

Update on a few e-Navigation matters

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MRN (Maritime Resource Names)

Input paper proposing IALA to take responsibility for managing MRN

Proposes procedure for the administration

A web page for MRS: mrnregistry.org

Still in progress in IANA (formerly IETF)

IANA needs a procedure for maintainig MRN for final approval

Name change

A name change

Name change

The Maritime Cloud

Name change

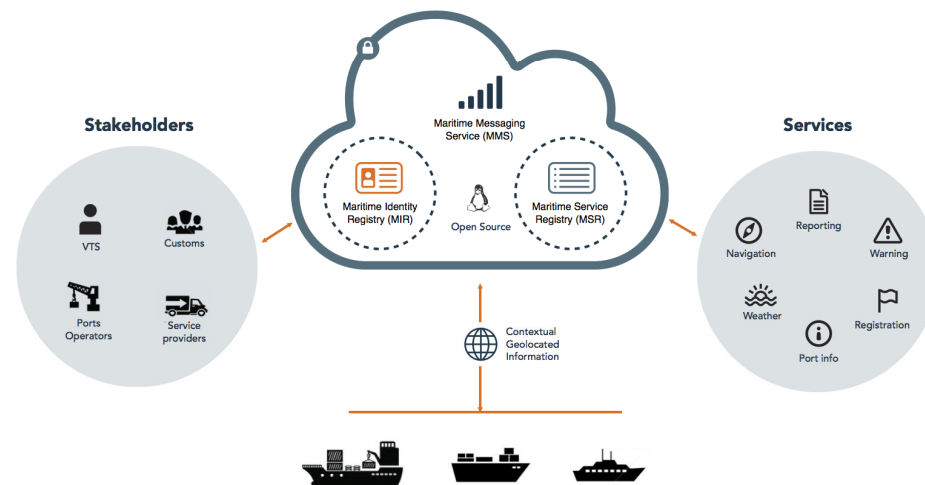
~~The Maritime Cloud~~

Name change

The Maritime Connectivity Platform



THE MARITIME CONNECTIVITY PLATFORM



Name change

MCP

MCP Advisory board

MCP coming of age

Maritime Cloud Development Forum, MCDF (yes, we need a new name)

Advisory board

CIRM

IALA

...

Events

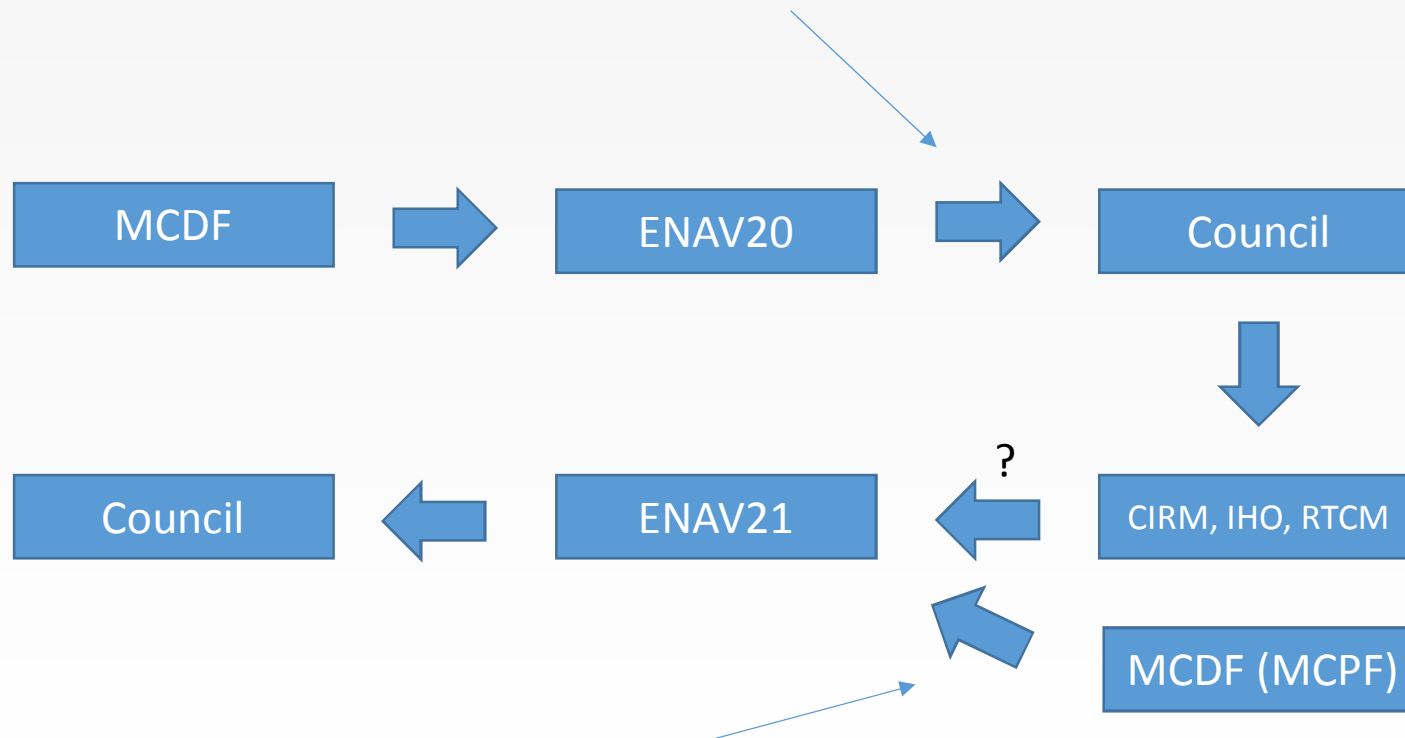


EfficienSea2 Workshop: HOW TO RUN THE MARITIME CLOUD

21-22 November 2017
at IALA headquarters in France

Guideline for technical services

ENAV21-9.2 (ENAV20-14.1.11 C64-11.4.7.2) Draft Guideline on specification of e-navigation Technical Services



ENAV21-9.4.1 (Amended ENAV21-9.2) Draft Guideline on specific
ation of e-navigation Technical Services

IMO/IHO Harmonisation Group on Data Modeling (HGDM)

Input to MCDF, from Norway, Republic of Korea and Denmark

Template for MSP

Reference to technical
services

Example MSP (5)

Reference to NM/NW
service

Template for technical
services

Reference to S-XXX

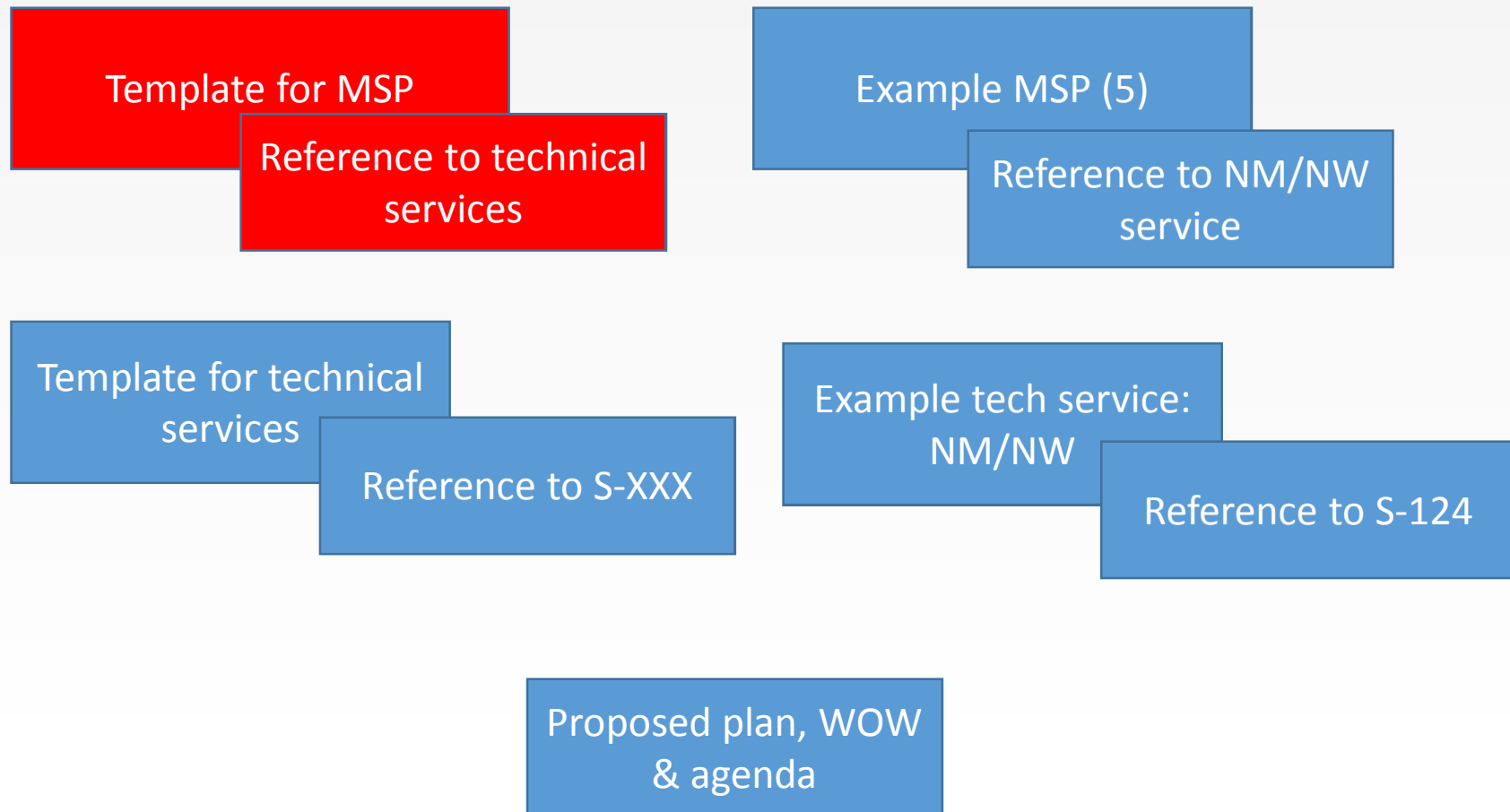
Example tech service:
NM/NW

Reference to S-124

Proposed plan, WOW
& agenda

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Template for MSP's

Annex 1

Proposed template for MSPs

To ensure a standardized approach in the development and implementation of MSPs, the content should include a general description of the operational services, the current means of communication, and technical services that will enable the exchange of information in digital format.

The description of all MSPs will be based on the following template:

Title

Based on the IMO Strategy Implementation Plan (SIP)

Definition

Based on the SIP, but additional details might be added for clarity as required.

Sea area(s) of implementation

Based on the sea areas defined in the SIP.

Objective

What is the purpose of the MSP?

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Template for MSP's

Associated technical services

This will be a list of technical services associated with this MSP. The specifications of these will follow the IALA guideline on e-Navigation technical services (IALA guideline #?). The exact reference to technical services will be made using MRN's (Maritime Resource Name). The reference to the technical services should be represented in a table as the following:

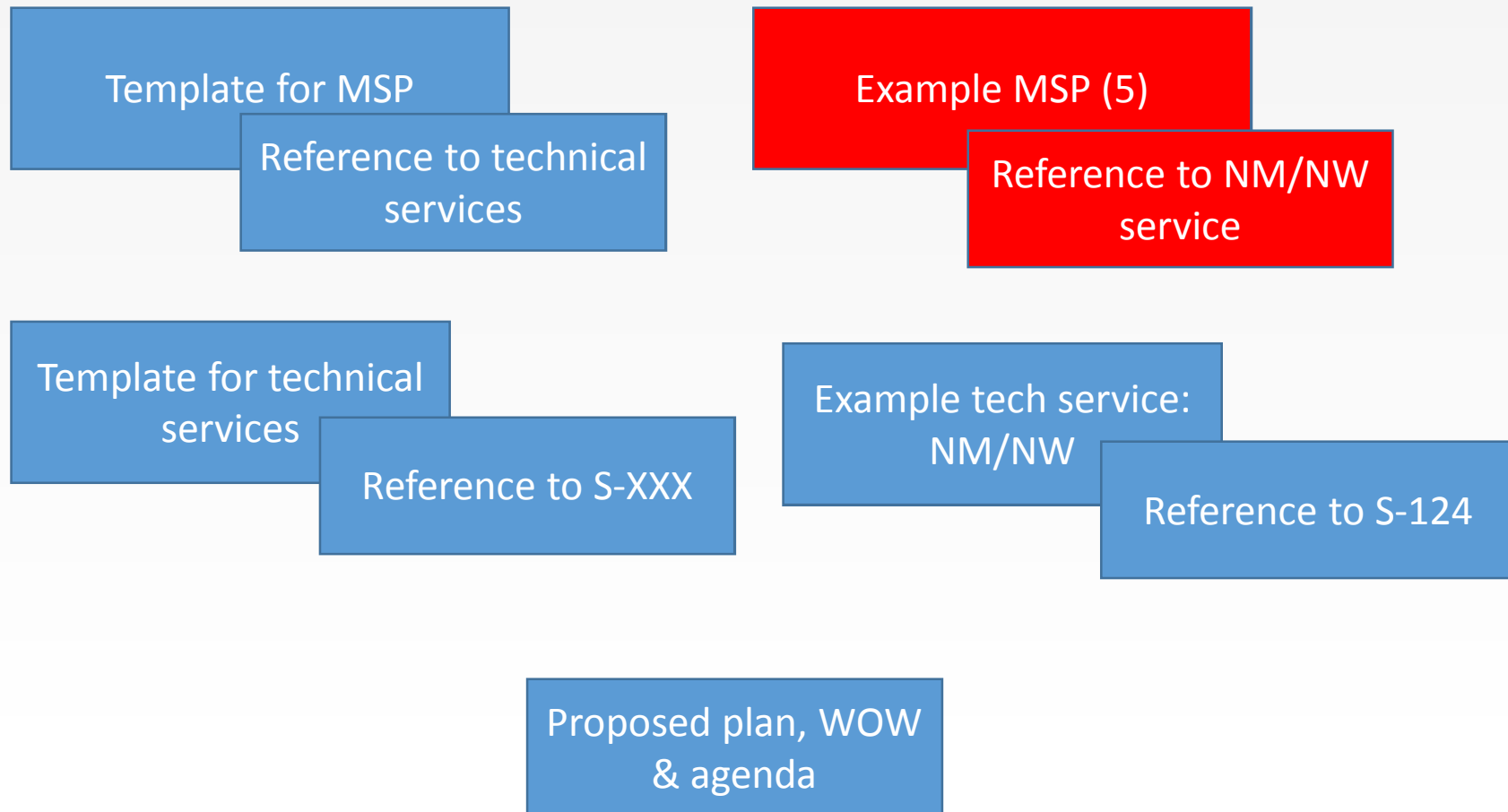


Name	ID (MRN)	Description	Architect(s)	Standardisation body



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Example MSP; MSP5 Maritime Safety Information

MSP5 Maritime Safety Information - DRAFT

This document is taken from IALA's draft guideline on MSPs and only serves as an example of an MSP with link to technical services

Definition

The Global Maritime Distress and Safety System (GMDSS) as described in SOLAS chapter IV defines the seventh functional requirement as: "Every ship, while at sea, shall be capable of transmitting and receiving maritime safety information".

The MSI service is an internationally coordinated network of broadcasts of Maritime Safety Information from official information providers, such as:

- National Hydrographic Offices, for navigational warnings and chart correction data;
- National Meteorological Offices, for weather warnings and forecasts;
- Rescue Co-ordination Centres (RCCs), for shore-to-ship distress alerts; and
- the International Ice Patrol, for Oceanic ice hazards.

Specific information on Aids to Navigation and restrictions on safe navigation are part of MSI services provided by National Authorities. This can include but is not limited to, the following type of information to be available to mariners:

- status of Aids to Navigation;

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Example MSP; MSP5 Maritime Safety Information

Associated technical services

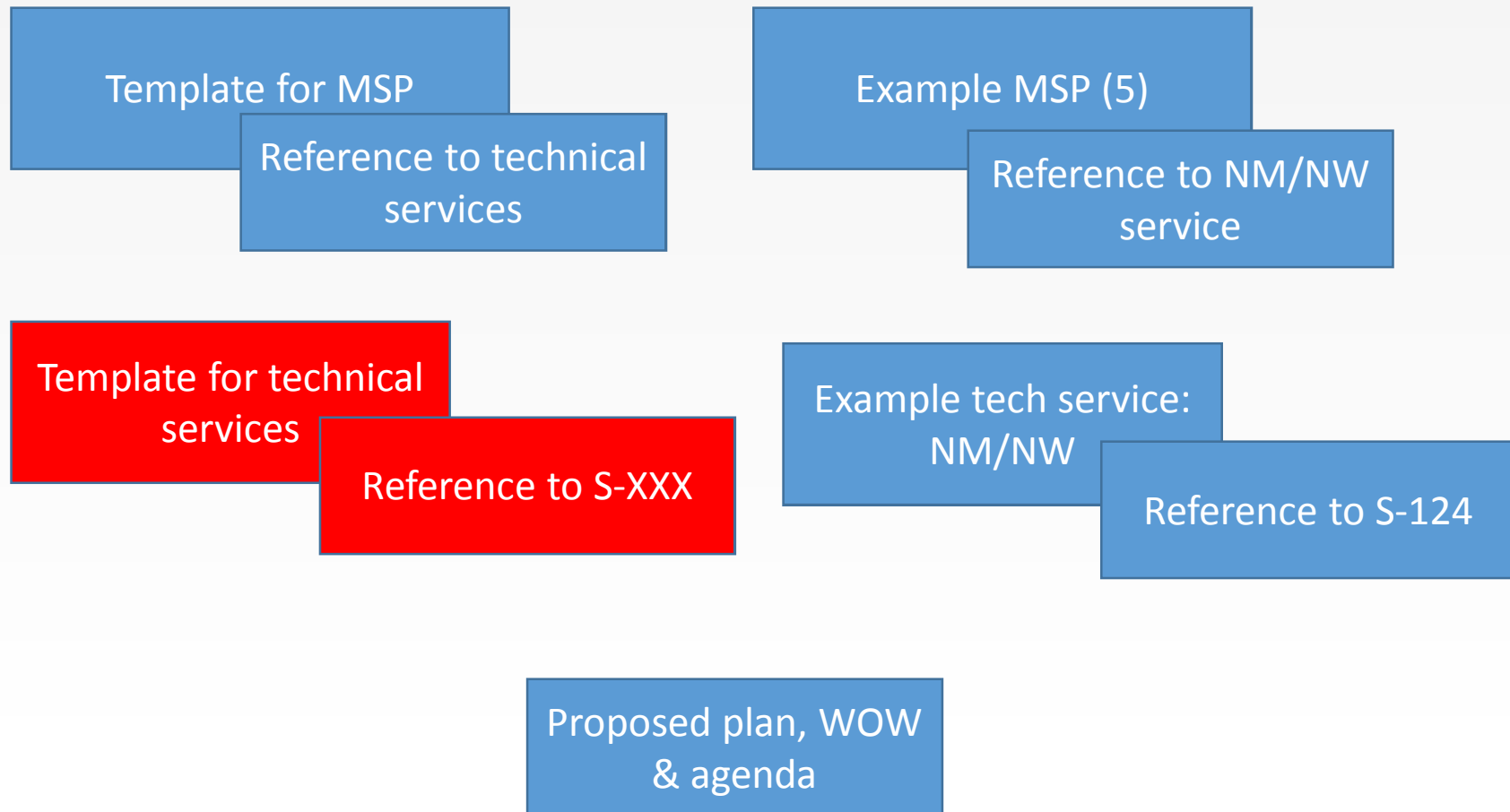


Name	ID (MRN)	Description	Architect(s)	Standardisation body
NW-NM T&P	<u>urn:mrn:mcl:service:specification:dma:nw-nm</u>	The NW-NM service specification defines a combined NW-NM T&P model along with the actual service API used for accessing NW-NM data	Danish Maritime Authority	IHO
Marine Weather warnings and forecasts				WHO
Oceanic ice hazards				
Other technical services?				



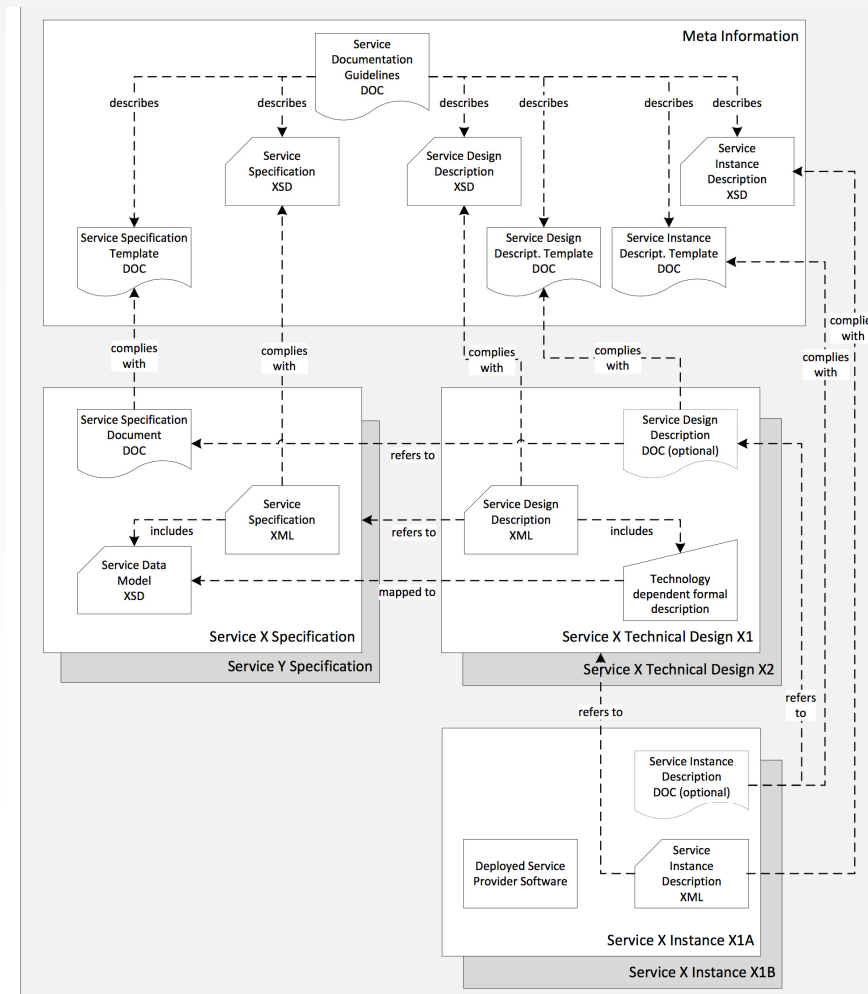
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Guideline on specification of e-Navigation technical services



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Example technical service for MSI5; NW-NM T&P

2 Service Identification

Name	NW-NM T&P Maritime Cloud Service
ID	urn:mrn:mcl:service:specification:dma:nw-nm
Version	0.4
Description	The NW-NM service specification defines a combined NW-NM T&P model along with the actual service API used for accessing NW-NM data, as registered in the Maritime Cloud service catalogue.
Keywords	NW, NM, Navigational Warnings, Notices to Mariners, MSI, Maritime Cloud Service.
Architect(s)	e-Navigation Team Danish Maritime Authority Carl Jacobsens Vej 31 DK-2500 København K Telephone: +45 40 72 61 08 Email: mfs@dma.dk
Status	Released.

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NW-NM T&P reference to S-124

5 Service Data Model

This section describes the logical data structures of the NW-NM service. The combined NW-NM model needs to cater for the IHO-IMO-WMO S-53 standard on MSI (including NW) and the IHO S-4 standard which covers NM T&P.

The overarching idea has been to generalize the constituent parts and fields of NW and NM T&P messages, and make the format both backwards compatible and future-proof by e.g. adding support for:

- Multi-language support. All messages must be localizable to any number of languages, including the base data they reference (e.g. areas). The pattern adopted to support this, is to let all classes with localizable attributes (such as *Message*) have an associated list of description entities (*MessageDesc*) which contains a language code and the localizable fields. The description entities are yellow in the UML diagram below.
- Rich text support. NMs in particular, can contain a rich layout containing features such as tables, links, embedded pictograms, etc. By supporting HTML descriptions this can be accommodated.
- New identifier format. The S-4 and S-53 standards loosely specifies a numbering scheme for NWs and NMs. However, the numbering scheme does not guarantee uniqueness in a combined NW-NM model, let alone a system that may contain messages from multiple authorities. Thus, the NW-NM data model introduces *message series* and adds a unique MRN (maritime resource name) to each message.
- Base data. Part of a combined NW-NM model is to define a relationship between messages and base data such as charts, categories and areas. Previous proposals have opted for rigid solutions with a fixed number of area and category levels, and with enumerated category values.
- S-124 compatibility. The IHO S-124 specification for Navigational Warnings has not been released yet, but an aim of the NW-NM model has been to be relatively future-compatible with the S-124 data format, to make it easy to exchange data between the two formats.

The UML detailing the Message class, and its related classes, is given below:

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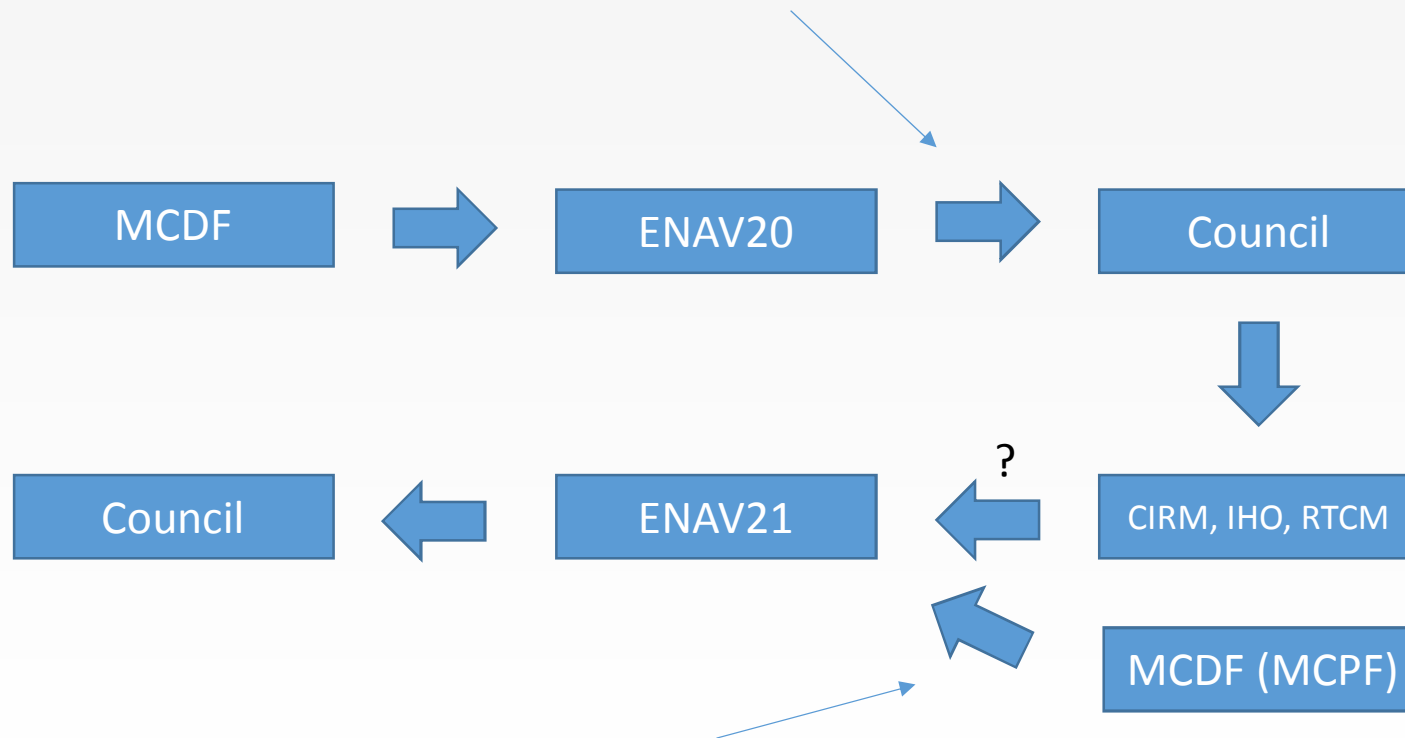
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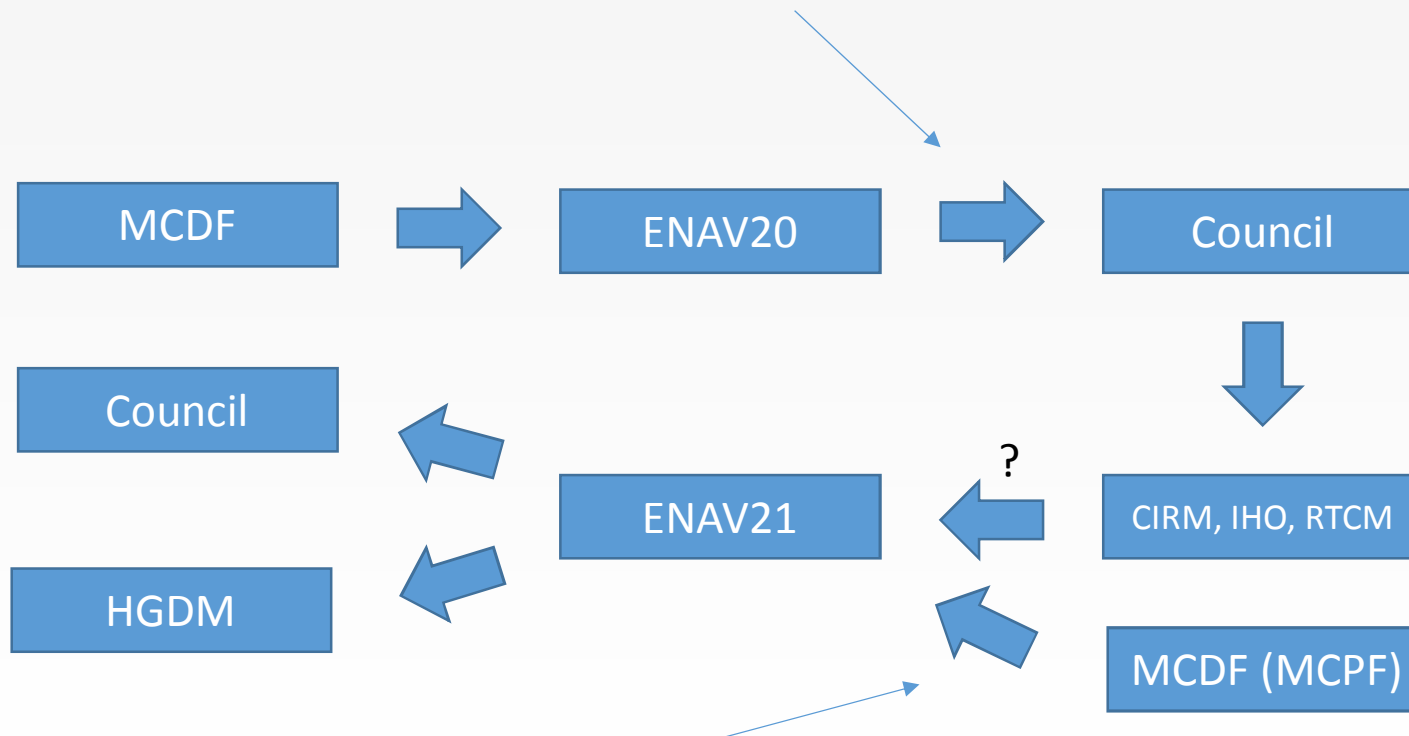
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Events



January 24 – 26 2018

www.e-navigation.net

EfficienSea2 Final Conference

**SAVE
THE
DATES**

**APRIL 5-6 2018
COPENHAGEN**

THANK YOU

