

Tender Specifications

attached to the Invitation to tender

Invitation to tender N° EMSA/NEG/41/2015 for IdM – LMS integration

1 Introduction

The European Maritime Safety Agency (EMSA) was established under Regulation 1406/2002/EC of the European Parliament and of the Council to contribute to the enhancement of European maritime safety.

Among its tasks, the Agency should facilitate cooperation between Member States and the European Commission in the field of European Vessel Traffic Monitoring and Information System in the context of Directive 2002/59/EC.

2 Objective, scope and description of the contract

2.1 Objective

EMSA is adopting a new e-learning platform to provide electronic training to external and internal resources. This new platform aims to implement an integrated learning content management system which can:

- support the production, management and delivery of digital contents and the related services
- index, organize and package learning objects and distance learning courses
- manage and monitor learners' performance
- set domains, communities and users' roles
- allocate content resources and set deadlines and notifications to users
- develop templates with images, videos, audios, animations or engaging interactions

The system will facilitate the training of users among all the different areas where EMSA has been tasked to assist. The system will also serve to complement the EMSA-organised face-to-face training activities. The system will include the following functionalities:

- i. Content production**
 - Collaborative authoring
 - Templating
 - Packaging
- ii. Content management**
 - Project management
 - Workflows
 - Versioning

- Repository
- Users & permissions management
- Content searching

iii. Content delivery

- Delivering
- Tracking
- Profiling
- Reporting

Two different applications are responsible for providing the functionalities described above:

- LCMS – Learning Content Management System
- LMS – Learning Management System

LCMS is out of the scope of the present procurement (IdM-LMS integration).

The LMS user community will be composed of internal and external users, most of them already members of the current EMSA Maritime Applications. In order to adhere to the EMSA Single Sign-On principle (one user - one account for all EMSA Applications), LMS must be integrated with EMSA IdM (Identity Management) Platform described in Appendix A.

The objective of this document is to describe the requirements for this integration.

2.2 Scope and Context Diagram

Figure 1 below shows the context diagram and defines the main blocks for the IdM-LMS integration.

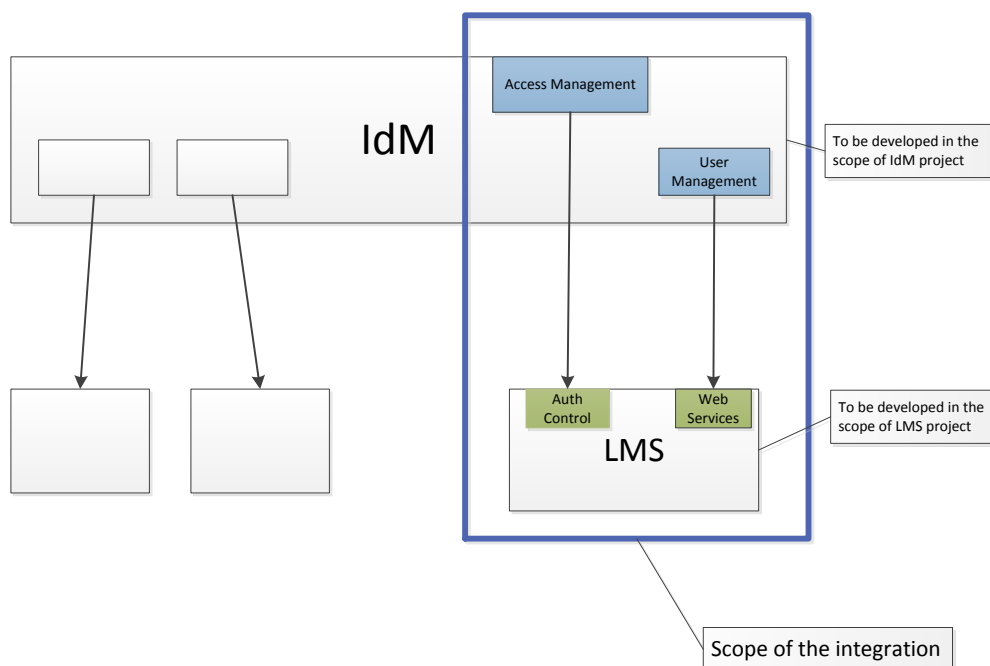


Figure 1 - Context Diagram

The main blocks are:

1. IdM: Access Management

The Access Management module is responsible for User Authentication and first level of Authorization.

Access to LMS URLs will be granted only to users with valid credentials (i.e. userId and password) and belonging to at least one of the LMS roles (see below).

On authentication success, a specific http header SM_USER containing the userId will be added to all http requests reaching the LMS application.

2. LMS: Auth Control

The Authentication Control module is responsible for checking the existence of the SM_USER header variable and acting accordingly. If SM_USER exists and indicates a user known to LMS, functionalities can be accessed. Otherwise the request cannot be accepted.

3. IdM: User Management

The User Management module is responsible for the functionalities to create and modify users. It consists of 2 different components:

- Front-end: the Human Interface, i.e. a set of web forms
- Back-end: implementation of the user management functionalities and provisioning mechanism.

4. LMS: Web Services

The Web Services module is responsible for executing the provisioning actions inside LMS.

This procurement is targeting the implementation of block “**3. IdM: User Management**” and the specific requirements are presented in the next section.

2.3 Block “3. IdM: User Management” Requirements

2.3.1 Account/User Attributes

An account is characterized by the following attributes

- Common Attributes: are shared by all applications and they are already defined in the EMSA IdM system. In principle, modifications to the existent design and specifications are not allowed, If needed, change requests are subject to an impact analysis and agreement between all the parts involved. The foreseen Common Attributes are:
 - i. **UserId**
 - ii. **Password**
 - iii. **First Name**
 - iv. **Last Name**
 - v. **E-mail**

- vi. **Authority** - Selection of the User Authority shall follow the current hierarchy: “Authority Type”, “Authority”, and “Local Authority”. The last one is only applicable to EMSA users. The current configurations mechanisms have to be respected and extended to support LMS.
- Specific Attributes: are only related with the LMS application. The foreseen Specific Attributes are:
 - i. **Roles**. Refer to “Roles” for details
 - ii. **Domain**. Refer to “Domains” for details

2.3.2 Roles

An LMS Role defines what a user can do. In what respects User Management, the following points describe the foreseen LMS Roles and their privileges to execute User Management actions as well as the User Accounts visibility:

- a. LMS Administrator
 - Has privileges to manage users at all levels under the LMS application (sibling are not included)
 - Has privileges to assign users to the following roles
 - i. Domain Administrator
 - ii. National Administrator
 - iii. End User
 - LMS Administrators can only belong to Authority EMSA
 - Has privileges to view and select/assign all defined Domains (see also “Domains”)
- b. Domain Administrator
 - Has privileges to manage all users belonging to his own domain.
 - Has privileges to assign users to the following roles
 - i. National Administrator
 - ii. End User
 - Domain Administrators can only belong to Authority EMSA
 - One domain has only one Domain administrator
 - Has privileges to view and select/assign his own Domain (see also “Domains”)
- c. National Administrator
 - Has privileges to manage all users simultaneously belonging to his own domain and his own authority (country, institution, ...)
 - Has privileges to assign users to the following roles
 - i. End User
 - Has privileges to view and select/assign his own Domain (see also “Domains”)
- d. End User
 - Cannot manage users
 - Can only modify his own personal attributes

LMS Roles have to be mapped into the current EMSA Security Model, as mentioned in the Appendix A.

LMS users can possess one or more LMS Roles. In that case, the role with the highest set of privileges supersedes the others (but always considering the rules defined).

Note that IdM is only responsible for controlling User Management functionalities and user's visibility. Controlling application functionalities or data is the responsibility of the LMS application.

2.3.3 Domains

A Domain is an LMS concept that will be handled by IdM as background information. Configuration and Management of domains inside IdM will always imply the execution of manual actions.

In general, IdM will provide a list of domains available in LMS, plus the option "All Domains". It is foreseen to have two distinct lists of Domains, depending on the Role to be assigned to the user being created,

- a. For administration purposes:
 - I. Only applicable if roles "LMS Administrator" or "Domain Administrator" are selected:
 - Selecting "LMS Administrator" will imply "All Domains"
 - Selecting "Domain Administrator" only one Domain can be selected
- b. For simple content access purposes:
 - I. Only applicable to role "End User". Multiple Selection of Domains

Domains also have visibility rules depending on the Administrator Role as explained before.

2.3.4 LMS mock web form definition

The following figure shows a possible organization of the IdM Web Forms that will be implemented to manage LMS users.

The diagram illustrates a mock web form for managing LMS users, organized into three distinct sections within a single container:

- Generic User Attributes Area:** This section contains fields for Userid, Password, First Name, Last Name, and Authority (country, institution, ...).
- Roles Area:** This section lists four roles: LMS Administrator, Domain Administrator, National Administrator, and End User.
- Domains Area:** This section contains two selection options: Administrator Domain (single Selection) and End User (Multiple selection).

Figure 2 - mock web form

The implementation behind the forms shall follow the IdM principles as described in the “IdM Guide” document. Modifications of these principles, design and specifications, are in principle not allowed unless an impact analysis is done and agreement between all the parts involved is obtained.

2.3.5 Provisioning Service

Provisioning is the act of sending account attributes and associated information (e.g. roles) to all the systems having the user as a member.

In the case of LMS provisioning, only 2 systems are involved in the provisioning process:

- LDAP
- LMS

Provisioning rules and the implementation associated to the management of a specific user shall follow the same IdM principles as described in the “IdM Guide” document. Modifications of these principles, design and specifications, are in principle not allowed unless an impact analysis is done and agreement between all the parts involved is obtained.

2.3.6 Bulk Load

Bulk Load is the act of loading users into IdM and all the surrounding systems through provisioning. Most of the times it is a “One shot” process execution but sometimes might be executed more than once. It is used to create new accounts with their attributes and associated information (e.g. Roles).

The current Bulk Load implementation shall be extended to allow the initial LMS account creation in IdM and provisioning to the involved systems.

LMS Bulk Load implementation shall follow the existent principles. Modifications of these principles, design and specifications, are in principle not allowed unless an impact analysis is done and agreement between all the parts involved is obtained.

2.3.7 Project and Deliverables

The integration project shall address the 3 standard EMSA environments: TEST, PRE-PROD and PRODUCTION environments. Contractors have controlled access (but otherwise no limitations) to the TEST environment while PRE-PROD and PRODUCTION are only accessible, controlled and managed by EMSA.

The integration project shall deliver the following results:

- Integration working in the 3 mentioned environments.
- Deployment and configuration Documentation. This documentation shall be as detailed as needed to allow EMSA staff to replicate deployment and configurations in PRE-PRODUCTION and PRODUCTION environments.
- Source code and build procedures for all the components developed under this project.

3 Contract management responsible body

The European Maritime Safety Agency – Unit A.3, in charge of Operations Support - will be responsible for managing the contract.

4 Timetable

The estimated date for signature of the contract is 28/09/2015.

The estimated date of the kick-off meeting is 29/09/2015.

5 Estimated Value of the Contract

The maximum budget available for this contract is of 15.000,00 Euro excluding VAT.

6 Terms of payment

Payment will be made in accordance with the provisions of the draft contract available in the Procurement Section under the call to tender EMSA/NEG/41/2015 on the EMSA website at the following address:
www.emsa.europa.eu

7 Terms of contract

In drawing up a bid, the tenderer should bear in mind the terms of the draft contract.

EMSA may, before the contract is signed, either abandon the procurement or cancel the award procedure without the tenderers being entitled to claim any compensation.

8 Subcontracting

If the tenderer intends to either sub contract part of the work or realise the work in co-operation with other partners he shall indicate in his offer which part will be subcontracted, as well as the name and qualifications of the subcontractor or partner. (NB: overall responsibility for the work remains with the tenderer).

The tenderer must provide required evidence for the exclusion and selection criteria on its own behalf and when applicable on behalf of its subcontractors. The evidence for the selection criteria on behalf of subcontractors must be provided where the tenderer relies on the capacities of subcontractors to fulfil selection criteria¹. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria, the evidence provided will be checked to ensure that the tenderer and its subcontractors as a whole fulfil the criteria.

¹ To rely on the capacities of a subcontractor means that the subcontractor will perform the works or services for which these capacities are required.

9 Requirements as to the tender

Bids can be submitted in any of the official languages of the EU. The working language of the Agency is English. Bids must include an English version of the documents requested under point 13 of the present tender specifications.

The tenderer shall complete the Tenderer's checklist.

If the tenderer intends to either sub contract part of the work or realise the work in co-operation with other partners (Joint Offers) he shall indicate in his offer by completion of the form – Information regarding joint offers and subcontracting. The tender must be presented as follows and must include:

Signed cover letter indicating the name and position of the person authorised to sign the contract/Purchase Order and the bank account on which payments are to be made.

Financial Form completed, signed and stamped; available on the Procurement Section (Financial Form) on the EMSA Website at the following address: www.emsa.europa.eu

Legal Entity Form completed, signed and stamped and requested accompanying documentation, available on the Procurement Section (Legal Entity Form) on the EMSA Website at the following address: www.emsa.europa.eu

Tenderers are exempt from submitting the Legal Entity Form and Financial Form requested if such a form has already been completed and sent either to EMSA or any EU Institution previously. In this case the tenderer should simply indicate on the cover letter the bank account number to be used for any payment in case of award.

Part A: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the points **8, 10, 12.2, 12.3** of these specifications (**Exclusion criteria**)

Part B: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Award Criteria** set out under point **13** of these specifications;

Part C: all the information and documents required by the contracting authority for the appraisal of tenders on the basis of the **Technical and professional capacity** (part of the Selection Criteria) set out under point **12.4** of these specifications.

Part D: setting out prices in accordance with point **10** of these specifications.

10 Price

- Price must be quoted for IdM – LMS integration.
- Prices must be fixed amounts and non-revisable.
- Prices must be quoted in euro.

- Under Article 3 and 4 of the Protocol on the privileges and immunities of the European Communities, the latter is exempt from all duties, taxes and other charges, including VAT. This applies to EMSA pursuant to the Regulation 1406/2002/EC. Therefore price and the amount of VAT must be shown separately.

11 Joint Offer

Groupings, irrespective of their legal form, may submit bids. Tenderers may, after forming a grouping, submit a joint bid on condition that it complies with the rules of competition. Such groupings (or consortia) must specify the company or person heading the project and must also submit a copy of the document authorising this company or person to submit a bid.

Each member of the consortium must provide the required evidence for the exclusion and selection criteria. The exclusion criteria will be assessed in relation to each economic operator individually. Concerning the selection criteria, the evidence provided by each member of the consortium will be checked to ensure that the consortium as a whole fulfils the criteria.

If awarded, the contract will be signed by the person authorised by all members of the consortium. Tenders from consortiums of firms or groups of service providers, contractors or suppliers must specify the role, qualifications and experience of each member or group.

12 Information concerning the personal situation of the service provider information and formalities necessary for the evaluation of the minimum technical and professional capacity required.

12.1 Legal position – means of proof required

When submitting their bid, tenderers are requested to complete and enclose the **Legal Entity Form** available on the Procurement Section on the EMSA Website at the following address: www.emsa.europa.eu.

12.2 Grounds for exclusion – Exclusion criteria

To be eligible to participate in this contract award procedure, tenderers must not be in any of the following exclusion grounds:

- a) they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- b) they have been convicted of an offence concerning their professional conduct by a judgement which has the force of res judicata;
- c) they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
- d) they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established

or with those of the country of the contracting authority or those of the country where the contract is to be performed;

- e) they have been the subject of a judgement which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
- f) following another procurement procedure or grant award procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.

12.3 Evidence to be provided by the tenderers

For this purpose the Declaration on Honour available on the Procurement Section on the EMSA Website (www.emsa.europa.eu) shall be completed and signed.

12.4 Technical and professional capacity – Selection criteria

Requirements:

- The tenderer must have a very good level of technical and professional capability in the provision of the requested services, namely know-how, efficiency, experience and reliability in the requested technical domain.

Evidence:

- Experience in systems similar to those in the requested technical domain, in terms of business logic and used architectures.
- The Curriculum Vitae (CV) with the educational and professional qualifications of the proposed team for implementation of the contract.

13 Award criteria

Only the tenders meeting the requirements of the exclusion and selection criteria will be evaluated in terms of quality and price.

The contract will be awarded to the tenderer who submits the most economically advantageous bid (the one with highest score) based on the following quality criteria and their associated weightings:

1. **Quality criterion 1 ($W_1 = 20\%$) – quality of the proposed team** – the bidder shall present the proposed team organization and the description of the responsibilities of each team member.
2. **Quality criterion 2 ($W_2 = 50\%$) – quality of the technical solution** – the bidder shall present the proposed technical solution based on the requirements presented in 2 - Objective, scope and description of the contract.

and the price criterion and associated weighting:

3. **Price of the bid ($W_{Price} = 30\%$)** – the bidder shall present the total price of the bid.

For all bids, evaluators will give marks between 0-10 (half points are possible) for each quality criterion.

The score is calculated as

$$S = SQ + SP$$

where:

The average quality for quality criterion i is

$$Q_i = \frac{1}{\text{number of evaluators}} * \sum_{\text{evaluator}} \text{mark of the evaluator for quality criterion } i$$

The overall weighted quality is

$$Q = \sum_i Q_i * W_i$$

The score for quality is

$$SQ = \frac{Q}{Q \text{ of the bid with highest } Q} * 100 * \sum_i W_i$$

The score for price is

$$SP = \sum_i \frac{\text{lowest Price}_i \text{ of all bids}}{\text{Price}_i} * 100 * W_{Price_i}$$

Only bids that have reached a minimum of 60 % for Q_1 , a minimum of 60 % for Q_2 will be taken into consideration when calculating the score for quality SQ , score for price SP and score S .

Only bids that have reached a minimum of 70 % for the score S will be taken into consideration for awarding the contract.

14 Contracts will not be awarded to tenderers who during the procurement procedure:

- (a) are subject to a conflict of interest
- (b) are guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the contract procedure or fail to supply this information.

15 False declarations

Without prejudice to the application of penalties laid down in the contract, tenderers and contractors who have been guilty of making false declarations concerning situations referred to in points 12 and 13 above or have been found to have seriously failed to meet their contractual obligations in an earlier procurement procedure or grant shall be subject to administrative and financial penalties set out in Article 145 of Commission Delegated Regulation of 29.10.2012 on the rules of application of Regulation (EU) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union.

16 Intellectual Property Right (IPR)

Please consult the contract for IPR related clauses.

If the results are not fully created for the purpose of the contract this should be clearly pointed out by the tenderer in the tender. Information should be provided about the scope of pre-existing rights, their source and when and how the rights have been or will be acquired.

In the tender all quotations or information originating from other sources and to which third parties may claim rights have to be clearly marked (source publication including date and place, creator, number, full title etc.) in a way allowing easy identification.