Automating Ship Reporting
Progress Report

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Presentation Topics

1. Background
2. IMO FAL
3. National Single Window
4. Current Automated Reporting Tools
5. Library of required ship reports
6. Ship Reporting Database
7. Prototype Ship Reporting Tool
8. Test Bed
9. Maritime Cloud
Background

1. Gap Analysis
2. Strategic Implementation Plan (SIP)
3. Proritized Solution 2
   Means for Standardized and Automated Reporting
4. MSP8
   Vessel Shore Reporting Service (VSRS)
   IALA VSRS Guideline in progress
Ship Reporting Requirements

1. IMO FAL Forms
   • Lack of Authority to limit Reporting Requirements

2. Many Other Reports are required
   • beyond FAL Forms
1. Based on IMO FAL Forms
2. Lack of Harmonization between Countries
3. No reduction of amount of information
4. Beneficial for Shore-based Authorities
5. Limited benefits for Mariners
CUSTOMS AND EXCISE SERVICE

Arrival Declaration

Name of Vessel: HANJIN TAMPA
Call Sign: AB23436
Voyage No.: 23212332
Buoy No.: 435435
Arrival Time: Tokyo port, 5/20/2015 12:00:00 AM

(1) Shipping Particulars

Name of Owner: Delphi Navigation Ltd.
Nationality: KOREA
Port of Registry: Busan
Year Constructed: 2,015
Registered Length: 20007
Tonnage-Gross: 16,252
Tonnage-Net: 45,350
Passenger Capacity: 200
Name of Agent: John
Address: Busan, South Korea
Tel No.: +82 3424325

(2) Voyage Itinerary

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LA = local agent
IM = Immigration office
CH = Customs House
QI = Quarantine Inspection office
AP = Animal and Plant Inspection office
HM = Harbour Master
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Current Automated Reporting Tools

1. DNV.GL Port Navigator
2. BASSnet Port Forms Management Module
3. Shipping Lines’ “Home Grown” Solutions
4. <10% of Ships use Automated Reporting Tools
5. Goal: 100%
6. Reduce Cost of Automated Reporting Tools
Library of Required Ship Reports

1. About 1000 Unique Reports
2. Unique Characteristics
3. Weekly Updates
4. Expensive to Create and Maintain
5. Library Costs are shared between few ships
6. Reduce cost per ship
7. Use Common Library of Ship Reports
Library of Required Ship Reports (cont’d)

8. Draft IALA Guideline for Vessel Shore Reporting
   • Includes structure of Common Ship Report Library

9. Why is IALA involved?
   Shore-based Authorities require ship reports
   They are represented by IALA National Members
   • Maritime Administrations
   • Port Authorities
   • VTS
Library of Required Ship Reports (cont’d)

Ship Report (Template) Attributes

1. Maritime Resource Number (MRN)
2. Report Type
3. Ship Types required to submit Report
4. Submission Criteria (To Whom?, When?, How?)
5. Allowable Report Formats (Printed, PDF, XML, etc.)
6. Form Layout (Header, Footer, Body)
7. Fields / Attributes
Library of Required Ship Reports (cont’d)

Maritime Resource Name

Library of Required Ship Reports (cont’d)

19 Ship Report Types

Arrival/General Declaration  Health
Ballast Water Log  Passenger List
Cargo Declaration  Port of Call List (Voyage Memo)
Disembarkation Certificate  Security Report
Ship Certificate  Ship’s Particulars
Crew Effect Declaration  Ships Repairs
Crew Vaccination Record  Ship Stores Declaration
Crew List  Tank Condition
Foreign Currency List  Waste Notification
General/NIL List
Library of Required Ship Reports (cont’d)
Ship Report Database

1. Contains all Ship Reporting Information
2. Manually entered or retrieved from other systems
3. Hosted On-Board
4. May be replicated to the Cloud to allow collaboration with Shore-based Personnel
5. Cloud version will need better Security
6. Collaboration requires Harmonization
7. Harmonization will also reduce the cost of Automatic Ship Reporting tools
Ship Report Database (Cont’d)

1. Draft IALA Guideline includes S-2XX Specification
Ship Report Database (Cont’d)

1. Harmonized with ISO 28005
2. Cloud-based version = part of CMDS
3. Can generate all Ship Reports for 32 Ports
4. Represents an “International Single Window”
Governance of Cloud-Based Ship Report Database (part of CMDS)

1. Ship Owners/Operators own its content
2. They should control Database access
3. Who should administrate & manage the Database?
   - An existing Association (ICS, Bimco, InterTanko, etc.)
   - A new entity
   - LRIT Data Centers
   - 3rd Party on behalf of Ship Owners/Operators
Prototype Ship Reporting Tool
Prototype Ship Reporting Tool
(Cont’d)

1. Can generate all Container Ship Clearance Reports for 32 Ports

2. Adheres to draft IALA VSRS Guideline
   • Ship Report Library
   • Ship Report Database

3. Designed to run standalone on a ship
   • Uses existing Telecommunications Infrastructure
   • No Cloud-based components
Automatic Ship Reporting Testbed

Inviting Container Ship Operators to test the prototype
  • On one or more ships
  • Calling on one or more of the 32 currently covered ports

Inviting Shore-based Authorities of one or more of the currently covered ports to evaluate reports
  • Adherence to reporting requirements

Provide Feedback on
  • Prototype
  • IALA VSRS Guideline
Maritime Cloud

After the IALA VSRS Guideline has been approved and Ship Reporting Database Governance has been assigned

• Industry can develop and market lower cost Ship Reporting Tools
• Use existing Telecommunications Infrastructure
Maritime Cloud (Cont’d)

MC Operational Testing is underway
• EfficienSea2 Project

When the MC becomes Operational
• On Ships
• In Ship Owners’/Operators’ Offices
• For Port Agents

then Ship Owners/Operators will request industry to adapt Ship Reporting Tools to the MC to take advantage of the MC infrastructure
Maritime Cloud (Cont’d)

The Draft IALA VSRS Guideline includes details on how Ship Reporting tools will likely need to be amended for the MC infrastructure.

MC Security Tools have already been specified:
- Authentication
- Authorization
- Encryption

These tools should be used for a cloud-based version of the Ship Reporting Database.
Thank you!

Questions?

S-2XX Product Specifications
VSRS Prototype

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Draft IALA VSRS Guideline

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