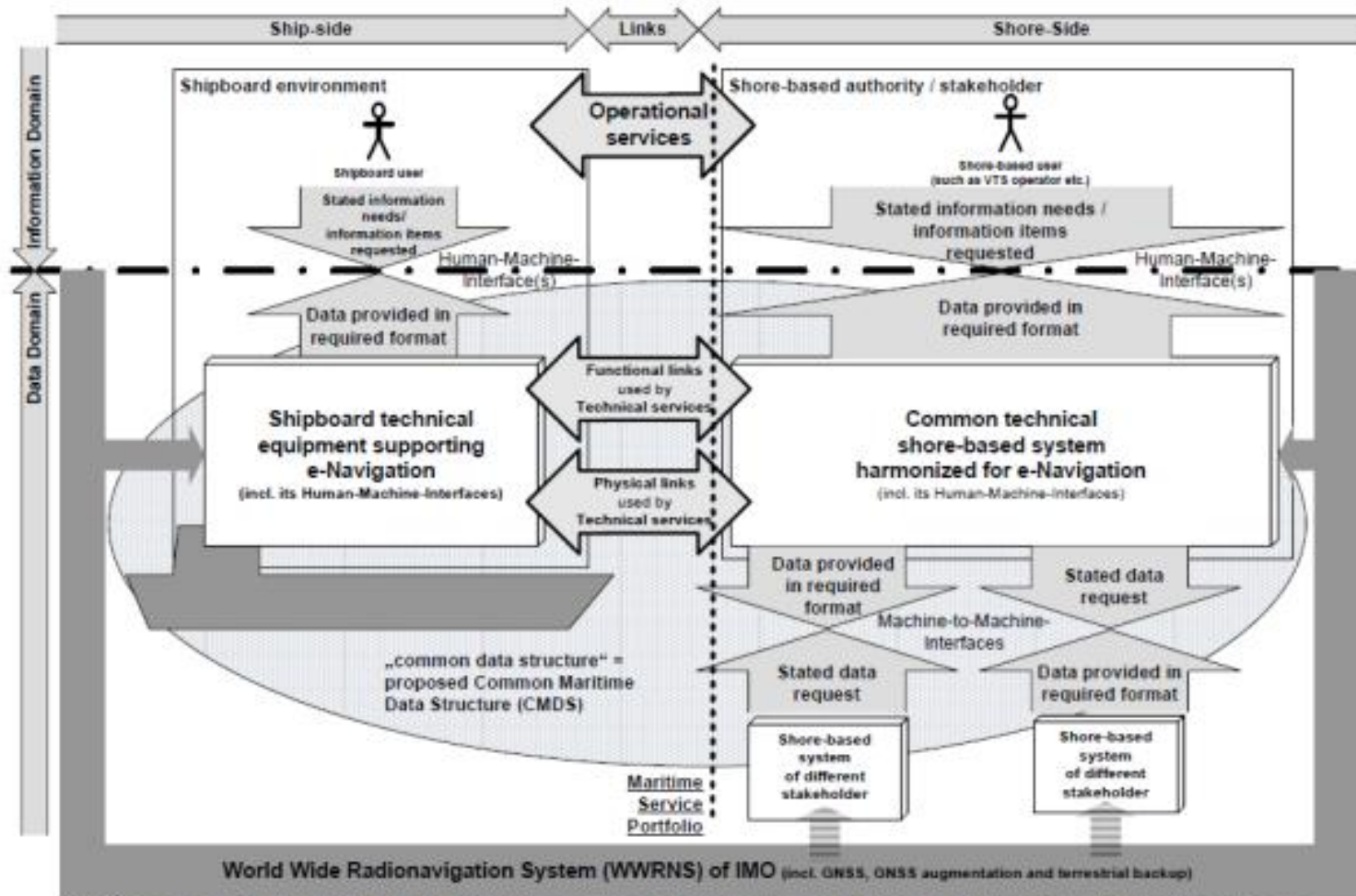


S-100 : exchange format for MSI

Components of the IMO strategy

- ***The user needs (done 2009 – NAV 55)***
- ***The architecture (done 2011 – NAV57)***
- ***The gap analysis (done 2012 – NAV58)***
- ***The solutions that meet the gaps (done 2013 – NAV59)***
- ***The cost-benefit and risk analysis for the 5 prioritized solutions (done 2013 – NAV59)***
- ***Development of a Strategy Implementation Plan (Starting)***

The overarching e-navigation architecture



Note: There are operational and technical interactions between different shipboard environments. These are not shown for simplicity's sake in this figure.

List of maritime service portfolios

(MSP 1) VTS Information Service (IS);

(MSP 2) VTS Navigation Assistance Service (NAS);

(MSP 3) VTS Traffic Organization Service (TOS);

(MSP 4) Local Port Service (LPS);

(MSP 5) Maritime Safety Information (MSI) service;

(MSP 6) pilotage service;

(MSP 7) tugs service;

(MSP 8) vessel shore reporting;

List of maritime service portfolios

(MSP 9) remote monitoring of ships systems;

(MSP 10) Telemedical Maritime Assistance Service (TMAS);

(MSP 11) Maritime Assistance Service (MAS);

(MSP 12) nautical chart service;

(MSP 13) nautical publications service;

(MSP 14) ice navigation service;

(MSP 15) Meteorological information service;

(MSP 16) real-time hydrographic and environmental information services; and

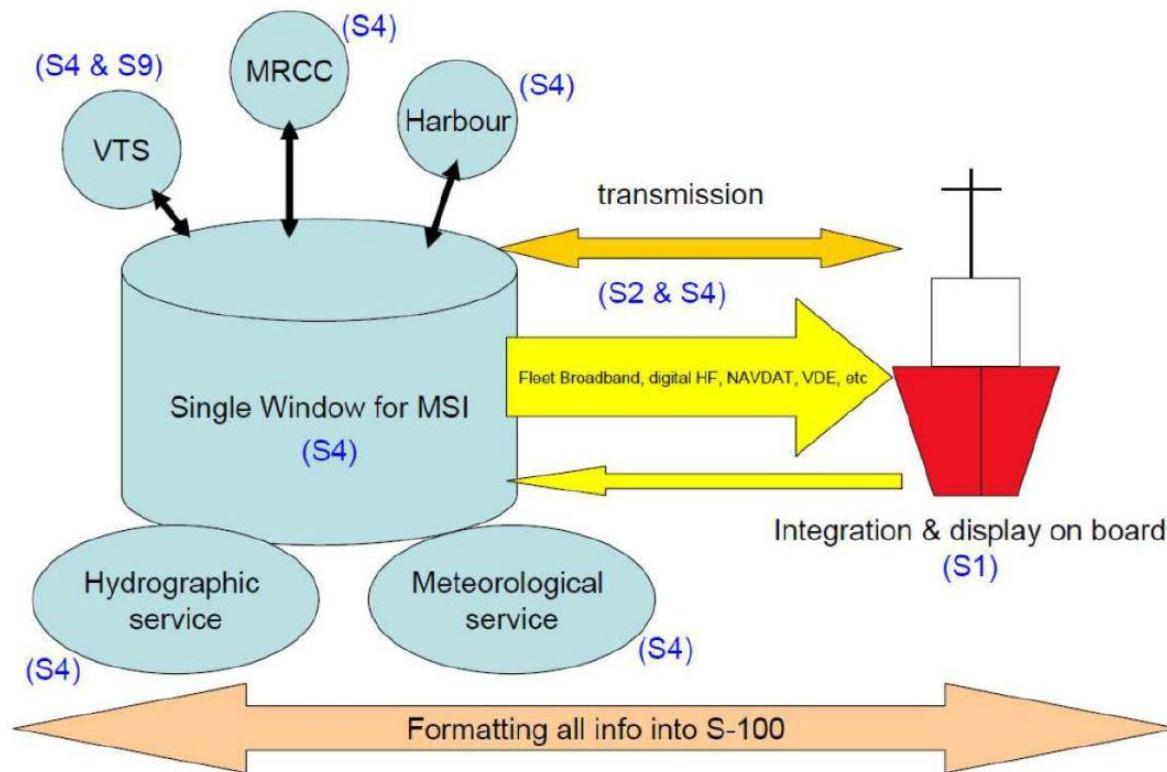
(MSP 17) Search and Rescue (SAR) Service.

Five prioritized potential e-navigation solutions

- S1:** improved, harmonized and user-friendly bridge design;
- S2:** means for standardized and automated reporting;
- S3:** improved reliability, resilience and integrity of bridge equipment and navigation information;
- S4:** integration and presentation of available information in graphical displays received via communication equipment; and
- S9:** improved Communication of VTS Service Portfolio.

A possible example: Single window for MSI

General arrangement of the technical infrastructure of a Single Window for MSI



S-100

A digital exchange format for MSI (i.e a S-100 product specification) is a part of the technical infrastructure that should be now developed

An international MSI digital exchange format is necessary to:

- ***modernize MSI transmission from shore to ships;***
- ***integrate and display MSI on bridge systems;***
- ***integrate and display MSI on ashore systems (e.g knowledge of the nautical situation);***
- ***transmit and share information between ashore services involve in the information processing.***

IALA and S-100

The IALA began work to develop S-100 product specifications (PS) of its domains i.e. AIS, AtoN, VTS, Risk assessment and WWRN (worldwide radionavigation).

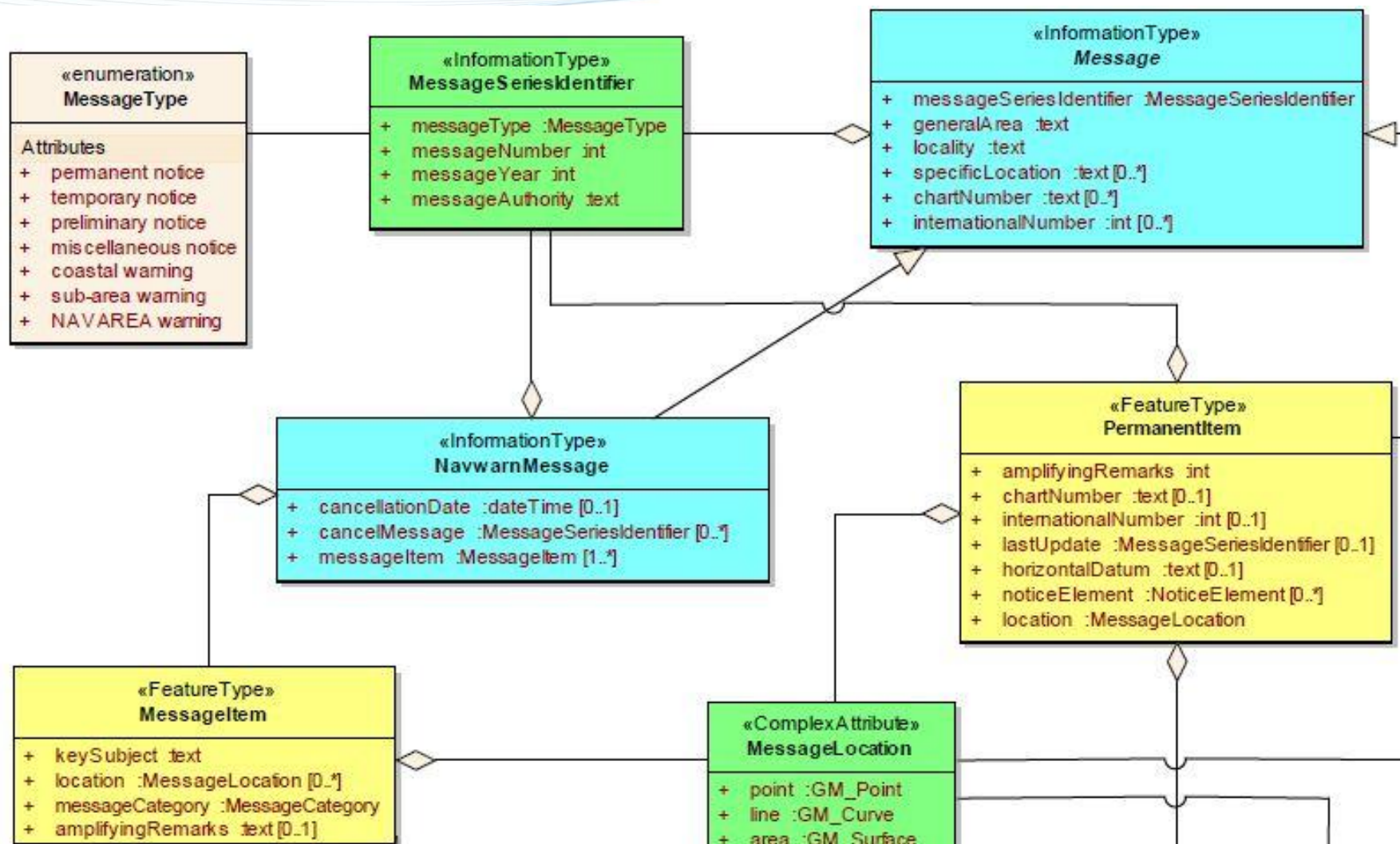
A workshop on the subject was held at IALA in June 2013 with the support of IHO/HSSC/TSMAD. A product specification for MSI and NM was an item of the program and its development is in progress...

IALA and S-100

This raises questions about the distribution of work between IALA and IHO.

According to its TOR, it appears that the WWNWS sub-committee should be strongly involved in the development of a S-100 product specification for Navigational Warnings.

IALA or IHO ???



Development should comprise:

- *the review of the needs (e-navigation gap analysis and other feedbacks, from Navigational Warnings producers for example)*
- *the review of the requirements for:*
 - the management of the Navigational Warnings by the producer authority
 - the transmission to the ships (protocol, telecom)
 - the management of the Navigational Warnings on board
 - the use of Navigational Warnings on board
 - the use of Navigational Warnings in ashore services

Development should comprise:

- *the review of the requirements for the transition period (e.g dual production of well formatted Navigational Warnings in telex form and in S-100 format)*
- *obviously, the modeling of Navigational Warnings in compliance with S-100 standard*
- *the study of the compatibility or consistency with other formats or other similar needs*

Development should comprise:

- *test beds to demonstrate the solution of S-100 modeling*
- *the writing of the draft S-100 Navigational Warnings product specification*
- *possibly, the writing of the draft of IMO documents as performance standards.*

The WWNWS is invited to:

- 1. *note the proposal***
- 2. *liaise with IALA and HSSC competent Working Group(s) to coordinate***
- 3. *integrate the development of a S-100 product specification for Navigational Warnings in its work program***
- 4. *establish a dedicated correspondence sub working group***
- 5. *inform HSSC before its next meeting (HSSC 5 : 5-8 November 2013).***