W3C's USDL

The relevance of this research has been validated by the extensive interest in the results of the project by industrial partners participating in the project, by independent SMEs engaged in cloud computing, and in the other organisations in Europe and beyond that are looking to build on the results of SLA@SOI in the development of the Future Internet.

Dr. Wolfgang Theilmann, SAP Research, the project coordinator, found the SLA@SOI project to be "a great experience, seeing how the concept of SLAs allowed us to create a highly harmonized view on the full management lifecycle for services - across really diverse partners with complementary but highly distinct perspectives."

The Industrial Director of the consortium, Mr. Joe Butler, Intel Labs Europe, noted the "important opportunity to bring together four very diverse application domains, taking a structured approach to the specification and assessment of a

novel technology development, namely the SLA framework. The resulting analysis of business impact potential, while proving the benefits of automated SLA-based service management, also provides a substantial reference point in assessing the impact of the SLA framework in other, and more general domains".

Ms. Jessica McCarthy, the Exploitation Manager of the project, explained that "SLA@SOI indeed covers the complete value chain for realizing dependable cloud services. It addresses the main levels of the cloud concept, namely infrastructure, platform, and software as a service, but also extends this to higher abstractions such as human-based business services. It also addresses key areas of engineering support, actual operation, and consulting, thus providing a comprehensive result set to cover the complete commercialization spectrum. Initial external exploitation opportunities are already being pursued by project partners, and we are aware of a growing number of third-parties working to embed SLA@SOI results in the European economy."

Full details of the project including links to the open source contributions, academic publications and demonstration videos can be found at the project website <http://www.sla-at-soi.eu>.