Meeting Report

4th EMSA/ Italy/ Norway meeting on AIS Regional servers

Held in Oslo on

29 August 2019

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Date: 27 September 2019

EMSA

Introduction

As a follow up to the 3rd meeting on AIS Regional Servers (Venice, 28 November 2018), the Norwegian Coastal Administration (NCA) invited representatives of the European Maritime Safety Agency (EMSA) and the Italian Coast Guard (ICG) to a technical meeting, to discuss the status of the three AIS Regional Servers (MARES, HELCOM, NorthSea/Atlantic) and to evaluate their further improvements.

The meetings took place in Oslo, Norway, on the 29ᵗʰ August, from 10.00 to 17:00, according to the attached agenda (**Annex 1**). The meeting was attended by representatives of: ICG (the authority hosting the Mediterranean regional AIS server – MARES), the NCA (the authority hosting the North Sea/Atlantic and the HELCOM regional AIS servers) and EMSA. The list of participants is attached as **Annex 2**.

Meeting Programme

Agenda Item 1: Opening

Mr. Jon Leon Ervik of the NCA opened the meeting and welcomed the participants. He remarked the importance of these meetings. Lazaros Aichmalotidis thanked Norway for the hospitality, and introduced the meeting's objectives, which were to discuss the status of the execution of SLAs and assess their further operational and technical improvements.

The participants approved the proposed agenda.

Agenda Item 2: Follow on actions from the 3ʳᵈ meeting

EMSA presented the status of actions agreed at the 3ʳᵈ meeting on regional AIS servers (Venice, 28.11.2018) noting that most of actions have been executed. Norway proposed to develop and maintain the list of actions agreed at the meetings on regional AIS servers and the status.

The participants agreed that the list of agreed actions and the status of the ongoing will be attached to the meeting report and updated after each meeting (**Action point 1**).

The open issues were discussed, as follows:

1) "STAR Streaming remote hub" software testing (AP1)

EMSA informed about the application of the software that would replace the SSN-SIs (called "STAR Streaming remote hub"). The testing involves the T-AIS data providers (i.e. regional AIS servers and Germany). EMSA organised several video meetings to discuss the technical details of this solution, the installation and testing:

- EMSA/Norway VC on the "RH" project: 21 September 2018
- EMSA/Italy/ Norway VC on the "RH" installation and testing: 11 December 2018
- EMSA/ Germany VC on the "RH" installation: 16 January 2019
- EMSA/ Norway VC on the "RH" testing and planned steps: 25 March 2019
- EMSA/Italy VC. Agenda item "RH installation" included: 16 April 2019
- A new software release proposed to NCA: 20 June 2019. (Installed).

The Participants agreed to consider the status of AP1 as "**Completed**".

The software is installed by all AIS data providers (RSs, Germany and Luxspace). Italy streamed the dataset only one connection (Cyprus). Following the testing period and depending the results, the new software will be switched to the production (tentatively during September/October). Italy informed that they face difficulties with

the new software due to the technical solution of MARES (in a "client-server" architecture, both the applications run as "server") and proposed three possible options:

a. EMSA to enhance the "STAR hub" software in order to be able to run as "client";
b. the ICG to enhance the MARES in order to be able to run also as "server";
c. the ICG to create an adaptor between MARE and "STAR hub" software; this solution means to introduce in the architecture another single point of failure;

The NCA confirmed that they do not have difficulties to install the software and that the new software runs without problems and is stable.

The meeting agreed EMSA to organise a videoconference with the ICG and NCA to discuss the "STAR remote hub" software installation and testing outcomes (by 15 September) (**Action point 2**).

EMSA informed that the existing requirement should be followed and that the two instances are necessary to ensure redundancy. One instance will be streaming data to the SSN production and the second would be used as "back-up". Additional instance may be installed in coordination with EMSA.

Norway informed that they plan to develop a new back-up data centre and plan to provide data to EMSA in two parallel streams (i.e. active – active mode). EMSA noted that for operational purposes it is better to apply a switch-over (manual or automatic) at the data provider side.

The participants agreed to discuss this topic at the forthcoming EMSA/ICG/NCA videoconference (**Action point 3**).

2) Time synchronisation issue (AP3)

EMSA recalled the actions already taken at the 3rd meeting on regional AIS servers. The time synchronisation issue was presented and discussed at the NSATL EWG meeting (25 September 2018), the MARES EWG meeting (28 November 2018) and the HELCOM EWG meeting (28-29 May 2019). The document SSN/LRIT 5.4.5 (submitted by EMSA/ Italy/ Norway) was presented at the SSN Group (20 May 2019), inviting MSs to maintain the NPR hosting environment time synchronised.

The Participants agreed to consider the status of AP3 as "**Completed**".

EMSA proposed Italy and Norway to introduce an automatic warning (e.g. by e-mail) which would be sent to the Member State in case of time synchronization problems. The participants agreed with the proposal (**Action point 4**).

Norway asked how the central SSN systems filters out duplicates of the positions in areas overlapped by two regional servers. The Participants agreed to discuss this item at the planned EMSA/Italy/Norway videoconference (**Action point 5**).

3) NPRs harmonisation issues (AP4 and AP5)

EMSA presented the status of AP4 and AP5: a list of NPR settings to be harmonised (e.g. as mandatory, supported and additional functions) and the draft action plan to address the NPRs synchronisation. The Participants agreed to consider the status of AP5 as "**Completed**".

EMSA presented an analysis of the NPR functionalities questionnaires submitted by Italy and Norway. The NPRs mandatory functionalities are supported by both Italy and Norway, but some of solutions are different. In particular:

- Data buffering (for at least 12 hours): is supported by both;
- Data filtering per message type: is supported by both. Norway can filter messages at the RS level, and not by NPRs.

- "Old" data purging window (i.e. purging starts after 12 hours storing): is supported by both. Italy implemented the "12 hours window" setting, and Norway maintained "2 Gb data storage" setting.
- Data automatic retransmission: is supported by both solutions.

The downsampling settings configuration is supported by both servers. For the HELCOM/NSATL, these settings shall be configured at the regional level, for all NPRs. Changing of the settings would require a new release of the NPR software.

EMSA noted that the issue whether the buffered data need to be down sampled (**AP4**), as well as the question of the down sampling rate need to be further assessed, considering the capabilities of NPRs and "Remote Hub" application. The agreed solution will be reflected to the SLA amendments (**Action point 6**).

The meeting agreed that 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 reflected in the SLAs amendments (**Action point 7**).

The meeting also agreed to include requirements related to the NPR capabilities (mandatory and additional/supported) in the SLA amendments and in the RS Technical manual. The mandatory functionalities shall be harmonised between the regional AIS servers; however, the additional functionalities shall not impact the performance of the mandatary functionalities (**Action point 8**).

4) The "old data" reception and forwarding by RSs (AP6)

The 3rd meeting on regional AIS servers agreed that the regional servers shall warranty the reception and forwarding of all data (i.e. also "old" data). The status of action point is considered as "**open/ ongoing**".

EMSA presented the document "SSN/LRIT 5.3.4 Common Operational Procedures update" which was discussed at the SSN Group 5. A new procedure 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 will be implemented.

The participants were invited to discuss the RSs capabilities to receive, accept and forward to the central SSN all retransmitted data from MSs (including "old" data). 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. EMSA reminded the data resending policies of RSs (e.g. FILO and LIFO) and informed that replies to the AIS network status questionnaire show that MSs fully rely on the NPR capabilities.

The meeting agreed that Italy and Norway will evaluate their solutions ensuring this task and present proposals to MSs at the next EWGs meetings (**Action point 9**).

5) Automatic data retransmission by RSs (AP15 and AP16)

The SLA requires that the locally stored/buffered AIS data shall automatically be sent in the background (when the connection to SSN is restored) or provided after the incident using the agreed format and the service (e.g. via FTP transfer). The 3rd meeting on regional AIS servers agreed that Italy and Norway will assess solutions on how to introduce the automatic data retransmission (AP15).

Italy and Norway confirmed that the implementation of the automatic data retransmission is problematic due to technical implications. The meeting agreed that the main solution kept for resending the data from RSs will be the data manual transfer. Data automatic retransmission may be used as an alternative (if available). The SLAs will be amended accordingly (**Action point 10**).

EMSA stated that data shall be prepared in the format which would allow their uploading. EMSA also presented examples of datasets provided by both servers and proposed to agree on a standardised format and procedure to be used for the data retransmission. The file format should be similar to the TCP format, i.e. with the same comment block and VDM sentence format. The originator should be indicated as defined in the ICD/ SIG. Prior sending, a dataset (files) shall be prepared by RSs, including any work for extracting files from databases, converting files in the above format and mapping between the country or base station IDs or Port IDs and the ISO 2 or 3-letter originator codes. An example on the file format was presented to the participants.

The participants agreed to introduce the proposed format, and asked EMSA to provide them with more detailed information. The requirements to the data file format and the new procedure of the manual data retransmission by RSs will be included in the SLA amendments (**Action point 11**).

The status of AP15 was agreed as "**closed**", and the status of AP16 as "**open**".

6) Additional method and procedures for the data retransmission/ uploading (AP9).

EMSA proposed to keep the status of this action point as "**Ongoing**". Additional method might be proposed when required. EMSA also presented a technical solution which might be implement in the new "STAR hub" software to facilitate data retransmission. This solution requires a specific folder to be created in the "STAR Remote Hub software", allowing to upload files which are prepared in the format described in section 5. Files will be dropped-in by users and injected to the main stream by the "Remote Hub" software. The participants **noted** the information and expressed their support to the proposed solution.

7) RS Technical Manuals (TM) updates and annexes to the manuals (AP13 and AP14)

EMSA explained that the action points regarding the TM updates and annexes to the RS Technical manuals (AP13 and AP14) should be considered as "**completed**". The RS Technical manuals were updated by Italy and Norway. Pre-fill the questionnaires (annexes to Manuals) were distributed to the MARES participating MSs in February 2019. All MSs replied except Slovenia and France. Information from the NSATL and HELCOM participating MSs were collected during the EWG meetings (25.09.2018 and 28.05.2019). Replies were received by all except Estonia, Lithuania and Germany.

The amended versions of RS Technical manuals (V.1.1.1) were validated by the NCA and ICG. Technical manuals will be published on the EMSA web (restricted part) as version 1.2. The status of RS Technical manuals will be revised/confirmed by RSs every 6 months, in the Service summary reports (**Action point 12**).

EMSA proposed to introduce a "European AIS operational manual", which would be made available to the public. The manual would present the AIS system of each country and provide information about its operational functionalities with photographs and maps. The participants supported EMSA's proposal and agreed to start working on creating the "AIS operational manual" to present the objectives, purposes and solutions of the European AIS network. The initiative will also be presented to the Member States at the next EWG meetings (**Action point 13**).

8) AIS data buffering testing (Action point 18)

EMSA introduced the results of the AIS data buffering by NPRs tests conducted in cooperation with Regional servers for all connections. All NPRs tested were buffering and retransmitting the data. The status of AP18 can be considered as "**Ongoing**". The main outcome is summarised below:

- The number of messages retransmitted by some NPRs was higher than usual (Slovenia, UK/Gibraltar, Croatia, Finland, Lithuania, Sweden);
- A low rate of data retransmission was measured for Greece and Bulgaria;
- There were technical problems to re-establish stable streaming (the Netherlands) ;
- EMSA MSS capabilities need to improve to monitor a "combined" data streams (Portugal) and "shared" data streams (Denmark, Sweden, Norway, France).

The data buffering by the SSN proxy application tests will be conducted in October/November and will be followed by regional server tests (**Action point 14**). The participants agreed to conduct also an 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 (**Action point 15**).

Regarding the monitoring of data from Portugal (streamed by MARES to SSN with a single code), the ICG proposed to introduce two separate codes (for mainland and islands). EMSA will evaluate the proposal and will inform MARES (**Action point 16**).

9) "Testing NPR" (AP19)

The implementation of the "testing NPR" proposed by Italy at the 3rd meeting on regional AIS servers was discussed. The participants agreed that the execution of this action is not needed, and the action point shall be considered as "**closed**".

10) Second NPR for MSs (AP20)

The participants discussed the potential improvements by introducing two NPRs for each connection. The solution introduced by Norway with some Member States was discussed as an example. EMSA informed the participants that MSs replies to the questionnaires indicate that all of them (except 1 MS) are capable to install two NPRs. The experience of the NSATL and HELCOM shows that operating of 2 or more NPRs by MSs is possible and beneficial.

Italy confirmed that there will be no implications for MARES to maintain connection with additional NPRs. The issue will be presented to the participating States at the next AIS EWGs meetings (**Action point 17**). The status of AP20 can be considered as "**completed**".

11) Status of other action points (AP 2, 10, 11, 12, 17, 21)

EMSA presented the status of remaining action points:

- **AP 2**: The status of the time synchronisation issue is considered as closed until Member States will upgrade their national networks with BSs fully complying with the international standards. (**Closed - presented to SSN Group, MARES EWG, NSATL EWG and HELCOM EWG**)

- **AP 7**: EMSA will provide the data quality definition (e.g. erroneous, delayed, missing data) which could be used as a basis to evaluate the services (**Completed - will be included in the SLA proposal**).

- **AP 10**: A presentation of the ICG on the data coverage maps will be included in the agenda of the MARES next meeting (**Open - will be presented at the next MARES EWG**).

- **AP 11**: The need of making available a quality indicator in the comment block (as well any other indicator) is considered as "Ongoing" (**Open - actions may follow**).

- **AP 12**: The role of the RS administrator will be reflected in the IFCD document during its next major upgrade (**Open**).

- **AP 17**: EMSA, Italy and Norway will assess the Polish experience in developing the data retransmission functionality in their national system, when the results will become available to EMSA. Norway will assist Poland in the testing, if requested. (**Opened - PL confirmed that they are working on the technical implementation. Information will be exchanged upon its availability**).

- **AP 21**: EMSA will propose the required amendments to the SLAs regarding the AIS data exchange by "3rd countries" monitoring. (**Completed - will be included in the SLA proposal**)

- **AP 23**: EMSA will create a new tab on EMSA website where the agreed minutes of the meetings on regional AIS servers will be published (**Open - registered in ARES**).

The participants agreed with the status of action points presented above. Regarding AP23, the participants agreed that the minutes of the meetings on regional AIS servers will be published on EMSA website, in section "Events - Workshop materials and reports" (including minutes from previous meetings) (**Action point 18**).

Agenda Item 3: Status of Regional servers

Italy and Norway presented the status of the AIS regional servers and the general activities. Italy informed that Tunisia is connected to MARES since May, and discussion on exchanging data between Tunisia, Malta and Italy are ongoing. Greece is upgrading their AIS network by installing 10 new base stations and additional

receivers. MARES implemented a VDL (VHF datalink) monitoring software and Italy plans to implement the navigational warning system using AIS messages. Italy also plans to amend NPRs.

Norway informed that they plan to develop a new back-up data centre. The planned solution will allow MSs to stream their data to two centres in parallel. The NCA may provide data to EMSA also in two parallel streams (i.e. active – active mode). The new centre will be operational in autumn 2019.

Agenda Item 4: Amendments to the Service Level Agreements

The participants discussed the following EMSA's proposals to amend to the Service level Agreements:

- New definition for proxies;
- Data retransmission;
- Personal data protection;
- Data quality definitions;
- Minimal requirements to the NPRs

Possible amendments to the SLAs regarding the monitoring of the AIS data exchange with "3rd countries" was discussed. The participants agreed to include Jordan, Ukraine and Georgia in the SLA with MARES. The subject will be discussed at the MARES EWG (**Action point 19**).

Norway informed that Germany proposed signing the agreement on sharing AIS data via NSATL regional server.

The meeting agreed that EMSA will summarise all the agreed inputs and distribute a new draft SLA to Italy and Norway for their evaluation (after MARES meeting) (**Action point 20**). The SLAs amending might be initiated in 2020.

Agenda Item 5: FATDMA monitoring tool

Italy and Norway briefly presented their FATDMA monitoring tools. EMSA stated that these tools have an important value, as the overall intention is to increase the use of AIS messages (e.g. for navigational warnings and mandatory reporting. The participants noted the provided information.

Agenda Item 6: Conclusions and follow-up.

Lazaros Aichmalotidis thanked the participants for attending the meeting and presented the agreed actions. EMSA will prepare a draft report which will be shared with the ICG and NCA (**Action point 21**).

Norway proposed that agendas of AIS EWGs meetings and meetings on AIS regional servers should be coordinated. The meeting agreed with this proposal (**Action point 22**)

The list of actions agreed at the meeting is presented in Annex 3. The summary of actions is attached as Annex 4.

Annexes

Annex 1 – Agenda

Annex 2 – List of participants

Annex 3 – Actions agreed

Annex 4 – Summary of actions agreed at the EMSA/Italy/Norway meetings on regional AIS servers

Annex 1: Agenda

Agenda
EMSA/ Italy/ Norway meeting on regional AIS servers

Place: Thon Atrium Vika, Oslo, Norway, 29 August 2019

Thursday, 29 August 2019		
Time	**Agenda Item**	**Speakers**
10:00 – 10:15	Opening	Norway/ EMSA
10:15 – 11:45	Follow on actions from the 3rd meeting • "STAR Streaming remote hub" software testing (Action point 1) • Time synchronisation issue (Action point 3) • NPRs harmonisation issues (Action points 4 and 5) • The "old data" reception and forwarding by RSs (Action point 6) • Data quality definitions (Action point 7) • Additional method and procedures for the data retransmission/ uploading (Action point 9) • RS Technical manuals updates and annexes to the manuals (Action points 13 and 14) • Automatic data retransmission by RSs (Action points 15 and 16) • AIS data buffering testing (Action point 18) • "Testing NPR" (Action point 19) • Second NPR for MSs (Action point 20) • Status of other action points (Action points 2, 10, 11, 12, 17, 21)	EMSA/All
11:45 – 12:30	Status of RSs	Italy/ Norway
12:30 – 13:30	Lunch break	
13:30 – 15:00	Amendments to the Service Level Agreements • New definition for proxies • Data retransmission • Personal data protection • Data quality definitions • Minimal requirements to the NPRs • Status of the participating States (UK, BCSEA)	EMSA/All
15:00 – 16:00	FATDMA monitoring tools	Italy/ Norway
16:00 – 17:00	Conclusions and follow up actions	All
17:00	End of the meeting	

Slide 2

Annex 2 : Participants

1. Giuseppe Aulicino (ICG)

2. Marco G.P. Tomaino (ICG)

3. Jon Leon Ervik (NCA)

7. Harald Åsheim (NCA)

8. Malin Dreijer (NCA)

9. Lazaros Aichmalotidis (EMSA)

10. Edmunds Belinskis (EMSA)

Annex 3: List of actions

The agreed actions of the meeting are listed below:

AP1. The summary of actions will be attached to the meeting report and updated after each meeting.

AP2. EMSA will organise a videoconference with the ICG and NCA to discuss the "STAR remote hub" software installation and testing outcomes (by 15 September).

AP3. The NCA plans to provide data to EMSA in two parallel streams (i.e. active – active mode) will be discussed at the EMSA/ICG/NCA videoconference.

AP4. Italy and Norway will introduce an automatic warning (e.g. by e-mail) which would be sent to the Member State in case the time asynchronization goes beyond the agreed threshold.

AP5. EMSA's experience on filtering out duplicates of the positions in areas overlapped by two regional servers will be discussed EMSA/Italy/Norway videoconference.

AP6. The issue whether the buffered data need to be down sampled or not, and the down sampling rate shall be further assessed, considering the capabilities of NPRs and "Remote Hub" application. The agreed solution will be presented in proposals to the SLA amendments.

AP7. 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.

AP8. Requirements regarding the NPR capabilities (mandatory and additional/supported) will be included in the SLA amendments and in the RS Technical manual. The mandatory functionalities shall be harmonised between the regional AIS servers, and implementation of additional functionalities agreed at the regional level shall not impact performance of the mandatary functionalities.

AP9. Italy and Norway will evaluate their solutions to receive, accept and forward to the central SSN all data retransmitted from MSs (including "old" data) and present proposals to MSs at the next EWGs meetings. Member States may provide data automatically (in a background) or resent manually or submit via e-mail or FTP. The solution will be agreed at the regional level.

AP10. The main solution kept for resending the data from RSs will be the data manual transfer. Data automatic retransmission may be used as an alternative (if available). The SLAs will be amended.

AP11. In coordination with EMSA, Italy and Norway will introduce the agreed standardised data file format and the new procedure used for the data retransmission. The requirements to the data file format and the new procedure of the data manual retransmission will be included in the SLA amendments.

AP12. The amended versions of RS Technical manuals will be published on the EMSA web (restricted part). The status of RS Technical manuals will be revised/confirmed by RSs every 6 months, in the Service summary reports.

AP13. Italy, Norway and EMSA will start working on creating the "AIS operational manual" to present the objectives, purposes and solutions of the European AIS network. The initiative will also be presented to the Member States at the next EWG meetings.

AP14. The data buffering by the SSN proxy application (RH) tests will be conducted in October/November and will be followed by regional server tests.

AP15. EMSA, Italy and Norway will conduct the NPRs stress tests (e.g. for one NPR connection in the RS network). The schedule and scenario will be agreed between EMSA, RS and the participating Member State.

AP16. EMSA will evaluate the proposal of Italy to introduce two separate codes for the Portuguese data stream (for mainland and islands).

AP17. Introducing at least 2 NPRs for the connection will be presented to the participating States at the next EWGs meetings.

AP18. The minutes of the meetings on regional AIS servers will be published on EMSA website, in section "Events - Workshop materials and reports" (including minutes from previous meetings).

AP19. Jordan, Ukraine and Georgia will be included in the SLA with MARES, following decision at the MARES EWG.

AP20. EMSA will summarise all the agreed inputs and will distribute a new draft SLA to Italy and Norway for their evaluation (after MARES meeting). The SLAs amending might be initiated in 2020.

AP21. EMSA will prepare a draft report which will be shared with the ICG and NCA.

AP22. Italy, Norway and EMSA will coordinate agendas of the AIS EWGs meetings and meetings on AIS regional servers.

Annex 4: Summary of actions

Note: All completed actions are presented with a light-grey font.

AP opened	Status updates	AP closed	Action point
1st meeting (Lisbon 07 February 2017)			**AP1**. The obligation to share the technical documentation of the RSs and procedure on how to maintain and update it will be reflected in the SLAs.
		2nd meeting (Rome, 10 August 2017)	**Completed**. A relevant clause regarding the technical documentation of the Regional Server hardware and software was included in the SLAs proposal (as amendments to the Preamble, Article 3.2 and Annex 6 of the SLAs**). 2nd meeting on regional AIS servers, Annex 3**
			AP2. EMSA noted that the current SLA the Agency signed with Norway needs to be amended to reflect the applied technical solution (two servers instead of three RSs - North Atlantic, North Sea and Helcom RSs). EMSA and Norway will discuss amending the SLA during its next revision to reflect the applied technical solution.
		2nd meeting (Rome, 10 August 2017)	**Completed**. Relevant amendments to the SLA, in order to reflect the NCA's applied technical solution were included in the SLA proposal (as amendments to the Title, Art. 1.2 and Art. 3.2 of the SLA). **2nd meeting on regional AIS servers, Annex 3**
			AP3. The NCA will assess and propose the possibility of integrating of the North Atlantic and North Sea Experts Working Groups and propose merging the two groups at the next meeting of the EWGs.
	2nd meeting (Rome, 10 August 2017)		**Open.** Open issue. The possibility of integrating the North Atlantic and North Sea Experts Working Groups (EWG) was assessed and will be discussed at the next EWG meeting on September 2017. Following that, some amendments to the draft SLA might be proposed by the NCA (i.e. regarding the name of the Regional server). **2nd meeting on regional AIS servers, Annex 3**
		3rd meeting (Venice, 28 November 2018)	**Completed.** NSATL EWG 1 agreed to merge both groups (Brussels, 11.09.2017). RS was renamed to North Sea/Atlantic RS. (**NSATL EWG 1 minutes**)
			AP4. EMSA will gather information from ICG to understand if it is possible to pass on to the SSN-SI the special mark indicating the buffered data.
		2nd meeting (Rome, 10 August 2017)	**Completed**. A communication between EMSA (C.4) and the ICG took place during March – April 2017, and solution to sort messages on bases of the time stamp was selected by EMSA C.4. Implemented as SSN SI V.1.1.1 (**2nd meeting on regional AIS servers, Annex 3**)
			AP5. The NCA will request the historical AIS database of the Helcom and North Sea region from Denmark through the Helcom Secretariat.
	2nd meeting (Rome, 10 August 2017)		**Open**. The NCA was in contact with DMA, but the database has not yet been delivered. (**2nd meeting on regional AIS servers, Annex 3**)
		3rd meeting (Venice, 28 November 2018)	**Closed.** The NCA informed that the issue regarding the transfer of historical AIS database of the HELCOM and North Sea region from Denmark was discussed with the DMA but was not conclusive due to reorganisations in the DMA. The status of action point regarding the transfer of historical AIS database of the HELCOM and North Sea region from Denmark is considered as closed (**3rd meeting, Action point 8**).

1st meeting (Lisbon 07 February 2017)			**AP6**. Italy and Norway will maintain the automatic data retransmission approach as the basic option, and the manual retransmission as an alternative option utilised for specific cases. This will be reflected in the next SLA proposal.
		2nd meeting (Rome, 10 August 2017)	**Completed**. Relevant requirement is included in the SLAs proposal (as amendments to Art. 3.6 of Annex 2 of the SLAs). (**2nd meeting on regional AIS servers, Annex 3**)
			AP7. EMSA will further evaluate and propose if any additional method and procedures for the data retransmission/uploading needs to be introduced.
	2nd meeting (Rome, 10 August 2017)		**Ongoing**. The issue is opened for further working. A relevant requirement is also included in the SLAs proposal (as amendments to Art. 3.7 of Annex 2 of the SLAs). (**2nd meeting on regional AIS servers, Annex 3**)
	3rd meeting (Venice, 28 November 2018)		Agreed to keep the status of this action point as "**Ongoing**". Additional method might be proposed when required. (3rd meeting, Action point 9)
	4th meeting (Oslo, 29 August 2019)		**Ongoing.** The status of this action point greed as "Ongoing".
			AP8. Italy will present the systems synchronisation issue at the MARES EWG and will request MSs to use a commonly agreed method for time-synchronisation of their systems.
	2nd meeting (Rome, 10 August 2017)		**Open**. Is planned to be presented at the next MARES EWG (November-December 2017). (**2nd meeting on regional AIS servers, Annex 3**)
		3rd meeting (Venice, 28 November 2018)	**Completed**. The status of action point regarding the time synchronisation issue is considered as closed until Member States will upgrade their national networks with BSs fully complying with the international standards (**3rd meeting on regional AIS servers, Action point** 2) The issue was presented at the MARES EWG 15, HELCOM EWG, NSATL EWG and SSN/LRIT 5. MSs were invited to maintain the NPR hosting env. time synchronized. At 4th meeting (Oslo 29 August 2019) the participants agreed to introduce automatic warning message (Action point 4)
			AP9. EMSA, Italy and Norway will work further in order to define standardised requirements for the NPRs maintenance (e.g. the configuration parameters, data buffering/archiving, down sampling, data age filtering and data storage etc.) and also **requirements for the RSs allowing their further harmonisation (e.g. data buffering / archiving policies, the methods for exchanging information, the monitoring procedures etc.). The agreed solutions will then be reflected in the future amendments of SLAs.**
	2nd meeting (Rome, 10 August 2017)		**Open.** The issue is open for further work. A relevant requirement is included in the SLAs proposal (as amendments to Art. 6 of Annex 4 of the SLAs). (**2nd meeting on regional AIS servers, Annex 3**)
	3rd meeting (Venice, 28 November 2018)		**Open.** EMSA proposed to agree the list of settings to be harmonised (e.g. as mandatory, supported and additional functions). The participants agreed to assess whether the buffered data need to be down sampled or not, and if the NPRs should have the down sampling settings configuration capability (as supported functionality) (**3rd meeting on regional AIS servers, Action point 4**). EMSA agreed to prepare a document with a draft action plan to address the NPR synchronisation and share it with the ICG and the NCA by the 10 December (**3rd meeting on regional AIS servers, Action point 5**). The meeting agreed that the NPRs shall be capable to retransmit all recent data.

1ˢᵗ meeting (Lisbon 07 February 2017)		4ᵗʰ meeting (Oslo, 29 August 2019)	**Completed regarding NPRs.** Requirements to the NPR capabilities (mandatory and additional/supported) agreed and will be included in the SLA amendments and in the RS Technical manual. The mandatory functionalities shall be harmonised between the regional AIS servers, and implementation of additional functionalities agreed at the regional level shall not impact performance of the mandatary functionalities (**4ᵗʰ meeting on regional AIS servers, Action point 8**).
			Ongoing regarding RSs. EMSA, Italy and Norway will work further in order to define standardised requirements…. for the RSs allowing their further harmonisation (e.g. data buffering / archiving policies, the methods for exchanging information, the monitoring procedures etc.). The agreed solutions will then be reflected in the future amendments of SLAs….
			AP10. Italy will present the data coverage maps distribution service at the next EWG
	2nd meeting (Rome, 10 August 2017)		**Open.** Is planned to be presented at the next MARES EWG (November-December 2017) (**2nd meeting on regional AIS servers, Annex 3**)
	3rd meeting (Venice, 28 November 2018)		**Open.** Italy agreed that the presentation on the data coverage maps distribution service will be included in the agenda of the next MARES meeting (**3ʳᵈ meeting on regional AIS servers, Action point 10**).
	4ᵗʰ meeting (Oslo, 29 August 2019)		**Open.** The status of action point was agreed as open. Will be presented to MARES 16 (December 2019).
			AP11. EMSA, Italy and Norway will assess further the need of making available a quality indicator in the comment block (as well any other indicator)
	2nd meeting (Rome, 10 August 2017)		**Open/Ongoing.** Any practical implementation needs further evaluation and could be assessed as part of the SSN SI further upgrades. A relevant requirement is included in the SLAs proposal (as amendments to Art. 1.2 of Annex 2 of the SLAs).
	3rd meeting (Venice, 28 November 2018)		**Open/ Ongoing.** Proposed to keep the status of this action point as "Ongoing". No specific actions were proposed by RSs. EMSA is evaluating a new solution planned to replace the existing SSN-SI software (Action point 11).
	4th meeting (Oslo, 29 August 2019)		**Ongoing.** The status updated. Proposals may be provided (**4ᵗʰ meeting, Agenda item 2**)
			AP12. EMSA, Italy and Norway will assess the possible implementations in order to improve and harmonise the systems' monitoring functionalities. EMSA will provide the MSS monitoring procedures to RSs for their assessment and possible implementation.
	2nd meeting (Rome, 10 August 2017)		**Completed.** The EMSA MSS Operational procedures were submitted to the ICG and NCA (03/04/2017). EMSA's planned enhancement to the MSS monitoring tool is fully operational since 16 May 2017. The NCA has implemented some improvements to their web monitoring tools. (**2nd meeting on regional AIS servers, Annex 3**)
			AP13. All types of incidents to be reported by RS will be included in the SLAs amendments during their next revision.
	2nd meeting (Rome, 10 August 2017)		**Completed.** A relevant requirement is included in the SLAs proposal (as amendments to Art. 6.5 of Annex 2 of the SLAs). (**2nd meeting on regional AIS servers, Annex 3**)
			AP14. EMSA will present the 24/7 contact availability issue at the next SSN group and invite the MSs to coordinate their operational 24/7 contacts.

1st meeting (Lisbon 07 February 2017)	2nd meeting (Rome, 10 August 2017)		**Open**. Will be presented to 2nd SSN/LRIT WG (October 2017). Following that, the draft SLAs will be amended. A relevant requirement is included in the SLAs proposal (as amendments to Art. 3 of Annex 5 of the SLAs). (**2nd meeting on regional AIS servers, Annex 3**)
		3rd meeting (Venice, 28 November 2018)	**Completed:** Presented to 2nd SSN/LRIT WG (October 2017). Presented in Art. 3 of Annex 5 of the SLAs (**3rd meeting, Agenda item 2**)
			AP15. EMSA will propose the necessary amendments to reflect the role of the RS administrator in the IFCD.
	2nd meeting (Rome, 10 August 2017)		**Open**. Will be presented to 2nd SSN/LRIT WG (October 2017). (**2nd meeting on regional AIS servers, Annex 3**)
		3rd meeting (Venice, 28 November 2018)	**Completed.** The SSN/LRIT WG 2 group agreed with the proposal. The issue will be executed during the next major upgrade of IFCD (**3rd meeting, Action point 12**).
2nd meeting (Rome, 10 August 2017)			**AP1**. Italy and Norway to work further addressing the quality issues, with the support of their contractors and under the coordination of EMSA
	2nd meeting (Rome, 10 August 2017)		**Open/Ongoing.** NCA and ICG highlighted the importance of the AIS data quality and agreed on the need to work together, with the support of their contractors and under the coordination of EMSA to address the quality issues (**2nd meeting, Action point 1**)
	3rd meeting (Venice, 28 November 2018)		**Ongoing**: No specific comments or inputs (**3rd meeting, Agenda item 2**)
			AP2. EMSA will amend the draft SLAs, and submit them to the ICG and NCA, for their final validation (on experts and coordinators level) by 15 September 2017.
		3rd meeting (Venice, 28 November 2018)	**Completed.** The new SLAs came into force on 1 March 2018.
			AP3. EMSA will check with the legal department the correctness of the formula used to calculate the liquidation damages.
		3rd meeting (Venice, 28 November 2018)	**Completed.** The formula was corrected, and the SLA amendment was agreed through the exchange of letters.
			AP4. The validity periods of both SLAs will be aligned by extending the existing SLAs until the end of January 2017 (under the same conditions), and with a fee proportional to the extension period and a payment of balance at the end of the period.
		3rd meeting (Venice, 28 November 2018)	**Completed**. Upon agreement between the Parties, the period of both SLAs was extended till 28 February. The new SLAs came into force from 1 March 2018.
			AP5. EMSA will send formal letters to the NCA and ICG proposing to renew the existing SLAs for the agreed period. After that, the new SLAs (including the agreed amendments) will be signed, following the prior approval of the EMSA Administrative Board.
		3rd meeting (Venice, 28 November 2018)	**Completed**. SLAs came into force from 1 March 2018

2ⁿᵈ meeting (Rome, 10 August 2017)			**AP6.** EMSA will share the current version of the document describing the TDM methodology, for the ICG and NCA comments.
		3rd meeting (Venice, 28 November 2018)	**Completed**. The TDMS methodology (draft) was sent to the ICG and NCA on 05.09.2017.
			AP7. EMSA, Italy and Norway will evaluate further M2M connection's impacts to the systems and continue discussion on this issue at the next meetings.
		3ʳᵈ meeting (Venice, 28 November 2018)	**Completed**. A direct M2M connection between the RS and central SSN is possible without using the SSN-SI. It has several advantages and drawbacks. The STAR Remote Hub application would possibly replace the SSN-Sis. EMSA will organise a videoconference to discuss the technical details of this solution, its installation and testing. (**3ʳᵈ meeting on regional AIS servers, Action point 1**)
			AP8. EMSA will present the issue regarding the role of the RS administrators and their 24/7 services to the next SSN/LRIT Group meeting (October 2017). Following that, the SLAs will be amended.
		3rd meeting (Venice, 28 November 2018)	**Completed**. Presented to SSN/LRIT WG2 (October 2017). Included in Art. 3 of Annex 5 of the SLAs.
			AP9. EMSA, Italy and Norway will agree a common template to be used for the RS technical documentation's publication.
	3rd meeting (Venice, 28 November 2018)		**Ongoing**. The RS technical documentation (the main part) was published on EMSA website (restricted). Annexes to the RS technical manual (questionnaires to RS participating MSs) are not provided.
		4th meeting (Oslo, 29 August 2019	**Completed.** Pre-fill the questionnaires (annexes to Manuals) were distributed to the MARES participating MSs in February 2019. Information from the NSATL and HELCOM participating MSs were collected during the EWG meetings (25.09.2018 and 28.05.2019).
			AP10. EMSA will distribute the summary of the RS technical status for further revision by the RSs.
		3rd meeting (Venice, 28 November 2018)	**Completed**: Technical manuals were revised and validated by the RSs.
			AP11. EMSA, Italy and Norway will work further, involving also the ICG and NCA contractors, to identify the causes of the "time stamp" issue and to develop guidance on how to improve the situation or to reduce the consequences to the possible extent. A working paper will be prepared to be presented to the Member States.
		3rd meeting (Venice, 28 November 2018)	**Completed**. The ICG presented the issue at the MARES 15th EWG. The status of action point was agreed as "Closed" until Member States will upgrade their national AIS Base Stations fully complying with the international standards. (**3ʳᵈ meeting on regional AIS servers, Action point 2**).
			AP12. EMSA will prepare a short document with the problem definition and a draft action plan to address the AIS "time stamp" issue that will be shared with the ICG/NCA by the 31stAugust.
		3rd meeting (Venice, 28 November 2018)	**Completed**. EMSAs drafted document was sent to the NCA and ICG on 23.08.2017 (feedback received by the ICG on 29.08.2017 and by the NCA on 06.09.2017). The status of the agreed action was discussed at the EMSA, Norway and Italy skype/ phone meeting on 11 December 2017
			AP13. EMSA, ICG and NCA will discuss the points [a] (i.e. M2M interface), [e] (i.e. standardised requirements for the NPRs), and [f] (i.e. AIS "time stamp") of Agenda item 7 at the next meeting that will take place in Rome (possibly in November/December 2017), if enough progress will be made by that date. Otherwise the meeting will take place at a later stage.

2nd meeting (Rome, 10 August 2017)		3rd meeting (Venice, 28 November 2018)	**Completed**. Action points discussed at the 3rd meeting on regional AIS servers (Agenda item 2). EMSA agreed to prepare a document with a draft action plan to address the NPR synchronisation and share it with the ICG and the NCA by the 10 December (**Action point 5**).
			AP14. EMSA will prepare a draft meeting report which will be shared and finalised with the ICG and NCA.
		3rd meeting (Venice, 28 November 2018)	**Completed.** The meeting minutes were sent to the participants on 21.08.2017. Proposal for inputs were received from the ICG on 26.08.2017. The final draft version was distributed on 29.08.2017.
3rd meeting (Venice, 28 November 2018)			**AP1.** The status of action point regarding the M2M interface between the central SSN and the regional servers is considered as closed. EMSA will organise a videoconference to discuss technical details of the "STAR Streaming remote hub" software and the RSs involvement in its testing.
		4th meeting (Oslo, 29 August 2019)	**Completed**. EMSA has organised several video meetings with Italy and Norway to discuss the technical details of this solution, its installation and testing
			AP2. The status of action point regarding the time synchronisation issue is considered as closed until Member States will upgrade their national networks with BSs fully complying with the international standards.
		4th meeting (Oslo, 29 August 2019)	**Closed**. The issue was presented also to SSN Group, MARES EWG, NSATL EWG and HELCOM EWG
			AP3. EMSA will present the "time synchronisation" issue to the SSN group. Italy will assist EMSA in drafting the paper for the SSN Group meeting.
		4th meeting (Oslo, 29 August 2019)	**Completed**. The time synchronisation issue was presented and discussed at the NSATL EWG meeting (25 September 2018), MARES EWG meeting (28 November 2018) and HELCOM EWG meeting (28-29 May 2019). EMSA/ Italy/ Norway document SSN/LRIT 5.4.5 was presented to the SSN Group (20 May 2019), inviting MSs to maintain the NPR hosting environment time synchronised.
			AP4. EMSA, Italy and Norway will assess, should the buffered data be down sampled or not, and should the NPRs have the down sampling settings configuration capability (as supported functionality).
	4th meeting (Oslo, 29 August 2019)		**Open**. The issue whether the buffered data need to be down sampled or not (AP4), and the down sampling rate shall be further assessed, considering the capabilities of NPRs and "Remote Hub" application. The agreed solution will be presented in proposals to the SLA amendments (**4th meeting on regional AIS servers, Action point 6**)
			AP5. EMSA will prepare a document with a draft action plan to address the NPR synchronisation and share it with the ICG and NCA by the 10 December
		4th meeting (Oslo, 29 August 2019)	**Completed**. A list of NPR settings to be harmonised (e.g. as mandatory, supported and additional functions) and the draft action plan to address the NPRs synchronisation was agreed with ICG and NCA.
			AP6. The regional servers shall warranty the reception and forwarding of all data from Member States (i.e. also "old" data).
	4th meeting (Oslo, 29 August 2019)		**Open/Ongoing.**
			AP7. EMSA will provide the data quality definition (e.g. erroneous, delayed, missing data) which could be used as a basis to evaluate the services
		4th meeting (Oslo, 29 August 2019)	**Completed**. Presented to the 4th meeting on AIS regional servers. Will be included in the SLA amendments.
			AP8. The status of action point regarding the transfer of historical AIS database of the HELCOM and North Sea region from Denmark is considered as closed

		3rd meeting (Venice, 28 November 2018)	**Closed.**
			AP9. The status of action point regarding further proposals of any additional method and procedures for the data retransmission/ uploading is considered as "Ongoing".
	4th meeting (Oslo, 29 August 2019		**Open/Ongoing.** Additional method might be proposed when required.
			AP10. The ICG presentation on the data coverage maps distribution service will be included in the agenda of the MARES next meeting.
	4th meeting (Oslo, 29 August 2019		**Open**. Will be presented at the MARES EWG 16.
			AP11. The status of action point regarding assessment of the need of making available a quality indicator in the comment block (as well any other indicator) is considered as "Ongoing".
	4th meeting (Oslo, 29 August 2019		**Open/Ongoing**. Proposals may be provided
			AP12. The role of the RS administrator will be reflected in the IFCD document during its next major upgrade.
3rd meeting (Venice, 28 November 2018)	4th meeting (Oslo, 29 August 2019		**Open.** Status updated.
			AP13. Italy and Norway will update the RS Technical manuals by mid-January 2019 taking into consideration also the presented remarks (). The status of RS Technical manuals will be confirmed every 6 months, in the Service summary reports
		4th meeting (Oslo, 29 August 2019	**Completed**. The RS Technical manuals were updated. The amended versions (V.1.1.1) were validated by the NCA and ICG to be published.
			AP14. EMSA and RSs will partially pre-fill questionnaires (annexes to the RSs Technical manuals) with already available information and send these to the participating Countries to be revised and amended (in January 2018).
		4th meeting (Oslo, 29 August 2019	**Completed**. Pre-fill the questionnaires (annexes to Manuals) were distributed to the MARES participating MSs in February 2019. Information from the NSATL and HELCOM participating MSs were collected during the EWG meetings (25.09.2018 and 28.05.2019).
			AP15. Italy and Norway will assess solutions on how to introduce the automatic data retransmission.
		4th meeting (Oslo, 29 August 2019	**Closed.** Italy and Norway confirmed that that implementation of the automatic data retransmission is problematic due to the technical implications. An alternative has been agreed that the main solution kept for resending the data from RSs will be the data manual transfer. Data automatic retransmission may be used as an alternative (if available). The SLAs will be amended accordingly (**4th meeting on regional AIS servers, Action point 10**).
			AP16. A new procedure of the data retransmission by RSs will be agreed and included in the SLAs amendment.
	4th meeting (Oslo, 29 August 2019		**Open.** The requirements to the data file format and the new procedure of the manual data retransmission by RSs agreed. Will be included in the SLA amendments (**4th meeting on regional AIS servers, Action point 11**)
			AP17. EMSA, Italy and Norway will assess the Polish experience in developing the data retransmission functionality in their national system, when the results will become available by EMSA. Norway will assist Poland in the testing, if requested.

3rd meeting (Venice, 28 November 2018)	4th meeting (Oslo, 29 August 2019		**Open**. PL confirmed that they are working on the technical implementation. Information will be exchanged upon its availability.
			AP18. Regional servers will support EMSA in conducting the data buffering tests.
	4th meeting (Oslo, 29 August 2019		**Open/Ongoing**. The AIS data buffering by NPRs tests conducted in cooperation with Regional servers for all connections. All NPRs tested were buffering and retransmitting the data. The data buffering by the SSN proxy application (RH) tests will be conducted in October/November and will be followed by regional server tests (**4th meeting on regional AIS servers. Action point 14**).
			AP19. Italy will prepare a short paper describing their proposal on how to introduce the "testing NPR", and submit it to EMSA and Norway (by mid- January 2019).
		4th meeting (Oslo, 29 August 2019	**Closed**. The participants agreed that execution of this action is not needed, and the action point shall be considered as "closed".
			AP20. EMSA will assess if the solution to introduce a second NPR could be proposed to Member States (e.g. at the next SSN Group meeting). Norway will be asked to provide an additional information about their experience to EMSA and Italy
		4th meeting (Oslo, 29 August 2019	**Completed**. EMSAs assessment was presented and the meeting agreed to present the issue to the participating States at the next AIS EWGs meetings (**4th meeting on regional AIS servers, Action point 17**).
			AP21. EMSA will evaluate and propose the required amendments to the SLAs regarding the AIS data exchange by "3rd countries" monitoring.
		4th meeting (Oslo, 29 August 2019	**Completed**. Agreed to include Jordan, Ukraine and Georgia in the SLA with MARES. The subject will be discussed at the MARES EWG Will be included in the SLA amendments (4th meeting on regional AIS servers, Action point 19).
			AP22. EMSA will prepare a draft meeting report which will be shared with the ICG and NCA for their feedback.
		4th meeting (Oslo, 29 August 2019	**Completed**. The meeting minutes were submitted and agreed by the participants (08 January 2019).
			AP23. EMSA will create a new tab on EMSA website where the agreed minutes of the meetings on regional AIS servers will be published
	4th meeting (Oslo, 29 August 2019		**Open.** Agreed that the minutes of the meetings on regional AIS servers will be published on EMSA website, in section "Events - Workshop materials and reports" (including minutes from previous meetings) (4th **meeting on regional AIS servers, Action point 18**).
			AP1. The summary of actions will be attached to the meeting report and updated after each meeting.
			Ongoing. The summary of actions was attached to the report of 4th meeting (Oslo, 28 August 2019).
			AP2. EMSA will organise a videoconference with the ICG and NCA to discuss the "STAR remote hub" software installation and testing outcomes (by 15 September).
			AP3. The NCA plans to provide data to EMSA in two parallel streams (i.e. active – active mode) will be discussed at the EMSA/ICG/NCA videoconference.
			AP4. Italy and Norway will introduce an automatic warning (e.g. by e-mail) which would be sent to the Member State in case the time asynchronization goes beyond the agreed threshold.
			AP5. EMSA's experience on filtering out duplicates of the positions in areas overlapped by two regional servers will be discussed EMSA/Italy/Norway videoconference.

4ᵗʰ meeting (Oslo, 29 August 2019)			**AP6**. The issue whether the buffered data need to be down sampled or not, and the down sampling rate shall be further assessed, considering the capabilities of NPRs and "Remote Hub" application. The agreed solution will be presented in proposals to the SLA amendments
			AP7. 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
			AP8. Requirements regarding the NPR capabilities (mandatory and additional/supported) will be included in the SLA amendments and in the RS Technical manual. The mandatory functionalities shall be harmonised between the regional AIS servers, and implementation of additional functionalities agreed at the regional level shall not impact performance of the mandatary functionalities.
			AP9. Italy and Norway will evaluate their solutions to receive, accept and forward to the central SSN all data retransmitted from MSs (including "old" data) and present proposals to MSs at the next EWGs meetings. Member States may provide data automatically (in a background) or resent manually or submit via e-mail or FTP. The solution will be agreed at the regional level
			AP10. The main solution kept for resending the data from RSs will be the data manual transfer. Data automatic retransmission may be used as an alternative (if available). The SLAs will be amended.
			AP11. In coordination with EMSA, Italy and Norway will introduce the agreed standardised data file format and the new procedure used for the data retransmission. The requirements to the data file format and the new procedure of the data manual retransmission will be included in the SLA amendments.
			AP12. The amended versions of RS Technical manuals will be published on the EMSA web (restricted part). The status of RS Technical manuals will be revised/confirmed by RSs every 6 months, in the Service summary reports.
4ᵗʰ meeting (Oslo, 29 August 2019)			**AP13**. Italy, Norway and EMSA will start working on creating the "AIS operational manual" to present the objectives, purposes and solutions of the European AIS network. The initiative will also be presented to the Member States at the next EWG meetings.
			AP14. The data buffering by the SSN proxy application (RH) tests will be conducted in October/November and will be followed by regional server tests.
			AP15. EMSA, Italy and Norway will conduct the NPRs stress tests (e.g. for one NPR connection in the RS network). The schedule and scenario will be agreed between EMSA, RS and the participating Member State.

			AP16. EMSA will evaluate the proposal of Italy to introduce two separate codes for the Portuguese data stream (for mainland and islands).
			AP17. Introducing at least 2 NPRs for the connection will be presented to the participating States at the next EWGs meetings
			AP18. The minutes of the meetings on regional AIS servers will be published on EMSA website, in section "Events - Workshop materials and reports" (including minutes from previous meetings).
			AP19. Jordan, Ukraine and Georgia will be included in the SLA with MARES, following decision at the MARES EWG.
			AP20. EMSA will summarise all the agreed inputs and will distribute a new draft SLA to Italy and Norway for their evaluation (after MARES meeting). The SLAs amending might be initiated in 2020.
			AP21. EMSA will prepare a draft report which will be shared with the ICG and NCA.
			AP22. Italy, Norway and EMSA will coordinate agendas of the AIS EWGs meetings and meetings on AIS regional servers.