

# **Appendix 11 to Tender Specifications**

## **Corrective Maintenance and Operational Support – Requirements**

## Introduction

The scope of this document is to define the requirements that the contractor shall provide to EMSA within the scope of the Module 1 of the EMSA/OP/26/2015 FWC.

It is important to highlight that in order to create the context for understanding the following requirements the tenderer shall take into account also the definitions and requirements provided in the Appendices 7 *EMSA Project Delivery* and 8 - *EMSA working Procedures* to this tender specifications.

## Requirements structure

A requirement describes one or more services to be provided by the contractor.

Each requirement in the technical specification annexes to this framework contract has an identification based on this structure: REQ-{progressive number}.

## Corrective Maintenance

REQ-1	Code Maintenance
<p>The contractor shall maintain the source code of the software developed for EMSA within the context of the DPC project.</p> <p>The code to be maintained has been developed mainly in: Java and Javascript. The overall number of lines of code per language, including comments and empty lines, is: Java 73,539 ines of code, Javascript 3,536 lines of code.</p> <p>The source code is organized in 920 files and 6,100 functions (960 classes, 32,0011 statements, 796 accessors).</p> <p>The source code to maintain will be delivered to the contractor after the signature of the contract. The information provided within this tender about the lines of source code could be different when the contract will be signed.</p> <p>The costs associated for the contractor to familiarise himself with the code to be maintained shall be included in this module. The contractor shall provide the code maintenance services (bug fixing) within 2 months from the signature of the contract.</p>	

REQ-2	Technical Documentation
<p>The contractor is in charge to edit, maintain and update the following documents:</p> <ul style="list-style-type: none"> <li>- Technical Design Document</li> <li>- Interface Control Document</li> <li>- Operational and Maintenance Manual</li> <li>- Incident Handling Procedures</li> <li>- Installation Manual</li> </ul>	

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<b>REQ-3</b>	<b>Releases and Deployment Management</b>
<p>Requests For Change (see REQ-7) will be grouped in releases.</p> <p>EMSA can request at maximum 3 standard releases per year, usually one every 3 or 4 months, and an unlimited number of emergency releases to fix urgent issues (see REQ-8).</p> <p>If requested by EMSA, within the scope of releasing a new version of the system, the contractor shall update the documents listed in requirement REQ-2.</p> <p>The installation of a new release is an incremental installation, either standard or emergency release. The contractor is in charge to draft the “Release Note” for installing a new release.</p> <p>EMSA is in charge to deploy release in all the DPC environments (see REQ-5). If requested by EMSA the contractor can also be in charge to deploy releases in DPC test environment and the price shall be included in this contract’s module.</p>	
<b>REQ-4</b>	<b>Full Installation</b>
<p>The contractor shall be able to deploy a full installation of DPC in any platform compliant with EMSA Technical Landscape. EMSA is in charge to set-up the infrastructure as specified in the Technical Landscape, the contractor shall be able to perform a full installation and configuration of DPC in order to have the service operationally ready in less than 5 working days.</p> <p>EMSA can request maximum 2 full installations per year.</p>	
<b>REQ-5</b>	<b>DPC environments</b>
<p>The contractor shall support the delivery of the DPC service in 5 different environments: Training, Test, Pre-Production, Production and Business Continuity Facilities (BCF).</p>	

## Operational Support

<b>REQ-6</b>	<b>Issues Management</b>
<p>EMSA is in charge to provide a system for managing issues (the ticketing system currently in use in EMSA is TeamForge).</p> <p>The contractor shall be in charge to address the issues opened by EMSA through the ticketing system according the Service Level Agreement (SLA) as defined within requirement REQ-8.</p> <p>The compliance with the SLA will be measured based on the timestamps recorded by the ticketing system.</p>	
<b>REQ-7</b>	<b>Type of Issues</b>
<p>The issues to be addressed are classified as follows. If during the course of the contract other classifications are necessary the contractor will be informed.</p> <p><u>Change Management</u></p> <p>A Request For Change (RFC) shall be applied to any change in the system.</p>	

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A RFC can be: (i) a new functionality, (ii) a defect to be fixed or (iii) a change of the system's configuration.

Each RFC in the system is described in a Change Request Form. The Change Request Form can be a document (i.e. a Technical Specification), or a ticket in the ticketing system.

A defect (ii) and change of the configuration (iii) shall be addressed by the contractor within the context of the information provided of REQ-1, therefore the contractor shall be in charge to address an unlimited number of defects. Any new functionality shall be addressed as a specific contract of Module 2.

### Incident Management

Incident Management shall include the resolution of incidents and the handling of service requests (e.g. requests for information/support, requests for sending specific notifications to end users). The key objective is to guarantee that incidents and requests are handled accurately, completely, and in a timely manner ensuring therefore adherence to the agreed service levels.

The contractor shall be in charge to provide this service.

The tenderer shall provide a clear approach of the incident management process that includes as a minimum the following activities:

- Incident detection and recording,
- Classification and initial support,
- Investigation and diagnosis,
- Resolution and recovery,
- Incident closure,
- Incident ownership, monitoring, tracking and communication.

### Problem Management

Problem management shall include the resolution of problems in response to one or more reported incidents with unknown cause.

The contractor shall be in charge to provide this service.

The tenderer shall provide a clear approach to the problem management process that includes as a minimum the following activities:

- Problem Analysis, Categorisation, and Prioritisation,
- Problem Investigation and Diagnosis,
- Provision of the Solution.

REQ-8	Service Level Agreement
<p>The following definitions are to be taken into consideration:</p> <ul style="list-style-type: none"> <li>• Time to acknowledge – the time the contractor is informed of the problem until the contractor provides an initial investigation and analysis of the issue;</li> <li>• Time to solve – the time the contractor is informed of the issue until the moment the issue is solved and the service is available again to the end user.</li> <li>• Type of incident priorities:</li> </ul>	

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- Urgent – Business stopped. Essential services are unavailable;
- Critical - Critical Business Impact. The service can be provided with limited, but not essential, functionalities;
- Standard – Business Impact. A non-essential functionalities or service are not available.

For the execution of the issues defined in this contract (see REQ-7), the contractor should meet the service level as defined in Table 1 - SLA.

Priority of the issues	Time to acknowledge and provide a preliminary analysis	Time to Solve
Urgent	3 working hours	1 working day
Critical	2 working days	7 working days
Standard	5 working days	20 working days

Table 1 - SLA

EMSA is responsible to classify the issues (priority, issues type, etc.).

In case the contractor disagrees with the EMSA's classification, the contractor can propose a different classification within the acknowledge time. In case of conflict EMSA has the rights to take the final decision.

This SLA is applicable to all the DPC environments.

For all the types of issues REQ-7 the Service Level Agreement reported in this requirement is applicable.

REQ-9	Number of issues to be solved
The contractor shall provide operational support according the SLA specified in the requirements REQ-8 for an unlimited number of issues.	

REQ-10	Configuration Management
<p>EMSA is responsible to configure all the DPC environments.</p> <p>If requested by EMSA the contractor is in charge to perform the changes in any of the DPC environments. However, in principle the contractor will only be allowed to modify the test environment.</p>	

REQ-11	Pro-active analysis
<p>The contractor shall issue a monthly report to the Project Manager of the DPC summarizing possible problems and propose solutions.</p> <p>The basis of this analysis task shall be the application logs and the monitoring tools, to which the contractor shall have remote access. The contractor may request EMSA for additional data to</p>	

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complete its analysis.

<b>REQ-12</b>	<b>Monthly Report</b>
<p>Within the first 7 days of each month, the contractor shall provide a report to EMSA assessing the status of the open issue.</p> <p>The report shall contain at least the following information:</p> <ul style="list-style-type: none"> <li>- Total number of open tickets per issue type;</li> <li>- Number of tickets open in the last month per issue type;</li> <li>- Number of tickets closed in the last month per issue type;</li> <li>- Number of tickets not compliant with requirement REQ-8;</li> <li>- Status of the issues identified within the context of requirement REQ-11.</li> </ul>	

<b>REQ-13</b>	<b>Bi-annual report and meeting</b>
<p>The contractor shall draft the bi-annual report, the report shall contain:</p> <ul style="list-style-type: none"> <li>- Monthly progress reports;</li> <li>- Summary of the major incidents/problems occurred;</li> </ul> <p>The report shall be submitted within 14 calendar days from the end of the six-months.</p> <p>Bi-annual (twice a year) meetings shall take place at EMSA premises. If requested by the contractor and accepted by EMSA the meeting can be held by a phone or video conference.</p> <p>Maintenance will be invoiced every six months following the acceptance by EMSA of the report provided by the contractor at the end of each six-months indicating all maintenance performed during the six-months and a supporting invoice.</p> <p>The contractor shall provide 2 weeks before the bi-annual progress meeting updated versions of the following documents described within REQ-2.</p>	

<b>REQ-14</b>	<b>System performance requirements</b>
<p>For the initial system configuration the DPC shall be able to process the global satellite AIS stream which is projected to reach 15 million messages per day in 2015.</p> <p>The processed output shall be made available within 10 minutes for 90% of the messages and 15 minutes for 99% of the messages.</p>	

<b>REQ-15</b>	<b>System availability requirements</b>
<p>The DPC shall be available on a 24/7 basis.</p> <p>The Contractor shall assure the minimum availability of the system as:</p> <ul style="list-style-type: none"> <li>• 95% over a year.</li> <li>• 12 hours maximum continuous downtime.</li> </ul>	

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<ul style="list-style-type: none"> <li>•</li> </ul> <p>The operational procedures for the DPC shall ensure this availability level is achievable with a minimal number of staff.</p>
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<b>REQ-16</b>	<b>System scalability</b>
<p>EMSA may request the contractor to scale the system to cope with increased Satellite AIS volumes. Such a request shall be addressed as a specific contract of Module 2.</p>	

<b>REQ-17</b>	<b>Satellite AIS provider changes</b>
<p>EMSA may request the contractor to configure new ground stations and satellites in the DPC upon changes in the Satellite AIS provider system.</p> <p>The extent of such changes is described in the installation and user manual in annex to the technical specifications.</p> <p>Such a request shall be addressed as a specific contract of Module 2.</p>	