

PROC19 Integration of new cloud management framework or middleware stack in the EGI Infrastructure

Document control

Area	EGI Federation Operations
Procedure status	FINAL
Owner	Alessandro Paolini
Approvers	Operations Management Board
Approval status	APPROVED
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Statement	A procedure for integrating new cloud management framework (Cloud platform) or middleware (Compute, Storage, etc.) in the EGI Production Infrastructure.
Next procedure review	upon request

Procedure reviews

The following table is updated after every review of this procedure.

Date	Review by	Summary of results	Follow-up actions / Comments
13 Aug 2021	Alessandro Paolini	copy from PROC19 in EGI Wiki . Updated some links and information.	

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Overview

To assure production quality of the EGI Infrastructure, every cloud management framework (Cloud platform) or middleware piece (Compute, Storage, etc.) supported by Production Resource Centres needs to fulfil certain requirements. The goal of this procedure is to assure EGI Infrastructure compliance.

Definitions

Please refer to the [EGI Glossary](#) for the definitions of the terms used in this procedure.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#).

Entities involved in the procedure

- **Technology Provider (TP)**: person representing or leading Technology Provider team
- **EGI Operations (EGIOps)**
- **Operations Centre (OC)**
- **Resource Centre (RC)**
- **Operations Management Board**: EGI operations policy board

Prerequisites

Before sending a request:

- OC has to have
 - the support of TP with effort to integrate with EGI Infrastructure (information system, accounting, monitoring etc), provide support via GGUS and maintain software via UMD
 - one or more RC available to deploy the new platform
- TP has to have
 - effort to integrate with EGI Infrastructure (information system, accounting, monitoring etc), provide support via GGUS and maintain software via UMD
 - the support of one or more OC, with one or more RC available to deploy the new platform and the integration-software developed by the TP

Triggers

Steps

Request submission and validation

The request can be send by:

1. Operations Centre
2. EGI Operations
3. Technology Provider

Resource Centres can also request integration of new cloud management framework or middleware. Such request should be first approved by Operations Centre, it belongs to. In such case OC is responsible to create a ticket on behalf of RC.

Step	Action on	Action
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1	Applicant	<p>Opens a GGUS ticket to Operations to start the process.</p> <p>Subject: Request for integration of XXX to EGI Production Infrastructure (PROC19)</p> <p>Dear Operations,</p> <p>We would like to request for starting procedure of integrating XXX to EGI Production Infrastructure: PROC19 Integration of new cloud management framework or middleware stack in the EGI Infrastructure</p> <p>Prerequisite data: * name of Technology Product: * Technology Provider (person representing or leading the team) contact details(name, email): * customers of the Product (eg. user community, Operations Centre): * motivation:</p> <p>Best Regards XXX</p>
2	EGIOps	Operations contacts the OMB to request the approval of the request.

Functional requirements

Functional requirements for new product to be integrated:

- support VO concept
- support X.509 certificates and/or federated identities (i.e. be compatible with EGI Check-in)

Integration steps

Integration covers following areas (where possible steps can be done in parallel):

#	Responsible	Action	Additional temporary comments
0a	EGIOps	When Approved, EGIOps and TP should agree on Underpinning Agreement (UA)	agree on Corporate-level Technology Provider Underpinning Agreement or on a customised version
0b	EGIOps	Set up an integration Task force for given Technology Product composed of: <ul style="list-style-type: none"> • Technology Provider representative • Operations tools representative • NGI representatives (wanting to deploy Technology Product) with Pilot Site • EGI Operations representative • User communities representative (interested in deployment of Technology Product) • EGI Security team representative • UMD representative 	

Configuration Management

#	Responsible	Action	Additional temporary comments
1a	GOCDB	Add new service types agreed within Task Force.	
1b	Pilot Site	Deploy technical service instance and register in GOCDB.	

Information System

#	Responsible	Action	Additional temporary comments
2a	Technology Provider	Develop software for integration with BDII.	Analyse the use cases for deciding if the new technology has to be published in the BDII or not, and the relevant set of information to publish. <ul style="list-style-type: none"> • Must the new technology be published in the BDII? <ul style="list-style-type: none"> • it has to be created the information providers • Is it necessary any modification to the Glue Schema for properly publishing the new technology information? <ul style="list-style-type: none"> • any modification to the Glue Schema has to be discussed with the Glue Working Group

2b	Pilot Site	Deploy software for integration with BDII and documentation.	
2c	EGI Operations	Verify integration	Alessandro Paolini, Enol Fernandez, Baptiste Grenier , Operations checks documentation

Monitoring

#	Responsible	Action	Additional temporary comments
3a	Technology Provider	Develop nagios probe with support from SAM team and documentation.	ARGO Guidelines for monitoring probes
3b	ARGO, EGI Ops	Check probe, verify results, add to SAM release. Add test to ARGO_MON profile.	PROC06 and PROC07
3c	ARGO, EGI Ops	Deploy probe in production and publish documentation.	Operations checks documentation
3d	ARGO, EGI Ops	if the new technology needs to be monitored by secmon and pakiti, add the related tests in the SEC_MONITOR profile.	Operations verify that the security tests are properly executed

Operations (ROD) Dashboard

#	Responsible	Action	Additional temporary comments
4	EGI Ops	Add test to Operations profile (PROC06 Setting a Nagios test status to OPERATIONS)	

Support

#	Responsible	Action	Additional temporary comments
5a	Technology Provider	Declare Quality of Support for 3rd level Support Unit (SU) and name of SU FAQ GGUS-New-Support-Unit	
5b	GGUS	Create Support Unit under "Product Teams" category	

Accounting

#	Responsible	Action	Additional temporary comments
6a	Technology Provider	Develop software for integration with APEL	Define integration and what data should be published. <ul style="list-style-type: none"> if the new technology is using computing or storage services for which accounting data are already collected, there is no need of new parser/software for integration with APEL
6b	APEL	Validate integration	EGI Operations checks documentation
6c	EGI Accounting Portal	Display data	

UMD

#	Responsible	Action	Additional temporary comments
7a	Technology Provider	Ensure software developed for the integration of the new Technology Product satisfies UMD Minimal Requirements Request the inclusion into UMD; see here the information to provide	
7b	EGI Ops (UMD representative)	Technology Provider info is added in Technology Providers List and UMD Product ID card	
7c	EGI Software provisioning Team	Applies the UMD Software Provisioning process to assess the quality of the new product	
7d	EGI Ops (UMD representative)	Once confirmed a successful provisioning (step 11c) includes the new product/products into an UMD release and makes it available to the production infrastructure, in the UMD repositories	

VM image Marketplace

#	Responsible	Action	Additional temporary comments
8a	Technology Provider	Implement subscription to VM image lists from EGI Marketplace and create documentation.	
8b	Pilot Site	Add service endpoint to GOCDB (type: eu.egi.cloud.vm.metadata.vmcatcher)	
8c	NGI/EGI Ops	Check eu.egi.cloud.vm.metadata.vmcatcher is passing https://cloudmon.egi.eu/magic/	
8d	EGI Cloud VM Image Management SU	Validate integration	Ops support check documentation

Documentation

#	Responsible	Action	Additional temporary comments
9a	EGI Ops	Update relevant documentation	
9b	Technology Provider	Develop documentation for users and admins where missing	
9c	EGI Ops	Validate Documentation	

Resource Allocation

#	Responsible	Action	Additional temporary comments
10	Resource Allocation	Add new access method in e-GRANT(if needed) Define if the middleware is a new way of accessing resources	e-GRANT was dismissed. To evaluate if similar steps are necessary for the AoD service or EGI Marketplace

Security

#	Responsible	Action	Additional temporary comments
11a	Technology Provider	complete the EGI SVG Software Security Checklist	A brief written response to Chair of SVG (Linda.Cornwall <AT> stfc.ac.uk) is requested
11b	Security team	Provide recommendations based on provided input	
11c	Technology Provider	Implement recommendations	
11d	Security Team	Validate implementation of recommendations	

The Announcement

EGI Ops announces the availability of new product to OMB and includes the announcement in the monthly EGI Broadcast to communicate the availability of the new product to NGIs, VOs, RCs managers.