



EGI Pay4Use VO

OPERATIONAL LEVEL AGREEMENT

Service provider	EGI Foundation
Component Provider	CESNET-MCC
User	Terradue – NextGEOSS Pilots / vo.nextgeoss.eu
First day of service delivery	01 October 2018
Last day of service delivery	31 May 2020
Status	Final
Agreement finalization date	24 July 2019
Agreement Link	https://documents.egi.eu/document/3426



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DOCUMENT LOG

Issue	Date	Comment	Author
V1	19 July 2019	First draft sent to customer for review	Björn Backeberg Małgorzata Krakowian
VFINAL	24 July 2019	Final version including changes suggested by customer	Björn Backeberg 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 Operational Level Agreement (“the Agreement”) is made between **EGI Foundation (the Service Provider)** and **CESNET-MCC (the Component Provider)** to define the provision and support of the provided services as described hereafter. Representatives and contact information are defined in Section 6.

GEOSS (Global Earth Observation System of Systems) is a central part of GEO’s Information System’s mission. The NextGEOSS project, a European contribution to GEOSS, proposes to develop the next generation centralised hub for Earth Observation data, where the users can connect to access data and deploy EO-based applications. The concept revolves around providing the data and resources to the user communities, together with Cloud resources, seamlessly connected to provide an integrated ecosystem for supporting applications. A central component of NextGEOSS is the strong emphasis put on engaging the communities of providers and users and bridging the space in between.

The Customer is a consortium represented by **Terradue in the NextGEOSS project.**

This Agreement is valid from **01 October 2018 to 31 May 2020** and defines the agreed upon resources to provide for 1 NextGEOSS Pilot, namely:

1. NERSC Sea Ice Classification

The Agreement was discussed and approved by the EGI Foundation and the Component Provider **24 July 2019.**

The Agreement extends the Resource Center OLA¹ with the following information:

1 The Services

Possible allocation 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.

Possible payment mode offer:

- Sponsored - Model where the customer uses services that are funded, or co-funded by the European Commission or government grants.
- Pay-per-use - Model where a customer directly pays for the service used.

¹ <https://documents.egi.eu/document/31>

The Services are defined by the properties summarised in the following table described in the below links:

- **Cloud Compute:** <https://www.egi.eu/services/cloud-compute/>
- **Cloud Container Compute:** <https://www.egi.eu/services/cloud-container/>
- **High-Throughput Compute:** <https://www.egi.eu/services/high-throughput-compute/>
- **Online Storage:** <https://www.egi.eu/services/online-storage/>
- **Archive storage:** <https://www.egi.eu/services/archive-storage/>

Compute	
Pilot	NERSC Sea Ice Classification
Category:	Cloud Compute
Number of virtual CPU cores:	18
Total amount of Memory (GB):	272
Local disk (GB):	1700
Public IP addresses:	9
Allocation type:	Pledged ²
Payment mode offer:	Per-for-use ³
Duration:	01 October 2018 – 31 May 2020
Storage	
Category	Online Storage

² Resources are exclusively reserved to the Customer

³ See service offer for specifications (e.g. pricing, administration)

Guaranteed storage capacity [GB]:	500
Standard interfaces supported:	E.g. CDMI, POSIX, SWIFT, etc.
Storage technology:	E.g. DPM, dCache, STORM, etc.
Duration:	01 October 2018 – 31 May 2020
Payment mode offer:	Pay-for-use
Allocation type:	Pledged
Virtual Organisation	
Supported VOs:	vo.nextgeoss.eu
VO ID card:	https://operations-portal.egi.eu/vo/view/voname/vo.nextgeoss.eu
VO-wide list:	https://appdb.egi.eu/store/vo/vo.nextgeoss.eu
Service Offer/Cost [€]	
Compute & Storage	€10,080.00

The Services are supported by additional services:

- Accounting⁴
- Service Monitoring⁵ (operational only)

Note: Please note that the following services are not provided by EGI Foundation:

- Monitoring of vo.nextgeoss.eu
- Monitoring of services provided by the Customer on agreed resources

4 <http://accounting.egi.eu/>

5 <http://argo.egi.eu/>

2 Service hours and exceptions

IT services according to the service catalogue are in general delivered during 24 hours per day, 7 days per week (i.e. 365 days or 8,760 hours), to seamlessly support business operations. Planned and announced interruptions may reduce the effective operating time of a service.

The following exceptions apply:

- Planned maintenance windows or service interruptions (“scheduled downtimes”⁵) will be notified via email in a timely manner i.e. 24 hours before the start of the outage, to the Customer through the Broadcast Tool⁶.
- The provider must provide justification for downtime periods exceeding 24 hours
- Human services are provided during support hours.

3 Support

Support is provided via EGI Service Desk⁷. Access requires a valid X.509 or the login via a EGI SSO account⁸. Support is available between:

- Monday to Friday.
- From 8:00 to 16:00 CET/CEST.

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**⁹.

⁶ <https://operations-portal.egi.eu/broadcast>

⁷ <http://helpdesk.egi.eu/>

⁸ <https://www.egi.eu/sso/>

⁹ https://wiki.egi.eu/wiki/FAQ_GGUS-QoS-Levels

The Quality of Support levels are defined as follows:

Medium level:

Incident priority	Response time	Comment
Less urgent	5 working days	wishes and enhancements that are "nice to have"
Urgent	1 working day	service degraded; workaround available
Very Urgent	1 working day	service degraded; no workaround available
Top priority	1 working day	service interrupted; needs to be addressed as soon as possible

Response time is provided as a service level target.

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): 90%

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): 95%

Quality of Support level

- Medium (Section 3)

5 Limitations and constraints

The provisioning of the service under the agreed service level targets is subject to the following limitations and constraints:

- Support is provided in the following language: English

- Downtimes caused due to upgrades for fixing critical security issues are not considered 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
- Availability and Reliability calculations are based on the Service Monitoring operational results.
- Failures in VO monitoring are not considered as the Agreement violations.

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.

Provider contact	Zdeněk Šustr sustr4@cesnet.cz
Provider technical contact	CESNET-MCC devops cloud@metacentrum.cz
EGI contact	Malgorzata Krakowian, EGI Foundation slm@mailman.egi.eu SLM manager
EGI technical contact	Matthew Viljoen, EGI Foundation operations@egi.eu Operations manager
Service Support contact	EGI Service Desk (See Section 3)

6.2 Regular reporting

The Component Provider will supply Performance reports together with their invoices to EGI Foundation (Section 9.2).

The Component Provider is committed to providing the following reports using predefined templates¹⁰:

Report title	Content	Frequency	Produced by	Delivery
Service Performance Report	The document provides an overall assessment of service performance (per month) and OLA target performance achieved during the reporting period based on values from EGI monitoring ¹¹	Aligned with invoicing schedule (Section 9), unless otherwise specified/requested by the customer.	Component Provider	Email to EGI contact together with invoice for period.
Agreement Violation	Agreement violation justification and a plan for service enhancement	Within 10 working days from the date of notification to/from the EGI Foundation about violation	Component Provider	Email to EGI technical contact together with invoice for period.

6.3 Violations

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

- In case of service target violation, the Component Provider must provide justifications and a plan for service enhancement within 10 working days from the date of notification to/from the EGI Foundation.
 - In case of no or unsatisfactory justification and plan for improvement, EGI Foundation reserves the right to replace the Component Provider, in which the Component Provider forfeits future payments.

¹⁰ <https://documents.egi.eu/document/3477>

¹¹ <http://argo.egi.eu/>

- In the case of repeated violations that jeopardizes the ability of the Customer to meet their goals, EGI Foundation reserves the right to replace the Component Provider and the Component Provider forfeits all outstanding payments (i.e. current and future).

6.4 Escalation and complaints

For complaints, the defined EGI Foundation contact point shall be used, and the following rules apply:

- Complaints should be directed to the EGI Foundation contact
- The Component Provider contact will be contacted in case of received complaints.

7 Information security and data protection

The following rules for information security and data protection apply:

- Assertion of absolute security in IT systems is impossible. The Component Provider is making every effort to maximize security level of users' data and minimize possible harm in the event of an incident.
- The Component Provider must define and abide by an information security and data protection policy related to the service being provided.
- This must meet all requirements of any relevant EGI policies or procedures¹² and also must be compliant with the relevant national legislation.

8 Responsibilities

8.1 Of the Component Provider

Additional responsibilities of the Component Provider are as follow:

- Adhere to all applicable operational and security policies and procedures¹² and to other policy documents referenced therein applicable to "Infrastructure" scope.
- Use communication channel defined in the agreement.
- Accept EGI monitoring services provided to measure fulfilment of agreed service level targets.
- Ensure the accuracy of the information in EGI Configuration Database GOCDDB
 - The Component Provider contact details (name, phone number, e-mail address) of a set of contact points for security, operational and administrative emergencies.
 - Components of the service are registered and in the EGI scope.
 - The services that are offered by the Component Provider must be specified.

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

- All services with information system or accounting capabilities, must have at least one local or remote endpoint to publish information:
 - Being provided into the site information system.
 - Being delivered to the EGI accounting infrastructure.
- Enable and support
 - The OPS VO and DTEAM VO.
 - At least one either national or global non-monitoring/troubleshooting user group (e.g. managed using an interoperable VO management service), which must be registered in the EGI Operations Portal.
 - The Component Provider is encouraged to support as many user groups as possible. Specific agreements between the Provider and individual user groups are covered in separate agreements.
- Enable
 - Operational service monitoring - provided centrally by EGI Foundation and (if deemed necessary by the Resource Infrastructure Provider) by the Resource Infrastructure Provider.
 - Central security monitoring - performed centrally by EGI Foundation.
 - Remote access via service APIs for troubleshooting and testing.
- Ensure
 - At least one system administrator reachable during working hours of supporting organization.
 - Sufficient computational and storage resources and network connectivity to support the proper operation of its services, as indicated by passing all relevant Monitoring Service tests.
 - The provisioning of services in itself not create any intellectual property rights in software, information and data provided to the services provided by the Component Provider, or in data generated by the services provided.
- Operate UMD-compliant Middleware supported by EGI Foundation– applicable for High Throughput Computing Platform.
 - The Component Provider is encouraged to stay abreast of updates in order to benefit from the latest improvements and features.

8.2 Of the EGI Foundation

The responsibilities of EGI Foundation are:

Collect requirements from the Component Provider and raise any issues deemed necessary by the

- Provider to the attention of EGI and to ensure that these issues are properly dealt with.
- Raise any issues deemed necessary to the attention of the Component Provider.
- Register the Component Provider and its administrators in GOCDB and in the available helpdesk facilities as applicable.
- Provide support by helping in the resolution of advanced and specialised operational problems that cannot be solved by the Component Provider.

- If necessary, the EGI Foundation will propagate and follow-up problems with higher-level operational or development teams.
- Monitor progress of incident and problem records and to ensure that the Provider works on records opened against them.
- Respond to incident and problem records from the Component Provider in a timely manner.
- Provide the operational services defined in Resource infrastructure Provider OLA and ensure their interoperation with the EGI Foundation ones as applicable.
- Coordinate and support the deployment of UMD-compliant middleware by the Component Provider.
- Coordinate local operational security activities and provide operational security support.
- Support coordination with other Component Providers.
- Support coordination and conflict resolution with the User.

8.3 Of the User

All responsibilities of the User are listed in relevant VO SLA.

9 Finance and Administration

9.1 Service Offers

Component Provider is expected to adhere to the service offer and associated costs provided and agreed timescales, unless changes are otherwise agreed between both parties in writing (See Section 2).

9.2 Invoicing and Payment Schedule

Component Providers are to invoice the EGI Foundation according to the below schedule. Note that invoices need to be accompanied by a Service Performance Report (see Section 6.2).

Service delivery period	Invoicing frequency	Produced by	Delivery
01/10/2019 – 31/05/2020 Twenty-four (19) months	Twice, for [total/2]€ by 1. 31/09/2019 and 2. 30/06/2020.	Component provider	Email to EGI contact together with Service Performance Report for period.

Invoice details:

- Name: Yannick Legré, EGI Foundation Director
- Address: Science Park, 140 - 1098XG – Amsterdam, Netherlands
- VAT: NL8219.84.986.B.01

- Email: inkoop@egi.eu
- Date: [DD/MM/YYYY]
- Reference: NextGEOSS Pilots

10 Review, extensions and termination

This agreement is subject to review at least on an annual basis (from signature date) or at any time by written request by any party.