

## Meeting: 16<sup>th</sup> Mediterranean AIS Expert Working Group

**Place and date:** Italy, Rome, 12 December 2019

**Agenda item:** Outcome of the 4th EMSA/Italy/Norway meeting on regional AIS servers

**Document number:** MAREΣ 16/5/1

**Submitted by EMSA**

Summary	This document presents the outcome of the 4th EMSA/ICG/NCA meeting on regional AIS servers.
Action to be taken	As per paragraph 3.
Related documents	n.a.

### 1. Introduction

Since 2017, annual meetings on regional AIS servers are conducted with the participation of EMSA, the Norwegian Coastal Administration (hosting authority of the North Sea/Atlantic and HELCOM AIS Regional Servers) and the Italian Coast Guard (hosting authority of the Mediterranean Regional Server MAREΣ).

The objectives of these meetings are to discuss the quality of services, agree the operational and technical requirements of the Service Level Agreements (SLAs) and discuss the technical harmonisation and further improvements of the systems.

The 4<sup>th</sup> EMSA/Italy/Norway meeting on regional AIS servers was held in Norway, Oslo, 29 August 2019. The main outcomes are presented hereafter.

### 2. The 4<sup>th</sup> EMSA/Italy/Norway meeting outcome

#### 2.1 NPRs harmonisation issues

The list of NPR capabilities to be supported was agreed e.g. mandatory functions / supported functions / additional functions. The requirements to NPRs will be included in the SLA amendments and in the RS Technical manual. The 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 storing);
- Data automatic retransmission.

The issue whether the buffered data need to be down sampled and the down sampling rate, shall be further assessed, considering the capabilities of NPRs and the SSN proxy application. Regarding the data buffering settings, Italy and Norway will assess the possibility to implement both, the “time window” and the “amount of data” solutions for the data buffering by NPRs. The agreed solution will be presented in the SLAs amendments.

## 2.2 Data retransmission by MSs

Planned updates to the Common Operational Procedures document (“SSN/LRIT 5.3.4 Common Operational Procedures update”), which were proposed to the SSN Group, 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 resent manually or submit via e-mail or FTP. The solution should be agreed at the regional level.

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

## 2.3 Stored data reception and forwarding by RSs

The meeting agreed that the main solution for resending the stored data from RSs will be the manual transfer. Data automatic retransmission may be used as an alternative (if available). A standardised format and new procedure for the data retransmission will be implemented by the RSs. Requirements to the data format and the procedure will be included in the SLA amendments. Any additional method might be proposed when required.

## 2.4 Updates to the RS Technical manuals

The RS Technical manuals were updated. Questionnaires (annexes to TMs) were distributed to the MAREX participating MSs in February 2019. All MSs replied except Slovenia and France.

Technical manuals are published on the EMSA web (restricted site). The status of manuals will be revised/confirmed by RSs every 6 months, in the Service summary reports.

## 2.5 European AIS operational manual

The meeting suggested to introduce an “European AIS operational manual”, which would present the objectives, purposes and solutions of the European AIS network. The manual would provide information about AIS system of each country, with photos and maps, and would be made available to the public (information considered sensitive or confidential by the MSs will not be included). The manual would include information of all components of the AIS data exchange (MSs, regional AIS servers and EMSA). The Manual would also allow MSs to present their tasks and developments and promote their achievements.

## 2.6 AIS data buffering testing

The results of the AIS data buffering by NPRs tests were discussed. All NPRs tested were buffering and retransmitting the data. The results were provided to each Member State following the testing.



Figure 1: The data buffering testing results (example)

Technical issues observed with some NPRs will be further analysed (e.g. the number of messages retransmitted, a low rate of data retransmission, difficulties to re-establish a stable streaming).

The participants agreed to conduct also NPRs stress tests (e.g. for one NPR connection in the RS network). The test scenario will be agreed between EMSA, RS and the participating Member State.

## 2.7 Additional NPRs for MSs

The potential improvements by introducing two NPRs for each connection were discussed. The experience of the NSATL/ HELCOM shows that operating 2 or more NPRs by MSs is possible and beneficial. Also, the MSs replies to the questionnaires indicate that all of them (except 1 MS) are capable to install two NPRs. Italy confirmed that there will be no implications for MAREΣ to maintain connection with additional NPRs.

The participating States are invited to assess their interest in maintaining additional connection with MAREΣ.

## 2.8 Reporting

It was noted that Member States often are not reporting the root cause of incidents. The meeting agreed introducing a “light” version of incidents reporting template, to be used by MSs.

Regarding the time synchronisation problems, Italy and Norway agreed to introduce an automatic warning (e.g. by e-mail) which would be sent to the participating State in case of time asynchronization (e.g. over the agreed threshold).

## 2.9 AIS coverage

Italy agreed to present the AIS data coverage maps service at the MAREΣ 16 EWG meeting.

# 3. Action required

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