



GSA/OP/05/19

“Development of an advanced interference detection and robustness capabilities system”

ANNEX I.I to the Tender Specifications

SERVICE LEVEL AGREEMENT

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1 SERVICE LEVEL AGREEMENT SCOPE

1.1 Introduction

This SLA is provided for the Contract: **GSA/OP/05/19 "Development of an advanced interference detection and robustness capabilities system"**, regarding the required levels of performance and the procedure in case of Underperformance. This SLA is applicable during the execution of Contract Stage 2 - Task 8 only of the contract.

This SLA defines the Key Performance Indicators (KPIs) for the calculation of Underperformance. It also addresses the metrics, which should be monitored and reported by the contractor. All KPIs defined in this document shall apply and be reported individually.

As foreseen in the Contract, in case of a conflict, the Contract shall prevail. Any definitions used in this SLA, unless specifically defined, shall have the meaning ascribed to them in the Contract.

1.2 Background information

The Contract aims at designing, developing and pre-operationally testing the IT infrastructure of a worldwide advanced interference detection and robustness capability Software as a Service (SaaS¹) accessible from the internet (hereinafter 'Service', for the avoidance of doubt it is not considered as a 'Galileo service').

For the purpose of ensuring optimal performances and availability of Service during the pre-operational testing phase to end users, the Contractor has to fulfill the KPIs defined below.

1.3 SLA specific explanations and definitions

1.3.1 Application of Liquidated Damages

According to the Contract, Liquidated Damages are implemented to cover, *inter alia*, Underperformance periods during the pre-operational testing phase as foreseen under **Article 18** of the Contract.

The expected performance of the Hosting Services is measured through a set of defined KPIs. Each "Underperformance" is defined in **Section 2** below.

The following principles shall apply:

- a) The amount of Liquidated Damages shall be calculated according to the following formula:

¹ Software as a service (SaaS) is a cloud computing model where a third-party provider offers software applications to consumers over the internet. The service shall be scalable and available by multiple consumers simultaneously. The main purpose is to share the data resources between multiple users while maintaining data isolation between the users.



Liquidated Damages = “Service Fee for 6 months” x Global Underperformance

Where:

$$Global\ Underperformance = \frac{1}{6} \sum_{Month=1}^6 Min(100\%; Monthly\ Underperformance)$$

Where:

$$Monthly\ Underperformance = U_{Availability} + U_{Maintenance} + U_{SLA\ report}$$

- b) The Monthly Underperformance on KPIs as per above formula cannot exceed 100%.
- c) Underperformances are computed on a monthly basis in the SLA Report
- d) Liquidated Damages shall be calculated every 6 months and reported in the contractor’s Service Performance Report. The exact percentage of Underperformance will be agreed at the corresponding Service Performance Meeting, depending on the applicability of the exclusions raised by the contractor. In case of dispute, **Article 24** of the Contract shall apply.

1.3.2 Entry into Force

The SLA shall enter into force during the entire execution of Task 8, as defined in the Tender Specifications.

1.3.3 Services Levels Monitoring

Starting from the start of Task 8 and during each calendar month, the Contractor will commit to achieve and maintain the Service to at least the target value for each KPI and metric listed in **Section 2** and **3**, and subject to any exclusion as detailed in this SLA.

1.3.4 Payment for the Services

The recovery and/or reduction of amounts due to the Agency because of the application of Liquidated Damages shall be executed as defined in the Contract **Article 18**.

1.3.5 SLA Reviews, reporting and periodicity

The Contractor will provide the SLA Report every month as specified in Section 2.4.

Every six months, a Service Performance Meeting will take place between the Contractor and GSA to review the Service Performance Report.



Besides the Service Performance Meetings, specific contingency meetings can be requested by either Party at any time in case of Underperformance in order to discuss corrective actions.

1.3.6 Exclusions

Possible exclusions are foreseen in each KPI description below in Section 2. They shall be reported through the monthly SLA Report.

2 Key Performance Indicators

2.1 KPIs overview

This Service Level Agreement concerns the following aspects of the Service related to the infrastructure service provided by the contractor:

KPI-1: Service availability

KPI-2: Duration for executing corrective maintenance activity

KPI-3: SLA Report delivery

All the time reported in the SLA Report shall be in Galileo System Time (GST).

The calculation of Unavailability for each KPI takes into account the duration of the month (28, 29, 30 or 31 days).



2.2 KPI-1: Service availability

KPI- 1	SERVICE AVAILABILITY
Description	This KPI measures the percentage of unavailability of the Service due to the degradation of any factor(s) directly affecting the availability of the Service to the users.
Target value	Availability: 99.50%
Measurement	<p>The Unavailability should be computed when the Service is not accessible by the users.</p> <ul style="list-style-type: none"> • Start of the Unavailability period: date/time of the service performance degradation; • End of the Unavailability period: date/time of the critical key parameter, causing the service degradation, back to the approved level of compliance to the requirement, as measured by the contractor.
Reporting	<p>The contractor is responsible to fill in the SLA Report each Unavailability with:</p> <ul style="list-style-type: none"> • The reason of the unavailability; • the Start date/time (h:mn) of the unavailability; • the End date/time (h:mn) of the unavailability; • the Start/End date/time and justification of the exclusion time, if any.
Exclusion	Planned outages by the contractor, notified at least 10 days in advance to the users, and limited to 24 hours per month in average on a 6-months period.
Calculation	<p>The Unavailability should be computed according to the following formula:</p> $U_{Availability} = \frac{\sum \text{Unavailability duration in min over the month}}{\text{Number of days over the month} * 24 * 60}$ <p>The Unavailability should only be counted once if several critical key parameters are not met during a same period of time.</p> <p>The Underperformance related to KPI-1 is considered to be 0% if the sum of the Unavailability(ies) of the above critical key parameters is lower than 0.5%</p>



2.3 KPI-2: Duration for executing corrective maintenance activity

KPI-2	DURATION FOR EXECUTING CORRECTIVE MAINTENANCE ACTIVITY
<p>Description</p>	<p>This KPI covers the period for executing any corrective maintenance activity (including infrastructure hardware and software replacement) by the contractor following an intervention requested by GSA or due to a malfunction.</p> <p>Support activities for corrective maintenance on the infrastructure will be carried out by the contractor during its working hours as defined in the Contract.</p> <p>Note1: this KPI covers any corrective maintenance service, from remote eyes and hands up to hardware and software replacement activity.</p>
<p>Target value</p>	<p>Completion time shall not exceed 1 working day.</p>
<p>Measurement</p>	<p>The duration of the activity is measured:</p> <ul style="list-style-type: none"> • Start of the activity by the contractor: Date/time of the request by GSA (via email) of an intervention or the time of discovery of the malfunction • End of the activity by the contractor: Date/time of the notification to GSA (via mail) of the completion of the maintenance activities. <p>After completion of the activity an e-mail summarising the activity performed, start date/time activity, and end date/time of the activity shall be sent by the contractor to GSA.</p>
<p>Reporting</p>	<p>The contractor is responsible to fill in the SLA report:</p> <ul style="list-style-type: none"> • the Start day/time (h:mn) of the maintenance activities (email); • the End day/time (h:mn) of the maintenance activities (email); • the calculation of the final Underperformance (mn), if any.
<p>Exclusion</p>	<p>N/A</p>
<p>Calculation</p>	<p>The monthly cumulated Underperformances for the execution time of any corrective maintenance activity is the sum of the durations of all execution times exceeding the target $T_{R(i)}$.</p> $U_{Maintenance} = \frac{\sum_{Month}(T_{R(i)} - 24 \text{ hours}[with } T_{R(i)} > 24 \text{ hours]})}{\text{Number of days over the month} * 24}$



2.4 KPI-3 SLA Report delivery

KPI-3	SLA REPORT DELIVERY
Description	The SLA Report covering one full month shall be delivered to the Customer, every month.
Target value	At the latest 5 working days after the last calendar day of the previous month.
Measurement	<p>The delivery date is the date on which the SLA Report has been submitted by e-mail to GSA (at the e-mail address of the GSA project officer).</p> <p>The SLA Reports shall be considered as delivered only if they are correctly filled in (e.g. complete and the calculation of the KPIs are correct).</p> <p>This assessment will be provided by GSA no later than 30 calendar days after its delivery.</p> <p>For the last month of a 6-month period conditioning the date of the delivery of the Service Performance Report, this assessment will be provided no later than 15 calendar days after its delivery.</p> <p>The SLA Report shall identify what is the 5th working day, according to the local national & bank holidays applicable at the contractor’s place of work.</p>
Reporting	<p>The contractor shall indicate in the SLA Report the date when the SLA Report has been delivered to the Customer.</p> <p>The contractor is responsible for stating in the SLA Report the number of days of delay in delivery, if any.</p>
Exclusion	N/A
Calculation	<p>A “grace period” shall apply, such that Underperformance is constituted by delivery exceeding N+5 working days, where N means the last day of the month to which the SLA Report relates.</p> <p>The monthly underperformance for SLA report delivery is computed as follows:</p> <p>$U_{SLA,Report}$ shall be increased by 5% for every day after N+5wdays.</p> <p>As an example, and assuming no bank holiday, the SLA Report for January 2020 must be delivered by 7 February 2020 the latest. Underperformance begins on 12th February 2020.</p> <p>In case of rejections of the SLA Report because of incompleteness or incorrect KPI calculation, the time for re-delivery of the SLA report should be added to the time for initial delivery.</p>



2.5 KPI summary table

ID	Title	Target
KPI- 1	Service availability	99.5%
KPI- 2	Duration for executing corrective maintenance activity	1 working day
KPI- 3	SLA Report delivery	5 working days after end of the month



3 Metrics

The metrics represent reporting obligations of the contractor.

The metrics shall be reported on monthly basis in the SLA Report , and reviewed on a 6-month basis in the Service Performance Report.

No Liquidated Damages apply to the metrics.

3.1 MTR-1: Notification of “planned” event potentially affecting the service availability

MTR-1	NOTIFICATION OF «PLANNED» EVENT POTENTIALLY AFFECTING THE SERVICE AVAILABILITY
Description	<p>This metric measures the notice period related to a planned event known in advance by the contractor and that might affect the availability of the service.</p> <p>This Formal Notification shall consist in a description of the event, date/time of occurrence and estimated date/time of the end of the event.</p> <p>A second Formal Notification shall confirm the end of the event.</p>
Target value	Notification to be provided at least 10 calendars days in advance
Measurement	<p>For each notification:</p> <ul style="list-style-type: none"> • Start: Date/time of the notification formally sent and acknowledged by the Contractor. • End: Date/time of the start of the planned event
Reporting	The contractor is responsible to fill in the Service Performance Report the duration of the advance notice and, if applicable, the Underperformances.
Exclusions	None



3.2 MTR- 2: Response after a request for clarification/information after an unusual event

MTR-RIMSV3-2	RESPONSE AFTER A REQUEST FOR CLARIFICATION/INFORMATION AFTER AN UNUSUAL EVENT
Description	<p>This metric measures the response time by the contractor following a request for clarification/information formulated by GSA (e.g. in the frame of off-line investigations).</p> <p>If an immediate answer is not possible (e.g. if tests are necessary), the contractor shall acknowledge the request by email, indicating namely the expected deadline for the answer.</p>
Target value	<p>As soon as possible and no later than 3 working days after request submission.</p> <p>The Contractor is defined as underperforming when the Time to respond exceeds 3 working days</p>
Measurement	<p>For each request for clarification/information after an usual event:</p> <ul style="list-style-type: none"> • Start: date/time of the email in which the request is formulated. • End: date/time of the contractor’s response.
Reporting	<p>The contractor is responsible to fill in the Service Performance Report the time to response and, if applicable, Underperformance(s).</p>
Exclusions	<p>None</p>

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