E-Navigation Testbed
APPWEB 2.0
Capacity Building
Asia-Pacific Web APPWEB: Web based e-Navigation Testbed
2021 Nov
APPWEB 2.0 CAPACITY BUILDING

CONTENDES

Asia-Pan-Pacific Web Portal e-Navigation Testbed

I BACKGROUND

II PROGRESS

III CONCEPT & FUNCTIONS

IV FUTURE PLAN

V CONCLUSION
BACKGROUND

MAIN CONCERNS OF MARINE STAKEHOLDERS NOW WORLD MARITIME IS
BACKGROUND
MAIN CONCERNS OF MARINE STAKEHOLDERS

3,156 CASES OF INCIDENTS

OVER $207M OF PHYSICAL LOSSES

553 MARINERS INJURED

84.5% by HUMAN ERROR

2020, Marine Casualties, KOSIS of ROK
BACKGROUND

MAIN CONCERNS OF MARINE STAKEHOLDERS

OPTIMUM & SAFETY ROUTE
Cost Saving
Efficiency

SAFETY ROUTE
Nautical Warnings
Reporting to Shore

WEATHER
AtoN
Notice to Mariners
Pilot/Port/Beth Information

National Competitiveness
Maritime Safety
Marine Environment
Responsibility of IMO III Code

SHIPPERS,

MARINERS,

ADMINS.
BACKGROUND

Now WORLD MARITIME DOES...

Initially considered in IMO MSC81

MSC94 e-Navigation SIP approved

MCP Consortium launched

Service ongoing

2006

MSC85 e-Nav strategic and mean approved

2008

2014

2017

2019

2020

2021

- Hyperconnected
- Standardization
- Digitalization
- Customization

HGDM organized

Start e-Navigation

S-mode S-10x
BACKGROUND

NOW WORLD MARITIME DOES ...

WHY?

DIGITALIZATION

STANDARDIZATION

AND CONNECTION?
BACKGROUND

NOW WORLD MARITIME DOES ...

Time = Cost equals ten times of Investment
Money at least

Saving Cost is a definite way to decrease
Consumption, Waste and Pollution

With BETTER COMMUNICATION,
Global Port operations can
save up to $12BN ANNUALLY
Asia Pan Pacific area does not have own regional community platform yet.
The level of preparation for emerging technologies varies from country to country.
BACKGROUND

NOW WORLD MARITIME DOES ...

GAPS

- LACK OF SUITABLE LEGAL FRAMEWORKS
- UNCLEAR ROLES AND RESPONSIBILITIES
- INSUFFICIENT RESOURCE ALLOCATION, EDUCATION AND TRAINING

RESULT

- UNAWARE OF EXACT OPERATIONAL STATUS OF AIS-TO-NAVIGATION
- INCONSISTENCY BETWEEN CHART AND ACTUAL ATON
- MSI NOT PROMULGATED PROPERLY TO MARINERS
PROGRESS SO FAR

PROGRESS OF CONSULTATION

PROGRESS OF IMPLEMENTATION
II 
PROGRESS SO FAR

PROGRESS OF CONSULTATION

APPWEB WILL BE SOLUTION

- INITIATED SINCE LATE 2017
- REPORTED AT 19TH APHOMSA 2018
- THE 1ST APPWEB (DEMO) LAUNCHED IN 2019
- APPWEB 2.0 DEVELOPMENT IS ONGOING
II PROGRESS SO FAR

PROGRESS OF CONSULTATION

Work closely to establish an Asia-Pan-Pacific version of BalticWeb as a demonstrator gateway for e-Navigation services.

2017

AMSA, MOF & USCG

2018

AMSA & MOF
Have the first discussion on implementation of the APPWeb during the IALA ENAV 20th Session.

APPWEB BETA
Completed the 1st beta version using Baltic web source and demonstrated at 19th APHoMSA Forum.
Interfaced MSI data with KHOA* and AMSA. Developed an independent data management system from Njord.

**APPWEB 1.0**

**AMSA, MOF & IALA**

**2019 JULY**

Discussed on direction of APPWeb development and cooperation plans among MOF, AMSA and IALA

**2019 SEP**

THEY DISCUSSED AND CONCLUDED

1. To prepare for basic requirements docs and start designing

2. Decided application of S-124 as MSI data standard (e-Navigation MS 5)

3. To gather requirements from other nations in Asia Pacific area prior to developing APPWeb 2nd Version

4. To define non/functional requirements

5. IALA and AMSA will annotate on RFP which MOF draft

※ KHOA (Korea hydrographic and oceanographic agency)
II   PROGRESS SO FAR

PROGRESS OF IMPLEMENTATION

Develop, Implement and Select states for TBD

2022-

Feasibility Analysis

Start APPWeb System Designing

Defined concept, users, services and functions in details

Gathering Non/Functional Requirements

2020 FEB

2020 APR

2020 JUL

2021 AUG
WHAT IS APPWEB?

FUNCTIONS AND SERVICES
CONCEPT DIAGRAM
ROADMAP
IV ROADMAP

2023

- SYSTEM IMPLEMENTATION
- FS & CONSULTING
- SELECT TESTBED (2 COUNTRIES)
- CONFIRM USER REQUIREMENTS
- FIELD SURVEY

2024

- START ODA PROGRAM
- ESTABLISH DATABASE (MSI AND ATON)
- SETUP AND STORE MSI DATASET

2025 ~

- EXPAND ODA PROGRAM (MORE COUNTRIES)
- EARNESTLY ESTABLISH THE REGIONAL PLATFORM IN ASIA-PAN-PACIFIC AREA

※ FS: Feasibility Study
CONCLUSION

“COOPERATE FOR FUTURE OF APP REGION”

THIS TIME SHOULD BE DIFFERENT
UNAVOIDABLE GLOBAL TREND

SAFETY = EFFICIENCY
GROW TOGETHER IN APP REGION

PLEASE CONTACT MOF OF ROK IF YOU HAVE INTEREST IN APPWEB TESTBED PROJECT!
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THANK YOU

AND Q & A

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