SMDG – DCSA collaboration

SMDG Plenary meeting
April 2023

Topics for today

1. Introduction to DCSA

2. EDI – API analysis

3. SMDG – DCSA collaboration

Digital Container Shipping Association - Introduction

About DCSA

✓ Global, non-profit association

✓ Covering >70% of global container transport

✓ DCSA's mission is to shape the digital future of container shipping

✓ Vendor neutral and technology agnostic

✓ Open source and free for all to use

✓ Standards are created by alignment with relevant international organisations such as UN/CEFACT and collaborating with all stakeholders of container shipping
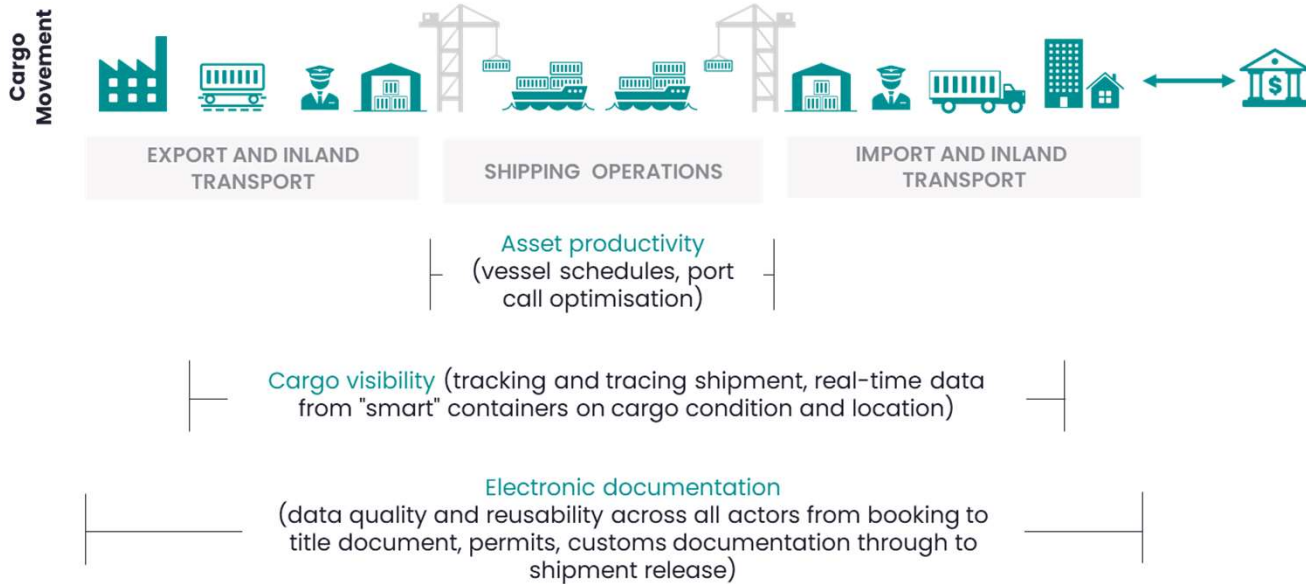
DCSA's Vision

At DCSA, we envisage a digitally interconnected container shipping industry in which the customers of ocean carriers have a choice of seamless, easy-to-use services to meet their business goals.

DCSA's work

Main standards

Cargo Movement

EXPORT AND INLAND TRANSPORT

SHIPPING OPERATIONS

IMPORT AND INLAND TRANSPORT

Asset productivity
(vessel schedules, port call optimisation)

Cargo visibility (tracking and tracing shipment, real-time data from "smart" containers on cargo condition and location)

Electronic documentation
(data quality and reusability across all actors from booking to title document, permits, customs documentation through to shipment release)

Foundational standards and support documentation

- Industry blueprint
- Information model
- API design principles
- Reference implementation
- Cyber security guide
- Accompanied by reading guides, glossary of terms and FAQs

All of the standards and supporting material are freely available on our website www.dcsa.org

DCSA's recent developments
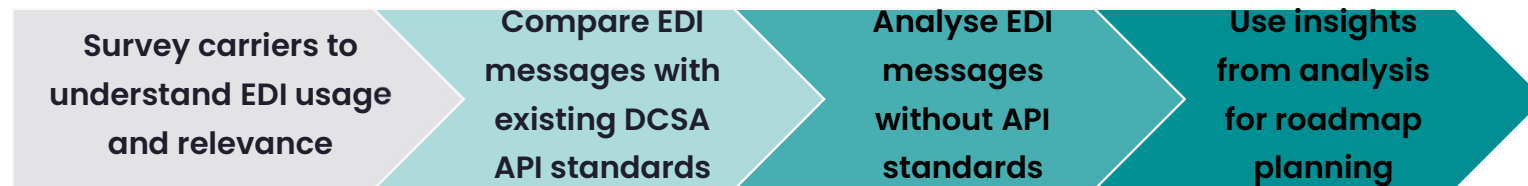
Some highlights of recent developments

- 100% eBL commitment by the CEO's of the members, according to DCSA standards

- The US FMC recommends the use of DCSA standards for national maritime data standards

- Release of Track & Trace 3.0 version

- Involvement in Green Shipping Corridors

- Mapping of DCSA information model to standards of UN/CEFACT, EU and IMO

- Increased collaboration with other stakeholders e.g. industry workshop, shipper workshop, ICC, IMO, ISO, SMDG and more

100% eBL in 2030
to unlock significant savings as well as create opportunities for future growth

FEDERAL MARITIME COMMISSION
COMPETITION AND INTEGRITY FOR AMERICA'S OCEAN SUPPLY CHAIN

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Statement of Commissioner Carl W. Bentzel On Meeting with the Digital Container Shipping Association (DCSA) Board of Directors Regarding a Data Standards Framework for International Container Shipping

Posted March 31, 2023

DCSA EDI-API Analysis

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Survey carriers to understand EDI usage and relevance	Compare EDI messages with existing DCSA API standards	Analyse EDI messages without API standards	Use insights from analysis for roadmap planning

Survey questions:

- EDI messages in use
- Volume of messages
- Number of integrations
- Number of integration variations (customizations)
- Priority for carriers' business and to renew

Activities:

- Evaluate DCSA API standards and Information Model against EDI messages to answer: *HOW COMPLETE ARE OUR APIs?**
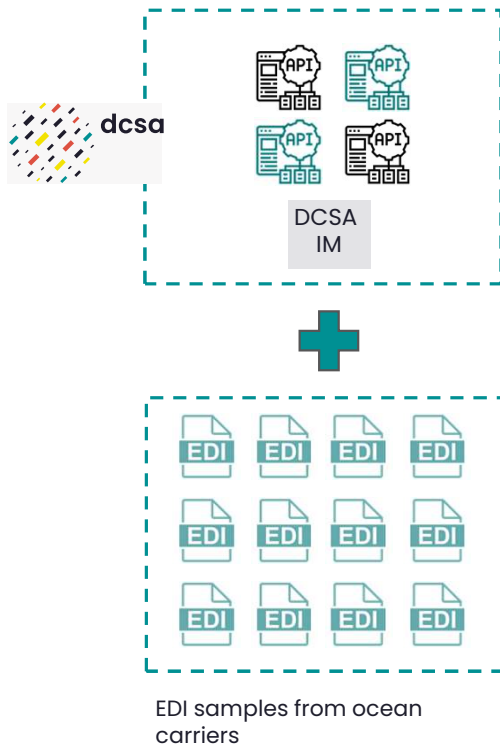- Identify gaps to include in roadmap planning

Analysis:

- Compare EDI messages across carriers to map content and differences
- Identify elements in Information Model that could speed up development of missing API standards*

Results:

- Improve existing standards where gaps are identified to facilitate replacement of EDI with API
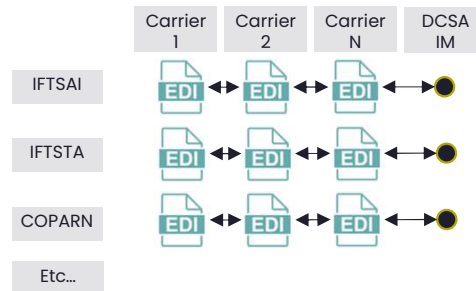- Prioritize new standards development

*Supported by CIF Consulting

EDI – API approach

Compare for completeness

DCSA IM ↔ [API] ↔ EDI

Compare for differences and map to IM

	Carrier 1	Carrier 2	Carrier N	DCSA IM
IFTSAI	EDI ↔	EDI ↔	EDI ↔	●
IFTSTA	EDI ↔	EDI ↔	EDI ↔	●
COPARN	EDI ↔	EDI ↔	EDI ↔	●
Etc...				

DCSA IM

+

EDI samples from ocean carriers

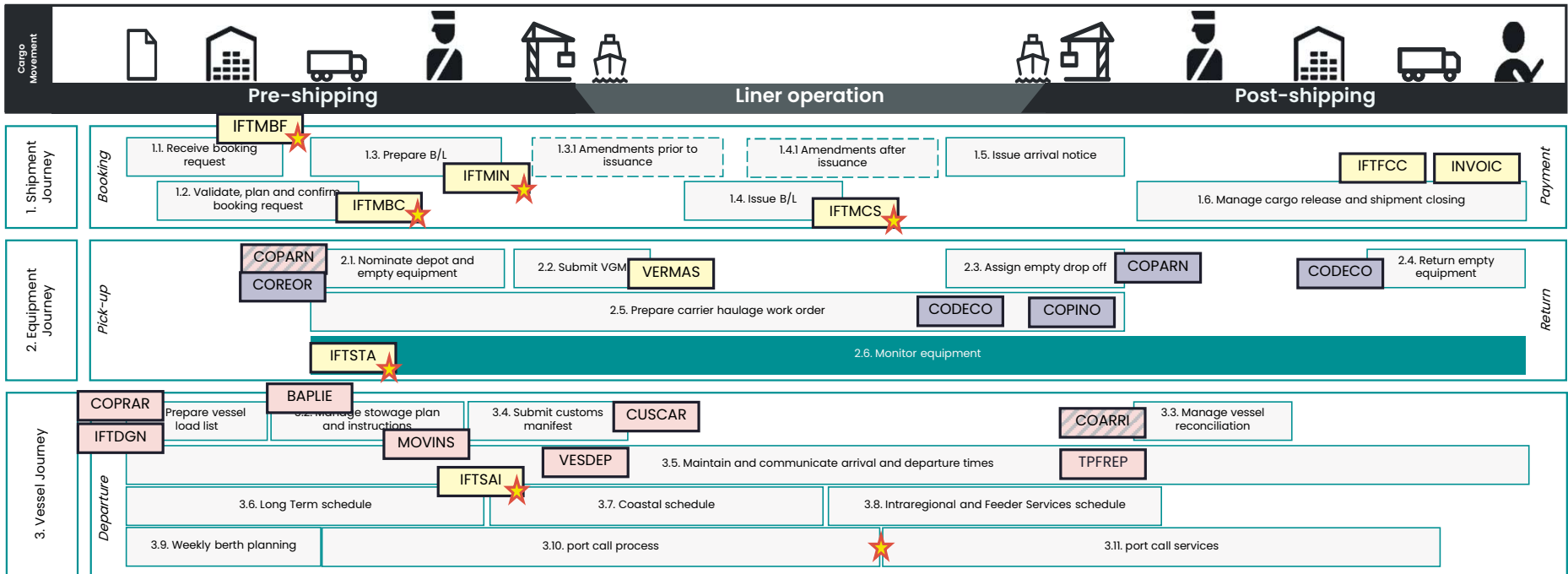**Outcome**

- Harmonized DCSA naming by linking data attributes in EDI messages to DCSA Information Model

- Understanding of completeness of DCSA APIs vs. related EDI messages

- Understanding of relevance of specific data attributes in EDI messages across carriers for future standards development

- Names suggestion for data attributes to add to IM – when missing - in future APIs development

EDI messages mapped to DCSA standards

Legend:
- Shipper/Forwarder EDI
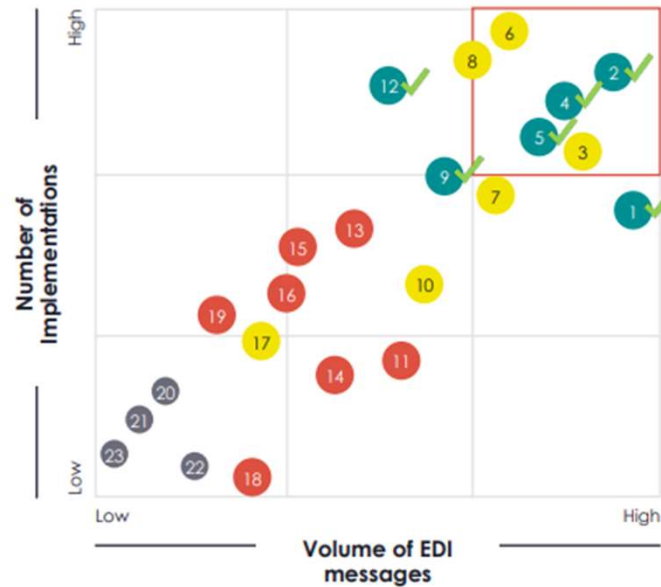- Port / Terminal Operations
- Container Facility
- API (star)

Cargo Movement

| Pre-shipping | Liner operation | Post-shipping |

1. Shipment Journey — Booking

- IFTMBF
- 1.1. Receive booking request
- 1.2. Validate, plan and confirm booking request
- IFTMBC
- 1.3. Prepare B/L
- IFTMIN
- 1.3.1 Amendments prior to issuance
- 1.4. Issue B/L — IFTMCS
- 1.4.1 Amendments after issuance
- 1.5. Issue arrival notice
- 1.6. Manage cargo release and shipment closing
- IFTFCC
- INVOIC
- Payment

2. Equipment Journey — Pick-up

- COPARN / COREOR
- 2.1. Nominate depot and empty equipment
- 2.2. Submit VGM — VERMAS
- 2.3. Assign empty drop off — COPARN
- 2.4. Return empty equipment — CODECO
- 2.5. Prepare carrier haulage work order — CODECO / COPINO
- IFTSTA
- 2.6. Monitor equipment
- Return

3. Vessel Journey — Departure

- COPRAR
- IFTDGN
- Prepare vessel load list
- BAPLIE
- 3.2. Manage stowage plan and instructions
- MOVINS
- 3.4. Submit customs manifest — CUSCAR
- 3.3. Manage vessel reconciliation — COARRI
- VESDEP
- 3.5. Maintain and communicate arrival and departure times — TPFREP
- IFTSAI
- 3.6. Long Term schedule
- 3.7. Coastal schedule
- 3.8. Intraregional and Feeder Services schedule
- 3.9. Weekly berth planning
- 3.10. port call process
- 3.11. port call services

Outcome and planned activities for EDI-API

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EDI Messages

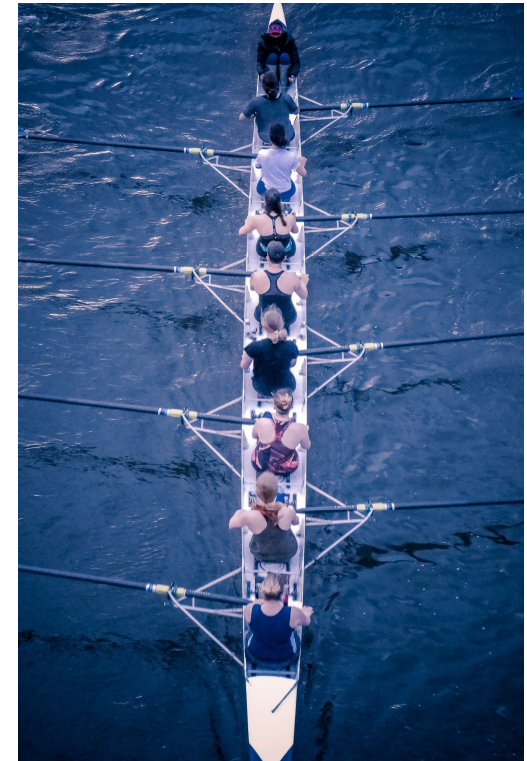| #	Message
01	Vessel Schedule (Operational) (IFTSAI)
02	Track and Trace / Status Update (IFTSTA)
03	Container Pre-Announcement and Release Notice (COPARN)
04	Booking Confirmation (IFTMBC)
05	Booking Request (IFTMBF)
06	Container Delivery Confirmation (CODECO)
07	Verified Gross Mass (VGM) (VERMAS)
08	Container Discharge and Loading Confirmation (COARRI)
09	Bill of Lading Data (IFTMCS)
10	Container Release Order (COREOR)
11	Invoice (IFTFCC)
12	Shipping Instructions (IFTMIN)
13	Manifest (CUSCAR)
14	Invoice (INVOIC)
15	Container Discharge and Loading Order (COPRAR)
16	Bayplan Message (BAPLIE)
17	Dangerous Goods Notification Message (IFTDGN)
18	Move Instruction Message (MOVINS)
19	Terminal Performance Report (TPFREP)
20	Berth Management (BERMAN)
21	Container Pickup Notification (COPINO)
22	Waste Disposal Information Message (WASDIS)
23	Vessel Departure Message (VESDEP)

Legend:
- Completed DCSA standards
- 2024+ completion
- 2023 completion
- Jointly deprioritized

Axes: Number of Implementations (High / Low) vs Volume of EDI messages (Low / High)

Collaboration between SMDG and DCSA

- **Despite being different, SMDG and DCSA have similar;**
    - Scopes
    - Goals
    - Members

- **Therefore it makes sense to collaborate in order to;**
    - Avoid duplication of efforts or conflicting standards
    - Be able to learn from each other
    - Support each other towards other stakeholders (e.g. CEFACT, ISO or IMO)

- **End of 2022 it was agreed to intensify collaboration**
    - Joining each others' meetings and have bilateral coordination
    - For the time being not (yet) formalised (e.g. membership or MoU)
    - Hanane Becha is the main point of contact at DCSA for SMDG

Thank you