

Appendix S to Tender Specifications

Overview of the SSN Ecosystem GUI (SEG)

V. 1.0 – 2015-10-23

1 Introduction

The SSN Ecosystem may be defined as the technical framework encompassing the following EMSA maritime applications: SafeSeaNet, Integrated Maritime Data Environment, Earth Observation Data Centre and LRIT Cooperative Data Centre. As such the SSN Ecosystem is the provider of a number of different maritime information services to Member States, EU bodies and relevant third party partners.

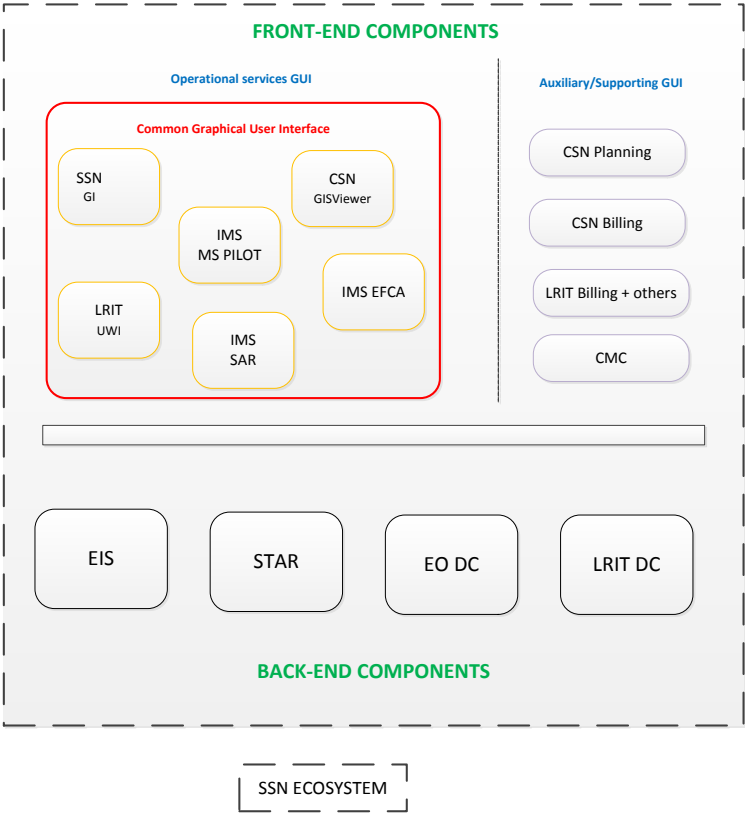
While currently these services are provided through, inter-alia, individual graphical user interfaces (GUI), the objective is to develop a single front-end platform (i.e. a single GUI) supporting all configurations required to cover existing legal and operational requirements for all services provided through the SSN Ecosystem.

This SSN Ecosystem GUI (SEG) will be implemented throughout the course of 2016 and will be the front-end of the different maritime information services and as such will be the common platform to display and perform operations on, inter-alia, SSN information (e.g. ship, voyage, incident and hazmat data, as well as STMID information), vessel positions (e.g. T-AIS, LRIT, SAT-AIS, VMS, Radar, etc.), Earth Observation related products (e.g. satellite imagery, oil spill detections, vessel detections, etc.), alerts, incidents, and ancillary data (e.g. met-ocean). The SEG will therefore cater for all services provided by the SSN Ecosystem and as such serve different user communities and cover the needs of different user domains.

1.1 Scope of the SEG

Referring to the figure below, the SSN Ecosystem itself contains all of the elements within the dashed rectangle. The back-end components, represented by black boxes, are the technical applications on which all maritime information services are based on. The front-end components are divided into 2 categories: the operational and auxiliary-supporting. The SSN Ecosystem [common] Graphical User Interface, represented by the red box, falls within the operational category, is not service specific and thus covers all relevant maritime information services. The different maritime information services, examples of which are illustrated as orange boxes, will therefore be served through this front-end component. The auxiliary-supporting front-end components are either service and application specific (e.g. CSN Planning, LRIT billing, etc.) or horizontal services which do not fall within the SSN Ecosystem GUI (e.g. Common Management Console). As such they will continue to be served through their own front-ends.

One of the guiding principles for the development of the SSN Ecosystem Graphical User Interface (SEG) will be the ability to configure the GUI in-house and be able to set up different operation/services both independently and quickly. Whenever possible the intervention of external contractors for service configurations should be avoided as this will enable EMSA to reduce cost and increase the rate to which we can respond to incoming needs and user requirements.



1.2 Main Wireframes

This section provides a short summary of the main design approach for the presentation layer. It is meant to give the tenderer an insight to the type of features rather than being comprehensive.

1.1 Overview

This section provides an overview of the layout.

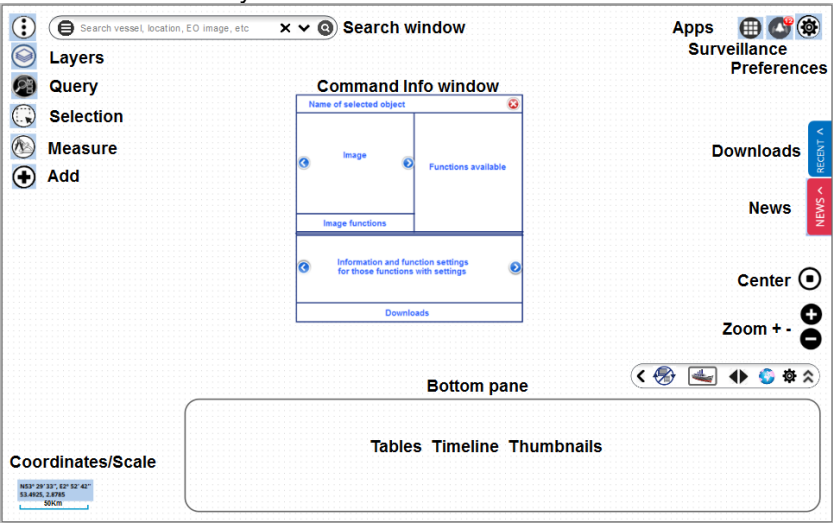


Figure WF1: Overview of the SSN Ecosystem GUI.

1.2 The main screen

Figures WF2 and WF3 show the main screen of the SSN Ecosystem where no object is selected.

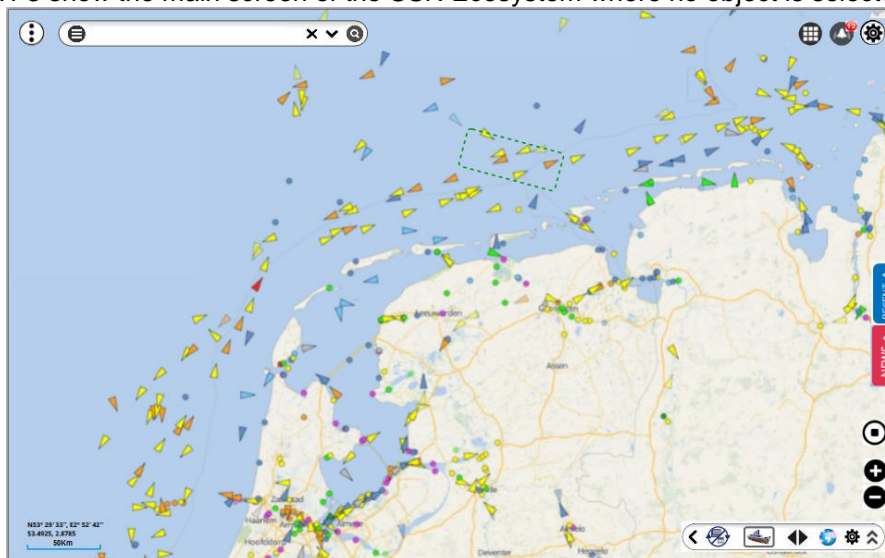


Figure WF2: Overview of the SSN Ecosystem GUI, no object selected.



Figure WF3: Overview - no object selected, function button and bottom pane expanded.

1.3 The Command and Info window

The command and info window, as can be seen in Figures WF4 to WF7, is a general window with certain architecture to show image, information, downloads and functions of any object selected in the map.

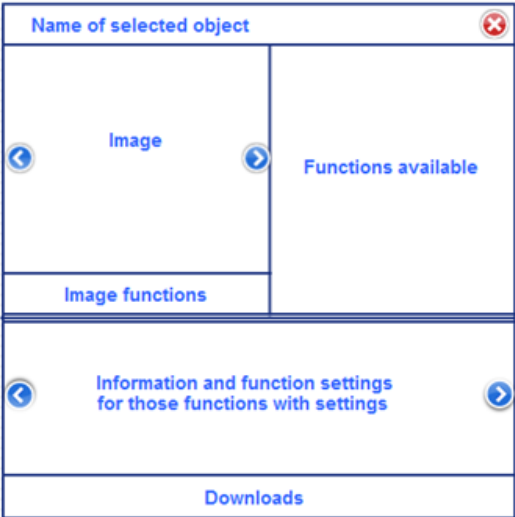


Figure WF4: The Command and Info window architecture.



Figure WF5: The Command and Info window, where a vessel is selected.

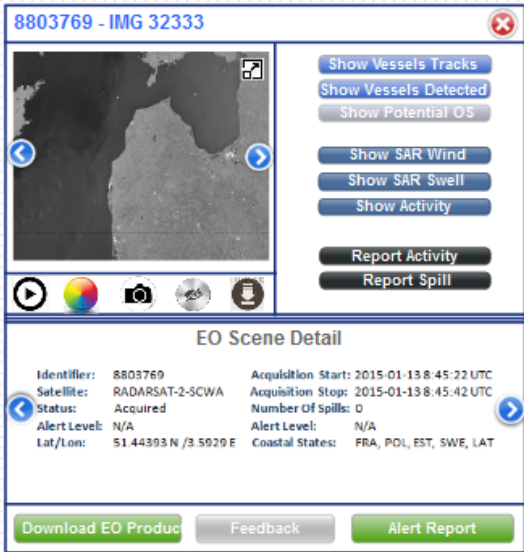


Figure WF6: The Command and Info window, where an Earth Observation image is selected.

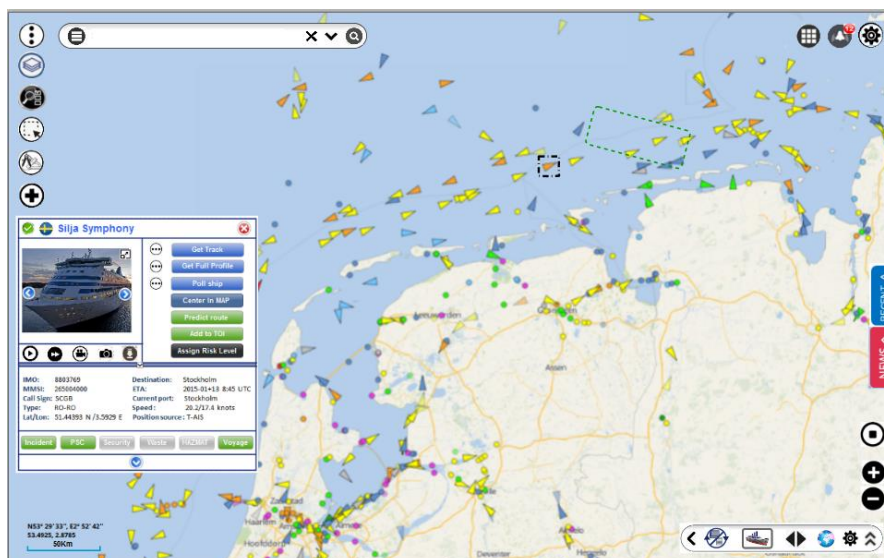


Figure WF7: The Command and Info window in the map, where a vessel is selected.

1.4 Timeline, tables and thumbnails

The bottom pane can be switched between Thumbnails, Tables and Timeline (TTT) and whatever selected is updated in the command and info window and selected in the map.

The bottom pane pops up automatically with certain functions such as “Integrated ship profile” or in cases to show results in tables. The user can manually show/hide the bottom pane via the double arrows in the bottom pane bar. See Figure WF19.

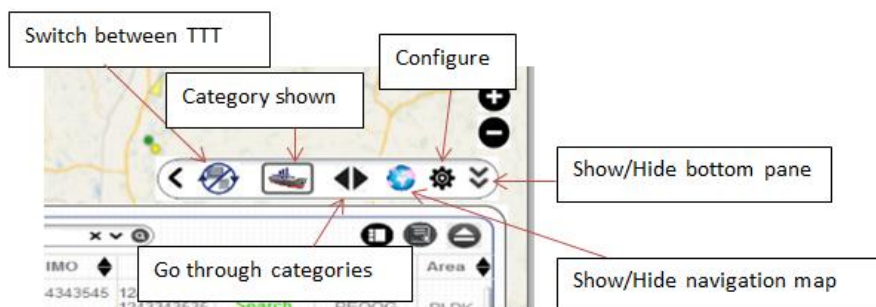


Figure WF19: The bottom pane bar.

The list of “My fleet”, target of interest (TOI), earth observation images and more, can be displayed as thumbnails or tables.

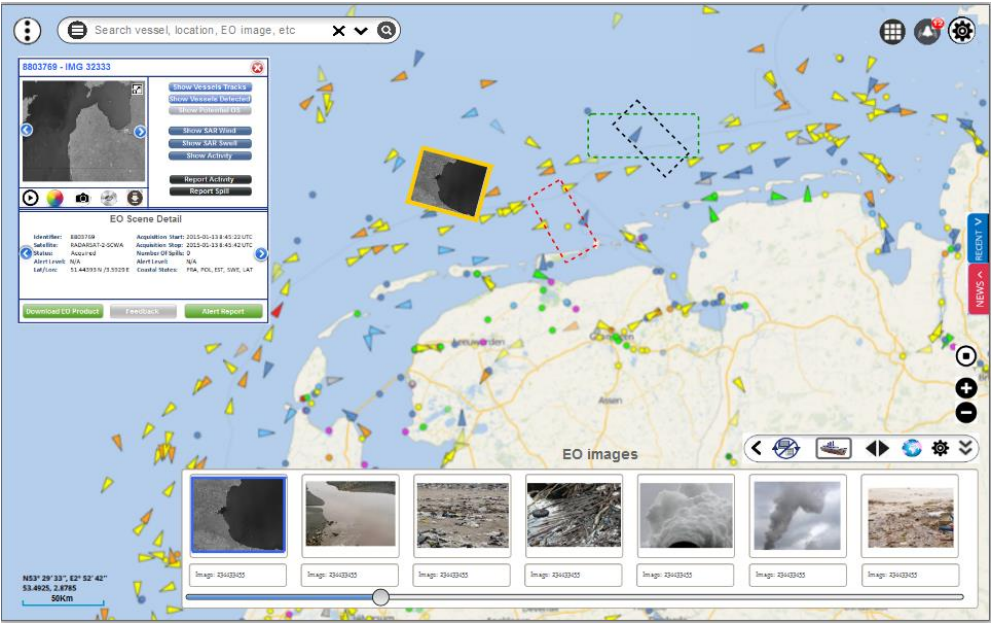


Figure WF20: The bottom pane in thumbnails mode, the image selected can be seen on the map and selection and info window.

1.3 Technical issues

The SEG integrates with a wide range of business services from SSN, EO DC, IMDatE/STAR, LRIT CDC and THETIS. Therefore it is necessary for the backend services to well controlled and documented.

An integration layer will be placed between the SEG and the backend components in order to support “independence and isolation” from the underlying Business Services provided by the Backend Components, thus supporting Business Data Mash-ups from different Backend Components and Modularity.

The integration layer (OSB, Service Registry) is the be the responsibility of EMSA. The figure below provides the high level architecture.

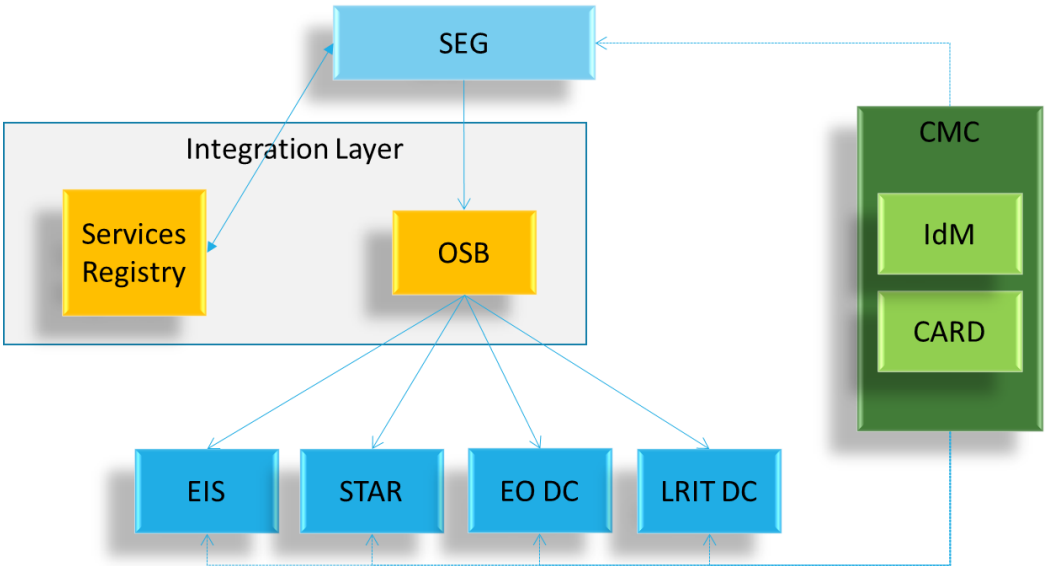


Figure 1: Architecture

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ABOUT THE EUROPEAN MARITIME SAFETY AGENCY

The European Maritime Safety Agency is one of the European Union's decentralised agencies. Based in Lisbon, the Agency provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security. It has also been given operational tasks in the field of oil pollution response, vessel monitoring and in long-range identification and tracking of vessels.

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