

## Meeting: 6<sup>th</sup> SSN / LRIT Group Meeting

**Place and date: Lisbon, 31 October 2019**

**Agenda item: Coordination activities with AIS regional servers**

**Document number: SSN/LRIT 6.6.2**

**Submitted by EMSA**

<b>Summary</b>	Presents the outcome of the 4th EMSA/ Italy/ Norway meeting on regional AIS servers.
<b>Action to be taken</b>	As per paragraph 3.
<b>Related documents</b>	n.a.

## 1 Background

Since 2017, annual meetings on regional AIS servers have been conducted by EMSA, the Norwegian Coastal Administration – NCA (responsible for the hosting of the North Sea/Atlantic and Helcom AIS Regional Servers), and the Italian Coast Guard – IGC (responsible for the hosting of the Mediterranean AIS Regional Server - MARES).

The objectives of these meetings are to:

- discuss the quality of services;
- agree the operational and technical requirements of the Service Level Agreements (SLAs) signed by EMSA with Italy and Norway for the hosting, maintenance and operation of the AIS regional servers and their connection with SSN;
- discuss technical harmonisation and further improvements to the systems.

## 2 The meeting outcome

The main outcomes of the 4<sup>th</sup> EMSA/Italy/Norway meeting on regional AIS servers (Oslo, 29 August 2019) are presented in below:

### 2.1 Planned upgrade of the SSN proxy application

EMSA and the regional AIS servers are testing the new proxy application (called “STAR Remote hub”), which is planned to replace the existing SSN SIs in October 2019 (depending on the test results).

It is planned that two instances will be maintained by each data provider in order to ensure redundancy. One instance will stream data to the SSN production environment, and the second will be used for back-up purposes. Additional instances may be installed in coordination with EMSA.

The meeting agreed on actions needed to facilitate the tests.

## 2.2 NPRs harmonisation issues

The list of NPR capabilities to be supported was agreed. The capabilities are grouped in three categories : mandatory, supported and additional functions. The requirements will be included in the SLA amendments and the RS Technical manual. Implementation of the mandatory functionalities will be harmonised between the regional AIS servers. The implementation of any additional functionalities shall not impact the performance of agreed mandatory functionalities:

- Data buffering (for at least 12 hours).
- Data filtering (per message type).
- “Old” data removing window (i.e. purging starts after 12 hours of storage).
- Data automatic retransmission.

With respect to the NPR settings, the possibility of maintaining both solutions (12 hours applied by MARES and 2 GB applied by HELCOM/NSATL) for the data buffering window will be assessed.

## 2.3 “Old data” reception and forwarding by RSs

Planned updates to the Common Operational Procedures document (“SSN/LRIT 5.3.4 Common Operational Procedures update”), which were proposed to reduce the risk of loss of ship position data (AIS data) during failures/scheduled interruptions affecting national AIS systems or their connections with regional AIS servers and/or the central SSN system, were discussed.

Member States may provide data automatically (in the background), or resend it manually or submit it via e-mail or FTP. The solution should be agreed at regional level.

The meeting agreed that Italy and Norway will evaluate their solutions in order to receive, accept and forward all retransmitted data from MSs to the central SSN system (including “old” data,) and will present their proposals to MSs at the next EWG meetings.

With respect to data retransmission by RSs, the main solution for resending the data will be manual transfer, although automatic data retransmission may be used as an alternative (if available). A standardised data format and a new procedure for data retransmission will be implemented by RSs. Requirements for the data format and the procedure will be included in the SLA amendments. Additional methods may be proposed when required.

## 2.4 Updates to the RS technical manuals

The RS technical manuals were updated by Italy and Norway. Replies were received by all except Estonia, Lithuania, Germany Slovenia and France.

The technical manuals will be published on the EMSA web (restricted site), and their status will be revised/confirmed by RSs every 6 months in the service summary reports.

## 2.5 European AIS operational manual

The meeting suggested that a “European AIS operational manual” should be introduced, which would present the objectives, purposes and solutions followed for the implementation of the European AIS network. The manual would provide information on the AIS systems in each country (together with photos and maps) and it would be made available to the public.

## 2.6 AIS data buffering tests

The results of the AIS data buffering tests were discussed noting that all NPRs tested were buffering and retransmitting the data. Technical issues that were observed relative to some NPRs will be further analysed (e.g. the number of messages retransmitted, low rates of data retransmission and difficulties in re-establishing stable streaming).

The data buffering relating to the SSN proxy application tests will be conducted in October/November and will be followed by regional server tests. The participants also agreed to carry out NPR stress tests (e.g. for one NPR connection in the RS network). The test scenario will be agreed between EMSA, the RS and the participating Member State.

## 2.7 Second NPR for MSs

The potential improvements associated with introducing two NPRs for each connection were discussed. The experience of NSATL/ HELCOM showed that the operation of two or more NPRs by MSs is both possible and beneficial. Also, the MSs replies to the questionnaires indicated that all (except 1 MS) can install two NPRs. The issue will also be presented to participating States at the next AIS EWG meetings.

## 2.8 Amendments to the Service Level Agreements (SLAs)

New amendments to the Service Level Agreements between EMSA and the regional AIS server hosting Authorities (i.e. NCA and ICG) are expected in 2020.

## 3 Actions required

Member States are invited to take note of the above information and provide feedback.