

EGI-InSPIRE

DEPLOYMENT PLAN FOR THE DISTRIBUTION OF OPERATIONAL TOOLS TO THE NGIs/EIROs

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Abstract

This document establishes the roadmap for the deployment of regionalised variations of the operational tools to the NGIs/EIROs.

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EGI-InSPIRE (“European Grid Initiative: Integrated Sustainable Pan-European Infrastructure for Researchers in Europe”) is a project co-funded by the European Commission as an Integrated Infrastructure Initiative within the 7th Framework Programme. EGI-InSPIRE began in May 2010 and will run for 4 years.

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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 high-throughput 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 the 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 the ESFRI projects. 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.
6. 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 – 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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1. INTRODUCTION

1.1. PURPOSE

The purpose of this milestone is to establish the roadmap for the deployment of regionalised variations of the operational tools to the NGIs/EIROs.

1.2. APPLICATION AREA

This document is a formal milestone 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.

1.3. REFERENCES

R 1	SVN repository for Operations Portal Regional Package : https://cvs.in2p3.fr/operations-portal/package
R2	MS701 , Operations Portal Work plan https://documents.egi.eu/document/39
R3	http://www.sysadmin.hep.ac.uk/rpms/egee-SA1/centos5-devel/x86_64/repoview/gocdb.html
R4	http://www.sysadmin.hep.ac.uk/svn/grid-monitoring/trunk/gocdb/
R5	http://goc.grid.sinica.edu.tw/gocwiki/GOCDB4_development
R6	Milestone MS401: Operational Tools Regionalization Status (https://documents.egi.eu/document/48)

1.4. 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:

<https://wiki.egi.eu/wiki/Procedures>

1.5. TERMINOLOGY

A complete project glossary is provided in the EGI-InSPIRE glossary:

<http://www.egi.eu/results/glossary/>.

2. EXECUTIVE SUMMARY

This document describes the NGI/EIRO plans for deployment of the regional instances of the following tools:

- Operations Portal
- Helpdesk
- GOCDB
- Accounting Repository
- Accounting Portal
- Nagios & MyEGI

3. DEPLOYMENT PLAN

The plans for the deployment of each operational tool are documented in the following sections.

3.1. OPERATIONS PORTAL

Current Status

The first release was done on June 8th [R1].

The regional package will be constantly improved during the coming year:

- To add some of the other features that will be integrated step by step into the Central Instance. These features will be added one by one into the central instance and if relevant to a regional instance we will provide an update to the package.
- To ease upgrade and set-up of the package in the regions

For each central feature released, a regional package will be provided, when applicable, in the following months

For more details about the complete work plan, please read MS701, Operations Portal Work plan [R2].

NGI/EIRO Plans

Name of NGI/EIRO	Expected Deployment date

Alternative plans proposed by NGIs that will not deploy a regional instance of the Operations Portal:

Name of NGI/EIRO	Alternative plan proposed

3.2. HELPDESK

Current Status

Three alternatives on how NGIs can connect to the central user support infrastructure are currently available:

- NGIs can set up a regional ticket system and interface GGUS via web services or messaging
- NGIs can use the GGUS system directly. In this case there is only one support unit in GGUS for the whole NGI
- NGIs can use a customisable version of GGUS called xGUS. This was developed to give NGIs a simple way to set up a ticket system without have to host it themselves.

Currently there is a first instance of xGUS in place for NGI-DE, the German NGI. A second instance for NGI-AEGIS, the Serbian NGI, is being finalised at the moment. Discussion with other NGIs on the use of xGUS have started.

The xGUS system will undergo the same release procedures as the GGUS system, as the two systems are closely related.

NGI/EIRO Plans

Name of NGI/EIRO	Name of Helpdesk System that will be deployed	Expected Deployment date

Alternative plans proposed by NGIs that will not deploy a regional helpdesk system:

Name of NGI/EIRO	Alternative plan proposed

3.3. GOCDB

Current Status

The last released version of GOCDB regional module dates from March 2010 (gocdb4.0d3). It is still not fully functional but all the basic components are included so that initial deployment can be tested using that version [R3].

The latest development version of the module is fully functional. It has not been packaged yet, but the code is available from the SVN repository [R4]. The expected release date is September 2010.

GOCDB development plans are published on [R5].

NGI/EIRO Plans

Name of NGI/EIRO	Expected Deployment date

Alternative plans proposed by NGIs that will not deploy a regional instance of GOCDB:

Name of NGI/EIRO	Alternative plan proposed

3.4. ACCOUNTING PORTAL

Current Status

The initial version of the regional accounting portal is already available. During the following months the installation scripts will be improved making easier to deploy the portal. Additional improvements will be incorporated based on the feedback from NGIs.

The roadmap for the accounting portal is the following:

Features	Release date
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Improved installation support. GOCDBPI-V4 support	December 2010
New improvements based on NGI feedback	March 2011
ActiveMQ support	June 2011

NGI/EIRO Plans

Name of NGI/EIRO	Expected Deployment date

Alternative plans proposed by NGIs that will not deploy a regional instance of the accounting portal:

Name of NGI/EIRO	Alternative plan proposed

3.5. NAGIOS & MYEGI

Current Status

The monitoring infrastructure based on Nagios and Messaging is already completely regionalized, as described in the EGI-InSPIRE milestone MS401 [R6]

NGI/EIRO Plans

Country	Current Nagios URL	Description
AGSC (APROC)	https://sam-ap-roc.cern.ch/nagios	Started migration (https://gus.fzk.de/ws/ticket_info.php?ticket=57154)
Albania	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Armenia	https://nagios.egee-see.org/nagios	Migration started, expected finish 2010-10-01
Austria	https://nagios.ce-egee.org/nagios	Will be temporarily moved under NDGF. (https://gus.fzk.de/ws/ticket_info.php?ticket=60414)
Azerbaijan	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Belarus	https://glite.basnet.by/nagios	

Bosnia and Herzegovina	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Bulgaria	https://nagios.egee-see.org/nagios	Migration started, expected finish 2010-10-01
CERN	https://sam-cern-roc.cern.ch/nagios	CERN is running project instances.
Croatia	https://nagios.ce-egee.org/nagios	Currently running ROC instance. Once the Austria is migrated will be switched to NGI instance.
Cyprus	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Czech Republic	https://nagios.egee.cesnet.cz/nagios	
Denmark	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Finland	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
France	https://ccnagboxli01.in2p3.fr/nagios	
Georgia	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Germany	https://ngi-de-nagios.gridka.de/nagios	
Greece	https://nagios.hellasgrid.gr/nagios	
Hungary	https://grid19.kfki.hu/nagios	
Ireland	https://gridppnagios.physics.ox.ac.uk/nagios	UK & Ireland are planning start NGI creation in 2. quartal.
Israel	https://nagios.egee-see.org/nagios	Migration started, expected finish 2010-10-01
Italy	https://mon-it.cnaf.infn.it/nagios	Can be moved to NGI (email sent to Giuseppe 2010-07-25)
Latvia	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Lithuania	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Macedonia	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Moldova	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Montenegro	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
N/A (Belgium)	https://sam.grid.sara.nl/nagios	Will be moved under NL, migration already started.
N/A (Estonia)	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Norway	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Poland	https://pl-mon.grid.cyf-kr.edu.pl/nagios	
Portugal	https://sam-swe-roc.cern.ch/nagios	Started migration (https://gus.fzk.de/ws/ticket_info.php?ticket=57066)

Romania	https://nagios.egee-see.org/nagios	SEE: NGI creation expected in the next 6 months
Russia	https://sam-ru-roc.cern.ch/nagios	Validation started (https://gus.fzk.de/ws/ticket_info.php?ticket=60915)
Serbia	https://nagios.ipb.ac.rs/nagios	
Slovakia	https://nagmon.ui.savba.sk/nagios	
Slovenia	https://nagios.sling.si/nagios	
Spain	https://sam-swe-roc.cern.ch/nagios	Started migration (https://gus.fzk.de/ws/ticket_info.php?ticket=57066)
Sweden	https://sam.grid.sara.nl/nagios	Will be moved under NDGF, migration already started.
Switzerland	https://ngi-de-nagios.gridka.de/nagios	Antoni Torsten claims NGI_SWING will be covered by German Nagios.
The Netherlands	https://sam.grid.sara.nl/nagios	Will be moved under NL, migration already started.
Turkey	https://www.grid.org.tr/nagios	
UK	https://gridppnagios.physics.ox.ac.uk/nagios	UK & Ireland are planning start NGI creation in 2. quartal.

4. CONCLUSIONS

TODO