





# EGI-InSPIRE

## Service Level Agreement with a Software Provider

## **EU MILESTONE: MS509**

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#### Abstract

This document provides a template for a Service Level Agreement that EGI.eu would expect a Technology Provider to use to define the services it would offer to EGI.eu. EGI does not mandate using this template to negotiate and agree a SLA. If a Technology Provider has developed its own Service Level Agreement, it is expected to at least cover all of the areas identified in this template. The first part of the document provides a cursory overview and project document anchor. The second part of the document is the SLA template itself that, for easy access and adaptation, is contained in a separate document in the same DocDB store as this document anchor.

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#### II. DELIVERY SLIP

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	AMB & PMB		
Approved by	<-To be completed by project office on submission to EC>>		

#### **III. DOCUMENT LOG**

Issue	Date	Comment	Author/Partner
1	20 July 2011	First draft for internal review	Michel Drescher, EGI.eu
2	<u>1 August 2011</u>	Second draft after external review	Michel Drescher, EGI.eu
3	4 August 2011	Third draft after final external review	Michel Drescher, EGI.eu

#### IV. APPLICATION AREA

This document is a formal deliverable for the European Commission, applicable to all members of the EGI-InSPIRE project, beneficiaries and Joint Research Unit members, as well as its collaborating projects.

#### V. DOCUMENT AMENDMENT PROCEDURE

Amendments, comments and suggestions should be sent to the authors. The procedures documented in the EGI-InSPIRE "Document Management Procedure" will be followed: <a href="https://wiki.egi.eu/wiki/Procedures">https://wiki.egi.eu/wiki/Procedures</a>

#### **VI. TERMINOLOGY**

A complete project glossary is provided at the following page: <u>http://www.egi.eu/about/glossary/</u>.

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#### VII. PROJECT SUMMARY

To support science and innovation, a lasting operational model for e-Science is needed – both for coordinating the infrastructure and for delivering integrated services that cross national borders.

The EGI-InSPIRE project will support the transition from a project-based system to a sustainable pan-European e-Infrastructure, by supporting 'grids' of high-performance computing (HPC) and highthroughput computing (HTC) resources. EGI-InSPIRE will also be ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit user communities within the European Research Area.

EGI-InSPIRE will collect user requirements and provide support for the current and potential new user communities, for example within the ESFRI projects. Additional support will also be given to the current heavy users of the infrastructure, such as high energy physics, computational chemistry and life sciences, as they move their critical services and tools from a centralised support model to one driven by their own individual communities.

The objectives of the project are:

- 1. The continued operation and expansion of today's production infrastructure by transitioning to a governance model and operational infrastructure that can be increasingly sustained outside of specific project funding.
- 2. The continued support of researchers within Europe and their international collaborators that are using the current production infrastructure.
- 3. The support for current heavy users of the infrastructure in earth science, astronomy and astrophysics, fusion, computational chemistry and materials science technology, life sciences and high energy physics as they move to sustainable support models for their own communities.
- 4. Interfaces that expand access to new user communities including new potential heavy users of the infrastructure from the ESFRI projects.
- 5. Mechanisms to integrate existing infrastructure providers in Europe and around the world into the production infrastructure, so as to provide transparent access to all authorised users.
- Establish processes and procedures to allow the integration of new DCI technologies (e.g. clouds, volunteer desktop grids) and heterogeneous resources (e.g. HTC and HPC) into a seamless production infrastructure as they mature and demonstrate value to the EGI community.

The EGI community is a federation of independent national and community resource providers, whose resources support specific research communities and international collaborators both within Europe and worldwide. EGI.eu, coordinator of EGI-InSPIRE, brings together partner institutions established within the community to provide a set of essential human and technical services that enable secure integrated access to distributed resources on behalf of the community.

The production infrastructure supports Virtual Research Communities (VRCs) – structured international user communities – that are grouped into specific research domains. VRCs are formally represented within EGI at both a technical and strategic level.

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#### VIII. EXECUTIVE SUMMARY

This document provides a template for a Service Level Agreement that EGI.eu may wish to enter\_into with a Technology Provider wishing to contribute one or more software packages for deployment into EGI's federated production infrastructure. It can either be used directly by a Technology Provider if they have no Service Level Agreement of their own, or if they do as a checklist to ensure that they have minimally covered all of the areas seen to be important to EGI.eu.

This document does not provide guidance on how to negotiate the SLA with a Technology Provider. Neither does it give advice on the respective objective targets, or which sections of the template may be subject to negotiation with the pertinent Technology Provider. These issues must be resolved based on the situation of the EGI-InSPIRE project, its needs and general technical and political background of the negotiation.

The document is divided into three parts. A short introductory part describes the purpose of this document, the SLA template, and how to generate an actual SLA from this Milestone document. The second part is entirely formed by the SLA template itself, which, for practical purposes is located in a separate document available at the same location in EGI's document database. Section three provides a conclusion with a succinct retrospective on the experiences gained through actual agreement negotiation based on the first iteration of the template.

This Milestone represents the second instance of a template for a Service Level Agreement with a Technology Provider, and therefore supersedes the first iteration provided in  $[R \_ 1, R \_ 2]$ . It reflects the extensive review and evolution of the document in terms of format, wording, and semantics that is implicit to any SLA negotiation.

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## **1 INTRODUCTION**

In order to rollout and maintain a production infrastructure, EGI needs reliable technology partners that provide production quality software components for EGI's goal of a European Grid Infrastructure. However, EGI itself does not provide the software. Rather, Technology Providers develop and maintain software that may run on computing and storage resources federated by EGI.

This document serves two main purposes. The first, obvious purpose is to serve a template for a Service Level Agreement with any given Technology Provider that is interested in providing their implementation of one or more UMD Capabilities to the European Grid Infrastructure. The template's aim is to provide a blueprint for Technology Providers to develop their own SLA document for negotiation with EGI.eu. Technology Providers that already have SLA document<u>templates</u> may use the template according to its second purpose, i.e. as a checklist whether their own SLA proposal matches or includes the minimum baseline of services that EGI.eu expects from any Technology Provider interested in providing software to the European Grid Infrastructure. In other words, it is not mandatory to use the provided SLA template for actual negotiation or signage of a final SLA.

Although it is expected that the exact wording of SLAs may differ greatly, the common baseline provided by all Technology Providers will vary only in non-critical aspects across the agreed services so that a common level of quality and reliability between the Technology Providers is maintained.

#### 1.1 Document iteration based on experience

This milestone represents the second iteration of a Service Level Agreement template. It reflects the experience gathered through the negotiations and eventually agreeing upon the scope, conditions and quality of the service delivered by three different Technology Providers, with different capacity in software delivered, person effort, and scope.

The EMI Project [R 3] represents by far the largest of the current Technology Providers that supply software into the EGL and provides for nearly 98% of the software installed on EGI's federated resource infrastructure. The SLA agreed upon with EMI did not follow the template provided in MS505 [R 2]. According to the size and impact of EMI, negotiations started in December 2010, and resulted in three significant iterations of the SLA document before an agreement was reached after nearly exactly five months. The SLA is available at [R 6].

The IGE Project [R 4], started in October 2010, was the second Technology Provider to enter negotiations of a service agreement in early March 2011. The negotiations resulted in 12 iterations of the agreement draft until it was signed. While early iterations represent significant improvements of the agreement (and implicitly, of the template itself), the latter iterations dealt with formal, but necessary details of the document. The SLA is available at [R 7].

The SAGA Project [R 5] is a classic, volunteer-based open source project with a long history particularly in the Grid standards space. The agreement negotiated with the SAGA project is therefore special not only because it demonstrates that volunteer-based open source projects are able to enter agreements. It also marks a significant integration effort across all three Technology providers eventually deployed into the EGI production infrastructure. Seven iterations of the agreement document followed the same pattern of progress until final signature, as observed throughout the negotiations with the IGE project. The SLA is available at [R 8].

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## **2** SERVICE LEVEL AGREEMENT TEMPLATE

To facilitate easy production of Service Level Agreements, the template is provided in a separate document in the same space as this formal milestone document.

The template is partially completed using custom MS Word document properties. Open the Document Properties menu, and give meaningful values for any of the custom document properties that begin with "TP\_". Force an update of all fields in the document, using common MS Word keyboard shortcuts (varies by platform).

Any remaining text that is marked in yellow must be filled in manually in negotiation with the pertinent Technology Provider.

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## **3 CONCLUSION**

The first iteration of the Service Level Agreement Template provided a very useful starting point for negotiations, with Technology Providers.

However, the concepts of Technology Providers, Service Level Agreements, formalised communication and negotiation were all new to the actual document authors, reviewers, and last but not least to the participants of the actual negotiation of an agreement. It is therefore not surprising that the SLA template itself underwent significant editorial work, restructuring and overall improvement as an intrinsic part of the negotiation phase of any agreement based on this document.

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## **4 REFERENCES**

	R 1	MS505, https://documents.egi.eu/document/212	
	R 2	SLA Template for MS505, <u>https://documents.egi.eu/document/241</u>	
	R 3	The "European Middleware Initiative" (EMI) Project, <u>http://www.eu-emi.eu</u>	
	R 4	The "Initiative for Globus in Europe" (IGE) Project, <u>http://www.ige-project.eu</u>	
	R 5	5 The "Simple API for Grid Applications" (SAGA) Project, <u>http://saga.cct.lsu.edu</u>	
	<u>R</u> 6	SLA with EMI, https://documents.egi.eu/document/461	
Ĩ	<u>R</u> 7	SLA with IGE, https://documents.egi.eu/document/442	
	<u>R</u> 8	SLA with the SAGA Project, https://documents.egi.eu/document/449	

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