

Questions and Answers

Procurement procedure: EMSA/OP/09/2016

Question 01 (dated 10 May 2016, 00.06):

2.0.0.6 Depending on the requests it receives, for SAT-AIS data services specified under section 2.0.0.1 (iii), EMSA will activate licences to provide SAT-AIS data for a particular Area of Interest (AOI) for EU candidate countries and potential candidates or for the European Neighbourhood Policy Countries, e.g. beneficiary countries under SAFEMED and TRACECA or the subsequent agreements.

Can you please provide which countries are members of the Neighborhood Policy Countries/ SAFEMED/ TRACECA?

Answer to question 01:

The countries which are members of the Neighbourhood Policy Countries/SAFEMED/TRACECA are:

- The SAFEMED countries currently are Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria (currently suspended) and Tunisia.
- The TRACECA countries currently are Armenia, Azerbaijan, Georgia, Kazakhstan, Republic of Moldova, Turkmenistan and Ukraine.
- The beneficiaries for the next TRACECA project which is scheduled to start during 2017 should be: Azerbaijan, Georgia, Iran, Kazakhstan, Republic of Moldova, Turkey, Turkmenistan and Ukraine.

At this stage it is not known if all these countries will participate in these programmes. SAT-AIS data will be provided for the exclusive purpose of these programmes via web access only.

Question 02 (dated 10 May 2016, 00.06):

2.1.2.5 The Contractor, if requested by EMSA, shall be able to provide for any given area, within one day following the request (depending on the nature of the request), a copy of the historical SAT-AIS data for a global or a defined geographical area in a CSV format or in any other format as required by EMSA for a number of ships or as the case may be

2a: Does this mean that EMSA will require historical data from before the start date of this contract? If so, is that to be priced separately?

2b: Please clarify "any other format", as this is open ended and may likely not be achievable in one day if it is unknown?

Answer to question 02a:

No historical data from before the start date of the contract will be requested.

Answer to question 02b:

The standard format that EMSA will be using will be CSV format however should there be a need to use another format, the contractor will be given additional time, if necessary, as indicated 'depending on the nature of the request'.

Question 03 (dated 10 May 2016, 00.06):

6.0.0.1 The maximum budget available for this contract is of 10.2 Million Euro (ten million and two hundred thousand Euro) excluding VAT. This amount includes the price for the service set up, testing and validation, service maintenance, and reporting.

6.0.0.2 The maximum budget allocated for service setup and testing, service validation, service maintenance, and reporting shall not exceed 25,000 Euro.

6.0.0.3 The estimated budget for services under 2.0.0.1 (i), (ii) and (iv) is 9 Million Euro.

Is it correct that a maximum of 10 million EURO max is available in total for the contract over the 4 years, with 9 million of that going to actual data purchasing over the same 4 year period?

Answer to question 03:

The maximum budget available for this contract is of 10.2 Million Euro (ten million and two hundred thousand Euro) excluding VAT over a 4 year period.

The estimated budget for services requested under 2.0.0.1 (i), (ii), and (iv) is 9 Million Euro.

The estimated budget for services requested under 2.0.0.1 (iii) is 1.2 Million Euro.

Question 04 (dated 10 May 2016, 00.06):

2.1.3.2 The global feed of real-time SAT-AIS data shall be provided in accordance with the performance requirements outlined in the following Table 1. The table states that Average Target time update interval shall be a maximum 1 hour for vessels in any given coverage area.

How exactly is the average target time update interval computed? Is it a theoretical number or a measured number? If it is a measured number, how are the vessels included in the measurement selected?

Answer to question 04:

The bidder should have the possibility of calculating the target time update interval. The time update interval is defined as the time interval between two consecutive messages, transmitted from the same vessel, delivered by the contractor to the EMSA's SSN streaming interface. The contractor is required to calculate the average target time update interval, as a measureable number, and should include the vessels that are in view of the satellites. Paragraph 2.1.3.20 requires the bidder to provide in the bid details on the methodology to be applied in assessing the quality and capability of the SAT-AIS data service. It is expected that the description of the methodology will include details of the computation methodology/ algorithms followed by the bidder's explanation to determine key performance indicators such as the target update interval, the detection probability and the timeliness.

Question 05 (dated 10 May 2016, 00.06):

2.1.3.2 The global feed of real-time SAT-AIS data shall be provided in accordance with the performance requirements outlined in the following Table 1. The table states that Average Target detection probability shall be a minimum of 85 % (or more).

How exactly is the average detection probability computed? How is it validated? It is known that there are in excess of 150,000 AIS equipped vessels operating on any given day worldwide. It is also known that less than half of these are detected by satellite on any given day worldwide, regardless of satellite AIS provider. So how can 85% be required? Even if it were possible, how can this be validated?

It is unclear how this is measured; if it can be measured accurately worldwide; or can it be validated on a continuous on-going basis. To detect a defined percentage of vessels, you must know exactly how many vessels are actually in view versus those that are detected. At any given point in time does anyone really know with certainty what vessels are actually there? Or what vessels are “in view” of a satellite? How is what vessels “in view” defined? What is “ground truth”? How can ground truth be measured?

Answer to question 05:

The detection probability is the ratio between the number of ships detected by the satellite AIS receiver in a geographical area and the total number of ships in a given area at a certain time (or a range of time). The bidder has to have the technical possibility of knowing how many ships are in the area, to the extent possible, through the use of other data sources (if possible) such as terrestrial AIS, VMS data or LRIT data, in order to be able to compare. As requested under section 2.1.3.20 of the specifications, the Bidder shall provide the methodology that will be applied for assessing the quality and capability of the SAT-AIS data service and shall give details on the approach that will be taken in determining the a) Probability of Detection per ship and (c). Detection density per ship and orbit. It is up to the bidder to determine the methodology that is to be used. One may assume however that the computation shall take into account the number of AIS equipped SOLAS compliant vessels (Class A) and fishing vessels above 15 meters in length. As required by section 2.1.3.3, the Bidder shall indicate in the offer the number of AIS messages detected per day from all satellites and per satellite for Class A vessels and Class B vessels.

Question 06 (dated 10 May 2016, 00.06):

2.1.3.1 The Contractor shall provide a global feed of real-time SAT-AIS data for class A and Class B vessels and, where available, the Doppler data.

2.1.3.12 The Contractor shall grant the right to EMSA to process Doppler data, where available, and to provide services, such as position validation, to its users through the use of Doppler data

Can you further explain the purpose/requirement that you intended to achieve by being provided the Doppler data? Is the requirement just position validation?

Answer to question 06:

The Doppler SAT-AIS data that will be provided by the contractor will be processed by EMSA's SAT-AIS data processing capability and will be used to validate ship positions.

Question 07 (dated 10 May 2016, 00.06):

The Contractor is asked to host the SSN-SI software in its facility; however, there is no specification of the hardware requirements for this software.

Could you specify the hardware requirements? What are the supported operating systems? Can the software run in a virtual machine?

Answer to question 07:

According to the installation manual the minimum hardware requirements are:

Item	Description
Processor	2.66 GHz Dual core
RAM memory	1 GB
Storage	10 GB ¹
Network card	Gigabit network adapter
Other	Video Card, monitor, keyboard and mouse, USB ports

and the supported operating systems are:

- Microsoft Windows XP, Server 2003/2008.
- Red Hat Enterprise Linux 5/6, CentOS Linux 5/6, Ubuntu Linux (8.04 & 9.04).

Yes, the software can run on a virtual machine.

Question 08 (dated 10 May 2016, 00.06):

The Contractor is asked to monitor the SSN-SI software installed in its facility.

Will EMSA provide training on how to install, use and monitor the software?

Answer to question 08:

No training is foreseen, but there are 2 manuals namely: Installation and Operations Guide and Remote Support which may be provided using a remote desktop tool such as TeamViewer.

Question 09 (dated 10 May 2016, 00.06):

Section 2.2.0.2 states that the Contractor shall adhere to any modifications to the interface specifications that will be made by EMSA after the signature of the Framework Service Contract.

This is a wide-open statement. Can the reach of this statement be modified, restricted or be associated to Time and Material contract?

¹ It depends on provider data volumes and storage limits defined in Apache ActiveMQ configuration file

Answer to question 09:

The contractor shall adhere to any modifications to the interface specifications in accordance with the terms as specified in section 2.2.0.2. Note however that we do not expect to perform substantial modifications to the interface.

The contractor is obliged to install/ configure any new release of the SSN SI software which will be provided by EMSA and which does not require any change in the format of data injected via (to) the SSN SI.

Question 10 (dated 10 May 2016, 00.06):

Section 2.2.0.5 The Contractor shall ensure a minimum 98 % availability of the global SAT-AIS data service over a 12 calendar months and better than 95 % availability of global SAT-AIS data stream per day.

The service includes Customer provided software and it is difficult to guarantee on software that has not been previously used by the Contractor running on new hardware installed by the Contractor. Can the scope of this statement be limited to the input of the SSN-SI and excludes the SSN-SI itself?

Answer to question 10:

The contractor shall ensure a minimum 98 % availability of the global SAT-AIS data service over a 12 calendar months and better than 95 % availability of global SAT-AIS data stream per day as input to the SSN SI (s) installed at contractor premises.

Question 11 (dated 10 May 2016, 00.06):

Section 2.2.0.6 The Contractor shall be able to maintain a parallel SAT-AIS data stream to the EMSA quality environment such as the pre-production environment, by providing for a number of days, as determined by EMSA, a SAT-AIS data stream to EMSA for troubleshooting proposes.

This section is unclear. Where this stream should go? Is it a stream of the input to the SSN-SI or of the output of the SSN-SI?

Answer to question 11:

This is a stream for a second SSN-SI machine, to be hosted by the SAT-AIS Contractor and targeting EMSA pre-production.

Question 12 (dated 10 May 2016, 00.06):

Section 2.2.0.8 The Contractor shall furthermore satisfy the following requirements when installing and using the SSN-SI for the provision of SAT-AIS data:

a) provide 24 hours by 7 days maintenance of the SSN-SI, its configuration at local level and IT operation of the system;

b) support EMSA's monitoring by enabling the performance monitoring service provided by EMSA, for the purpose of the optimal operation of the SSN-SI;

- c) support the execution of system tests, when required by EMSA;
- d) respond in less than one hour to incidents causing unforeseen service interruption;
- e) analyse the aforementioned incidents and the required interventions for repair or maintenance;
- f) report incidents requiring remote intervention by EMSA to the Agency's Maritime Support Services (MSS);
- g) receive requests from the MSS on service failures, control the processing of the reported incidents, and keep MSS informed about the status of issues;
- h) support the back-up and recovery in case of SSN-SI's failure and to provide unprocessed data following recovery on EMSA's end point/node.

What facilities does the SSN-SI provide for monitoring? Is additional equipment required by the Contractor to monitor the SSN-SI? It is also unclear whether the Contractor has to actively monitor the SSN-SI or if it has only to answer to EMSA requests to perform a maintenance operation?

Answer to question 12:

SSN-SI automatically sends monitoring information to EMSA regarding e.g. status and throughput of the provider data stream(s).

Monitoring of machine resources (disk, memory and processor load) should be performed by the SAT-AIS contractor. It is also considered useful to have specific monitoring of the COTS software (Apache Derby DB, ActiveMQ, Tomcat and HTTP server) also performed by SAT-AIS contractor.

Question 13 (dated 10 May 2016, 00.06):

Section 2.3.0.4 The Contractor shall be able to provide Service Evaluation reports which will then be reviewed and accepted by EMSA. These reports are to be generated periodically, minimum monthly or longer, as agreed with EMSA. For payment purposes the Contractor shall provide Service Evaluation reports on a quarterly basis taken into account the following quarters: 1Q Year (N): December Year (N-1) - February Year (N), 2Q Year (N): March-May Year (N); 3Q Year (N): June-August Year (N); 4Q Year (N): September-November Year (N).

Will the contractor be given access to the EMSA SAT-AIS Processing Service in order to generate the Service Evaluation Reports.

Answer to question 13:

The contractor will not be given access to the EMSA SAT-AIS Processing Service. The contractor should have the technical capability of generating the reports as specified in section 2.3.0.4 without having the need to access the EMSA SAT-AIS Processing Service.

Question 14 (dated 10 May 2016, 00.06):

Section 2.3.0.6 The analysis in the Service Evaluation report shall compare the obtained results within the target performance as defined in Table 1. If required by EMSA, specific geographical areas from where the SAT-AIS data is to be provided, may be analysed separately. The analysis shall contain, as a minimum, detailed information on compliance or divergences on the following technical parameters:

- a) Probability of detection of ships;
- b) Time update interval;
- c) Timeliness;
- d) Total number of messages detected per day, based on message detection timestamp by the satellite;
- e) Total number of distinct MMSIs captured daily (based on message detection timestamp by the satellite);
- f) Number of detections for each ship during each orbit (only if required);
- g) Average numbers of messages per orbital path;
- h) Any incidents that may have occurred i.e. data outage, satellite/payload fail, etc.
- i) Type of vessels detected;
- j) Temporal satellite coverage for a given area;
- k) Cumulated number of detected ships for an area;
- l) Spatial and ground segment status report;
- m) Availability of the global SAT-AIS data feed on a daily, monthly, and yearly basis in respect of the SAT-AIS data streamed to EMSA, as a whole, and per satellite;
- n) Additional parameters as may be requested by EMSA.

As indicated in previous questions, some of these criteria parameters need to be better defined:

- a) Probability of detection of ships. This measurement should be fully defined in such a way that it is practically feasible.
- f) This is impractical to be done for each orbit. Can the requirement be changed to a single orbit?
- g) Can you clarify what is meant by orbital path?
- i) The type of vessel detected is understood as whether the vessel is a class A or a class B. Is this correct?
- j , k) What are these areas. How large are they? When will they be defined?

n) Additional parameters as may be requested by EMSA. This is a wide open statement and should be modified or edited to indicate they must be mutually agreed to by both parties.

Answer to question 14:

(a): As explained under Question 5.

(f): This requirement cannot be changed.

(g) Every satellite must have an orbital path which is how a satellite move round the Earth i.e. a polar orbit, an equatorial orbit, which orbit usually depends on its inclination angle.

(i) Yes it is correct.

(j, k) These areas could be any area around the world and will be defined during the Kick off meeting or during the lifetime of the contract, as the case may be.

(n) New additional parameters, as may be requested by EMSA, will be defined in consultation with the contractor.

Question 15 (dated 10 May 2016, 00.06):

Part C SSN System Interface Guide

This section describes the software interfaces between the Contractor equipment and the SSN-SI. It does not explicitly specify whether the interface at the output of the SSN-SI is similar. The knowledge of the interface at the output of the SSN is necessary to monitor the SSN and perform the validation reports. How do we interface to the output of the SSN-SI?

Answer to question 15:

There is no need for the SAT-AIS contractor to monitor the SSN-SI output interface, as its status can be checked through the SSN-SI status page.

Question 16 (dated 10 May 2016, 00.06):

Proposal submission due date is May 27, 2016

Given this is a multi-year framework contract with a relatively large budget, additional time should be provided for submissions in order for EMSA to receive the best possible technical and cost proposals. An additional 1 to 2 weeks would be appropriate, depending on the timeliness of responses to the questions and/or potential amendments.

Answer to question 16:

In view of the rather tight schedule that we have for the setting up, testing, and validation of the SAT-AIS data service, which has to be up and running by the 1st September 2016, the deadline for the submission of the bids cannot be changed.

Published on 11th of May 2016

Requests for additional information regarding this tender should be sent by e-mail to the following email address: **OPEN092016@emsa.europa.eu** Requests for additional information received less than six working days before the closing date for submission of tenders will not be processed.

The deadline for submission of the bids of this tender is 27th of May 2016.

The responsibility for monitoring the Agency's website for replies to queries and/or further information remains with potential applicants.

Proposal submission due date is May 27, 2016

Question 17 (dated 16 May 2016, 22.11):

Please clarify the pricing for 2.0.0.1 (iii) and 12.0.0.1 (iii): "A price to provide a yearly licence for the provision of SAT-AIS data from a particular Area of Interest (AOI) per area that has a size of 1km² to 5 Million km² for one year service – Unit Cost {services under 2.0.0.1 (iii)}."

The estimated budget for services requested under 2.0.0.1 (iii) is 1.2 Million Euro.

Table 5. Price Evaluation Scenario "Licence for other functions as per 12.0.0.1.(iii) Unit Cost: 4 x P3 (12 months)"

ITT Page 31: "The budget for [4 x P3] shall not exceed 300.000 Euros."

Please clarify what the '4' is above and what should go in to "Table 5. Price Evaluation Scenario"? Is it a price for 12 months, for 4 years, or some other value?

If '4' is in years, should the ITT, page 31 read [1 x P3] shall not exceed 300.000 Euros? Or, [4 x P3] shall not exceed 1.200.000 Euros?

Answer to question 17:

As explained in section 15.5 of the technical specifications, the price of the bid will be calculated in accordance with the indicated weighing factors and the Price Evaluation Scenario (Table 5).

The scenario for "Licence for other functions as per 12.0.0.1.(iii) Unit Cost: 4 x P3 (12 months)" as referred to in Table 5, is referring to 4 Licences per year and not to 4 years – for which the price shall not exceed 300.000 Euros as indicated.

Question 18 (dated 17 May 2016, 09:43):

Following is our question:

Could EMSA indicate if this Invitation To Tender may also generate multiple Framework Contracts and not only one, in particular in case the Service described in 2.0.0.1.iv is provided free of charge to EMSA (i.e. with

no financial impact for EMSA to rely on several FWC in order to be able: 1/ to meet all technical requirements. 2/ mitigate risk) ?

Answer to question 18:

The invitation to tender does not foresee the award of Multiple Framework Contract. As it is stated in 2.0.0.1 a Framework Service Contract (FWC) for the four type of services, as indicated, will be put in place.

Published on 17th of May 2016

Requests for additional information regarding this tender should be sent by e-mail to the following email address: OPEN092016@emsa.europa.eu Requests for additional information received less than six working days before the closing date for submission of tenders will not be processed.

The deadline for submission of the bids of this tender is 27th of May 2016.

The responsibility for monitoring the Agency's website for replies to queries and/or further information remains with potential applicants.

Proposal submission due date is May 27, 2016

Question 19 (dated 20 May 2016, 17:15):

Are there any restrictions on which country the SSN-SI hardware supported by bidder may reside?

Answer to question 19:

There are no restrictions on which country the SSN-SI hardware supported by bidder may reside.

Published on 23rd of May 2016

Requests for additional information regarding this tender should be sent by e-mail to the following email address: OPEN092016@emsa.europa.eu Requests for additional information received less than six working days before the closing date for submission of tenders will not be processed.

The deadline for submission of the bids of this tender is 27th of May 2016.

The responsibility for monitoring the Agency's website for replies to queries and/or further information remains with potential applicants.

Proposal submission due date is May 27, 2016