

**Tender specifications**  
**Attached to the Invitation to tender**

**Invitation to tender N° EMSA /OP/06/2015 for the delivery of ASP/CSP services for the EU LRIT  
Cooperative Data Centre**

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## 1. Introduction

The European Maritime Safety Agency (EMSA or the Agency) was established under Regulation 1406/2002/EC, as amended, for the purpose of ensuring a high, uniform and effective level of maritime safety.

Following the Council Resolutions of 2 October 2007 and 9 December 2008, EU Member States (MS) decided to establish an EU LRIT Cooperative Data Centre (EU CDC). According to the Council Resolutions, the Commission is in charge of managing the EU CDC, in cooperation with MS, Norway and Iceland as members of the Economic European Area (EEA), through EMSA. The Agency, in particular, is in charge of the technical development, operation and maintenance of the EU CDC.

The EU CDC collects the LRIT information transmitted by ships instructed by their Government to report LRIT information to the EU CDC and makes available, when requested to provide LRIT information collected from ships transmitting to the EU CDC, LRIT information to other LRIT Data Centres through the International Data Exchange (IDE).

The Council Resolution of 2 October 2007 indicates that provision should be made for the participation of the overseas countries and territories of MS listed in Annex II to the EC Treaty including considering further discussion on the financial consequences.

The Council Resolution of 9 December 2008, also states criteria which should be applied to third countries or territories that are not listed in Annex II to the EC Treaty to participate in the EU CDC. Member States, Norway and Iceland as members of the Economic European Area (EEA), overseas territories, and third countries reporting LRIT information to the EU CDC are further called “EU CDC Participating States” in this document.

## 2. Background

### 2.1 The IMO requirements

On 19 May 2006, the International Maritime Organization (IMO) adopted Resolutions of the Maritime Safety Committee MSC.202(81) and MSC.211(81) which state amendments to the International Convention of Safety of Life At Sea, 1974 (SOLAS) and introduce the timely establishment of the Long-Range Identification and Tracking system (LRIT).

The objective of the LRIT system is the global identification and tracking of ships. The requirements concerning LRIT have been introduced into SOLAS, Chapter V (“Safety of Navigation”), Regulation 19-1. In accordance with Regulation 19-1 Paragraph 8.1, “*Contracting Governments (CGs) shall be able to receive long-range identification and tracking information about ships for security and other purposes as agreed by the Organization*”. Such “other purposes” would for instance include Search and Rescue (SAR), as explicitly mentioned in the new SOLAS provisions, as well as maritime safety in general and marine environment protection purposes as agreed by Resolution MSC.242(83) adopted on 12 October 2007.

Furthermore, IMO adopted on 16 May 2008, Resolution MSC.263(84) which establishes revised performance standards and functional requirements for the LRIT of ships. This states that all LRIT Data Centres and IDE should conform to functional requirements not inferior to those specified in the Annex to the Resolution. In addition, it states that CGs to SOLAS should ensure that shipborne systems and equipment used meet the requirements of this new Regulation V/19-1.

The technical specifications for the LRIT system are established in MSC.1/Circ.1259-Rev.6 (Part I) as well as further technical documentation (Part II) in MSC.1/Circ.1294-Rev.3.

Annex A.1 summarises the reference documents from the IMO that describe the relevant requirements and will be referred to throughout this document.

## 2.2 Overall international LRIT framework and system components

### General provisions

The LRIT system and architecture is based on the performance standards stated in IMO Resolution MSC.263(84). Furthermore, detailed technical specifications for the LRIT System are stated in MSC.1/Circ.1259-Rev.6 and the communications within the LRIT system are highlighted specifically in its annex 3.

The LRIT system receives, stores and disseminates LRIT information on behalf of all SOLAS CGs.

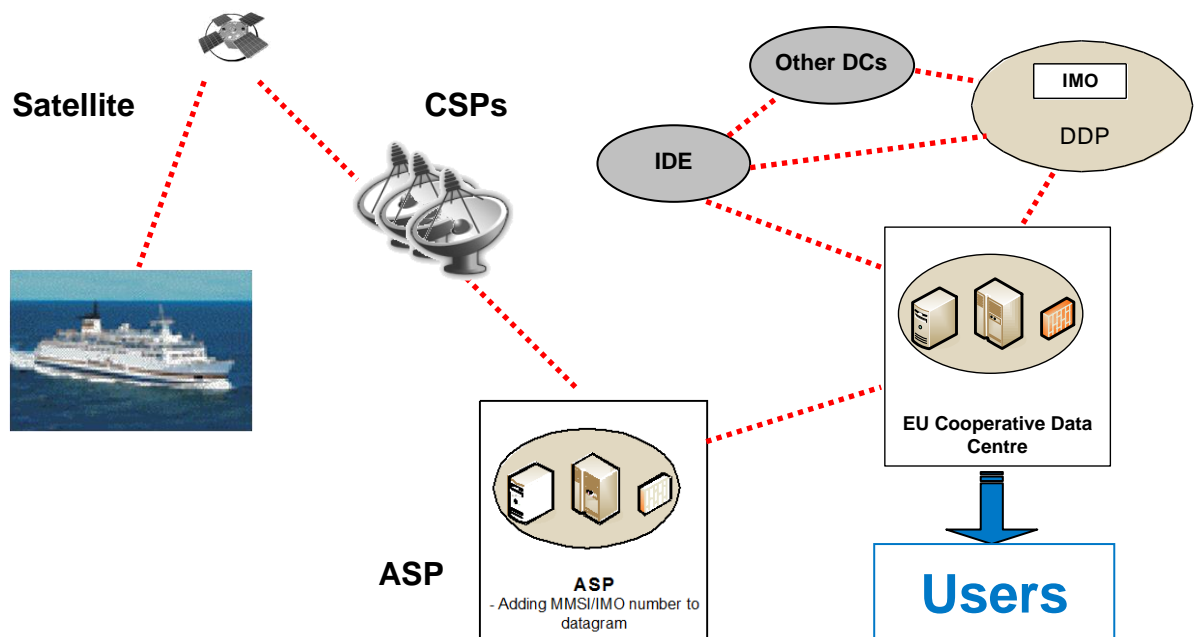
It consists of the following components:

- The shipborne transmitting equipment, also named “ship terminal”,
- The Communication Service Provider(s) (CSP),
- The Application Service Provider(s) (ASP),
- The LRIT Data Centre(s),
- The LRIT Data Distribution Plan (DDP) and
- The International LRIT Data Exchange (IDE).

These components and how they link to each other and to the National, Regional, and Cooperative Data Centres are shown in Figure 1. The various parts of the LRIT system use communication protocols in order to ensure the end-to-end secure transfer of the LRIT information.

The shipborne equipment first transmits the positional data and the time stamp. The data flows from the vessels to the ASP using the service of CSPs’.

The ASP ensures that the LRIT information is collected and routed in a reliable and secure manner. Furthermore, the ASP should add dedicated data to each transmission of LRIT information (see Section 3 for further details).



**Figure 1 – LRIT components**

Figure 2 provides an illustration of the International LRIT system architecture including the various LRIT components. The LRIT information provides CGs and SAR services entitled to receive the data, upon request, through a system of national, regional, and cooperative LRIT data centres, using the IDE. The latter is currently operated by EMSA since 2011. The IDE routes LRIT information between LRIT Data Centres and maintain a journal of the transactions.

The IMO has established and maintains the LRIT Data Distribution Plan (DDP) which includes the list of CGs entitled to receive LRIT information and their contact details, and the list of active SAR services. Furthermore, they also have information on the boundaries of geographic areas within each CG entitled to receive LRIT information, information on standing orders given by a CG and other information supplied by Administrations, etc. These are detailed further in the IMO Performance Standards MSC.263(84) and the Technical Specifications for the LRIT System (MSC.1/Circ.1259-Rev.6) and in particular in its annex 4 covering the DDP.

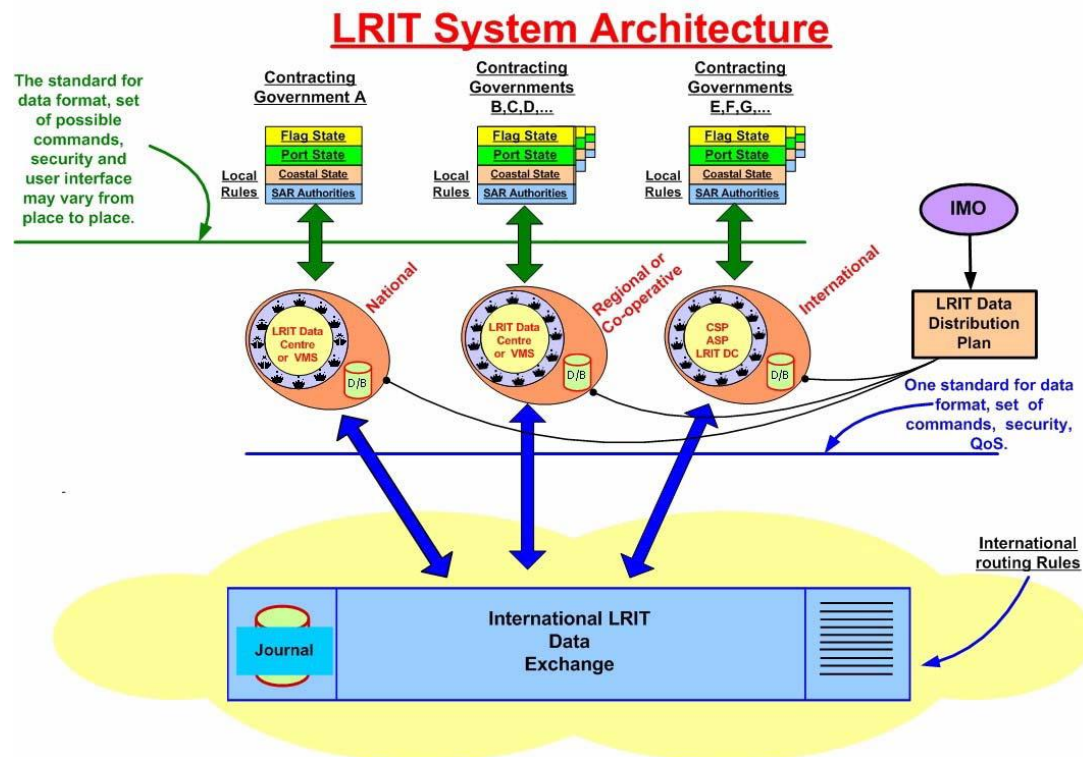


Figure 2 – LRIT system architecture

It is clear from IMO Resolution MSC.263(84) that LRIT information routed between the various part of the LRIT system should use communication protocols to ensure the end-to-end secure transfer. Lastly, the system performance requires LRIT information being available to an LRIT Data User within 15 minutes from the time it is transmitted by the ship and that on-demand LRIT information reports should be provided within 30 minutes from the time the LRIT Data User requested the information. Furthermore there are certain requirements in terms of quality of service that need to be followed (see Section 3 for more information).

#### LRIT Coordinator and Auditing

The performance of all LRIT Data Centres should be audited by the LRIT Coordinator.

All Regional or Cooperative LRIT Data Centres should automatically maintain journal(s) for all of the internally routed LRIT information and transmit these journals to the IDE at regular intervals.

The LRIT Coordinator role is described in paragraph 14 of IMO Resolution MSC.263(84).

#### Obligations of the parties

According to Resolution MSC.263(84) each CG should decide to which LRIT Data Centre ships entitled to fly its flag are required to transmit LRIT information. Each Administration should provide the selected LRIT Data Centre with the following information: the name of the ship, IMO number,

call sign and Maritime Mobile Service Identity (MMSI)<sup>1</sup>, for each of the ships entitled to fly its flag which is required to transmit LRIT information.

Upon the transfer of flag of a ship which is required to transmit LRIT information to another State, the Administration whose flag the ship is now entitled to fly should provide without undue delay to the selected LRIT Data Centre in addition to the information mentioned: the effective date and time (UTC) of transfer; and the State whose flag the ship was formally entitled to fly, if known.

The CGs should also update the LRIT Data Centre when there are any changes to the above mentioned information. For example for the EU CDC, all Participating States need to update the LRIT Ship Database in case of removal, addition or update of a ship. See Section 3 for further information.

Each CG should obtain the LRIT information to which it is entitled to under the provisions of SOLAS Regulation V/19-1, and has requested, from the designated LRIT Data Centre. Each CG should indicate the criteria for receiving such LRIT information to its LRIT Data Centre, according to the DDP managed by the IMO.

#### LRIT Data Distribution Plan

The IMO establishes and maintains the LRIT Data Distribution Plan (DDP). According to Resolution MSC.263(84) the DDP includes the following:

1. a list of CGs and active SAR services entitled to receive LRIT information, and their points of contact;
2. information supplied by Administrations on the boundaries of geographic areas within which CGs are entitled to receive LRIT information about ships in the area;
3. information on any standing orders given by a CG;
4. information supplied by Administrations pursuant to the list of CGs to which the LRIT information should not be provided;
5. a list of ports and port facilities together with the associated geographic co-ordinates (based on WGS 84 datum) located within the territory of each CG;
6. a list of the National, Regional, Cooperative and International LRIT Data Centre(s) and their points of contact;
7. a record indicating which LRIT Data Centre is collecting and archiving LRIT information for each of the CGs; and
8. Information for the provision of flag State LRIT information to the Information Distribution Facility (IDF) operated by the IMO Secretariat.

The DDP is therefore populated by the CGs with the IMO managing it. The DDP is made available by IMO to all DCs. All LRIT communications using land-line links should comply for data security purposes with requirements such as authorization, authentication, confidentiality and integrity.

Further technical specifications for the LRIT Data Distribution Plan are found in annex 4 of MSC.1/Circ.1259-Rev.6.

## **2.3 The EU LRIT System**

The system architecture and general links between the EU LRIT Cooperative Data Centre and other components of the LRIT system such as the links with the IDE, DDP, ASP, and EU LRIT Ship database are shown in Figure 3.

The main components are detailed in the following sections.

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<sup>1</sup> NCSR 1 agreed to include the ship type.

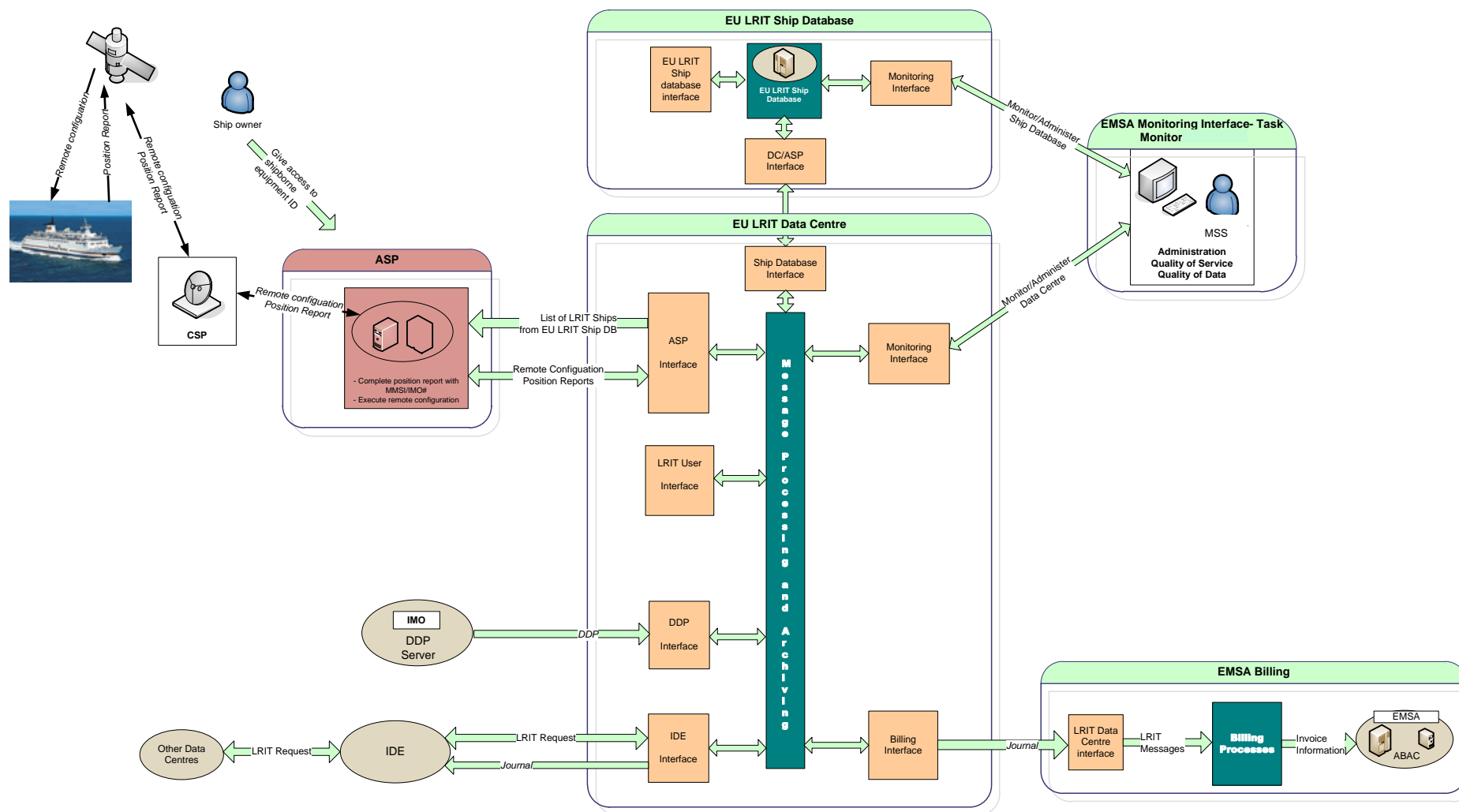


Figure 3 – EU LRIT system architecture

## 2.4 The shipborne equipment, CSP and ASP

An LRIT message is transmitted from the ship via its shipborne equipment which includes the shipborne equipment identifier, positional data and the time stamp. This is transmitted via a satellite through the Communication Service Provider (CSP) to the Application Service Provider (ASP). The company Collecte Localisation Satellite (CLS) is the current recognised ASP.

The ASP then provides the EU LRIT Data Centre with the complete LRIT information by adding the MMSI, IMO number, Name of ship<sup>2</sup> and several timestamps to the datagram. All these links are using communication protocols in order to ensure the end-to-end secure transfer of the LRIT information.

The ASP should be able to relay with different CSPs to receive the ship positioning information communicated by satellite to the EU CDC. Currently the distribution of communications standard used by ships registered in the EU CDC is presented in Figure 4.

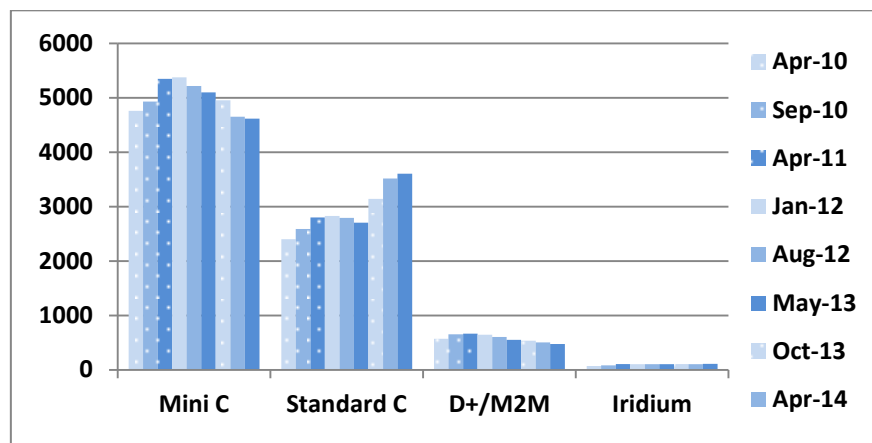


Figure 4 – Communications standard in use

## 2.5 EU LRIT Ship Database

An EU LRIT Ship Database (Ship DB) has been developed and is hosted and operated by EMSA. The Ship DB stores the ship information and subsequent updates which are provided directly by the EU CDC Participating States, in accordance with IMO Resolution A.887(21) concerning the registration databases for the Global Maritime Distress and Safety System (GMDSS). The Participating States should include the IMO Number, MMSI, Call Sign, Ship Name, Flag, communication network used (i.e. Iridium, Inmarsat C, etc.), and details on the identification of the radio equipment and on the Conformance Test Report (CTR).<sup>3</sup> Additionally, a contact person with its contact details may be added.

The EU CDC Participating States have direct access to populate this database via a dedicated user web interface (UWI). Only EU CDC Participating States can define which ships are instructed to report to the EU CDC. The Ship DB is updated when needed by

<sup>2</sup> Ship type will be added in the future

<sup>3</sup> Ship type will be added in the future



the competent Flag State Administration and a copy is forwarded to the EU CDC which then forwards this to the ASP after the daily cut-off time. This process is explained further in Section 3.

## **2.6 EU CDC User Web Interface and Monitoring Interface**

The EU CDC is hosted at EMSA and the ASP therefore needs to interface with this Data Centre.

The EU CDC in effect receives, stores, and disseminates LRIT information on behalf of all EU CDC Participating States as Flag States.

The lists of CGs and SAR services registered in the EU CDC are defined in the DDP and contribute to determine the eligibility criteria for which CGs and active SAR centres are able to receive the LRIT messages. The EU CDC also has a read only access to the DDP through the IMO DDP dedicated Web Interface.

The EU CDC has a User Web Interface (UWI) to enable users to view the status of their ships being integrated into the system as well as their reporting status. The ASP therefore needs to ensure that this information is provided to the EU CDC (see Section 3 for more details).

All messages in the EU CDC are logged and included in the exchanged messages menu on the EU CDC UWI. Searches can be made also for messages from the ASP to the EU CDC and vice-versa.

Furthermore, the EU CDC is monitored through 2 customised monitoring tools, Task Monitor and Nagios, which enable the EMSA Administrator and Maritime Support Services (MSS) Duty Officers to check the system performance as well as to know when one or various components of the system are not operating properly. These monitoring tools use supervisors to check the connection of various interfaces with the DDP, IDE, ASP, Ship DB and the LRIT Consumption Tool. The monitoring is performed by the MSS (see section 2.8).

The monitoring tools also allow the EMSA Administrator and MSS Duty Officers to check when there are incidents as well as checking any messages which are sent between the various components of the system.

Further information about Task Monitor and Nagios monitoring tools can be given on request to the Contractor.

## **2.7 LRIT Consumption Tool**

The LRIT Consumption Tool (LCT) is part of the group of LRIT Systems (EU CDC, Ship DB and IDE) which are hosted at EMSA and provide services to the LRIT user communities.

The role of the LCT is to support LRIT financial operations with the customers and suppliers of the EU CDC. EMSA, as the operator of the EU CDC, buys and sells LRIT information from/to the:

- EU CDC Participating States, i.e. EU Member States, Norway and Iceland, overseas territories and third countries;
- EU CDC Application Service Provider (ASP) ;
- Other LRIT Data Centres i.e. USA, Canada, etc.

The LCT interfaces with the EU CDC to read the LRIT data flows and to identify financial transactions. A financial transaction is recorded in the LCT by associating a message from the EU CDC to a particular billable item, a particular price and a particular customer or supplier.

The LCT includes the following main functionalities modules:

- Internal Administration (customer/supplier management and price management);
- Rating and charging process;
- Consumption calculation;
- Supplier consumption verification;
- LRIT consumption portal for EMSA financial operators;
- Overall statistical reports; and
- Support to operations.

## **2.8 Maritime Support Services**

The Maritime Support Services (MSS) Centre is a 24/7 facility located at EMSA headquarters in Lisbon. It is set up in such a way that MSS Duty Officers can, at all time, have access to the latest information from each of the systems. This is particularly important as they need to be able to quickly react to any urgent information related to the maritime applications IT systems or maritime emergencies, at the same time as carrying out their regular day-to-day work.

The main day-to-day task of the MSS is the provision of support to: the SafeSeaNet EU vessel traffic monitoring and information system; the LRIT global ship tracking system (i.e. the EU CDC, the EU LRIT Ship Database and the IDE) and the CleanSeaNet oil spill monitoring and vessel detection system. MSS tasks involve the following:

### System monitoring

- Monitoring of system performance;
- Data quality assessment.

### Administration of systems

- Administration and validation of user accounts, access rights and digital certificates;
- Administration and validation of reference lists.

### Complementary activities

- Reporting and statistics on system data, system activity and performance;
- Support to development teams (in testing new software releases, compiling feedback from users on corrections and identifying future developments).

### Helpdesk

- Receiving calls and requests relating to the operation of the systems;
- Assisting users in operating the system or accessing the information;
- Informing users in case of problems, new releases, upgrades or programmed maintenance of the system; and
- Providing an alert function to address major technical failures, or risk of failure, and also monitoring the resolution of problems.

The MSS Helpdesk is of paramount importance for the ASP that will be contracted, as MSS is doing the link between the ASP and the EU CDC Participating States. Except to send the monthly report to those Participating States which have delegated the monitoring of their fleet to EMSA, the ASP does not need to contact directly the Participating States.

The ASP should not contact directly also with shipowners/shipmanagers, as this task is under the responsibility of each Participating State. On the other hand, the ASP should report to the MSS, and give a detailed explanation, in the following cases:

- ASP failed to integrate a ship;
- ASP stopped a terminal which was over-reporting;
- ASP failed to have a ship reporting again, following actions taken by shipowners/shipmanagers and/or Participating States;
- An unforeseen incident is happening at ASP or CSP level, which will impact the 24h Quality of Service (QoS).

The MSS will contact the ASP to give any needed feedback on:

- Action taken by Participating States, allowing the ASP to take new actions to integrate a terminal or to have a terminal reporting again;
- Any unforeseen incident happening at EU CDC level or Ship DB level, which may impact the work of the ASP.

More details on the MSS/ASP relationship can be found also in the Annex A.7 Technical Note 8.

### **3. Objective, scope and description of the contract**

#### **3.1 Contract description and definitions**

The objective is to contract one (1) Application Service Provider (ASP) providing services to the EU LRIT Cooperative Data Centre (EU CDC) and therefore acting as the EU Recognised ASP (see MSC.1/Circ.1307).

The contracted Recognised ASP may also ensure or provide the service(s) of Communication(s) Service Provider (CSP).

The EU CDC receives LRIT information from ships of EU Member States, Norway, Iceland as well as from overseas territories (e.g. British Virgin Islands) and third countries (e.g. Montenegro). The list of Contracting Governments participating to the EU CDC is in Annex A.3.

In addition to the functions described in IMO Res. MSC.263(84) paragraph 5, the ASP should, under this contract:

- provide LRIT air time communication with ships instructed to report to the EU CDC without any distinction between Communication Service Providers/networks;
- Guarantee a high level quality of service with in particular a permanent Monitoring of the ASP service (24/7);
- Ensure the timely Integration/removal of shipborne equipment during working days;
- Conduct technical investigations for ships not reporting as expected;

- Provide daily checks for testing the CSP response times based on the requests for LRIT information;
- Report on the ASP's activities, suspension or reduction of service, technical analysis at EMSA's request, support for audit investigation;
- Contribute to the preparation of material to be used for training courses or during meetings (documentation, slides, etc.);
- Support the EU CDC for providing trainings to EMSA MSS Duty Officers, EU CDC Participating States... when necessary and if linked with ASP tasks;
- Monitor the reporting of the fleet on behalf of EU CDC Participating States who delegated this task, and take appropriate actions (e.g. as per Technical note 8);
- Maintain the interfaces with the CSPs;
- Within the Business Continuity Plan: report on any temporary interruption of service whether planned or unplanned as stated in MSC.1/Circ.1376 Continuity of Service Plan for the LRIT system. The temporary interruption of service can be the result of a problem with the ASP or any CSP used by the ASP. An incident report should be provided as soon as possible and no later than 3 weeks after the ASP resumed to normal operation;
- Make available and accessible all processed data to the EU CDC. The ASP can be requested by the EU CDC to provide raw data or statistical data for internal or external reporting. These reports may become public following the ASP being informed prior to its circulation (e.g. IMO paper...);
- Contribute, when requested by EMSA, to the drafting or revision of technical notes, guidance documents, and/or recommendations to be submitted for meetings of relevant bodies (e.g. LRIT NCA meetings with Members States, IMO meetings, European Commission meetings, etc...);
- Attend, on demand of EMSA, LRIT NCA meetings with Members States or meetings organised in EMSA premises;
- Assist the EU CDC operator during the yearly IMSO audit exercise by providing relevant data, journals or technical explanations/support;
- If the relevant module is activated, include speed and heading to LRIT messages coming from EU CDC ships, for each of the 2 main communication networks used by the EU CDC, Inmarsat C and Inmarsat IsatM2M.

The following costs shall be covered by the ASP and will not be paid under this contract:

- Air time costs resulting from the communication activities outside of the LRIT reporting of ships instructed to report to the EU CDC;
- Air time cost resulting from a terminal removed from the EU CDC and not properly removed or configured after removal by the ASP;
- Air time cost resulting from the malfunctioning of shipborne equipment, or ASP, or any CSP (e.g. over-reporting, etc.).

The ASP awarded with this contract should be aware that during the lifetime of the contract he must update his systems pursuant to new requirements (e.g. future upgrades of the ASP application/interface with the EU CDC or adding a new CSP compliant with the IMO LRIT performance standards and functional requirements, etc) imposed by new or amended IMO regulations, at his own costs.

#### Handover requirement

The objective of this requirement is to ensure the non-interruption of collect and transmission of LRIT information to the EU CDC during the phase of handover between the ASPs. This part is covered by the module 1 of this contract.

The successful tenderer chosen to provide the ASP services for this contract will need to:

- Implement the interfaces between the ASP and the EU CDC and CSPs;
- Work closely with the previous ASP Contractor to ensure that there is no loss in service and availability during the handover between ASP Contractors.

The tenderers will describe in their bids the guidelines to ensure a smooth handover of the service with the existing ASP. The selected tenderer will elaborate further on the hand-over plan which shall include the foreseen timetable and procedures to integrate all ships from the EU LRIT Ship Database.

This handover includes a de-commissioning of the existing ASP as well as some initial testing (IMO testing) of the new ASP being contracted through this tender. Further information on the timings for this testing is included in sections 5 and 6.

The Agency will ensure the coordination between the two ASPs and will settle amicably any issue during the handover.

#### Reporting and Audit support

The ASP should report on its activity on a weekly basis through a weekly report which includes performance and availability figures for the ASP and each CSP.

The ASP should provide quarterly reports for billing purposes.

The performance of the EU CDC is audited every year by the LRIT Coordinator (IMSO).

The scope of the Audit includes the ASP service performance.

The audit is mainly conducted by means of an Audit questionnaire completed by the EU CDC operator (EMSA) and a sample of LRIT information and LRIT messages which covers a period of 30 consecutive days.

During the audit exercise, the ASP may be required by EMSA to conduct analysis on the data or findings and/or provide audit evidence requested by the LRIT Coordinator. These requests, depending on the subject, may need an answer from the ASP who will need to support and send the information to EMSA.

In general, any information requested by EMSA or the LRIT Coordinator on the ASP activities and performance should be provided to assist in the audit process.

### **3.2 Documentation**

All LRIT relevant resolutions and requirements for the LRIT system are available on the IMO website: [www.imo.org](http://www.imo.org)

Documents are subject to regular revision adopted by the IMO Maritime Safety Committee (MSC). The tenderer should consider the most recent IMO specifications when drafting their bid, even if these specifications are published after the dispatch of this call for tender.

The main reference texts for the LRIT system are:

- SOLAS chapter V Regulation 19-1 as specified in Res. MSC. 202(81) Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended;

- Res. MSC.263 (84) Revised Performance standards and functional requirements for the LRIT system;
- MSC.1/Circ.1259-Rev.6 Part I of the Technical documentation for the LRIT system;
- MSC.1/Circ.1294-Rev.3 Part II of the Technical documentation for the LRIT system;
- MSC.1/Circ.1298 Guidance on the Implementation of the LRIT System;
- MSC.1/Circ. 1376 Continuity of Service plan for the LRIT system;
- ASP-DC Interface Definition v1.5 (Annex A.6);
- Technical note 8 v1.2 dated 09/02/2012, EMSA Procedure to improve ship integration and ship reporting (Annex A.7);

A list of documents is available in Annex A.1.

### **3.3 Service description and requirements**

#### Service description

Ships instructed by their Government to report LRIT information to the EU CDC should be registered in the LRIT Ship Database operated by EMSA. The ship database is hosted at EMSA, Lisbon. It sends to the EU CDC, daily in case at least one update was made in the past 24h, an updated list of ships. Then the EU CDC forwards this list to the ASP for updating its internal database. In particular circumstances, if requested, the EU LRIT Ship Database can generate an immediate update of the list of ships.

From the time the ASP receives the updated list of ships instructed to report to the EU CDC, the ASP is responsible for starting the integration of the shipborne equipment for any new ship into the LRIT system and establishing the communication link in order to begin receiving the LRIT information sent by the ship.

Once the first LRIT information is received by the EU CDC, the ship is considered as “Integrated” within the LRIT system. The LRIT information is then available and visible for the end users on the EU CDC User Web Interface (UWI).

For the need of the operations, the ASP operators will have access to the LRIT Ship Database and EU CDC.

#### Integration of a shipborne equipment - General description

The integration process of ships that have been registered in the EU LRIT Ship Database should start in the following 24h from the time the ASP received from the EU CDC a new version of the Ship database. This applies for updates received during working days. For updates received during week-ends or bank holidays of the ASP country, the integration process should start up to 72h later. Longer delay (holidays...) is not allowed.

The integration process may be stopped due to incorrect or missing terminal data in the EU LRIT Ship Database. Then, the appropriate status should be transmitted to the EU CDC, and visible for the end user. The integration process should start again as soon as the EU LRIT Ship Database is updated and the ASP receives the update.

During the integration process (24 to 72 hours) the status of the new ships shall be reported by the ASP to the EU CDC as “Integration in progress”.

If the integration of a shipborne equipment fails (e.g. for Inmarsat C: the ASP is not able to download the DNID after three attempts) or is not performed within the requested time frame, the status reported by the ASP to the EU CDC will be declared as “Not integrated”.

In addition, the reason for failing the integration shall be reported by the ASP into the EU CDC in order to update the UWI information accordingly. A list of pre-defined causes

should be used. This list can be amended with the agreement of EMSA EU CDC administrator (see Annex A.7 Technical note 8).

#### Removal of a shipborne equipment - General description

Ships that have been updated as removed from the EU LRIT Ship Database should be removed from the ASP database and should stop sending LRIT positions to the EU CDC within 24 hours after the ASP has received the information through the new version of the EU LRIT Ship DB from the EU CDC. This applies for updates received during working days. For updates received during week-ends or bank holidays of the ASP country, the removal process should start up to 72h later. Longer delay (holidays...) is not allowed.

#### Quality of Service

The ASP should ensure the highest availability of the communication links (CSPs) in order to support the exchange of information with the shipborne equipment. This availability should as a minimum meet the IMO requirements listed in paragraph 13 of MSC.263(84).

#### Monitoring the fleet of EU CDC Participating States

For all the ships belonging to those EU CDC Participating States which have delegated the monitoring of their fleet to EMSA, the task consists for the ASP to check on a weekly basis the ship reporting status reported in the EU CDC UWI. For ship's terminal not reporting as expected, the ASP applies the appropriate procedures listed in the Annex A.7 Technical note 8. The ASP reports every month individually to each of these EU CDC Participating States, indicating for each flag the evolution of the ship reporting, the actions taken by the ASP and the action recommended for the Flag Administration to do, if any, individually for each ship not reporting properly.

Up to date, 11 EU CDC Participating States requested EMSA to monitor the reporting status of their fleet, which represents more than 4500 ships.

#### Adding speed and heading to LRIT messages coming from EU CDC ships

As further described in section 3.6, the ASP should add the information<sup>4</sup> listed in MSC.263(84) Revised performance standards and functional requirements for the LRIT system, to the information received from the CSP.

In addition to this IMO requirement, and only to cover the needs of EU CDC users, the ASP is requested to implement a solution to transmit, together with the LRIT information, the speed and heading of EU CDC ships.

This should be implemented for each of the 2 main communication networks used by the EU CDC, Inmarsat C and Inmarsat IsatM2M.

Speed and heading may already be contained in the information passed by the CSPs to the ASP, or the ASP can negotiate with the CSPs a way to get it.

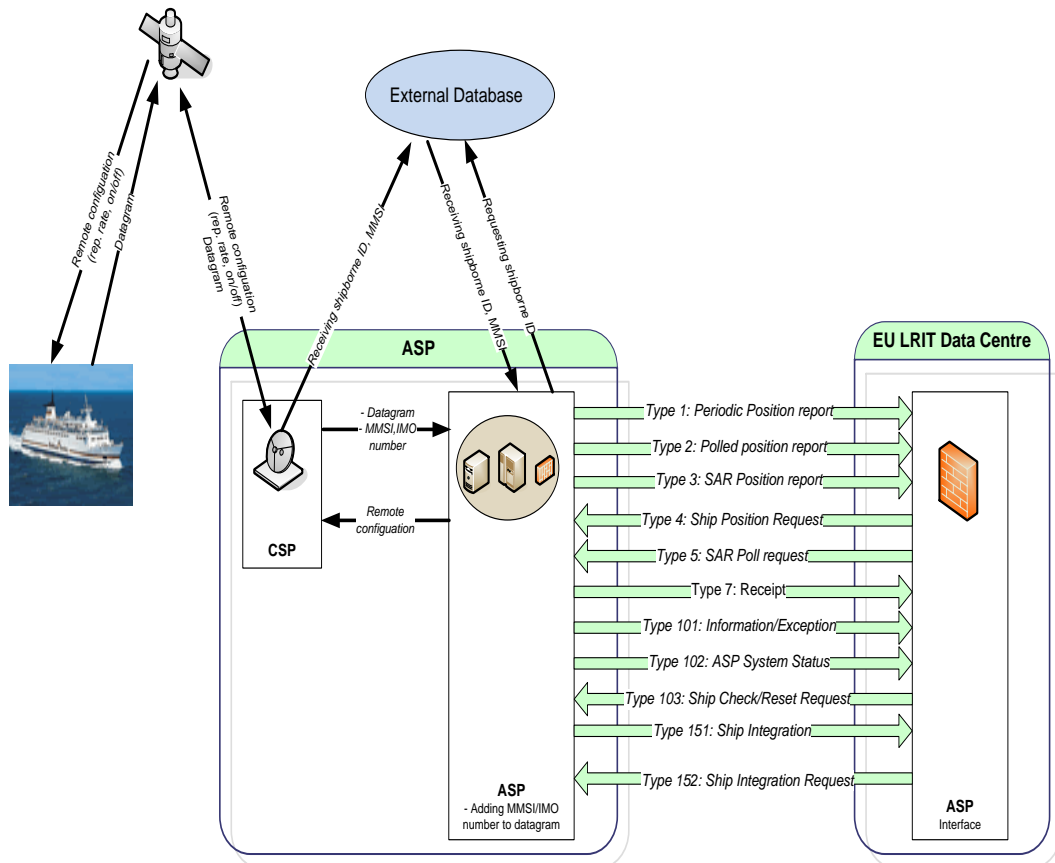
The tenderers have to propose a price, for each of the 2 main communication networks used by the EU CDC, Inmarsat C and Inmarsat IsatM2M, to implement the delivery of speed and heading together with the LRIT messages coming from EU CDC ships.

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<sup>4</sup> Ship type will be added in the future

The proposed prices should take into account the modifications needed at ASP level, and between the ASP and the EU CDC. If the module 3 is activated, the document Annex A.6 ASP-DC Interface definition shall be amended accordingly by the awarded tenderer. Tenderers should be aware that no modifications of the prices provided under Module 2 (Fee 1, 2 and 3) will be authorized further to the implementation of Module 3.

The functional components of the ASP and its interaction with the ship and EU CDC are shown in Figure 5.



**Figure 5 – Functional diagram of the interactions between the ASP/CSP and EU CDC**

### 3.4 ASP and CSPs

The shipborne equipment transmits LRIT data as per paragraph 4 of Resolution MSC.263(84) and receives poll commands.

The CSPs provide the communication infrastructure and services that are necessary for establishing a communication path between the ship terminal and the ASP.

The data flows between the ships and the CSPs which provide communication services and link to the ASP using communication protocols in order to ensure the end-to-end secure transfer of the LRIT information.

The ASP, after receiving the LRIT information from the ship via the CSP, will parse the incoming messages by reading and/or editing only the data relevant for its service and will add additional data to the LRIT message according to paragraph 5 of Resolution MSC.263(84).



The ASP is solely and fully responsible for establishing and maintaining the necessary communication protocol interfaces between the ASP and all CSPs and between the ASP and the EU CDC to enable the following minimum functionalities:

- remote integration/update/removal of the shipborne equipment into the LRIT system;
- configuration of shipborne equipment for transmission of LRIT information;
- modification of the interval of transmission of LRIT information;
- suspension of transmission of LRIT information;
- on demand transmission of LRIT information;
- automatic recovery and management of transmission of LRIT information;
- provide an integrated transaction management system for the monitoring of LRIT information throughput and routing;
- ensure that LRIT information is collected, stored and routed in a reliable and secure manner.

The messages and protocols used to interface with the EU CDC should be the same as the ones currently used (see Annex A.6 ASP-DC Interface definition v1.5). No modification will be done on EU CDC side for the purpose of the above functionalities.

#### ASP/CSP Interfaces

The ASP is responsible for the implementation and maintenance of the interfaces needed to ensure the efficient and secure communication link with the EU CDC and the CSPs.

The new expanded message containing integrated data transmitted by the shipborne equipment and data added by the ASP is then transmitted to the EU CDC for further processing and distribution. See Figure 5 for the Functional diagram of the interactions between the ASP and EU CDC.

The ASP will be responsible for establishing the connections to and contracts with the CSPs, so that the Agency will only interface with the ASP for the purpose of this contract. The ASP must therefore ensure that adequate service level agreements are signed with the CSPs to ensure that the IMO performance standards and indicators are met.

### **3.5 The ASP/CSPs operations**

The following communication networks are in use in the EU LRIT system:

- Inmarsat C: Inmarsat Mini C and Standard C;
- Inmarsat IsatM2M;
- Iridium.

The network coverage for the LRIT system is global, including the polar areas.

Other communication standards may be used by vessels as long as:

- the performance of the communication system is compliant with SOLAS Chapter V/19.1 and the related LRIT Technical and functional specifications (i.e. MSC.263(84));
- the operator of the communication standard adheres to the IMO guidance and recommendations in particular regarding the financial model agreed by the Contracting Governments participating in the LRIT system;
- EMSA agrees to use this communication standard and that it is financially viable.

The ASP contracted in this tender is obliged to use the above communication networks, and to integrate all new CSPs according to the above criteria.

The tenderer should consider that the contract includes the establishment and maintenance of the communication interface with the CSPs for the provision of the ASP service during the entire duration of the contract. For example, the EU CDC is presently using the following CSPs:

- Airbus Defence and Space (previously Astrium and Vizada) and Inmarsat (previously Stratos) for Inmarsat C;
- Honeywell Global Tracking (previously EMS Global and Satamatics), Skywave and SatPro for Inmarsat IsatM2M;
- CLS for Iridium.

Considering the high level of system performance in the LRIT system, the tenderers should provide details in the tender on how the Service level with CSPs will be managed covering at least the performance of the service, the security for the transmission of data, the availability of the communication link, and the planned agreement taken with telecommunication operators in order to guarantee a good and high level of service.

The Contractor should establish and maintain contact with each CSP on a regular basis in order to be informed in advance about any planned or unplanned interruptions or limitations in the service, and of any change that could impact the level of service.

The Contractor is responsible for providing information to the EU CDC on any planned or unplanned interruptions or reductions in the level of service of the CSP(s), the expected duration of the interruption or reduction of service, and the reason for this interruption or reduction of service.

As much as possible, the Contractor should request the CSPs to maintain a quality of service compatible with the IMO performance standards. This could be achieved for instance through the establishment of service level agreements with CSPs or through another alternate arrangement.

The Contractor should have access, where possible or when existing, to the system registration maintained by CSPs (i.e. Inmarsat ESAS database) for validating ship data needed for the integration of shipborne equipment within the LRIT system.

Any costs associated to accessing these external databases should be included in the tenderers bid.

The communication link between each CSP and the ASP is at the discretion of each CSP and the ASP. Nevertheless, the communication link should guarantee the same level of protection and integrity of data and of connection availability requested for the rest of the LRIT system and should therefore be in accordance with the performance standards stipulated in MSC 263(84) and related documents.

### **3.6 The ASP to EU CDC Operations**

#### ASP/EU CDC Interface definition

The ASP should interface with the EU CDC to provide (and exchange) LRIT messages to the EU CDC.

The ASP/EU CDC Interface definition is described in the Annex A.6. These specifications should be reused by the tenderer who is awarded this ASP Contract as the ASP should exchange messages with the EU CDC in the format used by the EU CDC interface.

The Contractor shall monitor the ASP/EU CDC Interface and maintain a journal of all incoming and outgoing messages, periodic rate changes and any billable transactions. If

requested by EMSA, the journaling data has to be delivered by the ASP in CSV format, and should contain:

- Billable item code (see section 3.11);
- MessageId;
- ReferenceId;
- MessageType;
- TimeStamp1;
- IMONum;
- ShipName;
- DataUserRequestor;
- DataUserProvider;
- Price.

The data security for the LRIT information exchanged between the ASP and the EU CDC should adhere to the performance standards and technical requirements of the system as defined in MSC.1/Circ. 1259-Rev.6 annex 3 - section 4.

The ASP should add the information<sup>5</sup> listed in MSC.263(84) Revised Performance standards and functional requirements for the LRIT system, to the information received from the CSP.

All times in the LRIT system should be indicated as Universal Co-ordinated Time (UTC) and all time stamps should use UTC with an accuracy of less than or equal to 1 second. This may be achieved by synchronization with an NTP server (a list of publicly available time servers can be found on the website [www.NTP.org](http://www.NTP.org)) or through other ways.

#### Metrics /Indicators for measuring the ASP's activity /performance

Table 1 shows the activities performed by the existing ASP from Q1 (Jan. to Mar.) to Q4 (Oct- Dec) 2014. The figures are subject to change for 2015 and the future in accordance with the activity of the EU CDC; however this gives a good indication of the amount of ships in the EU CDC, percentage of ships reporting properly, etc. Ships with stopped terminals are not listed in this table.

	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Number of ships in the EU LRIT Ship DB	8761	8782	8807	8812
Number of ships integrated into the EU CDC	8543	8544	8556	8626
Number of ships with reporting problems	933	1004	814	716
Number of ships reporting correctly in the EU CDC	7232	7387	7565	7708

**Table 1 – Review of ship integration**

Table 2 also gives additional idea on the messages exchanged in the EU CDC during 2014 as well as messages sent through the ASP and to the IDE.

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<sup>5</sup> Ship type will be added in the future

	First week of Q1 2014	Last week of Q4 2014	Evolution
Messages received per week from ASP	235,017	243,582	+3.6%
Messages received per week from the IDE	4,122	7,319	+77.5%
Messages sent per week to ASP	417	424	+1.7%
Messages sent per week to the IDE	34,879	37,114	+6.4%
Position reports received from EU CDC Ships	191,041	207,373	+8.5%

**Table 2 – Evolution in the exchanged messages in 2014**

To take into account a possible evolution in the reporting and number of ships, the ASP must be capable of processing a minimum of 400,000 outgoing messages (ASP to CDC) per week, while meeting IMO Quality of Service requirements.

Finally, Table 3 gives an additional level of detail on the ships status in January 2015, and on the ASP work in terms of integrating ships and trying to get ships to report normally.

<b>Ships instructed to report to the EU DC</b>		
Components	Number	%
Ship Database V 1719.00	8860 ships	
<b>Ships in the EU CDC</b>		
Ships integrated in the EU CDC	8645 ships	97,57%
Ships "Integration In progress"	4 ships	0,05%
Ships "not integrated"	183 ships	2,07%
<b>Total of ships in the EU CDC</b>	8860 ships	100,00%
<b>Ship Reporting Status</b>		
Ships that have reported in the last 3 days	7696 ships	88,99%
Ships that stopped reporting	734 ships	8,49%
Ships that have been stopped by ASP or CG (Dry Dock, Over Reporting, etc.)	218 ships	2,52%
<b>Total</b>	8648 ships	100%

**Table 3 – Ships status (January 2015)**

To report on integration and reporting issues, the ASP will be in contact with the MSS (see section 2.8). Furthermore, as LRIT messages processing and vessel operations are performed on a 24/7 basis the Contractor shall provide a permanent point of contact for technical issues to carry out operations, housekeeping and maintenance duties as necessary. This point of contact will be used by MSS and by EMSA officers when needed.

### 3.7 Conformance Test Reports – Ship registration

Prior to integration in the LRIT system, the shipborne equipment of a ship should have passed a series of practical tests to prove its compliance with the international LRIT requirements according to IMO, described more specifically in MSC.1/Circ.1307. The document certifying these tests is the Conformance Test Report (CTR), issued by the Government Administration or the ASP who conducted the test on behalf of the Administration.

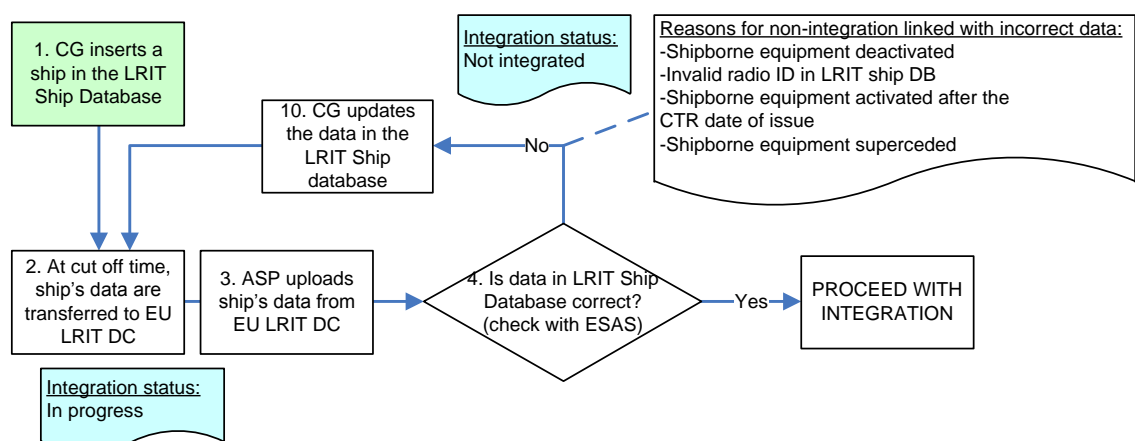
The conformance test should be conducted either by a recognized ASP (the tenderer winning this contract) or by an authorized testing ASP, as appointed by an EU CDC Participating State.

Details of the shipborne equipment are written in the CTR. The ship database manager for each flag should enter, for each ship flying its flag, the shipborne equipment's details in the EU LRIT Ship Database. This information is regularly communicated to the ASP following the process described in Section 3.3.

The ASP must verify, by cross-checking with available CSP databases (e.g. Inmarsat ESAS database) that the details entered in the EU LRIT Ship Database are correct, before initiating the ship integration process. Amongst other checks that may be carried out by the ASP, the ASP should ensure that:

- the shipborne equipment is activated in the CSP database;
- the date of issue of the CTR is after the date of activation in the CSP database;
- the radio ID of the terminal is valid;
- the terminal is the same in both databases (e.g. EU LRIT Ship Database and ESAS database), and has not been replaced by another terminal.

As an example, the registration process for the Inmarsat C network is described in Figure 6. The principle is similar for Inmarsat IsatM2M and Iridium, except that, to date there are no specific databases to cross-check with the EU LRIT Ship Database. If such databases should appear, they should be used by the ASP accordingly.



**Figure 6 – Registration process for a shipborne equipment using the Inmarsat C network**

Following the ship's insertion in the EU LRIT Ship Database and its associated checks, the integration process begins as described in the section below.

### 3.8 Ship integration

A shipborne equipment is “integrated” within the EU LRIT system when a valid LRIT report is received by the EU CDC and available for being forwarded to an entitled end user.

Figure 7 shows the integration process of a shipborne equipment for the Inmarsat C network. The principle is similar for Iridium and Inmarsat IsatM2M, although there is no DNID upload for these communication networks and there is no crosscheck possible with the ESAS database.

See also section 3.3 for the general description of the integration process.

Once a shipborne equipment:

- has been uploaded into the EU LRIT Ship Database by a ship database manager (national authority responsible for the ships flying its flag); and
- has been correctly transmitted from the EU LRIT Ship Database and through the EU CDC to the ASP; and
- has been properly checked by the ASP (registration);

then the shipborne equipment can be integrated into the LRIT system.

The integration of the shipborne equipment of a vessel into the EU CDC shall not last longer than 3 working days, after the shipborne equipment data have been transmitted to the ASP, if:

- the required ship information is available and correct in the EU LRIT Ship Database;
- the shipborne equipment is switched on and correctly logged in to the CSP network;
- the EU CDC is up and running.

The tenderer is requested to provide its expected normal integration time in the bid (no more than 3 working days).

#### Integration statuses

The integration statuses in the EU CDC are the following:

- Integration in progress
- Waiting first position
- Not integrated
- Integrated
- Removal in progress

The definitions are the following (see also Figures 7 and 8):

#### **Integration in progress**

The shipborne equipment’s integration status is “In progress”:

- Just after the transfer of the shipborne equipment’s data from the EU CDC to the ASP; or:
- While the data is analysed by the ASP; or:
- After the data has been successfully checked by the ASP, and the DNID upload is in progress (during the next 24h following the DNID upload).

The ship appears on the EU CDC UWI, with this status.

#### **Waiting first position**

The DNID has been uploaded, or the terminal has been configured to send the requested positions. The first position is expected up to 7 days, before changing the status to “Not integrated”.

**Not integrated**

A shipborne equipment's integration status is "Not integrated" if, after up to 7 days following the DNID upload, the shipborne equipment failed to report at least one position report into the EU CDC. The integration process is suspended, until a corrective action is performed by the EU CDC Participating State. The ASP is not paid for this integration attempt and should take these actions into account in its overhead costs.

**Integrated**

A shipborne equipment's status is "Integrated" if the shipborne equipment reported at least one valid position report into the EU CDC. The integration process is completed. The ASP can be paid for this shipborne equipment integration. It has to be noted that this status can follow either a status "Integration in progress" or a status "Not integrated".

**Removal in progress**

The ASP has updated the shipborne equipment in order not to receive positions. After 6 hours without receiving positions, the ship should be removed from the EU CDC UWI.

**Transmission of these statuses from the ASP to the EU CDC**

The ASP should automatically (through the XML interface) update the EU CDC with these 5 integration statuses, in real time, for each ship. Additional information (comments) related to integration failures (status "Not integrated") have to be updated manually through the User Web Interface (UWI) to help the EU CDC Participating States to monitor the status of their ships and provide adequate corrective actions.

Additional information related to the integration failures which can be inserted into the UWI are the following:

**Reasons for non-integration linked with incorrect data:**

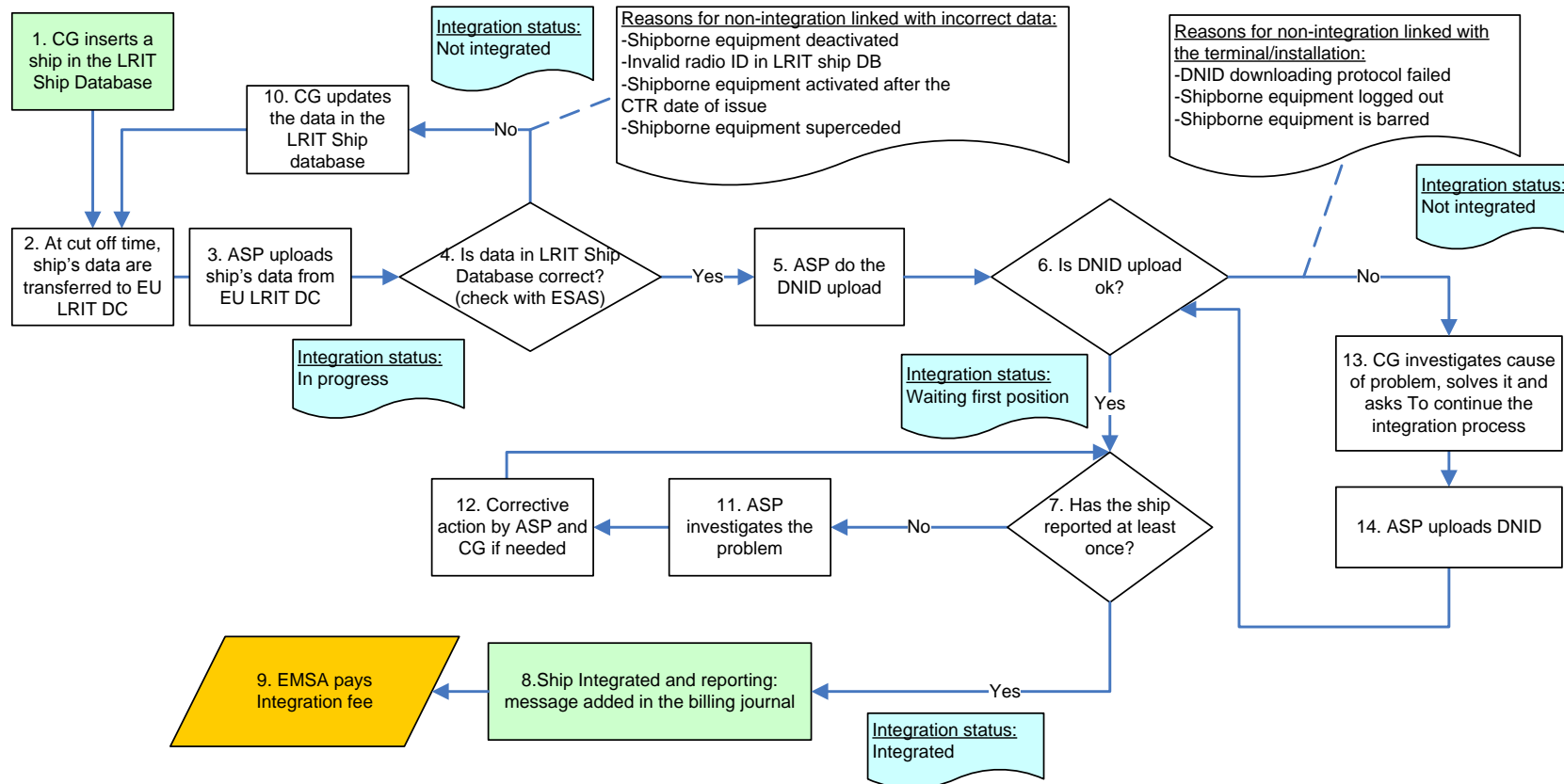
- Shipborne equipment deactivated
- Invalid radio ID in EU LRIT ship Database
- Shipborne equipment activated after the CTR date of issue
- Shipborne equipment superseded

**Reasons for non-integration linked with the terminal/installation:**

- DNID downloading protocol failed
- Shipborne equipment logged out
- Shipborne equipment not responding
- GPS issue

**Reasons for non-integration linked with the shipowner/shipmanager:**

- Shipborne equipment is barred



**Figure 7 – Integration process of a shipborne equipment from the Inmarsat C network**



A summary of the ship integration chronology is shown in Figure 8.

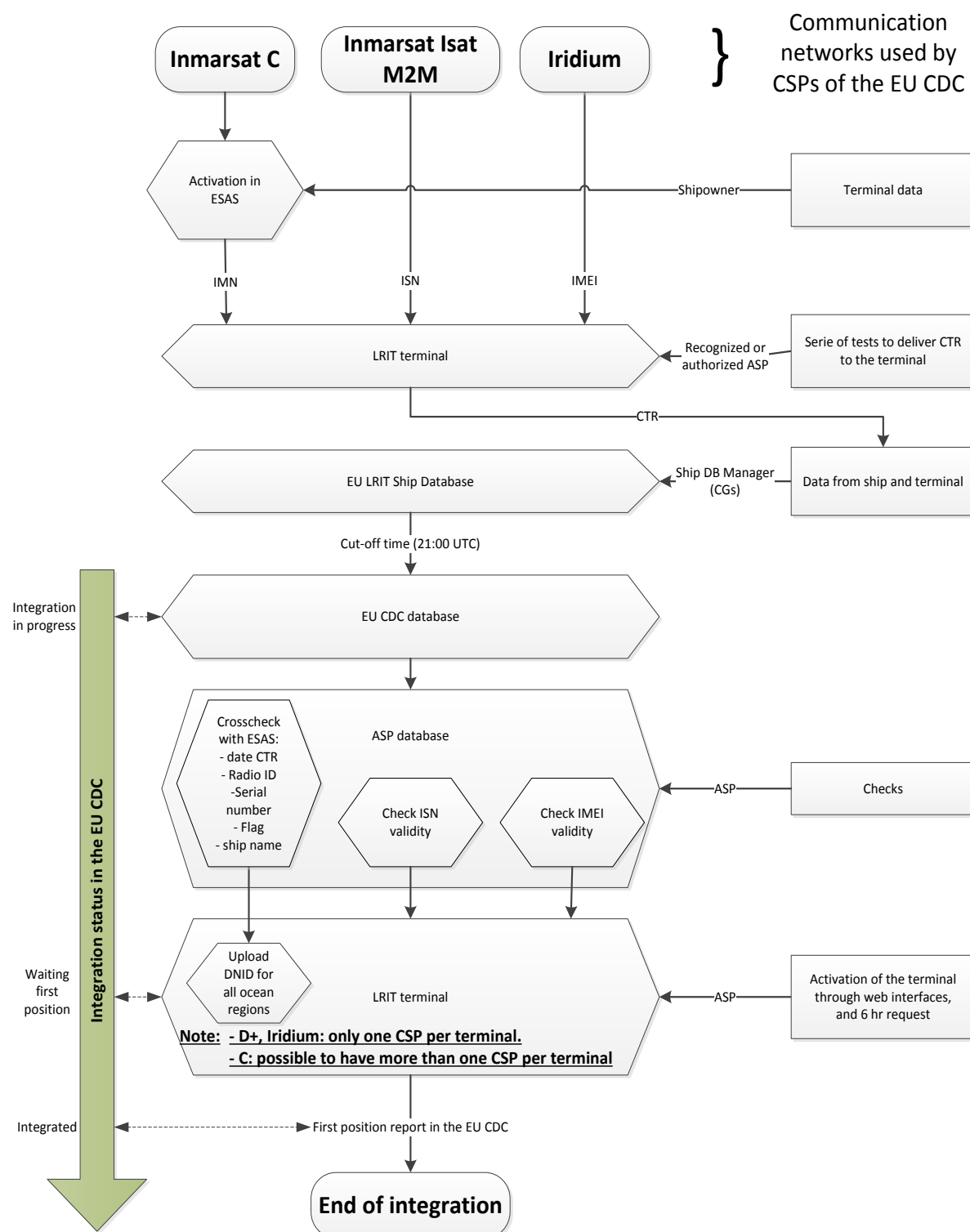


Figure 8 – Ship integration chronology

#### Fees for integration

The tenderer is requested to provide a proposal for the fee (Fee 1) for one shipborne equipment integration.

The integration fee must be the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M).

The integration fee should not vary depending on the number of ship integrations done over a period of time. Therefore the figures given in Tables 1 to 3 above should be used to have an approximate estimate on the number of ships which may be integrated in the EU CDC in the future. To be noted that the number of ships may change quickly if more CGs join the EU CDC in the future, or in case of international crisis.

### **3.9 Ship reporting**

#### Reporting statuses

The shipborne equipment reporting statuses in the EU CDC are the following:

- normal reporting;
- over-reporting;
- under-reporting;
- not reporting;
- stopped.

The definitions are the following:

#### **Normal reporting**

Status of ship reporting resulting from several position reports, on-demand positions or pre-scheduled position reports transmitted by the shipborne equipment delivered to the EU CDC with a transmitting interval compliant with the shipborne equipment performance acceptance and tolerances (see MSC.1/Circ.1307 Guidance on survey and certification of compliance of ships with the requirement to transmit LRIT information).

The tolerance is fixed to a maximum of +/- 25% of messages received by the ASP during a period of time corresponding to the last 12 intervals between expected messages.

#### **Over-reporting**

Status of ship reporting resulting from a position report, on-demand position or pre-scheduled position report transmitted by the shipborne equipment delivered to the EU CDC with a transmitting interval inferior to the shipborne equipment performance acceptance and tolerances (see MSC.1/Circ.1307 Guidance on survey and certification of compliance of ships with the requirement to transmit LRIT information) conducting to a number of received messages superior to the expected number of messages.

The over-reporting threshold is fixed to 25% of messages in excess received by the ASP during the period of time corresponding to the last 12 intervals between expected messages.

#### **Under-reporting**

Status of ship reporting resulting from a position report, on-demand position or pre-scheduled position report transmitted by the shipborne equipment delivered to the EU CDC with a transmitting interval superior to the shipborne equipment performance acceptance and tolerances (see MSC.1/Circ.1307 Guidance on survey and certification of compliance of ships with the requirement to transmit LRIT information) conducting to a number of received messages inferior to the expected number of messages.

The under-reporting threshold is fixed to 25% of missing messages received by the ASP during the period of time corresponding to the last 12 intervals between expected messages.

#### **Not-reporting**

The shipborne equipment has reported at least one position in the EU CDC; later, it passed through the status under-reporting, and it has now reached the percentage of 0% positions received by the ASP during the period of time corresponding to the last 12 intervals between expected messages.

### **Stopped**

2 cases can lead a shipborne equipment to be stopped by an EU CDC Participating State or by the ASP:

- a ship which will for example enter in dry dock for a long time. Through the UWI of the EU CDC, a EU CDC Participating State has the possibility to stop the reporting of the shipborne equipment for this ship. The status appears in the UWI as: "Stopped", and the comment associated with this status is: "Stopped by User\_login" of the EU CDC Participating State. The ASP then has to ensure that the shipborne equipment is properly stopped, following this request.

OR:

- a shipborne equipment which is over-reporting. The ASP then has the possibility to stop the shipborne equipment through the UWI of the EU CDC. The status which appears in the UWI is: "Stopped", and the comment associated with this status is: "Stopped by User\_login" of the ASP. The ASP then has to ensure the shipborne equipment is properly stopped, following this request.

The ASP should automatically (through the XML interface) update the EU CDC with:

- these 5 reporting statuses, in real time, for each ship, together with the date and hour of the status;
- the last request sent to the terminal, together with the date and hour;
- the date and hour of the last position;
- additional information (comments) related to the reporting statuses:
  - the percentage of reporting for the statuses over-reporting and under-reporting;
  - who stopped the terminal, for the status stopped;
  - the message "Radio ID no longer exists in Inmarsat database", in case, following a request, it was detected that a terminal was replaced;
  - the message "On demand request not processed by the shipborne equipment" in case the terminal could not processed a request.

### Fees for reporting

The tenderer is requested to provide a proposal for the fee for one **ASP Position Report** (Fee 2). This fee must be the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M).

The position report fee should not vary depending on the number of position reports delivered by the ASP. Therefore the figures given in Tables 1 to 3 above should be used to have an approximate estimate on the number of ships which may be integrated in the EU CDC in the future. To be noted that the number of ships may change quickly if more CGs join the EU CDC in the future, or in case of international crisis.

The tenderer is requested to provide a proposal for the fee for **DNID Upload** (Inmarsat C network) (Fee 3). This fee should not vary depending on the number of DNID upload done by the ASP.

The tenderer has to take into consideration that the fee for **ASP Position Request (OneTimePoll)** is fixed at 2 x Fee 2. This fee is the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M). This fee does not vary depending on the number of position request done by the ASP.

The tenderer has to take into consideration that the fee for **Periodic Rate Change** is fixed at 12 x Fee 2. This fee is the same for all communication networks used (Inmarsat C, Iridium, IsatM2M). This fee does not vary depending on the number of periodic rate change done by the ASP.

### **3.10 Monitoring CSPs and shipborne equipments**

#### CSPs

One of the daily tasks of the ASP is to monitor the availability of the CSPs through the reporting status of the shipborne equipment. Figure 9 summarizes the monitoring for the Inmarsat C network. The monitoring of reporting for Iridium and Inmarsat IsatM2M is very similar however there are not DNID uploads. The ASP, as a provider of LRIT information to the EU CDC, should permanently monitor the LRIT information delivered by their CSPs in order to detect and react as fast as possible in case of an interruption of service.

In case of reporting problems linked with the ASP or its CSPs, the resolution of the issues is ASP's responsibility, and is at the expenses of the ASP.

#### Shipborne equipments

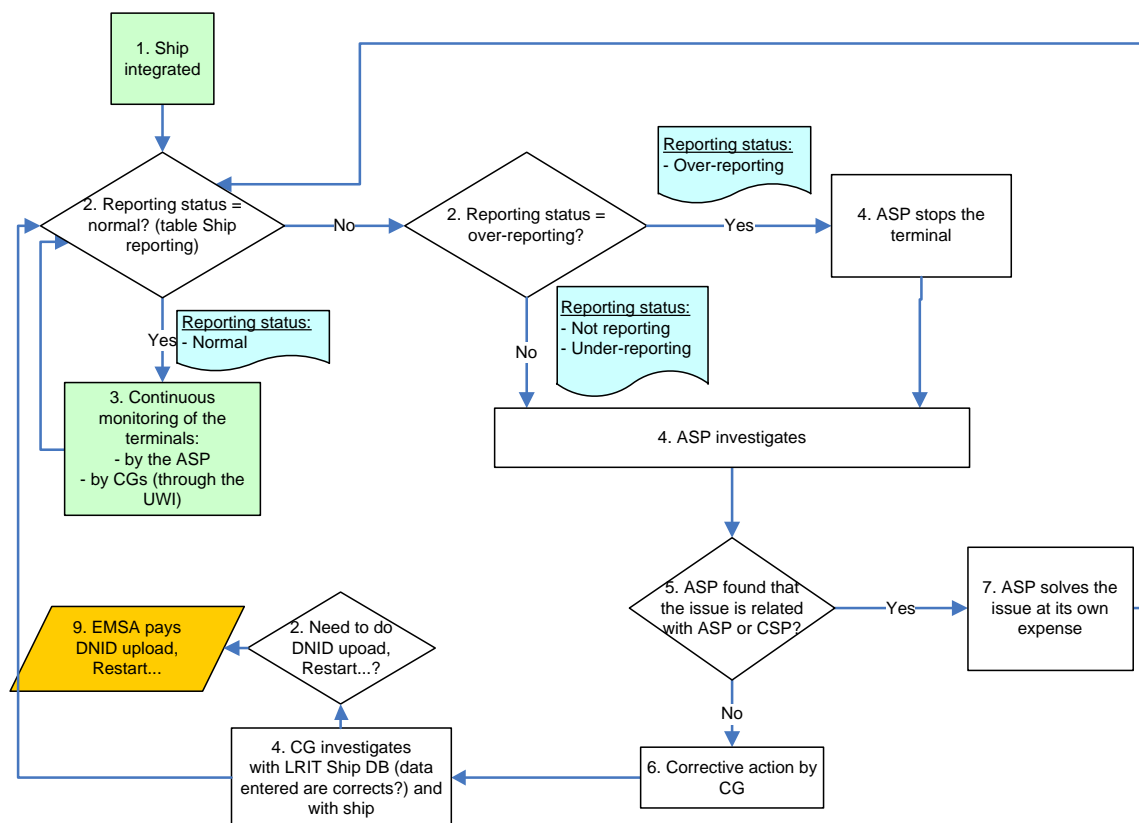
The EU CDC Participating States, as "owners" of their ships, are responsible for monitoring their fleet. They have to act in case of reporting issues according to the guidance drafted by EMSA in Annex A.7 Technical note 8.

The ASP, EMSA, and the EU CDC Participating States should work closely in order to limit reporting issues/problems. The procedures in Technical note 8 are common for these 3 actors and clearly define who has to do what.

It may happen that the shipborne equipment sends positions to the ASP with a MEM code different of 11 (for Inmarsat only). Then, the ASP must investigate the non-compliance of the received messages, and inform within 24 hours the EU CDC Participating State, through EMSA helpdesk (MSS), of any action that should be taken to restore a normal transmission of LRIT positions. This information may as a second step be included in the common procedures for the ASP, MSS, and EU CDC Participating States to improve ship reporting (Annex A.7 Technical note 8). A consequence of an invalid reporting can be over, under or not reporting.

In case of reporting problems linked with the shipowner/shipmanager, the terminal, its installation on board the ship, or the data entered in the EU LRIT Ship Database, then the resolution of the issues is done by the EU CDC Participating States.

The ASP should always be available to perform any action, through the EU CDC UWI, to try to re-establish the communication, when requested by EMSA or by EU CDC Participating States. This is particularly the case for all the ships belonging to those EU CDC Participating States which have delegated the monitoring of their fleet to EMSA.



**Figure 9 – Monitoring the reporting for ships fitted with shipborne equipment using the Inmarsat C network**

#### Specific case for over-reporting

This is one of the major reporting issues, because it involves costs due to air time. The ASP must have a procedure to detect and stop an over-reporting shipborne equipment due to the fact that all costs due to over-reporting shall be borne by the ASP. The bid and the prices proposed shall take this into account. Neither EMSA nor the EU CDC Participating States will pay for over-reporting. After stopping a shipborne equipment, the ASP must inform MSS of the fact, and guide them on how to solve the issue if the case is not yet described in a procedure (Annex A.7 Technical note 8). MSS will then inform the EU CDC Participating State involved.

#### Specific case for under-reporting

Shipborne equipment that are under-reporting shall be monitored by EU CDC Participating States, in order for them to take corrective actions. However, the ASP shall also be attentive to this issue, in case it involves a series of ships, thus indicating a potential problem which may not be linked with shipborne equipments, but with the ASP and / or a CSP.

#### Reporting issues

To summarise, below are listed buttons and actions as they exist on the EU CDC:

Action	Definition
Ship Integration [ASP_INT]	A Ship Integration (at least one position received at the EU CDC) which includes ship data validation and communication cost to set-up the periodic reporting.

Action	Definition
“DNID upload” button [ASP_DNID]	Corresponds to one command to upload a DNID on one ocean region only (Inmarsat C network)
“Continue integration” button	This is a second (or more) attempt to resume the ship integration process, following a previous failed attempt.
“Stop” button	Command to stop the LRIT reporting at shipborne equipment level.
“Restart” button	Command to have the terminal reporting again at 6 hours, following a “Stop” action or in case the terminal involuntarily stopped reporting.

### 3.11 ASP billable Items

The next table defines in detail the list of billable items for this contract.

Billable Item Code & Fee	Description	How to Determine	IMO related (refer to IMO specification MSC.1/Circ.1259)
[ASP_INT]  Fee 1	Ship Integration Performed OR Ship Re-integration (change of terminal of existing ship)	Parameters: 1. ASP Message Type = {151} 2. ShipIntegrationWay = {12} 3. fromNode= ASP / toNode=DC Refer to Annex A.6 p14	N/A
[ASP_RPT]  Fee 2	ASP Position Report	Parameters: 1. MsgType = {1,2,3} 2. responseType={2} 3. fromNode= ASP / toNode=DC Refer to MSC.1/Circ.1259 <b>Note:</b> over-reporting is not to be billed to EMSA	<ul style="list-style-type: none"> <li>• Mandatory Periodic Position Report</li> <li>• Pre-Scheduled Periodic Position Report</li> <li>• Polled Position Report</li> <li>• SAR Polled Position Report</li> </ul>
[ASP_RQT]  2 x Fee 2	ASP Position Request (OneTimePoll)	Parameters Polled Position Request: 1. Message Type = {4} 2. Access Type = {1,2,3,5} 3. Request Type = {1} 4. fromNode= DC / toNode=ASP Refer to MSC.1/Circ.1259 Parameters SAR Polled Position Request: 1. Message Type = {5} 2. Access Type = {6} 3. Request Type = {1} 4. fromNode= DC / toNode=ASP Refer to MSC.1/Circ.1259 Note: this is the poll command to	<ul style="list-style-type: none"> <li>• Polled Position Request (One Time Poll)</li> <li>• SAR Polled Position Request</li> </ul>

Billable Item Code & Fee	Description	How to Determine	IMO related (refer to IMO specification MSC.1/Circ.1259)
		retrieve position reports from the Ship Terminals, through the ASP.	
<b>[ASP_PRC]</b>  <b>12 x Fee 2</b>	<b>Periodic Rate Change</b>	Parameters: 1. Message Type = {4} 2. Access Type = {1,2,3,5} 3. Request Type = {2,3,4,5, 10,11} 4. fromNode= DC / toNode=ASP Refer to MSC.1/Circ.1259 <b>Note:</b> this currently <b>excludes</b> PRC 6h commands on the ship terminals since: i- its cost is already included in the case of [ASP_INT] ii- The one sent after a successful DNID Upload is included in the price of the DNID Upload [ASP_DNID] iii- The one sent after a PRC different of 6 hours is included in the price of the initial PRC (price of 12 Fee2) iv- Restart commands with parameters below are not billable: 1. Message Type = {4} 2. Access Type = {0} 3. Request Type = {0} 4. fromNode= DC / toNode=ASP	Periodic rate change
<b>[ASP_DNID]</b>  <b>Fee 3</b>	<b>DNID Upload (see Technical note 8)</b>	Parameters: 1. ASP Message Type = {151} 2. ShipIntegrationWay = {6,7} 3. fromNode= ASP / toNode=DC Refer to Annex A.6 p14	N/A

**Table 4 – ASP Billable Items**

Stop command and Restart command are not billable (Message type 103 of Annex A.6 p13). These commands are used in the Annex A.7 Technical note 8, procedures B-1, B-2, C-2 and E-1.

### **3.12 Hosting & security concept**

The ASP facility should be able to provide the service on a 24/7 basis. The Contractor will put in place appropriate organisation in order to ensure that the system is permanently monitored by automatic processes and supported by human interventions/monitoring in order to provide a service compliant with the LRIT performance standard (Res. MSC.263(84)).

The tenderer should provide the number of staff working operationally on a 24/7 basis, working on site or on call, and their experience, to ensure the above service.

The physical location of the ASP should be such as to meet the availability requirements and provide the requested quality of service.

LRIT data are used for security purposes. As a consequence, the physical location of the LRIT data should be in Europe.

The data processed and stored by the ASP should be protected against any risk leading to the divulgence or destruction of the information. When implementing the ASP facility, the Contractor will ensure that no message can be lost independently of the nature of incident and will be reprocessed once the service resume to normal operation.

The hosting and security concept shall be described in the bid. The following components should be described: computing, archiving, networking and telecommunication infrastructure; hosting environment; electrical power supply system; disaster recovery site(s); all other facilities relevant for the provision of the service.

### **3.13 Data communication interface**

The ASP shall deliver the data to the EU CDC over the public Internet, using the TCP/IP network layer protocol. The ASP shall be able to connect to both the Primary and the Business Continuity Facility (BCF) EU CDC site. The fail-over to the EU CDC BCF site takes place by updating the DNS record of the hostname linked to the ASP interface endpoint of the EU CDC. The ASP should therefore guarantee that in establishing the connection to the EU CDC only the Fully Qualified Domain of the EU CDC server is used and that there is no dependency on the IP number used by the machine(s).

The ASP should connect to the EMSA network without the need for specific telecommunication equipment and it should rely on the standard TCP/IP appliances that are part of the EMSA network. The ASP should guarantee a connection to the public Internet which provides a level of service (bandwidth, latency, etc.) sufficient to meet the ASP performance requirements as defined in Sections 3.1 to 3.6.

### **3.14 Security**

A 2-way Secure Sockets Layer (SSL) shall be used when an Internet connection (HTTPs) is established. 2-way SSL will ensure the mutual authentication of the Client and Server machines that are connected. The SSL cryptographic system is used to encrypt the exchanged data using 1024-bit encryption when a communication is established. In a near future the 2048 encryption shall be used. The confidentiality as well as the integrity of data should be ensured.

Any connection from the ASP internal network to the Internet shall be protected by a firewall according to the current industry security standards. The firewalls will be used to prevent unauthorised users to access the ASP internal network and block messages with malicious content. If requested, the ASP should allow, support and provide any needed documentation for a security audit performed by EMSA on a yearly basis.

The use of Public Key Infrastructure (PKI) and Digital Certificates is requested for any communication over the Internet between the ASP and the EU CDC. The Certificates will be issued by a Certificate Authority (CA) selected by EMSA and the Contractor will provide the information needed directly to the CA. The X.509 standard will be used.



### **3.15 Availability and redundancy**

In order to guarantee the ASP availability requirements as defined in Sections 3.1 to 3.6, a redundant system has to be implemented by the ASP in case of network failure, physical problems on the hosting/environment/building, etc.

In case of a major disaster or outage at the Primary site of the ASP, a disaster recovery (backup) site for the supply, processing, routing and the storage of data must be available and shall be separated physically and, as much as possible, geographically from the Primary location. A timely switch to the backup site in case of a failure has to be ensured to avoid any data loss and in order to meet the availability and business continuity requirements. The corresponding architecture including the primary site, disaster recovery (backup) site and switches between the two in case of failure shall be described within the bid.

### **3.16 Quality, reporting and training**

#### Quality Management

The Contractor shall propose a Project and Quality Management Plan describing the methodology and the procedures for the management and monitoring of the system and which will apply to all services during operational production. This shall also include the deliverables as well as the project plan and timings/timetable for the project.

The quality procedures shall cover all aspects of service provision including the quality control of:

- Service quality and reporting;
- Communication availability between the ASP and the CSPs;
- Communication availability between the CSPs and shipborne equipment;
- Communication availability between the ASP and the EU CDC;
- Availability of CSPs and Interoperability between the CSPs if appropriate;
- Validity of messages flowing through the ASP;
- Data processing performance at ASP;
- Error-detection and non-conformities (ASP system monitoring);
- Archiving and retrieval.

Quality management shall be performed by the ASP according to industrial best practices. It should detail the service level provided by the 24/7 support for operations. Any quality management standard followed by the tenderer shall be specified in their bid and any specific tailoring required by the project shall be identified and pointed out.

All services provided by the ASP shall be accompanied by a quality control indicator to be delivered in the weekly report to EMSA by the ASP. The indicators will give EMSA the possibility to assess the quality of service against the specifications in terms of:

- Response time for polled position reports;
- Response time for change of periodic rate requests;
- Processing time for periodic position reports;
- Messages throughput, overall and per message type;
- System availability and data link availability between the ASP and the EU CDC.

The Contractor shall perform daily tests (reported weekly) with the objective to detect bad/low service levels of the CSPs. For this purpose, the availability and response time of CSPs will be routinely tested by sending real LRIT commands to a set of randomly selected ships. Table 5 below provides an example of a summary on the results of the daily tests for one week which would be submitted to EMSA on a weekly basis.

The LRIT messages sent for testing the CSPs availability will be covered within this contract and paid for by EMSA.

Date	IMO Num	Flag	CSP	Prog Request	Time command sent to equipment	Global Status (OK / NOK)
15/10/2014	9409273	GBR	Stratos	poll	11:43	OK
16/10/2014	9182203	NOR	Satamatics	poll	09:36	OK
17/10/2014	9236640	GRC	Skywave	poll	11:12	OK
18/10/2014	9546655	ESP	Iridium	poll	11:56	OK
19/10/2014	9283203	DEU	SatPro	poll	13:33	OK
20/10/2014	9203801	MLT	Vizada	poll	07:04	OK

**Table 5 – Example of daily tests**

#### Implementation

A Technical Implementation Report will be provided by the Contractor to include the full technical details on how the ASP will implement the interfaces with the CSPs, EU CDC, etc. The specifications of the ASP-CDC interface (see Annex A.6 ASP-DC Interface definition) should be taken into account when producing this document. This should also include the planning/timings for the implementation which should be in line with the timetable presented in Section 6.

Test Plan document (testing of the interfaces ASP/CDC and the testing of the individual elements of the service) will be provided by the Contractor and agreed during the project (refer to the timetable in section 6). The plan will ensure that the ASP system correctly provides the expected services and that the communication with the EU CDC is reliable and meets the required performance standards.

### **3.17 Deliverables**

The tenderer will provide:

- a weekly report (once a week);
- a monthly progress meeting (can be a phone conference call);
- a quarterly report for billing purposes;
- At the beginning of each year, a list of official bank holidays where integration/removal processes may be delayed.

#### **Weekly reports**

The weekly report should contain:

##### 1 – General information:

- Quality of service for periodic reports and requests;
- Overall system status;
- Integration – reporting statistics;
- Results of routine daily tests both of these according to IMO standards/QoS requirements;

##### 2 – List of incidents and foreseen maintenances:

- For each CSP;
- For the ASP;

- The weekly report should be delivered by email at the latest the next Wednesday morning of the following week.

#### **Progress Meeting between EMSA and the ASP Contractor:**

A Progress meeting is planned every month by the Contractor that will ensure the secretariat of the meeting. The meeting can be a conference call or a face to face meeting in EMSA or in ASP Contractor premises according to the items to be reviewed.

#### **Quarterly report for billing**

The ASP should produce for billing purposes a journal (ASP journal) on a quarterly basis with the identification of the messages that EMSA should pay to the ASP. The ASP should provide the journal in electronic CSV format and make it available to EMSA by electronic means, for instance by uploading the journal in an FTP site. The journal should list the billable items for the reference period and should include the following fields:

- Billable item code (see section 3.11);
- MessageId;
- ReferencId;
- MessageType;
- TimeStamp1;
- IMONum;
- ShipName;
- DataUserRequestor;
- DataUserProvider;
- Price.

Depending on the Billable Item Code, some field may be left blank.

This journal will be inserted in the LCT and EMSA will cross-check if the figures of the ASP journal are matching with those that are recorded in the LCT. This verification will ensure that numbers are correct and agreed by both EMSA and the ASP Contractor for the ASP to then invoice EMSA according to the payment scheme indicated in the contract.

### **3.18 Support to EMSA meetings**

During the entire duration of the contract the Contractor will provide on demand support for training sessions, meetings, audit analysis, data for internal report drafted by EMSA. This support will be at the expenses of the ASP, in the limit of the number of days per year indicated below.

#### **Training**

In order to update the EMSA LRIT team, MSS Duty Officers and EU CDC Participating States end users with the evolution and technical aspects of the LRIT system, the ASP should support EMSA in preparing and delivering training courses when required.

The training material can be provided under the form of figures, graphs, tables, texts, Microsoft Powerpoint slides, Excel or Word files, as requested by EMSA. The ASP shall also provide the necessary human resources to deliver the training course at EMSAs premises, if requested.

The estimated time for the delivery of the training course is about 4 days/year (this does not include the preparation of the training material).

#### **Meetings**

Throughout the year, meetings are organized between EMSA and the EU CDC Participating States at EMSAs premises. In order to give feedback to the end users, short reports or presentations are prepared for these events which may need the ASP assistance for preparation and delivery during the meeting.

A specific presentation may be requested by EMSA, depending on the subjects to be dealt with during the meetings. One or 2 representatives from the ASP company may be requested by EMSA to present these reports/presentations, and to participate in these meetings, given the fact that some questions from these users may require the ASP expertise and knowledge.

The estimated time for this task is about 4 days/year (not including the preparation of the material/presentations).

In addition to these meetings with EU CDC Participating States, a yearly meeting should be foreseen at EMSA premises with EMSA and if needed EU Commission officials, to summarise the actions done during the previous year and to present the planning activity for the next year. This meeting should be foreseen at the end or at the beginning of a civil year.

The estimated time for this task is about 2 days/year (not including the preparation of the material/presentations).

In addition to this section, all requirements are also listed in Annex A.4 Compliance Matrix.

To facilitate the evaluation of the bid, tenderers are requested to complete the compliance matrix attached to this document, which is also available as an Excel template from the EMSA website, and to provide the worksheet in printed format together with the bid. The compliance matrix will be used by the Agency to evaluate the bids for their level of compliance with the service requirements described in this document.

#### **4. Contract management responsible body**

The European Maritime Safety Agency – Unit C.2, in charge of Information Services User Management – will be responsible for managing the contract.

#### **5. Project Planning**

The work shall start as soon as the framework contract is implemented by the first specific contract. The kick-off meeting will be organised by EMSA, at the date of the signature of the contract or shortly thereafter. Its purpose shall be to enable all contracting parties to request clarification or additional information on the service to be provided by the contractor. The contractor's project manager, responsible for the work to be undertaken, will be present at the kick-off meeting.

The tenderer shall provide in the bid a detailed plan of activities and timelines for the implementation period.

The following is a suggested timeline for the project although the tenderer if feasible can suggest shorter periods.

#### **6. Timetable**

The estimated date for signature of the contract is planned by end of June 2015.

Date	Documents/Deliverables to be submitted	Comment	Event/location
t0 (end 06-2015)	Framework Contract (FWC)	Signature of FWC	
	<b>MODULE 1: Set up / Development</b>		
t0 + 1 week	Specific contract (SC)	Implementation plan and timetable discussed  SC presented and signed during Kick-off meeting	Kick-off meeting at EMSA  SC signed
t0 + 3 weeks	Initial <b>Technical Implementation Report</b>	Initial presentation by the contractor of the Project Plan and Testing, and initial Technical Implementation Report to be communicated	1 <sup>st</sup> technical implementation meeting
t0 + 5 weeks	Final <b>Technical Implementation Report</b>  Draft <b>Business Continuity Plan</b>	Technical approval of the service EMSA to receive the final technical Implementation Report Draft Business Continuity Plan for review Development and work in parallel with current ASP contractor	
t0 + 6 weeks	<b>Test Plan</b> for interfaces validation  Final <b>Business Continuity Plan</b>	Validation of Test Plan for interfaces, ship integration, ship reporting Internal certification of test case in Testing environment Plan decision on day to move into production Test case in Testing env. (DC-2.1 (Access Type = 1 and Request Type = 1)) Circ.1294-Rev.3- 1.1.1.3	2 <sup>nd</sup> technical implementation meeting
t0 + 8 weeks	<b>Test Plan and Acceptance test Report</b>  <b>Invoice payment of balance Module 1</b>	Confirm decision on day to move into production EMSA approves and certifies final test report EMSA valid the final Business Continuity Plan Notification to the IMO of the recognition of the ASP (EMSA)	3 <sup>rd</sup> technical implementation meeting
	<b>MODULE 2: Operations</b>		
t0 +10 weeks	First Specific Contract: move into production	Decommissioning of old ASP under framework contract EMSA/OP/01/2011	Signature of first Specific Contract Final implementation meeting
t0 +11 weeks,	<b>Weekly Reports</b>	Evaluation of the quality of	LRIT NCA

<b><u>and until the end of the contract</u></b>	<b>Quarterly reports for billing</b>	service	meetings attendance Monthly conference calls
t0 +18 weeks	First request for interim payment		
On-going until .....	Final report and request for payment of balance at the end of each specific contract of Module 2	Frequency can change based on agreement of two parties.	
	<b>MODULE 3: Add speed and heading in LRIT messages</b>	<b>Through one specific contract, if done</b>	
	Specific contract (SC)	Including update of the service description and specification	

## 7. Maximum value of the Contract

The maximum budget available for this contract is of 5,800,000 Euros excluding VAT.

## 8. Terms of payment

Payments shall be issued in accordance with the provisions of the **draft framework service contract** available on the Procurement Section under the call to tender EMSA/OP/06/2015 on the EMSA website at the following address: <http://www.emsa.europa.eu/> > Working with us > Calls for tenders

## 9. Terms of contract

In drawing up a bid, the tenderer should bear in mind the terms of the draft framework service contract. The Framework Contract will be signed for a duration of 3 (three) years with the possibility of renewal by one more year under the same conditions.

The Framework Contract shall have the following three modules:

Module 1: Set-up /development (maximum value of € 75,000): This module will be implemented with one specific contract which may be concluded at the time of signature of the Framework Contract.

Module 2: Operations: This module will be implemented by means of several specific contracts, whose duration may vary depending on annual budgetary availability of EMSA. Operations include: message delivery, ship integration, update and removal actions, and reporting actions (Monitoring of fleet for EU CDC Participating States having delegated the monitoring of their fleet to EMSA, DNID uploads and Restarts).

Module 3: To add speed and heading of EU CDC ships to LRIT messages delivered by the ASP to the EU CDC, for Inmarsat C and Inmarsat IsatM2M communication networks. This module will be implemented by one specific contract should EMSA decide to go forward with it.

Any offer providing for a price above the indicated maximum budget for module 1 will be rejected at the evaluation stage.

LRIT data will be owned solely by the Contracting Governments participating in the EU CDC as defined in the Conditions of Use For the European Union Long Range Identification and Tracking Data Centre signed between each Contracting Government participating in the EU CDC and EMSA.

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.

## **10. Financial guarantees**

EMSA reserves the right to request an additional performance guarantee with respect to the Specific Contracts (for Module 2) which proportionally represent a relevant value in relation to the Framework Contract.

The performance guarantee shall be held against payment to EMSA for any loss resulting from the Contractor's failure to perform his contractual obligations.

The performance guarantee, to be approved by EMSA, shall be in the format given in Annex V of the draft Framework Service Contract and may be provided in the form of a bank guarantee, or equivalent supplied by a bank (guarantor). Any cost related to providing such a financing guarantee will be borne solely by the Contractor.

The performance guarantee shall be denominated in EUR. No payments shall be made in favour of the Contractor prior to the provision of the guarantee. The guarantee shall continue to remain valid until the contract has been fully performed.

During the execution of the contract, if the natural or legal person providing the guarantee is not able to abide by his commitments, the guarantee shall cease to be valid. In that case EMSA shall give formal notice to the Contractor to provide a new guarantee on the same terms as the previous one. Should the Contractor fail to provide a new guarantee, EMSA may terminate the contract. Before so doing, EMSA shall send a registered letter with acknowledgement of receipt, which shall set a new deadline of no less than 15 days from the day of delivery of the letter.

EMSA shall demand payment from the guarantee of all sums for which the guarantor is liable under the guarantee due to the Contractor's default under the contract, in accordance with the terms of the guarantee and up to the value thereof. The guarantor shall, without delay, pay those sums upon demand from EMSA and may not raise any objection for any reason whatsoever. Before making any claim under the performance guarantee, EMSA shall notify the Contractor stating the nature of the default in respect of which the claim is to be made.

The performance guarantee shall be released at the latest one month after the payment of the last balance payment under the contract.

## **11. Sub-contracting**

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 criteria<sup>6</sup>. 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.

## 12. 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 15.5 & 16 of the present tender specifications.

The tenderer shall complete 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 Offer) he shall indicate in his offer by completion of the Statement of Subcontracting/Joint Offer.

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 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: <http://www.emsa.europa.eu/> > *Working with us* > *Calls for tenders*
- **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: <http://www.emsa.europa.eu/> > *Working with us* > *Calls for tenders*

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 EMSA for the appraisal of tenders on the basis of the points **14, 15.2-15.3** of these specifications (part of the Exclusion criteria)
- **Part B**: all the information and documents required by EMSA for the appraisal of tenders on the basis of the **Economic and Financial capacity** (part of the Selection criteria) set out under point **15.4** of these specifications;
- **Part C**: all the information and documents required by EMSA for the appraisal of tenders on the basis of the **Technical and professional capacity** (part of the Selection Criteria) set out under point **15.5** of these specifications.
- **Part D**: all the information and documents required by EMSA for the appraisal of tenders on the basis of the **Award Criteria** set out under section **16** of these specifications;
- **Part E**: setting out **prices** in accordance with **section 13** of these specifications.

## 13. Prices

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<sup>6</sup> To rely on the capacities of a subcontractor means that the subcontractor will perform the works or services for which these capacities are required.



- Prices for the delivery of ASP/CSP services for the EU LRIT Cooperative Data Centre must include all costs (e.g. airtime costs, costs for setting up the service, in particular the interfaces and the communication links with EU CDC and CSPs, integration of ships, testing, correcting data, maintenance and upgrades, training sessions, all travel for meetings, etc.) for the duration of the contract;
- Prices must be fixed amounts
- Under Article 3 and 4 of the Protocol on the privileges and immunities of the European Union, EMSA is exempt from all duties, taxes and other charges, including VAT. This applies to EMSA pursuant to the Regulation 1406/2002/EC, as amended. These duties, taxes and other charges can therefore not enter into the calculation included in the bid. The amount of VAT must be shown separately.

Prices for Delivery of ASP / CSP Services for the EU LRIT Cooperative Data Centre must include:

- a) One price for set-up/development costs;
- b) Operations: price per billable item as defined in the paragraph B) below;
- c) Two prices, one per communication network, for the adaptation of ASP to include speed and heading in LRIT messages.

Any cost which is not covered by the afore-mentioned cost categories have to be included in the overhead costs for individual message or ship integration costs.

Prices offered by the tenderer for item b) should concur with the cost model agreed by IMO MSC 88<sup>th</sup> (MSC 88/26 – section 6.25) which indicates a ratio of 1:2:6 for position reports, polls and periodic rate changes and be significantly lower than the maximums agreed of 0.25 USD, 0.5 USD (2x0.25), and 3 USD (6x0.5) for position reports, polls, and periodic rate changes respectively.

According to the specifications by the IMO and the SOLAS Convention, the vessel owner does not have to pay for its LRIT messages nor should a shipowner incur any charges for transmitting the LRIT information. The airtime costs will be requested by the CSPs and have to be balanced by the ASP, who will forward the costs to the Agency as part of the message unit price. Therefore the Contractor will take over the costs of the LRIT messages, the CSP and the airtime costs including the costs of the LES.

The billing scenario should be as follows:

- the ship pays no money;
- the CSPs invoice the ASP;
- the ASP applies on each message an overhead cost and bills EMSA a price per message.

Prices must be quoted in Euro using (with the exception of the countries within the EURO zone) the conversion rates published in the C series of the Official Journal of the European Union on the day when the contract notice was published.

Prices related to the delivery of the service and service products are subject to the fixed price levels offered to EMSA by the Contractor. These prices are valid for the duration of the Contract and not subject to revision for the first year of performance of the Contract. Prices may only be revised upwards or downwards each year, where such revision is requested by one of the contracting parties by registered letter received by the other no later than three months before the anniversary of the date on which the Contract was signed. This revision shall be determined by the Monetary Union Index of Consumer Prices (MUICP) published by the Office for Official Publications of the European Communities in the Eurostat monthly bulletin at <http://www.ec.europa.eu/eurostat/>. Revision of the prices indicated in Article I.3 may only be requested if the MUICP records a price level evolution of 3% or more for a consecutive period of 12 months. Revision shall be calculated in accordance with the provisions set in the Contract.

The tenderer is requested to fill in all the prices listed in the table in Annex A.5 Price Sheet, which is available as an Excel template from the EMSA website, and to provide the worksheet in printed format together with the bid. Deviations or modifications to the tables will not be accepted.

A) Module 1: Set-up

Implementation costs related to the implementation of the ASP/EU CDC and ASP/CSPs interfaces.

The set-up costs should cover all necessary adaptations for the ASP system to meet the current EU CDC interface requirements as well as being linked with the existing CSPs.

The module 1 will be considered completed at the acceptance of the final test report including the Test case in the testing environment DC-2.1 as recommended by IMO Circ.1294-Rev.3.

The ASP awarded with this contract should be aware that during the lifetime of the contract he must update his systems pursuant to new requirements (e.g. future upgrades of the ASP application/interface with the EU CDC or adding a new CSP compliant with the IMO LRIT performance standards and functional requirements, etc) imposed by new or amended IMO regulations, at his own costs.

B) Module 2: Operations

The tenderer is requested to provide a proposal for the fee (Fee 1) for one shipborne equipment integration.

The integration fee must be the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M).

The integration fee should not vary depending on the number of ship integrations done over a period of time.

The tenderer is requested to provide a proposal for the fee for one ASP position report (Fee 2). This fee must be the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M).

The position report fee should not vary depending on the number of position reports delivered by the ASP.

The tenderer is requested to provide a proposal for the fee for DNID Upload (Inmarsat C network) (Fee 3). This fee should not vary depending on the number of DNID upload done by the ASP.

The tenderer has to take into consideration that the fee for ASP Position Request (OneTimePoll) is fixed at 2 x Fee 2. This fee is the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M). This fee does not vary depending on the number of position request done by the ASP.

The tenderer has to take into consideration that the fee for Periodic Rate Change is fixed at 12 x Fee 2. This fee is the same for all communication networks used (Inmarsat C, Iridium, Inmarsat IsatM2M). This fee does not vary depending on the number of periodic rate change done by the ASP.

See tables 1 to 3 in section 3.6 on messages and actions, and section 3.11, as a reference to fill in the table below. Future ASP invoices will be multiples of unit prices below.

Billable item description and [code]	Comment	Price (€)
<b>Ship Integration, or Ship Re-integration (change of terminal of existing ship)</b> [ASP_INT]	Price per first ship integration/change of terminal in the system = <b>Fee 1</b>	
<b>ASP Position Report</b> [ASP_RPT]	Price per ASP position report (irrespective of the network: Inmarsat C, Inmarsat IsatM2M, or Iridium) = <b>Fee 2</b>	
<b>ASP Position Request (OneTimePoll)</b> [ASP_RQT]	Price per Poll message (irrespective of the network: Inmarsat C, Inmarsat IsatM2M, or Iridium)	<b>2 x Fee 2 (cannot be modified)</b>
<b>Periodic Rate Change</b> [ASP_PRC]	Price per Periodic rate change message (irrespective of the network: Inmarsat C, Inmarsat IsatM2M, or Iridium)	<b>12 x Fee 2 (cannot be modified)</b>
<b>DNID Upload</b> [ASP_DNID]	Price per DNID upload = <b>Fee 3</b>	

C) Module 3: Add speed and heading in LRIT messages coming from ships registered in the EU CDC, for Inmarsat C and Inmarsat IsatM2M networks

This module will be activated by one specific contract should EMSA decide to implement it.

The prices proposed by the tenderers should take into account the modifications at ASP and CSPs level if needed, and between the ASP and the EU CDC. If the module 3 is activated, the document Annex A.6 ASP-DC Interface definition shall be amended accordingly by the awarded tenderer. Tenderers should be aware that no modifications of the prices provided under module 2 (Fee 1, 2 and 3) will be authorized further to the implementation of module 3.

The tenderers have to define a price for each communication network. Prices may be different.

#### 14. 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 (please refer to Tender Enclosure III).

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.

**15. Information concerning the personal situation of the service provider and information and formalities necessary for the evaluation of the minimum economic, financial and technical capacity required**

**15.1 Legal position – means of proof required**

When submitting their bid, tenderers are requested to complete and enclose the **Legal Entity Form** and requested accompanying documentation, available on the Procurement Section (Legal Entity Form) on the EMSA Website at the following address: <http://www.emsa.europa.eu/> > *Working with us* > *Calls for tenders*

**15.2 Grounds for exclusion - Exclusion criteria**

To be eligible for participating 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 EMSA 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 EMSA 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 Union financial interests;
- f) they have been the subject of the administrative penalty for being guilty of misrepresentation in supplying the information required by EMSA as a condition of participation in the procurement procedure or failing to supply an information, or being declared to be in serious breach of his obligation under contract covered by the budget.

**15.3 Evidence to be provided by the tenderers**

For this purpose the Declaration on Honour available on the Procurement Section on the EMSA Website (<http://www.emsa.europa.eu/> > *Working with us* > *Calls for tenders*) shall be completed and signed.

Please note that the tenderer to whom the contract is to be awarded shall provide additional proof evidencing eligibility as follows:

For situations described in (a), (b) and (e), production of a recent extract from the judicial record is required or, failing that, a recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance showing that those requirements are satisfied. Where the tenderer

is a legal person and the national legislation of the country in which the tenderer is established does not allow the provision of such documents for legal persons, the documents should be provided for natural persons, such as the company directors or any person with powers of representation, decision making or control in relation to the tenderer.

For the situation described in point (d) above, recent certificates or letters issued by the competent authorities of the State concerned are required. These documents must provide evidence covering all taxes and social security contributions for which the tenderer is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions.

For any of the situations (a), (b), (d) or (e), where any document described in two paragraphs above is not issued in the country concerned, it may be replaced by a sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance.

If the tenderer is a legal person, information on the natural persons with power of representation, decision making or control over the legal person shall be provided only upon request by EMSA.

When the tenderer to be awarded the contract has already submitted relevant evidence to EMSA, it remains valid for 1 year from its date of submission. In such a case, the reference of the relevant project(s) should be mentioned and the Contractor is required to submit a statement of confirmation that their situation has not changed.

#### **15.4 Economic and financial capacity – Selection criteria**

Requirement:

- The tenderer must be in stable financial position and the economic and financial capacity to perform the contract

Evidence:

- Financial statements for the last three years for which accounts have been closed.
- Statement of overall turnover and turnover relating to the relevant services for the last three financial years.
- Tenderers are exempt from submitting the documentary evidence if such evidence has already been completed and sent to EMSA for the purpose of another procurement procedure and still complies with the requirements. In this case the tenderer should simply indicate on the cover letter the procurement procedure where the evidence has been provided.
- If, for some exceptional reason which EMSA considers justified, a tenderer is unable to provide one or other of the above documents, he may prove his economic and financial capacity by any other document which EMSA considers appropriate. In any case, EMSA must at least be notified of the exceptional reason and its justification in the tender. EMSA reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

#### **15.5 Technical and professional capacity – Selection criteria**

The tenderer should demonstrate his professional experience gained in performing a similar service for other LRIT Data Centre(s) and its ability to work with industry partners.

To prove their technical and professional capacity tenderers should provide proof of the following mandatory criteria with their offer:

#### Evidence of ASP/CSP functionality experience:

Given the EMSA responsibility as Cooperative Data Centre to provide service to 39 Participating States, the tenderers must be already recognised ASP for at least one existing LRIT DC. The tenderers have to demonstrate their existing relationships with an LRIT DC and CSPs, to prove their capability to receive and forward LRIT data and ensure remote integration of the shipborne equipment via different communication networks.

This proof will consist of a list identifying work carried out during at least the last three years that is of relevance for the services to be provided.

Tenderers should provide with their bid:

- A description of the services currently and previously offered by the tenderer, including the current service of recognised ASP, with an indication of the objectives, contracting parties, duration and budget;
- Any evidence, statement or testimonial from the customer, from the public sector or private sector, relating to the performance and/or quality of the services provided by the tenderer;
- Evidence to demonstrate their capabilities to offer all services under the present contract in the English language, because of the international nature of the contract. For example, providing examples where the tenderer has worked on projects for multinational or English speaking customers;
- Detailed curriculum vitae of the operational persons and the key technical and management persons who will be delivering the service under the proposed contract. The curriculum vitae shall include the educational background, degrees and diplomas, professional experience.

## **16. 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 ( $W_1 = 10\%$ )
2. Quality criterion 2 ( $W_2 = 10\%$ )
3. Quality criterion 3 ( $W_3 = 10\%$ )
4. Quality criterion 4 ( $W_4 = 5\%$ )
5. Quality criterion 5 ( $W_5 = 10\%$ )
6. Quality criterion 6 ( $W_6 = 5\%$ )

and the price criterion and associated weighting:

7. Price module 1 ( $W_{price1} = 5\%$ )
8. Price module 2 ( $W_{price2} = 40\%$ )
9. Price module 3 ( $W_{price3} = 5\%$ )

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:

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

In case a price given by a tenderer is 0 €, for the sake of this formula the value will be replaced by a symbolic 1 €.

Only bids that have reached a minimum of:

- 80% for  $Q_1$ ,
- 70% for  $Q_2$ ,
- 60% for  $Q_3$ ,
- 50% for  $Q_4$ ,
- 70% for  $Q_5$ ,
- 50% for  $Q_6$ ,

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 60% for the final score  $S$  will be taken into consideration for awarding the contract.

## 16.1 Quality award criteria

The service requirements are contained within Section 3 of this document. These requirements will be used by the Agency to assess the technical aspects proposed in the bids. To facilitate this evaluation, tenderers are requested to complete a compliance matrix (Annex A.4), which is available as an Excel template from the EMSA website, and to provide the worksheet in printed and in electronic format together with the bid. The compliance matrix will be used by the Agency to evaluate the bids for their level of compliance with the service requirements described in this document. A deviation or modification of the tables will not be accepted.

Several quality award criteria will be used to evaluate technical aspects of the products and services proposed by the tenderer. These criteria are listed below, together with a short explanation and requests for supporting documentation.

1 – Quality criterion 1: Quality of the proposed compliance with IMO requirements (Maximum 10%)

The bid will be evaluated in terms of compliance with IMO Requirements for the LRIT system, taking into account the most recent IMO specifications.

2 – Quality criterion 2: Quality of the proposed implementation (Maximum 10%)

The proposed technical description of the implementation of the interfaces with CSPs and the EU CDC described in Section 3 will be analysed and evaluated accordingly. This will be done by assessing the fulfilment of the requirements in general and particularly the design, procedures and robustness of the system as well as the proposed implementation of the current ASP interface. The tenderer should consider that no delay is acceptable for entering in Production after the 15 September 2015.

3 – Quality criterion 3: Quality of the proposed methodology for the integration of ships in the system, and monitoring the ship reporting (Maximum 10%)

The bid will be evaluated in terms of the proposed procedures:

- for integrating shipborne equipment into the EU LRIT system;
- for monitoring the ship reporting.

As a minimum compliance with the requirements set out in Section 3 shall be ensured.

4 – Quality criterion 4: Quality of the ASP monitoring and reporting, and proposed system and quality assurance procedure (Maximum 5%)

The tender must provide the monitoring and reporting of the performance of the ASP, and be compliance with all requirements in Section 3.

The regular mechanism for system quality checking and assurance used to perform the tasks under the terms of the contract will be evaluated according to the requirements in Section 3 and additionally in terms of the procedures to check the overall functioning, performance and quality of the system.

5 – Quality criterion 5: Quality of the proposed concept “hosting and infrastructure” (Maximum 10%)

The bid shall demonstrate compliance with all hosting and security requirements stated in Section 3. The hosting and security concept shall be described in the bid in detail.

The bid shall describe the proposed establishment of services on a 365 day 24 hour basis, and engagement of trained permanent operators.

The proposed operational facilities used to perform the tasks under the terms of the contract will be evaluated: computing, archiving, networking and telecommunication infrastructure; hosting environment; electrical power supply system; disaster recovery site(s); all other facilities relevant for the provision of the service.

The mechanism ensuring data security used to perform the tasks under the terms of the contract will be analysed and evaluated.

6 – Quality criterion 6: Quality of the proposed Management approach (Maximum 5%)

The proposed management scheme in the tender will be evaluated based on the following:

- Proposed team structure and the involvement and interaction of each team member within the project;



- Draft Project and Quality Management Plan – Draft project plan (showing tasks, schedule and milestones) for the service implementation;
- Draft Test Plan and Acceptance Plan – End to end service test plan prior to service roll out.

The tenderer may use the suggested timeline in the timetable given in section 6, although the tenderer if feasible can suggest shorter periods.

If the tenderer cannot meet the requirements fully, the tenderer must justify any deviation and must provide documentation on what alternative level of service it can provide, offering a similar quality. EMSA will review the deviation(s) and the proposed solution(s) in compliance with the IMO specifications and the technical description in Section 3.

Options in terms of extras to the services described in the Tender Specifications and variants in terms of provision of technical solutions equivalent to the ones described in the tender specifications may be offered and will be taken into account.

Whenever a particular characteristic is said to be an “advantage” within the technical description in Section 3, it shall be understood, that the bids which fulfil such characteristics will be scored higher provided that the bids comply with the list of technical requirements (Annex A.4 Compliance Matrix).

## 16.2 Price award criteria

The price evaluation will be based on the price grids given in Annex A.5 Price Sheet, in Excel format. The ceiling of LRIT messages according to IMO is specified at a price of 25 USD cents in terms of selling messages between Data Centres. Nevertheless the present airtime costs are known to be significantly less than this cost. The tenderers should consider this when proposing a price per message.

Module 1: the price given by the tenderer in Annex A.5 will be used directly in the score for price formula, with  $W_{price1} = 5\%$ .

Module 2: the following scenario will be used to compare the prices of the bids. The numbers in this scenario will be used for evaluation purposes only and do not represent the ordered services.

A simulation of the approximate monthly cost will be calculated based on the prices given by the tenderer, and using the following numbers:

- Ship Integrations/changes of terminal: 120
- Position reports: 900,000
- DNID upload: 500

The monthly cost (MC) will be:

$$MC = 120 \times \text{Fee 1} + 900,000 \times \text{Fee 2} + 500 \times \text{Fee 3}$$

This monthly cost will be used directly in the score for price formula, with  $W_{price2} = 40\%$ .

Module 3: the 2 prices given by the tenderer in Annex A.5 Price Sheet will be summed, and the result will be inserted in the score for price formula, with  $W_{price3} = 5\%$ .

Tenderers should be aware that no modifications of the prices provided under Module 2 (Fee 1, 2 and 3) will be authorized further to the implementation of module 3.

#### **17. Conflict of interest and misrepresentation**

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 EMSA as a condition of participation in the contract procedure or fail to supply this information.

#### **18. False declarations**

Without prejudice to the application of penalties laid down in the contract, tenderers and sub-contractors who have been guilty of making false declarations concerning situations referred to in points 15 and 16 above or have been found to have seriously failed to meet their contractual obligations in an earlier procurement 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.

#### **19. 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 to these 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.

#### **20. Special negotiated procedure under Article 134(1)(f)**

EMSA may at a later stage exercise the option to increase the estimated value of the contract via negotiated procedure with the successful tenderer in accordance with Article 134(1)(f) of the Rules of Application to the Financial Regulation

## Annex A.1. Reference documents

The following list is not exhaustive.

Tenderers are also advised to consult the EMSA website: [www.emsa.europa.eu](http://www.emsa.europa.eu) > “Operational tasks” > “Vessel reporting services” section. Hyperlinks and documents about LRIT are available in the LRIT section.

Id	Reference	Title
<b>EU documents</b>		
R1	EU Council Resolution	EU Council Resolution dated 2 October 2007 establishing an EU LRIT Data Centre (EU LRIT DC) <a href="http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/trans/96265.pdf">http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/trans/96265.pdf</a>
R2	EU Council Resolution	EU Council Resolution dated 9 December 2008 concerning the EU LRIT Data Centre <a href="http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/trans/104590.pdf">http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/trans/104590.pdf</a>
R3	Directive 2002/59	Directive 2002/59/EC of European Parliament and of Council of 27 June 2002 establishing a Community vessel traffic monitoring and information and repealing Council Directive 93/75/EEC amended by Dir. 2009/17/EC, Dir. 2009/18/EC, Dr. 2011/15/EU and Dir. 2014/100/EU <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02002L0059-20141118">http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02002L0059-20141118</a>
R4	Regulation 1268/2012	Commission Delegated Regulation (EU) N° 1268/2012 of 29 October 2012 on the rules of application of Regulation (EU, Euratom) n° 966/2012 on the financial rules applicable to the general budget of the Union <a href="http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=OJ:L:2012:362:TOC">http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=OJ:L:2012:362:TOC</a>
R5	Regulation 725/2004	Commission Regulation (EC) No 725/2004 of the European Parliament and of the Council on enhancing ship and port facility security <a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:129:0006:0091:en:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:129:0006:0091:en:PDF</a>
R6	Regulation 1406/2002	Commission Regulation (EC) No 1406/2002 of the European Parliament and of the Council of 27 June 2002 establishing a European Maritime Safety Agency <a href="http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32002R1406">http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32002R1406</a>
<b>IMO documents, can be found on IMO Website: <a href="http://www.imo.org">www.imo.org</a></b>		
R7	MSC.1/Circ. 1259-Rev.6	Technical Documentation (Part I) Technical Specification for the LRIT System
R8	MSC.1/Circ. 1294-Rev.3	Technical Documentation (Part II)
R9	MSC.1/Circ. 1295	LRIT Exemptions
R10	MSC.1/Circ. 1307	“Guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information” approved on May 2008 (replacement of MSC Circular 1257)
R11	MSC.1/Circ. 1338-Rev.1	Guidance to SAR services in relation to requesting and receiving LRIT information.
R12	MSC.1/Circ. 1298	Guidance on the Implementation of the LRIT System
R13	Resolution A.887(21)	“Establishment, updating and retrieval of information contained in the registration databases for the global maritime distress and safety system (GMDSS)” adopted on 25 November 1999
R14	Resolution MSC.202(81)	Adoption of amendments to the international convention for the Safety Of Life At Sea, 1974, as amended, adopted on 19 May 2006
R15	Resolution MSC.242(83)	Use of LRIT for Maritime Safety and Environment protection purposes
R16	Resolution MSC.263(84)	“Revised performance standards and functional requirements for the long-range identification and tracking (LRIT) of ships” adopted on May 2008

Id	Reference	Title
<b>EMSA documents</b>		
R17	EMSA /OP/06/2015	Tender No. EMSA/OP/06/2015 concerning contracts for “Delivery of ASP / CSP Services for the EU LRIT Data Centre” EMSA website: <a href="http://www.emsa.europa.eu">www.emsa.europa.eu</a> > “Working with us” > “Call for tenders” section. The hyperlink EMSA/OP/06/2015 gives access to all the documents for this call to tender.

## Annex A.2. Abbreviations, acronyms and definitions

ASP*	Application Service Provider	*The acronym ASP should be understood as referring to the company responsible for providing the Recognised ASP service.
BCF	Business Continuity Facility	
CDC	Cooperative Data Centre	The term “Ship” is used as defined within SOLAS Chapter V/19.1.
CG	Contracting Governments	
CSP	Communication Service Provider	“LRIT information” means the information specified in SOLAS V/19-1.5.
DC	LRIT Data Centre	
DDP	LRIT Data Distribution Plan	
EMSA	European Maritime Safety Agency	
EU	European Union	
EU CDC	EU LRIT Cooperative Data Centre	
EU MS	European Member States	
IDE	International LRIT Data Exchange	
IDF	Information Distribution Facility	
IMO	International Maritime Organisation	
IMSO	International Mobile Satellite Organisation	
LES	Land Earth Station	
LRIT	Long Range Identification and Tracking	
LCT	LRIT Consumption Tool	
MSC	Maritime Safety Committee (IMO)	
MSS	Maritime Support Services	
MMSI	Maritime Mobile Service Identity	
MUICP	Monetary Union Index of Consumer Prices	
NCA	National Competent Authority	
NTP	Network Time Protocol	
PKI	Public Key Infrastructure	
QoS	Quality of Service	
SAR	Search and Rescue	
SLA	Service Level Agreement	
SAR SURPIC	Search and Rescue Surface Picture	
Ship DB	EU LRIT Ship Database	
SOLAS	International Convention for the “Safety of Life at Sea”	
SSL	Secure Sockets Layer	
UTC	Coordinated Universal Time	
UWI	User Web Interface	
VAT	Value-Added Tax	

**Annex A.3. List of EU CDC Participating States**

Austria Belgium Bulgaria Croatia Cyprus Czech Republic Denmark – Greenland Estonia Finland France – French Polynesia – New Caledonia Germany Greece Hungary Ireland Italy Latvia Lithuania	Luxembourg Malta Montenegro Netherlands – Curaçao – Aruba Poland Portugal Romania Slovakia Slovenia Spain Sweden United Kingdom – Falkland Islands – Gibraltar – British Virgin Islands Iceland Norway
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