Agenda item 9, 10

Task Number WG1- 5.1.19

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Working paper – Questions on a digital infrastructure framework for e-navigation to be considered at ENAV17

# Summary

This paper summarizes questions raised in WG1 and WG 2 during ENAV16 related to the Maritime Cloud, SeaSWIM and a Maritime digital Infrastructure framework.

## Purpose of the document

To pass the questions raised on to ENAV17, for a qualifying discussion providing input to the seminar proposed on digital infrastructures for e-Navigation.

## Related documents

ENAV16\_9\_22

ENAV16\_9\_23

ENAV16\_9\_24

ENAV16\_10\_5

# Background

At ENAV16, respinding to Action item 37 of ENAV15, three papers were presented on the Maritime Cloud concept, the SeaSWIM concept and a common Maritime Infrastructure Framework.

Taking into account ENAV16\_10\_5 working group 1 considered the papers and decided to raise a number of questions to be discussed at ENAV17, in order to qualify input to the proposed seminar on digital infrastructures for e-navigation, leading towards Delivery 2 of Task 5.1.19 of WG1.

Working group 2 considered the input papers and raised a number of further questions and initial reastions, to be considered at ENAV17.

# Discussion

## Questions raised by WG1:

Q:Who are we adressing? Who are the stakeholders? Of services delivered or the development or policy?

A: The group considered that the target audience of the discussion should focus on leading up to the proposed seminar, and would be IALA members and experts in digital infrastructure development and related policy issues.

Q: Governance – If there exists a infrastructure framework with a joint governing board, who approves the governing body?

Q: Governance of core services and registrations – at national level, regional level, global level?

Q: Who manage maritime service portfolios – who manage them, who is liable?

Q: Compliance testing – how does this fit into type approval regime

Q: How will it be funded – what’s the business case? Look at LRIT cost / benefit structure – who pays or the service and the bandwidth

Q: Does it require IMO approval or endorsement – or can it evolve naturally based on other drivers

Q: Roadmap?

Q: Can I send a message to any other subscriber?

Q: How do we know if a message was delivered? Who answers and acknowledges – system level(which system), user? Each single equipment to provide ACK?

Q: Service level implications for services? Critical or non critical

Q: Integrity of a message – how?

Q: Bandwidth consumption

Q: Is there a killer app that will justify it’s use?

Q: Transition…?

Q: Where is my data stored?

Q: Is there just one global node with identity registry / service registry / messaging server?

Q: If just one node - Is it not a single point of failure?

Q: If there are more, can I choose where I register – and can I access services or communicate with users on the other nodes?

Q: should a better name be chosen than Maritime Cloud?

Q: Can a holistic approach to Unique Identifiers encompass Actors using the infrastructure as well as navigational and other maritime objects?

Q: How can individual services in the MSPs be described?

## Questions and initial reactions by WG2

### ENAV16-9.23 How the Maritime Cloud supports e-Navigation

* Generally supportive
* Enabler for the IMO e-navigation vision
* In the approved IMO Strategy Implementation Plan
* Legal and governance aspects must be explored
* IALA should identify its role in the Maritime Cloud development and implementation
* More technical and organizational details are required to form a more firm view

### ENAV16-9.22 A Federated approach to distributed service interaction in Sea Traffic Management

* Consider amending term Sea Traffic Management to preclude concerns over control of ships from shore
* The renamed STM concept should address information exchange and preclude control of ships from shore
* The federated approach raises concerns regarding the loss of control in the custody of information
* As STM goes ‘beyond e-navigation”, how much of a role does IALA have to play?

### ENAV16-9.24 Maritime Infrastructure Framework

* The presented governance concepts may not be consistent with current international, regional, national or local regimes
* IALA’s role in infrastructure governance (e.g., approving and providing services) needs to be examined