



EGI VO

SERVICE LEVEL AGREEMENT

Customer	EMSODEV/vo.emsodev.eu
Provider	EGI Foundation
Start Date	01/09/2016
End Date	31/12/2017
Status	FINAL
Agreement Date	24/11/2016
SLA link	https://documents.egi.eu/document/2888
OLA Link	https://documents.egi.eu/document/2888



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DOCUMENT LOG

<i>Issue</i>	<i>Date</i>	<i>Comment</i>	<i>Author</i>
FINAL	24/11/2016	Final version of SLA	Giuseppe La Rocca Małgorzata Krakowian

TERMINOLOGY

The EGI glossary of terms is available at: <https://wiki.egi.eu/wiki/Glossary>

For the purpose of this Agreement, the following terms and definitions apply. 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.

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The present Service Level Agreement (“the Agreement”) is made between **EGI Foundation (the Provider)** and **EMSODEV EC project/vo.emsodev.eu (the Customer)** to define the provision and support of the provided services as described hereafter. Representatives and contact information are defined in Section 6.

The European project EMSODEV¹ will make it easier to analyse the effects of climate change and pollution in seafloor ecosystems thanks to the optimization of the data flow acquired by marine observatories. The project, funded under Horizon 2020, is conducted by ten European countries under the coordination of the Italian National Institute of Geophysics and Volcanology (INGV).

The Customer is a consortium represented by **EMSODEV EC project (INGV)**.

This Agreement is valid from **01/09/2016** to **31/12/2017**.

The Agreement was discussed and approved by the Customer and the Provider on **24/11/2016**.

1 The Services

Possible access types:

- Pledged - Resources are exclusively reserved to the Community and the job will be executed immediately after submission
- Opportunistic - Resources are not exclusively allocated, but subject to local availability
- Time allocation - Resources are available in fair share-like mode for a fixed time period.

The Services are defined by the following properties:

Cloud Compute (category: Compute)

Cloud Compute gives you the ability to deploy and scale virtual machines on-demand. It offers guaranteed computational resources in a secure and isolated environment with standard API access, without the overhead of managing physical servers. Cloud Compute offers the possibility to select pre-configured virtual appliances (e.g. CPU, memory, disk, operating system or software) from a catalogue replicated across all EGI cloud providers.

- Resource Centre: **CESGA (Spain)**
 - Cloud Compute
 - Number of Virtual CPU cores: 48
 - Memory: 96GB in total
 - Scratch/ephemeral storage: 500
 - Public IP addresses: 4

¹ <http://www.emso-eu.org/>

- Payment mode offer: free
 - Other technical requirements:
 - Duration: 01/11/2016 – 31/12/2017
 - Supported VOs: vo.emsodev.eu
 - Access type: Opportunistic
 - File Storage
 - Guaranteed storage capacity [TB]: 1TB
 - Opportunistic storage capacity [TB]:
 - Supported VOs: vo.emsodev.eu
 - Duration: 01/11/2016 to 31/12/2017
- Resource Centre: **INFN-PADOVA-STACK (Italy)**
 - Cloud Compute
 - Number of Virtual CPU cores: up to 120 cores (15 VM instances with 8 vCPU cores, 16GB of RAM and 100GB of storage)
 - Memory: up to 240 GB (15 VM instances with 8 vCPU cores, 16GB RAM and 100GB of storage)
 - Scratch/ephemeral storage: 1.5 TB
 - Public IP addresses: provided upon request
 - Access type: Opportunistic
 - Payment mode offer: for free
 - Other technical requirements:
 - Duration: 01/09/2016 to 31/12/2017
 - File Storage
 - Guaranteed storage capacity [TB]:
 - Opportunistic storage capacity [TB]: up to 1.5
 - Supported VOs: vo.emsodev.eu
 - Duration: 01/09/2016 to 31/12/2017
- Resource Centre: **NCG-INGRID-PT (Portugal)**
 - Cloud Compute
 - Number of Virtual CPU cores: 3 VMs with 8 vCPU cores, 24 vCPU cores in total
 - Memory: 16 GB RAM per core, 48GB RAM in total
 - Scratch/ephemeral storage: 40GB per core, 120GB of disk storage in total
 - Public IP addresses: 3
 - Access type: Opportunistic
 - Payment mode offer: for free
 - Other technical requirements:
 - Duration: 01/09/2016 to 31/12/2017
 - File Storage

- Guaranteed storage capacity [TB]:
 - Opportunistic storage capacity [TB]: 1.5TB
 - Supported VOs: vo.emsodev.eu
 - Duration: 01/09/2016 to 31/12/2017
- Resource Centre: **RECAS-BARI (Italy)**
 - Cloud Compute
 - Number of Virtual CPU cores: 80 cores (10 VM instances with 8 vCPU cores, 16GB of RAM and 40GB of storage)
 - Memory: 160 GB (10 VM instances with 8 vCPU cores, 16GB RAM and 40GB of storage)
 - Scratch/ephemeral storage: 400 GB (10 VM instances with 8 vCPU cores, 16GB RAM and 40GB of storage)
 - Public IP addresses: 5
 - Access type: Opportunistic
 - Payment mode offer: for free
 - Other technical requirements:
 - Duration: 01/09/2016 to 31/12/2017
 - File Storage
 - Guaranteed storage capacity [TB]:
 - Opportunistic storage capacity [TB]: 5TB
 - Supported VOs: vo.emsodev.eu
 - Duration: 01/09/2016 to 31/12/2017

The Services are supported by additional services:

- Accounting²
- Service Monitoring³ (operational only)

Note: Please note that following services are not provided by EGI.eu:

- Monitoring of peachnote.com
- Monitoring of services provided by the Customer on agreed resources

² <http://accounting.egi.eu/>

³ <http://argo.egi.eu/>

2 Service hours and exceptions

The Services operate during the following hours: twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days a year.

The following exceptions apply:

- Planned maintenance windows or service interruptions (“scheduled downtimes”⁴) will be notified via e-mail in a timely manner i.e. 24 hours before the start of the outage⁵.
- Downtime periods exceeding 24 hours need justification.

3 Support

Support is provided via EGI Service Desk⁶. Access requires a valid X.509 or the login via a EGI SSO account⁷. Support is available between:

- Monday to Friday.
- From 9:00 to 17:00 in the time zone of the relevant Resource Centres.

Service times always apply with the exception of public holidays in the country of the supporting Resource Centres.

3.1 Incident handling

Incidents will be handled according to the Quality of Support level that is estimated according to the impact of the outage or service quality degradation.

The Quality of Support in this Agreement has level: **Medium**⁸, so the incidents, based on their priority will be responded to with the following response times:

Incident priority ⁹	Response time	Comment
Less urgent	5 working days	service interrupted; needs to be addressed as soon as possible

⁴ https://wiki.egi.eu/wiki/GOCDDB/Input_System_User_Documentation#Downtimes

⁵ <http://goc.egi.eu/>

⁶ <http://helpdesk.egi.eu/>

⁷ <https://www.egi.eu/ssol/>

⁸ https://wiki.egi.eu/wiki/FAQ_GGUS-QoS-Levels

⁹ https://wiki.egi.eu/wiki/FAQ_GGUS-Ticket-Priority

Urgent	5 working days	service degraded; no work-around available
Very Urgent	1 working day	service degraded; work-around available
Top Priority	1 working day	wishes and enhancements that are "nice to have"

Table 1. Response times to incidents according to the incident priority of "Medium" services

3.2 Service requests

In addition to resolving incidents, standard service requests (e.g. change requests, information requests, documentation) will be fulfilled through the defined support channels in the same way as incidents. Service requests are classified as "Less urgent".

4 Service level targets

Monthly Availability

- Defined as the ability of a service or service component to fulfil its intended function at a specific time or over a calendar month.
- Minimum (as a percentage per month):
 - CESGA : 90%
 - INFN-PADOVA-STACK: 90%
 - NCG-INGRID-PT: 90%
 - RECAS-BARI: 95%

Monthly Reliability

- Defined as the ability of a service or service component to fulfil its intended function at a specific time or over a calendar month, excluding scheduled maintenance periods.
- Minimum (as a percentage per month):
 - CESGA: 95%
 - INFN-PADOVA-STACK: 95%
 - NCG-INGRID-PT: 95%
 - RECAS-BARI: 90%

Quality of Support level

- Medium (Section 3)

5 Limitations and constraints

The Services provisioning is subject to the following limitations and constraints.

- Support is provided in English.
- Availability and Reliability calculations are based on the Service Monitoring operational results.
- Failures in VO monitoring are not considered as SLA violations.
- Downtimes needed to ensure the security of the Service issues are not considered Agreement violations.
- Failures of resource provider not being part of EGI production infrastructure are not considered as Agreement violations.
- Force Majeure. A party shall not be liable for any failure of or delay in the performance of this Agreement for the period that such failure or delay is due to causes beyond its reasonable control. Means any
 - fire, flood, earthquake or natural phenomena,
 - war, embargo, riot, civil disorder, rebellion, revolution
 which is beyond the Provider's control, or any other causes beyond the Provider's control

6 Communication, reporting and escalation

6.1 General communication

The following contacts will be generally used for communications related to the service in the scope of this Agreement.

Customer contact	Paolo Favali paolo.favali@ingv.it
EGI Foundation contact	Małgorzata Krakowian sla@mailman.egi.eu SLA Coordinator at EGI Foundation
Service Support contact	See Section 3

6.2 Regular reporting

As part of the fulfilment of this Agreement and provisioning of the service, the following reports will be provided:

Report title	Contents	Frequency	Delivery
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Services Performance Report	The document provides the overall assessment of service performance (per month) and SLA target performance achieved during last 6 months	Every six months	Email to the Customer
Platform Service report	The document provides usage records (resources used, users) of the Customer service during last 6 months	Every six months	Email to the Provider
Scientific Publications report	The document provides list of scientific publications benefiting from the Service.	Yearly and with the Agreement ending.	Email to the Provider

All reports shall follow predefined templates¹⁰.

6.3 Violations

The Provider commits to inform the Customer, if this Agreement is violated or violation is anticipated. The following rules are agreed for communication in the event of violation:

- In case of violations of the Services targets for two consecutive months, the Provider will provide justifications and a plan for Services enhancement to the Customer. The Provider will produce a status report and a Service enhancement plan for the improvement of the Services within one month from the date of the first notification.
- The Customer will notify the supporting Resource Centres in case of suspected violation via the EGI Service Desk (Section 3). The case will be analysed to identify the cause and verify the violation.

6.4 Escalation and complaints

For escalation and complaints, the Provider contact (section 6.1) point shall be used, and the following rules apply.

¹⁰ <https://documents.egi.eu/document/2748>

- In case of repeated violation of the Services targets for four consecutive months, a review of the Agreement and of the Services enhancement plan will take place involving the parties of the Agreement.
- Complaints or concerns about the Services provided should be directed to the Provider contact who will promptly address these concerns. Should the Customer still feel dissatisfied, about either the result of the response or the behaviour of the supporting Resource Centres, EGI.eu Director director@egi.eu should be informed.

7 Information security and data protection

The following rules for information security and data protection related to the Service apply.

- Assertion of absolute security in IT systems is impossible. The Provider is making every effort to maximize security level of users' data and minimize possible harm in the event of an incident.
- The Provider will define and abide by an information security and data protection policy related to the service being provided.
- The parties of the Agreement will meet all requirements of any relevant policy or procedure of the Provider¹¹ and will comply with the applicable national legislations.

8 Responsibilities

8.1 Of the Provider

Additional responsibilities of the Provider are as follows.

- The Provider adheres to all applicable operational and security policies and procedures¹² and to other policy documents referenced therein.
- The Provider allows monitoring of the Service in order to measure the fulfilment of the agreed service level targets.
- The Provider retains the right to introduce changes in how the Service is provided, in which case the Provider will promptly inform the Customer and update the Agreement accordingly.

8.2 Of the Customer

The responsibilities of the Customer are:

¹¹ https://www.egi.eu/about/policy/policies_procedures.html

¹² https://www.egi.eu/about/policy/policies_procedures.html

- The Customer commits to acknowledge EGI in the scientific publications benefiting from the Service: “The EMSODEV project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 676555. In particular, the EMSODEV Data Management Platform uses the EGI infrastructure with the support of CESGA, INFN-PADOVA-STACK, NCG-INGRID-PT and RECAS-BARI”.
- The Customer will provide during Agreement review (yearly) list of scientific publications benefiting from the Service.
- The Customer must not share access credentials with anyone else.
- The data stored in the system by the Customer must not cause any legal violation due to the content type (such as copyright infringement, dual use, illegal material).
- The use must be consistent with the Acceptable Use Policy¹³ of the Service.
- The Customer will notify the Provider in case the actual amount of the Service used results in being under- or over-estimated. The Customer will request an update of the Agreement to ensure optimal usage of the Service.
- The Customer will create one or more Virtual Organizations (VOs) to define the group of users entitled to access the Service. Information about the VO will be regularly updated in EGI Operations Portal¹⁴.
- The Customer must request EGI Service Desk support¹⁵ to enable assigning tickets with appropriate VO name.
- When applicable, the Customer is responsible of ensuring that the Virtual Machine images endorsed and listed in the AppDB¹⁶ VO image list are properly maintained and updated.

9 Review, extensions and termination

The Services performance will be reviewed against the defined Service level targets according to Section 4. The Agreement will be annually reviewed until expiration.

If the Customer wishes to extend the duration after the Agreement termination date, an extension will be negotiated with the Provider.

The Provider retains the right to introduce changes in the Service, in which case the Customer retains the right of terminating the Agreement.

The Agreement can be terminated at any time upon agreement of the parties. Amendments, comments and suggestions must be addressed to the Provider and the Customer according to Section 6.

¹³ <https://documents.egi.eu/document/74>

¹⁴ <http://operations-portal.egi.eu/>

¹⁵ https://wiki.egi.eu/wiki/FAQ_GGUS-New-Support-Unit

¹⁶ <https://appdb.egi.eu/>