



SECTION 4

CARRIERS, FREIGHT FORWARDERS AND LOGISTICS OPERATORS

Carriers, freight forwarders and logistics operators are important intermediaries between the sell-side and the buy-side, facilitating the physical flow of goods to move from origin to destination. From a digitalisation perspective, they are motivated not only by the prospect of improving operational efficiencies but also by the ability to add greater value and differentiation to their offer by enabling a closer, real-time connection with customers and providing an improved customer experience.

Table 4.1 Standards for Transport, Forwarding and Cargo Handling Documents ('Ship' Process)¹¹

TYPE	DATA STANDARD	DATA FORMAT/ EXCHANGE STANDARD	ANY APPLICABLE RULES, REGULATIONS, GUIDELINES
Shipping/ Forwarding Instruction	UN/CEFACT Multimodal Shipping Instruction DCSA Shipping Instruction for multimodal container shipping	UN/CEFACT XML, UN/EDIFACT OASIS UBL latest version JSON, API	
Bill of Lading	DCSA electronic bills of lading (eBLs) for multimodal container shipping BIMCO electronic bills of lading (eBLs) for dry & wet bulk (COMING SOON) Electronic FIATA Multimodal Transport Bills of Lading (eFBL)	JSON, API JSON, API & PDF with QR code	ICC eUCP latest version ICC eURC latest version
Air Waybill	IATA e-AWB	EDI messages (FWB/XFWB, FSU/XFSU), IATA Cargo XML, EPIC Basic API , IATA ONE Record specifications (JSON, API)	IATA Resolution 672 on E-air Waybill, also known as "Multilateral e-AWB Agreement" ICC eUCP latest version ICC eURC latest version
CIM Consignment Note (Rail Transport Document)	CIM/SMGS Consignment Note	EDI, working towards XML/EDIFACT converter	ICC eUCP latest version ICC eURC latest version
CMR Consignment Note (Road Transport Document)	UN/CEFACT eCMR	XML	ICC eUCP latest version ICC eURC latest version
Verified Gross Mass (VGM) Report for Containerised Shipments ¹²	Depends on shipping line	UN/EDIFACT Verified gross mass message (VERMAS)	SOLAS (International Convention for the Safety of Life at Sea)

¹¹ Similar to Table 3.2.

¹² Under SOLAS Convention, the shipper for safety reasons has to provide the ocean carrier with the verified gross mass (VGM) of the container i.e., the total weight of the cargo (cargo weight, loading material/pallets/skids, dunnage, securing material and tare weight of the container).

Table 4.2 Standards for Port/Airport Clearance Documents ('Ship' Process)

TYPE	DATA STANDARD	DATA FORMAT/ EXCHANGE STANDARD	ANY APPLICABLE RULES, REGULATIONS, GUIDELINES
IMO FAL forms: 1. General Declaration 2. Cargo Declaration 3. Ship's Stores Declaration 4. Crew's Effects Declaration 5. Crew List 6. Passenger List 7. Dangerous Goods Manifest 8. Security Report 9. Waste Delivery in Port	IMO Compendium¹³	UN/CEFACT IMO eFAL WCO – IMO Message Implementation Guide ISO 28005 on Electronic port clearance (EPC) digitalOCEANS Port Clearance API specifications (v1.0)	IMO Convention on the Facilitation of International Maritime Traffic (the FAL Convention).
Port Call	DCSA Just-in-time (JIT) port call standards¹⁴	DCSA Just-in-time (JIT) port call API	IMO Just In Time Arrival Guide

Table 4.3 Standards for Real Time Shipment Tracking Data ('Ship' Process)

TYPE	DATA STANDARD	DATA FORMAT/ EXCHANGE STANDARD
Customer-facing Track and Trace Events in Containerized Shipping	DCSA Interface Standard for Track and Trace	API

¹³ The IMO Compendium is a tool for software developers that design the systems needed to support transmission, receipt and response via electronic data exchange of information required for the arrival, stay and departure of the ship, persons and cargo to a port. By harmonising the data elements required during a port call and by standardising electronic messages, the IMO Compendium facilitates the exchange of information, ship to shore, and the interoperability of single windows, reducing the administrative burden for ships linked to formalities in ports.

¹⁴ Standards that will allow carriers, ports and terminals to automatically exchange event data in a uniform way.

Besides the identifier standards mentioned in Section 2, the transport and logistic sector benefits from a few additional identifier standards¹⁵ as listed below.

Table 4.4 Identifier Standards for Transport and Logistics

TYPE	APPLICABLE STANDARD	PURPOSE
Identifier Standards for Objects		
Ship Identification Number	IMO ship identification number scheme	The IMO number is a permanent number assigned to each ship for identification purposes, to enhance maritime safety, security and environmental protection, and to facilitate the prevention of maritime fraud. Inserted in the ship's certificate, it would remain unchanged upon transfer of the ship to other flag(s).
Transport Assets or Equipment	Global Individual Asset Identifier (GIAI)	Companies can apply a GIAI on any asset to uniquely identify and manage that asset. This could be a computer, desk, vehicle, piece of transport equipment, or spare part, etc.
Reusable Transport Items, Transport Equipment, and Tools	Global Returnable Asset Identifier (GRAI)	Suitable for the management of reusable transport items, transport equipment and tools, and can identify these returnable assets by type and if needed also individually for tracking and sorting purposes.
Unique Item Identifier (UII)	ISO/IEC 15459-1 and ISO/IEC 15459-5	Identifiers of individual transport units and returnable transport items based on ISO/IEC 15459 Unique Identification system.

¹⁵ Further resources available at [GS1 Identification Keys in Transport & Logistics Guideline](#) and [GS1 Identification Keys in Transport & Logistics - Interactive User Guide](#).