



SMART MARITIME NETWORK

Smart Maritime Network Copenhagen Conference

4 October, 2022

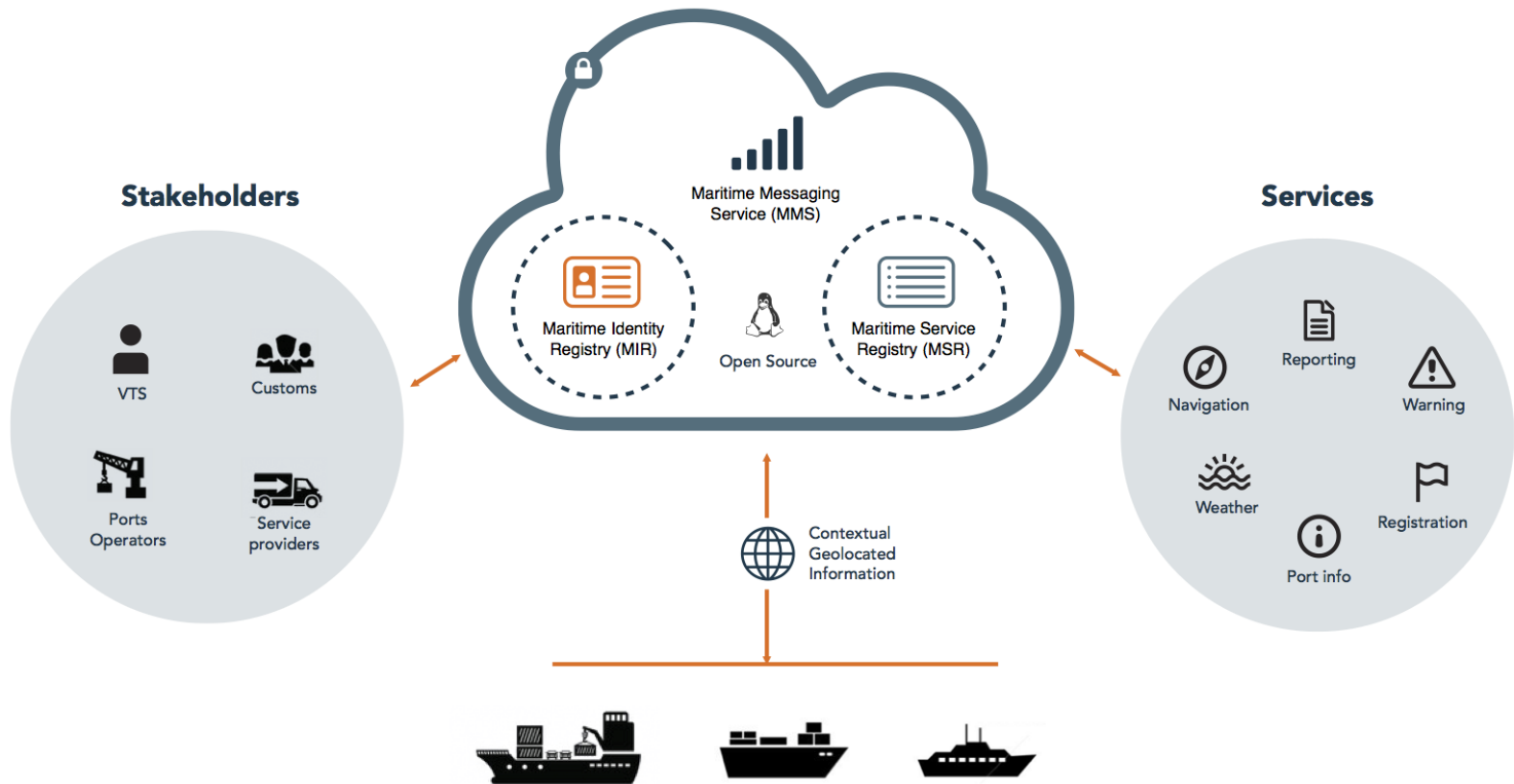
The Maritime Connectivity Platform (MCP)

A framework facilitating secure and reliable information exchange in the maritime domain - and beyond

Thomas Christensen
Secretary General
Maritime Connectivity Platform Consortium



THE MARITIME CONNECTIVITY PLATFORM





MIR - Maritime Identity Registry

Contains identities for users, ships, devices...

Using unique identifiers (MRN - Maritime Resource Name)

Facilitates standardised single login to access services (OpenID Connect)

Facilitates standardised secure machine to machine communication (X.509 certificates)

Facilitates security; confidentiality, integrity & authenticity



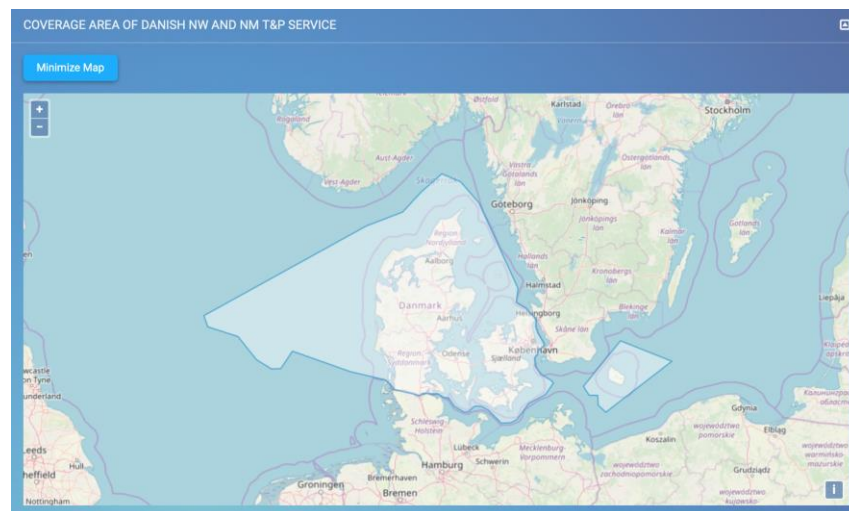


MSR; Maritime Service Registry

Contains endpoint to (harmonised) services

as well as keywords, geographical coverage, etc.

(Maritime yellow pages...)





MMS; Maritime Messaging Service

Seamless communication using different physical channels
IP & non-IP

Logical roaming for point-to-point communication

Store-and-forward functionality

Geo- and groupcasting

Providing single data stream from several services





The HARMONISED (technical services)



Example: Receiving data from VTS center



The HARMONISED (technical services)

IALA is developing technical services for provisioning of

Aids to navigation information
Vessel Traffic Service information

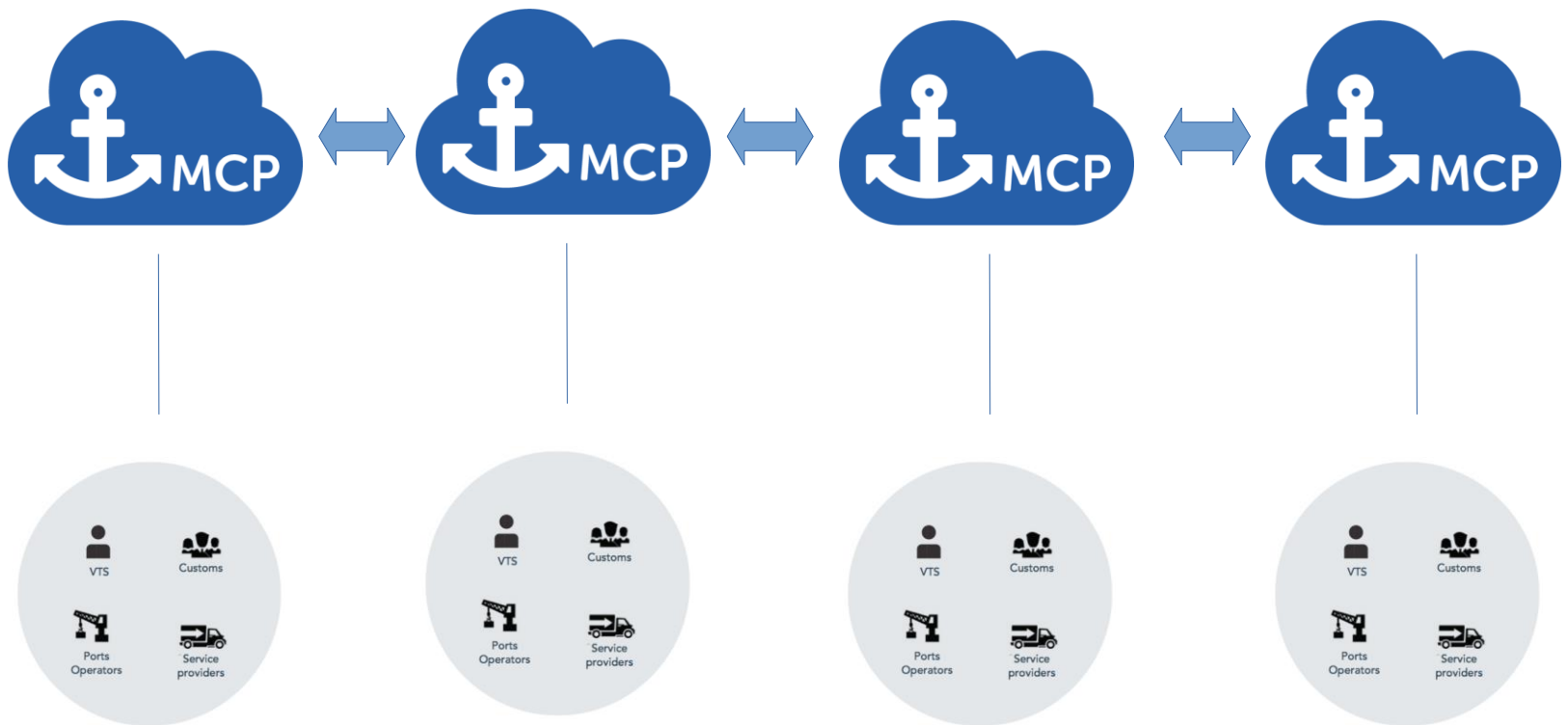
IHO is developing technical services for provisioning of

Navigational Warnings
Possibly harbour infrastructure information

More to come...

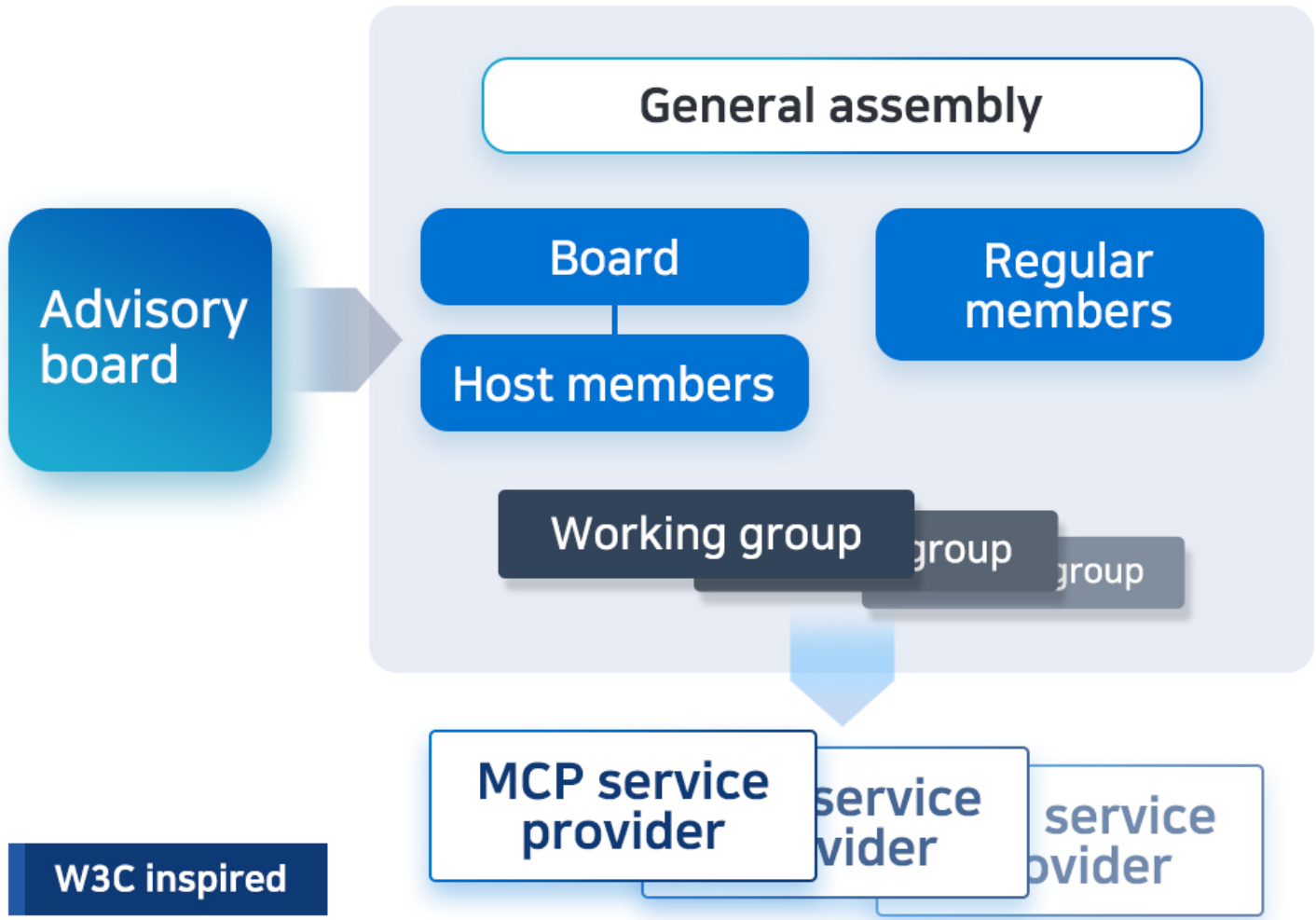


Multiple MCP instance providers





Maritime Connectivity platform Consortium



W3C inspired

MCC members



Hosts

OFFIS (DE)
RISE (SE)
UCPH (DK)
KRISO (KR)
GLA (UK,IE)

Members

Bergman Marine (DE)
VTS Finland (FI)
P3KI (DE)
Vissim (NO)
Iridium (US)
National Technical University of Athens (GR)
Australian Maritime Safety Authority (AU)
SeaTopic (FR)
MarineFields (CY)
Navelink (SE)
Sternula (DK)
(Steor (RU))
Italian Hydrographic Institute (IT)
GMT (KR)
Neonex (KR)
National Taiwan Ocean University (TW)
University of Oslo (NO)

Advisory board

IALA
CIRM
IHO

Observers

MOF (KR)
SMA (SE)
DMA (DK)

Members

DFDS (DK)
SSPA (SE)
Fraunhofer (DE)
Frequentis (AT)



At this stage

Governance in place

MIR is defined - and operational instance operated by

Navelink (SAAB, Wärtsilä, Kongsberg)

MSR prototype, MMS functional description

MCP instances underway in

Korea, UK, Finland...

A running public demonstrator exists
and open source software



More info and access to the demonstrator at

www.maritimeconnectivity.net

Open Digital Incubator Initiative

Testbed for harmonised services
(including MCP)



General Lighthouse Authorities
of the United Kingdom and Ireland
Research and Development



German Aerospace Center



Canadian Coast Guard



Korean Research Institute of
Ships and Ocean Engineering