Deliverable D1.10
Strategy for Future Digital Communications

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1.1 Authors

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>J Carson-Jackson / N Ward</td>
<td>IALA</td>
</tr>
</tbody>
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1.2 Document History

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1.3 Reviewers

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<tr>
<th>Name</th>
<th>Organisation</th>
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<tbody>
<tr>
<td>Bjorn Pedersen</td>
<td>DMA WP.1 Lead</td>
</tr>
<tr>
<td>Nick Ward</td>
<td>IALA</td>
</tr>
<tr>
<td>Thomas Christensen</td>
<td>Ex-DMA</td>
</tr>
<tr>
<td>Ann Lemming</td>
<td>DMA WP.1</td>
</tr>
</tbody>
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1 Introduction
In WP1 of EfficienSea 2, IALA leads Task 1.3: Coordinating standardization of solutions. IALA manages the work in Task 1.3, preparing reports and deliverables in conjunction with the other members of the Task Group (CIRM, UKHO).

2 Document
This document, EfficienSea2 Deliverable D.1.10 – Digital Communications in the Maritime Environment 2017 – 2030 presents a strategy for maritime communications.

3 Background
The e-navigation concept will increase the efficiency, safety and security of voyage planning and information in the maritime sector. e-Navigation is dependent on applications which provide mariners with the data they need in a more secure and efficient manner. These applications require communication technologies that can provide the necessary capacity for bidirectional ship-ship and ship-shore, including ship-satellite communication.

4 Strategy
The vision for digital communications in the maritime environment is:

Secure, effective, seamless communications within navigable waters to support maritime applications.

To achieve the vision, four core strategic challenges have been identified:

1. Assessing operational requirements.
2. Ensuring existing and developing digital maritime communications technologies interact securely, effectively and seamlessly.
3. Evaluating the suitability of different technologies to address operational requirements.
4. Providing communication options and implementing infrastructure to support digital maritime communications.

A number of response actions will be undertaken to address these core strategic challenges.

4.1 Requirements
1.1 Defining obligations for service provision (mandatory requirements).
1.2 Identifying preferred / additional services.
1.3 Identifying geographic service area.
4.2 Technologies
2.1 Identifying existing technologies and standards.
2.2 Identifying developing technologies and standards.
2.3 Identifying level of interaction between technologies.
2.4 Confirming process to enable seamless communications.

4.3 Suitability of Technology
3.1 Confirming range of candidate technologies.
3.2 Matching candidate technologies to requirements.
3.3 Determining process to transition to candidate technologies.

4.4 Infrastructure
4.1 Inventory of current / existing infrastructure and life-cycle maintenance cycles.
4.2 Effectiveness of current / existing infrastructure.
4.3 Identification of requirements for infrastructure to support new / developing technologies.
4.4 Prioritising update / implementation of infrastructure.
Strategy – Digital Communications in the Maritime Environment

Digital Communications in the Maritime Environment – 2017-2030

Vision
Secure, effective, seamless communications within navigable waters to support maritime applications

Strategic Challenge 1: Requirements
1.1 – obligations for service provision
1.2 – preferred or additional services
1.3 – geographic service area

Strategic Challenge 2: Technology options
2.1 – existing technologies and standards
2.2 – new technologies and standards
2.3 – interaction between technologies
2.4 – seamless communications

Strategic Challenge 3: Suitability of Technology
3.1 – range of candidate technologies
3.2 – technologies to meet requirements
3.3 – transition process

Strategic Challenge 4: Infrastructure Implementation
4.1 – current infrastructure & lifecycle maintenance
4.2 – effectiveness of existing infrastructure
4.3 – requirements for changes
4.4 – prioritisation for changes

Ongoing
Develop, approve, monitor and revise strategy
Implementation - Digital Communications in the Maritime Environment
2017-2030

2017
2018-2019
2020-2021
2022-2023
2024-2025
2026-2027
2028-2029
2030+

SC 1 - Requirements

SC 2 - Technologies

SC 3 – Suitability

SC 4 - Infrastructure

SC 3a – Suitability

Ongoing - Develop, Approve, Monitor, and Revise Strategy

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