

**10th MEETING OF THE IHO MARINE SPATIAL DATA INFRASTRUCTURES
WORKING GROUP (MSDIWG10)
Busan, Republic of Korea, 4 – 6 March 2019**

Paper for Consideration by MSDIWG10

Status Report:

Marine Spatial Data Infrastructure - Concept Development Study (MSDI-CDS)

Submitted by:	Vice-Chair MSDIWG, United States of America
Executive Summary:	This report contains the current status of the MSDI-CDS. <i>Information contained in this report is largely adopted from resources available from the OGC web page below.</i>
Related Documents:	Request for Information on Marine SDI Concept Development Study
Related Projects:	MSDI Concept Development Study (MSDI-CDS) http://www.opengeospatial.org/projects/initiatives/msdi-cds-2018

1. Introduction / Background

This report contains the current status of the MSDI-CDS. During the IHO MSDIWG8 meeting in Vancouver 2017, the idea was formed to create an OGC study that could establish the framework for future development of MSDI. The MSDI-CDS is being organized by the Open Geospatial Consortium (OGC) and supported by the National Geospatial-Intelligence Agency (NGA) on behalf of the International Hydrographic Organization (IHO) and the IHO Marine SDI Working Group (MSDIWG), a primary organization involved in this study.

2. Analysis/Discussion

The first workshop for the MSDI-CDS occurred on 23 October 2018, hosted by the US Committee on the Marine Transportation System (CMTS) at the US Department of Transportation (USDOT) Conference Center in Washington, DC. The workshop marked the early stages of the MSDI-CDS, and provided OGC with important guidance on what best to focus on during the Study. Additionally, the information gained during the Workshop and subsequent Study will help shape future OGC activities regarding marine geospatial data and tools, and help inform the development of MSDI.

The MSDI-CDS will provide a foundation and framework for MSDI development. This will assist content/data providers in the marine domain with future discoverability, accessibility and interoperability considerations when providing core data to a broader and growing user-base, in addition to those served by the products/services for which marine spatial data is traditionally collected.

As part of the Study, OGC is bringing together key stakeholders across the diverse marine community in order to assess the current state of data and product exchange technologies, defining the future of MSDIs, and developing the foundations for a potential follow-on pilot. Ultimately, the MSDI-CDS seeks to advance the state of Spatial Data Infrastructures (SDIs) that support marine geospatial data sharing across diverse activities.

Specifically, the purpose of the MSDI Workshop was to guide the Study as well as future OGC Innovation Program activities by:

1. Engaging different stakeholders from the marine domain, and finding out where best they could benefit from a MSDI
2. Helping participants better understand activities occurring at OGC and other key organizations

3. Engaging executive level participants to understand the most important challenges
4. Engaging operational and technical stakeholders to gather and share information on the current state for using geospatial data and services in marine activities, including:
 - a. Understanding what data, applications, tools and services stakeholders need
 - b. Understanding what data, applications, tools and services are available
 - c. Understanding the discoverability, accessibility, and usability of resources
 - d. Understanding interoperability challenges and integration opportunities
 - e. Identifying gaps in data, applications, tools and services

On 15 November 2018, OGC distributed broadly a Request for Information (RFI) to the international marine community to help shape the MSDI- CDS. The RFI responses were due 07 February 2019, and are currently being analyzed and documented in a final report that will serve as the basis for improvement of SDIs to support the Marine domain. The next step will be a MSDI-CDS Roundtable in late March 2019 where a group of OGC members will review Study findings and a draft of the final report. The final report is projected for late April 2019.

3. Conclusions

The final technical report from the MSDI-CDS will provide both an interoperability reference architecture for MSDI and the foundation for a potential second phase Pilot initiative. If activated, the Phase 2 Pilot would be an OGC initiative with active involvement by several supporting IHO and/or OGC member organizations. The goal of Phase 2 is to articulate the value of interoperability and to demonstrate the benefits of standards through pilot(s) and demonstrations. This will be done by piloting a recommended SDI architecture to support a Marine SDI and developing demonstrations.

4. Recommendations

It is recommended that members of the MSDIWG monitor the OGC website (<http://www.opengeospatial.org/>) in late April 2019 for release of the final MSDI-CDS technical report. Additionally, after the technical report is released, it recommended that any members interested supporting a follow-on Pilot to this Study should consult with their agency/company/etc. and contact OGC's Innovation Program for more information.

5. Justification and Impacts

The above recommendations would allow MSDIWG members to access the results from the MSDI-CDS and assist members who are interested in supporting a MSDI follow-on Pilot initiative.

6. Action Required of MSDIWG

The MSDIWG is invited to:

- a. Take note of the report.