Freight Consignment Data Aggregation Pilot

Models, Scenarios, Messages & Data Sets

Version 0.2
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Purpose

This document outlines the background, approach, standards adoption strategy, process flow scenarios, freight transport messages and data sets, interoperability and data exchange models, and data aggregation, applied to deliver the outputs of the Freight Consignment Data Aggregation pilot project.

Overview and Background

End to end supply chain visibility has grown to be a key focus area for many supply chain participants, however the reality of today's supply chains is that this is largely non-existent. The constraints of manual, paper based processes and bespoke, proprietary systems that are difficult to integrate makes it virtually impossible.

The goal of freight data exchange is to encourage all supply chain trading partners to engage in the act of exchanging freight data between themselves and by doing so achieve a connected freight information exchange network and a National Freight Data Hub.

Logistics systems require large amounts of data, including information about locations, geography, service providers, rates, itineraries, as well as transactional data such as orders and shipment status and much of this data comes from traditional ERP and Transport Management Systems.

The pilot project looks at two main aspects of data: data discoverability, and standards compliance and interoperability.

- For data discoverability, there is an exploration of some of the public-facing aspects of datasets and attributes, and data aggregation.
- For standards compliance and interoperability, there is an exploration of the varying use of standards as they relate to the context of defined freight movements.

This exploration is necessarily contextualised within the larger data ecosystem of a national freight data infrastructure.

This document highlights Global Data Standardisation, EDI and EPCIS standard messages and related schemas, and Data Sets and attributes, applied across various multimodal freight movement scenarios.

Insights & Approach

Insights

Establishing standardised information flows across the freight supply chain, enabled through a collaborative standardisation effort between trading partners, will support current and future needs of freight logistics.

Additionally, the importance of establishing a goal for:
- data standards compliance and interoperability,
- a technique for searching multiple databases simultaneously, and
- a means for data aggregation to assist decision making,

is a well-recognised objective.

As this initiative potentially scales in the future, standards compliance and interoperability will also need to address aspects of:
- DATA CAPTURE – Data/Records/Transactions capture
- DATA COLLECTION – Data gathering and maintaining updated Data Repositories
- DATA SHARING – Making data available by enabling Querying/API Pull/Send file or message

Aim

- Generating transport messages that would provide visibility and information related to multimodal freight consignment movements between supply chain partners.
- Collection of these transport message and provision of a data set to harness freight data aggregation and analytics within a BITRE database.
- Use of GS1 Transport Instruction and Transport Status EDI messaging and GS1 EPCIS Event Data messages

Approach

Generating a large volume of synthetic transport messages (EDI and EPCIS) to substitute for freight consignment movement transactions based on 5 scenarios depicting the Use Cases for:
- Pilot project 1: Supply Chain Freight Data Trial (Nestle, Toll Group, Woolworths) – Intrastate by Road (scenarios 1 & 2)

- Pilot project 1: Supply Chain Freight Data Trial (Nestle, SCT Freighters, Woolworths) – Intrastate movement from NSW to WA by Road and Rail (scenario 4)

- Pilot project 2: Multimodal Supply Chain Trial (Infrabuild, K&S Freighters, Pacific National Rail) – Interstate movement from NSW to Far North Queensland by Road and Rail (scenario 3)

- Pilot project 2: Multimodal Supply Chain Trial (Infrabuild, K&S Freighters, SWIRE Shipping) – Interstate movement from VIC to TAS by Road and Sea (scenario 5)

Design & Build of the prototype data aggregation database to test system components and develop prototype reports.

Uploading messages to the data aggregation database for reporting outputs.

Outcome

Enabling the use of real messages (when available) to be used in a "plug and play" fashion together with the developed data aggregation database and reporting capability.

Freight consignment data collected as a by-product of electronic data exchanged between supply chain partners, if collected in sufficient scale, can potentially provide an alternative means of collecting freight data, more regularly and more frequently, and better help inform freight-related network planning, infrastructure investment and freight policy.

Standards Adoption Strategy

GS1 System of standards

The GS1 System of global standards provides a framework that allows products, services, and information about them to move efficiently and securely through supply chains.

The GS1 system comprises a comprehensive set of standards to identify, capture and share information about objects throughout their lifecycle, providing the core foundation for interoperability:

1. Supply chain partners **identify** business objects and locations using standardised identifiers.
2. Supply chain partners **capture** an object's identity and any additional attributes that have been encoded in a standard manner in a data carrier (barcodes, RFID). This ensures the object can be read automatically, and location (where) and other data (who and why) is recorded.
3. Once supply chain partners are using a common language for identification and data capture, the gathered data is refined and enhanced with business context, to transform it into data that can be **shared** using standardised semantics, in a standardised format, and using standard exchange protocols.

Using GS1 Standards, diverse business processes interact and interoperate seamlessly across different trading partners' organisational boundaries, leading to operational efficiencies.

These standards offer a comprehensive, out of the box toolkit of enabling data structures, dictionaries, definitions, and vocabularies that work to streamline system to system integration, independent of any specific technology platform. In essence, "the Global Language of Business".

GS1 Identifiers

GS1 identifiers provide all trading partners with a standard way to uniquely identify each "physical component" or "object" in the supply chain, these include:

- **Logistics units**, which can be any combination of goods put together in a carton, in a case, or on a pallet – the Serial Shipping Container Code or SSCC.
- **Logical groupings of logistics** units that are assembled to be transported such as **a consignment** – the Global Identification Number for Consignment or **GINC** -- or as **a shipment** – the Global Shipment Identification Number or **GSIN**. The difference is that the GSIN is used to identify a shipment that has to be moved from one place to another, irrespective of the physical handling, while the GINC is used by LSP's to identify groupings of logistics units as appropriate in the chosen way of transport. Hence, one GSIN can result in several consignments, while in one consignment, goods from several shipments can be shipped. The GSIN is in compliance with Customs requirements for the Uniform Consignment Reference or UCR.
- **Individual assets used to transport the goods** – assets like a ship container and truck/trailer –the Global Individual Asset Identifier or **GIAI** - as well as **returnable assets** like a returnable pallet used for packaging – the Global Returnable Asset Identifier or **GRAI**.

- **Physical locations or trading partners** like retailers, manufacturers, transport carriers, freight forwarders and LSPs – the Global Location Number or GLN.
- **Trade items** like products and services that may be priced, or ordered, or invoiced at any point in any supply chain – the Global Trade Item Number or **GTIN**.

GS1 Capture and Share

The GS1 identifier for logistics units or SSCC (and all the information it holds) is captured on a case or pallet using a GS1 Logistics Label, which is the Standard International Logistics Label (STILL). This label is the GS1 recommendation on what data – in both human readable and barcoded formats – should be used when labelling logistics units in the transport and warehouse management processes.

Using the GS1 Logistics Label, the SSCC "stays on" the logistic unit through the whole supply chain, giving all trading partners a common reference back to the origin of the logistic unit and who is responsible for the goods. This is especially helpful as retailers receive goods, possibly from freight forwarding processes; and it enables these retailers to confirm receipt of the accurate shipment of goods. GTINs are encoded in barcodes that capture all information about those trade items.

Trading partners can share real-time information about the physical events in the supply chain using GS1 eCom messaging standards and Electronic Product Code Information Services (EPCIS), and use the Global Data Synchronisation Network (GDSN) as means for secure and continuous synchronisation of accurate product master data sharing.

As a basis for its strategy, the freight data exchange pilot project has embraced the following GS1 standards:

GS1 Global Data Standards (GDS)

GS1 Global Data Standards (GDS) relate to standardisation and automation of identification and messaging between participants through creating the ability to identify, capture and share data. Efficiency gains are typically realised by using unambiguous globally unique identification codes along with the electronic data capture and data exchange of data across the value chain thus effectively "connecting" a myriad of disparate systems. The uses of Global Data Standards (GDS) are relevant to most phases of the supply chain, starting from the exporters, third party logistics providers, customs and/or border agencies, importers, wholesalers and distributor, retailers/customers, and consumers.

GS1 eCom Messaging Standards

Electronic Data Interchange is the transfer of data from one computer system to another by standardised message formatting, without the need for human intervention. EDI permits multiple firms - possibly in different economies – to exchange documents electronically. GS1 eCom messaging standards define the business messages that are exchanged between trading partners. Whether planning or executing, trading partners can collaborate without having to reinvent processes and messaging for each new partner, order, or shipment. These electronic messages reduce manual entry efforts and paperwork and streamlines communications.

GS1 Logistics Interoperability Model Application Standard

Created by the GS1 Logistics Transport & Logistics community, this standard is based on the Logistics Interoperability Model (LIM). The foundation for the solution is a framework of common business scenarios and processes supported by the exchange of related information from master data alignment, procurement, planning, warehousing, transport, to financial settlement.

Its aim is to establish interoperability in these business processes so that they run seamlessly across trading partner organisational boundaries.

EPC Object & Event Data

Electronic Product Code Information Services (EPCIS) is a standard developed by GS1 to capture and report event-based traceability data. EPCIS helps to capture visibility event data along the supply chain. Visibility event data details physical or digital activity in the supply chain of products and other assets, identified by keys, detailing where the objects are in time, and why, not just within an organisation, but across organisations.

EPCIS enables disparate applications to create and share event based traceability data, both within and across enterprises, on the physical movement of goods or objects, the location of goods or other assets (transport equipment, returnable assets like pallets), making it possible to understand what actually happened as goods and assets are handled by trading partners in manufacturing sites, warehouses, retail stores and other facilities. EPCIS enables EPC Object and Event visibility data to be captured, shared, and queried.

GS1 Global Traceability Standard (GTS)

Global Traceability Standard (GTS) enables the creation of interoperable traceability systems. The objective of this standard is to assist organisations and industries in the design and implementation of traceability systems based on the GS1 system of standards. At a strategic level, this standard aims to provide key insights and knowledge to organisations or industries that are developing long-term traceability goals.

GS1 Digital Link & Resolver

GS1 Digital Link enables connections to all types of business-to-business and business-to-consumer information. With GS1 Digital Link, any set of GS1 Identifiers can exist as a Web address. GS1 Digital Link provides the opportunity to use GS1 Identifiers to access digital information and to easily resolve to resources on the Web. GS1 Digital Link has two capabilities:
1. The capability to easily resolve to resources (e.g. information) on the Web (this capability is usually associated with URLs and Web addresses).
2. The capability to provide a globally unambiguous name for anything, whether the thing exists only on the Web or in the real world (this capability is usually associated with URNs).

GS1 Registries

Global Location Numbers (GLNs) are now very widely used globally in many sectors for identification of locations and parties within the supply chain. In many countries GLNs are used by suppliers, retailers, government health authorities, hospital networks and farms among others for identification of individual locations and legal entities. Likewise, distributors, wholesalers, pharmacy chains and suppliers commonly use GLNs to identify warehouses, sites, office locations, store locations, warehouse bays, and so on.

Once GLNs are assigned, trading partners need to exchange information about the party or location to which the GLN has been allocated. Information that needs to be exchanged may include:
- The name of the location
- Location function
- Location address
- Contact details for location
- Parent and child locations related to this GLN

Today, this information is commonly exchanged via email, letter, spread sheet, or alternatively stored on trading partner Web sites. Each of these methods of GLN information exchange is point-to-point or peer-to-peer, meaning that additional time and effort is taken by the GLN allocator to ensure information exchange with all trading partners.

GS1 Locate is a GLN registry that provides a centralised location for storage of GLN information as well as a mechanism for suppliers and buyers to have a one-to-many communication of their GLN data and associated information with a single point of user access.

GS1 Global Data Synchronisation Network

The Global Data Synchronisation Network or GDSN provides an environment for secure and continuous synchronisation of accurate product master data exchanges between supply chain trading partners.

By using the GDSN, trading partners always have the same information in their systems, and any changes made to one company's database are automatically sent to all the other trading partners. The Australian GDSN solution is called the National Product Catalogue (NPC) and is endorsed and utilised by all of Australia's state, territory and federal health departments, private health providers, pharmacy wholesalers, retailers and is also used by trading partners and service providers across a variety of different industry sectors.

The following diagram depicts the GS1 system of standards suite embraced by the freight data exchange pilot project.

GS1 Global Data Standards (GDS) — GS1 System Identify, Capture, Share

GS1 eCom Messaging Standards Order to Cash

GS1 Logistics Interoperability Model (LIM)

EPC Object & Event Data, GTS — Global Traceability Standard (GTS)

GS1 Digital Link & Resolver — GS1 Digital Link

GS1 Registries — GS1 Locate
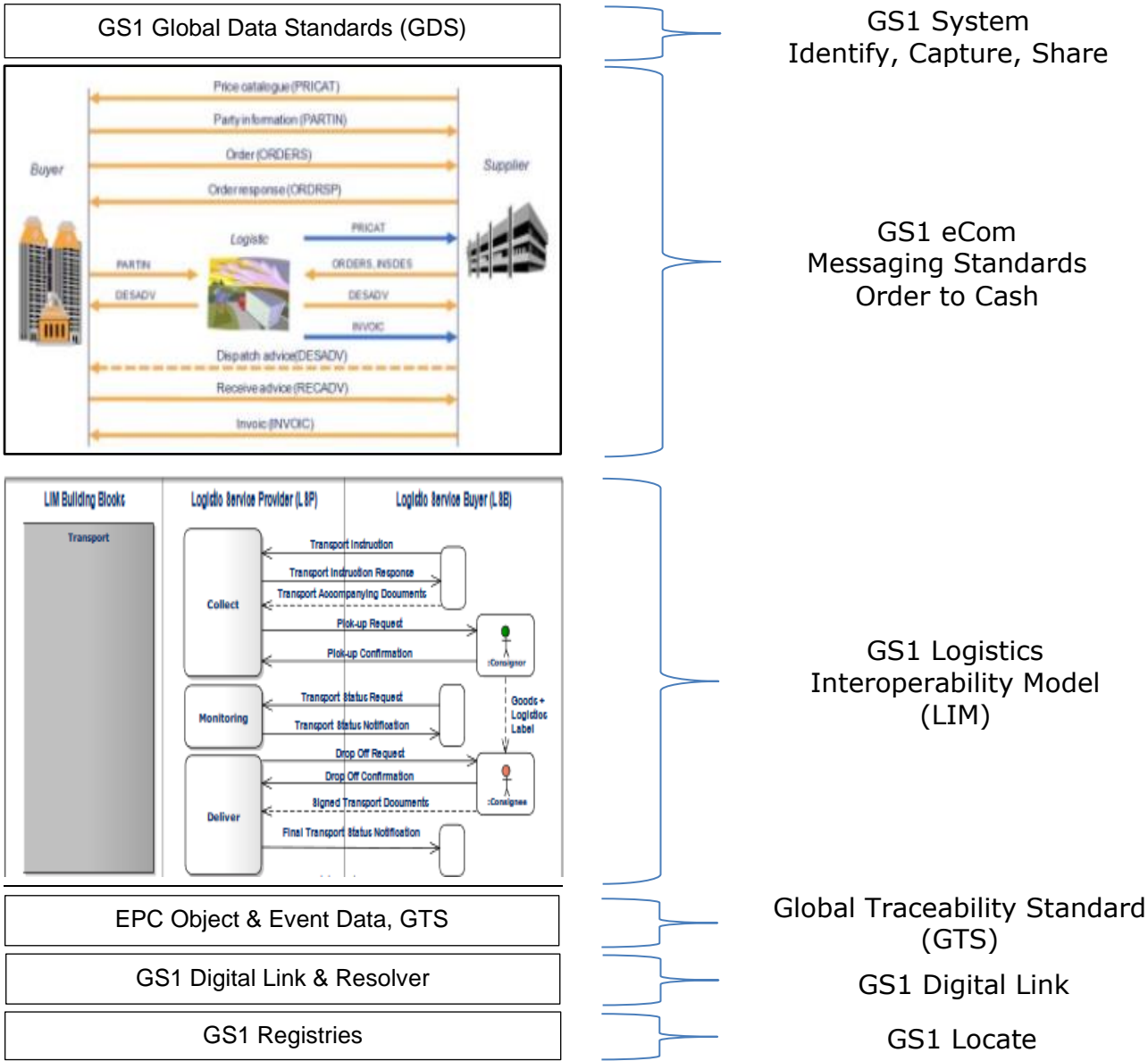
Data Integration Interoperability Model

The goal of freight data exchange is to encourage all trading partners to engage in the act of exchanging freight data between themselves and by doing so achieve a connected freight information exchange network and a National Freight Data Hub.

This Data Integration Interoperability Model will provide for consistent data models, documentation, improved security and near real-time integration, and the establishment of Data Level Agreements to streamline the process of granting trading partner application access to the required freight data.

Aim: To have an API (Application Programming Interfaces) based Data Integration Interoperability Model that provides for interoperability with external applications and systems to achieve a consistent approach to data sharing, that ensures:

- Freight data can be exchanged between external applications and systems
- Simplified authorised access to multiple data sources
- Proper security authentication when receiving and/or sending data
- Minimal data movement
- Self-service access to data
- Secure techniques for data exchange
- Access to data via Applications, Systems and IoT devices
- Ensure Personal Identifiable Information (PII) and Protected Data is stripped from the source data
- Trading partners can leverage API integration to reap the benefits of using APIs alongside other methods of data exchange between separate systems

This model requires:

- A Data Level Agreement to streamline the process of granting trading partner application access to the required data
- Internal Applications and Systems support for generic API integration and Web service connections
- API access to data provided by RESTful architecture based on proven standards, protocols, and designs

Data Exchange typically follows the following pattern:

- Each trading partners captures freight data into their internal applications and systems
- Each trading partner allows secure access to their internal applications and systems data
- The data is retrieved over an interface to the receiving application
- The receiving application parses the data and imports it into their internal applications and systems or a data aggregator application for analytics and reporting

Data Integration Interoperability Model

Key:

BAU Data Flows	——
Material Flows	——
API Pull/Push	– – –
DLR Requests	– - – -
ETL Push Flows	–·–·–

TRIMBLE

SAP TM

SAP ERP/EDI

Woolworths

GS1 Global Data Standards (GDS)

DITCRD/BITRE

GS1 Digital Link & Resolver

Toll Group

TMS

MyTOLL

WMS

EPCIS

Data Aggregator Freight Data Hub

EPC Object & Event Data, GTS

GS1 Registries

Nestle

Data Aggregator?

SAP TM

SAP ERP/EDI

A few basic notations to help understand the Data Integration Interoperability Model diagram above, are listed below:

Data Exchange	Description	Definition
BAU Data Flows	Business As Usual Data Flows	Data flows from, to and between Buyer, Logistics Partner and Seller. These include E-mail, eCommerce Messages.
Material Flows	Physical freight flows	Physical movement of freight between Seller, Logistics Partner and Buyer.
API Pull/Push	API Pulls and Pushes	An API based data sharing approach to interoperability enables: • Simplified access to multiple data sources • Minimal data movement • Self-service data access to data • Secure techniques for data exchange • Requires Application and System support for generic API integration and Web service connections, i.e. to provide web-based API.
DLR Requests	Digital Link & Resolver (DLR) Flows	GS1 Digital Link enables connections to all types of business-to-business and business-to-consumer information. With GS1 Digital Link, any set of GS1 Identifiers can exist as a Web address. GS1 Digital Link provides the opportunity to use GS1 Identifiers to access digital information and to easily resolve to resources on the Web. GS1 Digital Link has two capabilities: 1. The capability to easily resolve to resources (e.g. information) on the Web (this capability is usually associated with URLs and Web addresses). 2. The capability to provide a globally unambiguous name for anything, whether the thing exists only on the Web or in the real world (this capability is usually associated with URNs). The role of the Resolver is to resolve the Identifier(s) and to forward the request to the correct destination where more information can be found. The resolver provides the relevant API call to get to an event/data repository.
ETL Flows	Extract Transfer Load Flows pushes data to the BITRE Data Aggregator (Freight Data Hub)	ETL Flows enable bulk direct transfer of data, where the required data is extracted periodically from internal applications into one or more files which are then transferred via FTP/ASN to BITRE for subsequent loading to the Freight Data Hub.

EPCIS	EPC Object & Event Data, GTS	EPCIS enables disparate applications to create and share event based traceability data, both within and across enterprises on the physical movement of goods or objects. EPCIS enables visibility data to be captured and queried, and the Global Traceability Standard (GTS) enables the creation of interoperable traceability systems.
GS1 Global Data Standards (GDS)	GS1 Global Data Standards (GDS)	GS1 Global Data Standards (GDS) relate to standardisation and automation of identification and messaging between participants through creating the ability to identify, capture and share data.

About APIs

An API (Application Programming Interfaces) is a set of standards that enable communication between multiple sources such as business applications, mobile applications, devices, etc. APIs provide a standardised, public interface so any authorised application can receive and/or send data with the proper security authentication.

APIs for data integration and data sharing

APIs offer a cheaper, lighter, and easier format of interoperability powered by RESTful web services. Providers can create a robust APIs and gain the flexibility to facilitate external data-sharing requests by simply sharing an approved API standard. Access to data via APIs allows the aggregation of data for use by external applications.

How APIs work

Application specific APIs allow other technologies to look inside their databases. These APIs control the amount of openness it provides other applications. Some only allow the ability to read data with the API. Others allow the ability to read, write, and delete to the database using a specified set of standards.

APIs allow interaction with the data within the secured database that adhere to the approved API standard specifications. Modern, web API technology gives electronic devices and applications simple, fast access into other applications' data. Web APIs are methods of secure communication between electronic devices over the internet that make it easier to communicate data between applications, regardless of the operating system or software in use.

Web services has readily defined security protocols (HTTPS) along with commonly used authentication techniques. Being able to leverage widely used security standards makes implementation much easier and will provide loosely coupled interoperability for a variety of data users. All these benefits are provided by the RESTful architecture based on proven standards, protocols, and design patterns.

Parties related to the Scenarios
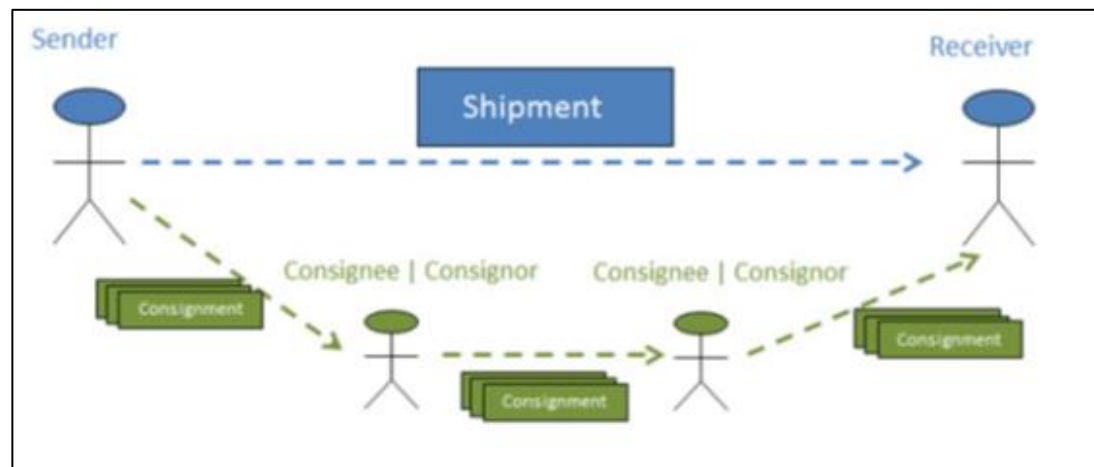
The parties related to the process flow scenarios defined in this document include:

- Sender – Supplier/Manufacturer (Origin/Source of product, material, or goods),
- Receiver – Customer/Retailer (Buyer of product, material, or goods),
- Consignor – Logistics/Transport Service Client (Provides the cargo), and
- Consignee – Logistics/Transport Service Provider (Carrier - Collects, Transports and Delivers the cargo).

Process Flows for Project 1

The process flow scenarios depicted below corresponds to the **Use Cases considered for Project 1**.

Scenario 1

- Freight movement by Road
- Intrastate movement within NSW
    - Direct delivery from Origin to Destination
        - Arndell Park to Bella Vista
            - Nestle Arndell Park DC (12/15 Contaplas St, Arndell Park NSW 2148)
            - To Woolworths Bella Vista DC (1 Woolworths Way, Bella Vista NSW 2153)

ROAD

Send >	Ship / Deliver	> Receive

| Contract Transport > | **Collect** > | **Transport** > | **Deliver** > Receive |

| **Events:** | > Loaded > Departed > | In-Transit | > Arrived > Unloaded > Delivered | > Received |

Event Durations

Event	1st Leg - ROAD	2nd Leg	3rd Leg
Loading	15min – 60min	-	-
Departing	10min – 30min	-	-
In-Transit	Arndell Park to Bella Vista (13.8 km) 25 min – 60min	-	-
Arrival	10min – 30min	-	-
Unloading	15min – 60min	-	-
Staging	-	-	-
Delivered	10min – 30min	-	-

Scenario 2

- Freight movement by Road
- Intrastate movement within NSW
  - Indirect delivery from Origin to Transport Provider DC and on to Destination
    - Arndell Park to Bella Vista via Transport Provider Eastern Creek DC
      - Nestle Arndell Park DC (12/15 Contaplas St, Arndell Park NSW 2148)
      - To Toll Eastern Creek DC (7 William Dean St, Eastern Creek NSW 2766)
      - To Woolworths Bella Vista DC (1 Woolworths Way, Bella Vista NSW 2153)

ROAD

| Send | **> Ship / Deliver** | **>** Receive |

| Contract Transport | **> Collect > Transport > Deliver** | **>** Receive |

| **Events:** | **> Loaded> Departed > In-Transit > Arrived > Unloaded > Delivered >** Received |

1ˢᵗ Leg > Loaded> Departed > In-Transit > Arrived > Unloaded >
2ⁿᵈ Leg > Loaded > Departed > In-Transit > Arrived > Unloaded > Delivered > Received

Event Durations

Event	1ˢᵗ Leg - ROAD	2ⁿᵈ Leg - ROAD	3ʳᵈ Leg
Loading	15min – 60min	15min – 60min	-
Departing	10min – 30min	10min – 30min	-
In-Transit	Arndell Park to Eastern Creek (2.7 km) 10 min – 20min	Eastern Creek to Bella Vista (18.9 km) 25 min – 60min	-
Arrival	10min – 30min	10min – 30min	-
Unloading	15min – 60min	15min – 60min	-
Staging	15min – 60min		-
Delivered		10min – 30min	-

Process Flows for Project 2

The process flow scenarios depicted below corresponds to the **Use Cases considered for Project 2**.

Scenario 3

- Freight movement by Road and Rail
  - Interstate movement from NSW to Far North Queensland
  - Indirect delivery from Origin to Transport Provider DC and on to Destination
    - Multi Modal delivery – Road, Rail, Road
    - Mayfield to Mount Isa via Transport Provider Newcastle DC
      - InfraBuild Wire (Manufacturing) Mayfield (Ingall St, Mayfield North NSW 2304)
      - To K&S Freighters Newcastle DC (1 Leonard St, Mayfield NSW 2304)
      - To Pacific National Newcastle Intrastate Terminal (Corner Darling and Robertson Streets, Carrington NSW 2294)
      - To Aurizon Terminal Mount Isa (North Ridge Road, Mount Isa QLD 4825)
      - To InfraBuild Steel Centre - Mount Isa (45 Commercial Rd, Ryan QLD 4825)

ROAD, RAIL and ROAD

Send	>	Ship / Deliver				> Receive

Contract Transport	>	**Collect**	>	**Transport**	>	**Deliver**	> Receive

Events: > Loaded > Departed > In-Transit > Arrived > Unloaded > Delivered > Received

1st Leg	> Loaded > Departed > In-Transit > Arrived > Unloaded >			
2nd Leg	> Loaded > Departed > In-Transit > Arrived > Unloaded >			
3rd Leg	> Loaded > Departed > In-Transit > Arrived > Unloaded >			
4th Leg	> Loaded > Departed > In-Transit > Arrived > Unloaded > Delivered > Received
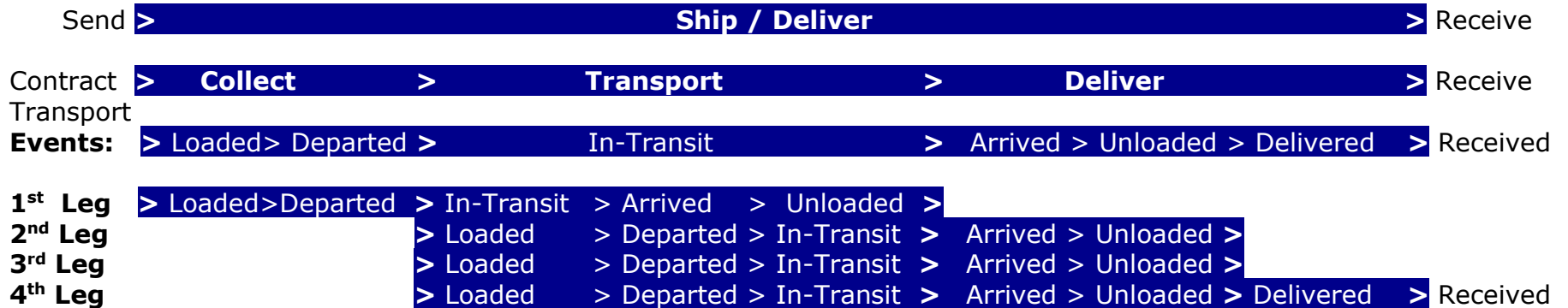
Event Durations

Event	1st Leg - ROAD	2nd Leg - ROAD	3rd Leg - RAIL	4th Leg - ROAD
Loading	15min – 60min	15min – 60min	15min – 60min	15min – 60min
Departing	10min – 30min	10min – 30min	10min – 30min	10min – 30min
In-Transit	Mayfield North to Mayfield (3 km) 10 min – 30min	Mayfield to Pacific National Newcastle Intrastate Terminal (7km) 10 min – 15min	Pacific National Newcastle Intrastate Terminal to Aurizon Terminal Mount Isa (Newcastle – Brisbane – Townsville – Mt. Isa) (850km + 1,332km + 977km) = 3,159km (11hrs +18hrs + 21hrs) = 50hrs – 2days	Aurizon Terminal Mount Isa to InfraBuild Steel Centre Mt. Isa (4.5km) 15min – 30min
Arrival	10min – 30min	10min – 30min	10min – 30min	10min – 30min
Unloading	15min – 60min	15min – 60min	15min – 60min	15min – 60min
Staging	15min – 60min	15min – 2days	15min – 1day	
Delivered				10min – 30min

Scenario 4

- Freight movement by Road and Rail
  - Interstate movement from NSW to WA
    - Multi Modal delivery – Road, Rail, Road
    - From Origin to Destination
      - Nestle Arndell Park DC (12/15 Contaplas St, Arndell Park NSW 2148)
      - To SCT Parkes Rail Depot (249 Brolgan Road Parkes NSW 2870)
      - To SCT Forrestfield Depot (800 – 820 Abernethy Road Forrestfield WA 6058)
      - To Woolworths Perth DC (2 Horrie Miller Drive, Perth Airport, WA 6105)

ROAD and RAIL

| Send | **>** | **Ship / Deliver** | **>** Receive |

| Contract Transport | **>** | **Collect** | **>** | **Transport** | **>** | **Deliver** | **>** Receive |

Events: > Loaded > Departed > In-Transit > Arrived > Unloaded > Delivered > Received
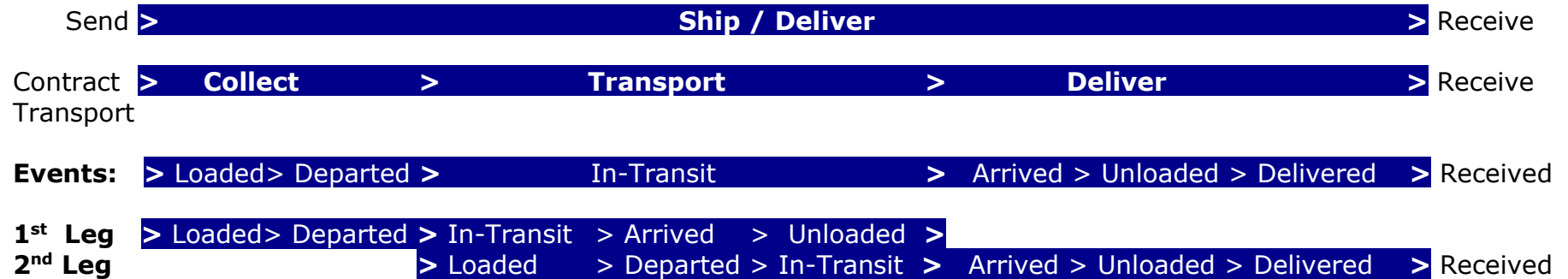
1st Leg > Loaded > Departed > In-Transit > Arrived > Unloaded >
2nd Leg > Loaded > Departed > In-Transit > Arrived > Unloaded >
3rd Leg > Loaded > Departed > In-Transit > Arrived > Unloaded > Delivered > Received
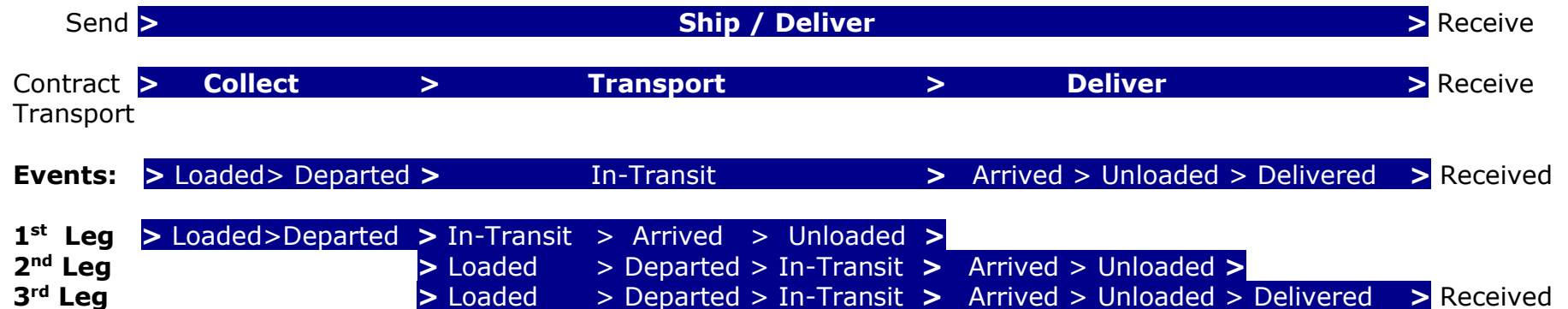
Event Durations

Event	1st Leg - ROAD	2nd Leg – RAIL (Tue & Sat only)	3rd Leg - ROAD
Loading	15min – 60min	15min – 60min	15min – 60min
Departing	10min – 30min	10min – 30min	10min – 30min
In-Transit	Arndell Park to Parkes Rail Depot (328km – 507km) 4hrs – 6hrs	Parkes Rail Depot to Forrestfield Rail Depot (2,598km – 3,607 km) 38hrs – 40hrs	Forrestfield Rail Depot to Perth DC (8 – 10km) 11min – 30min
Arrival	10min – 30min	10min – 30min	10min – 30min
Unloading	15min – 60min	15min – 60min	15min – 60min
Staging	15min – 3days	15min – 60min	
Delivered			10min – 30min

Scenario 5

- Freight movement by Road and Sea
  - Interstate movement from VIC to TAS
    - Multi Modal delivery – Road, Sea
    - Indirect delivery from Origin, to Port of Loading, to Port of Discharge and on to Destination
    - Geelong to Derwent Park (pick-up and drop-off by K&S Freighters – Road Transportation)
      - InfraBuild Construction Solutions - Geelong (65-85 Obriens Rd, Corio VIC 3214)
      - To Swire Shipping Melbourne - Australia Amalgamated Terminals (Appleton Dock Road, West Melbourne, Vic)
      - To Tasmanian Ports Corporation (48 Formby Rd, Devonport TAS 7310)
      - To InfraBuild Construction Solutions - Hobart (9 Sunmont St, Derwent Park TAS 7009)

ROAD and SEA

Send	**>**	**Ship / Deliver**	**>** Receive

Contract Transport	**>**	**Collect**	**>**	**Transport**	**>**	**Deliver**	**>** Receive

Events: **>** Loaded **>** Departed **>** In-Transit **>** Arrived > Unloaded > Delivered **>** Received

1st Leg	**>** Loaded **>**Departed **>** In-Transit > Arrived > Unloaded **>**
2nd Leg	**>** Loaded > Departed > In-Transit **>** Arrived > Unloaded **>**
3rd Leg	**>** Loaded > Departed > In-Transit **>** Arrived > Unloaded **>** Delivered **>** Received
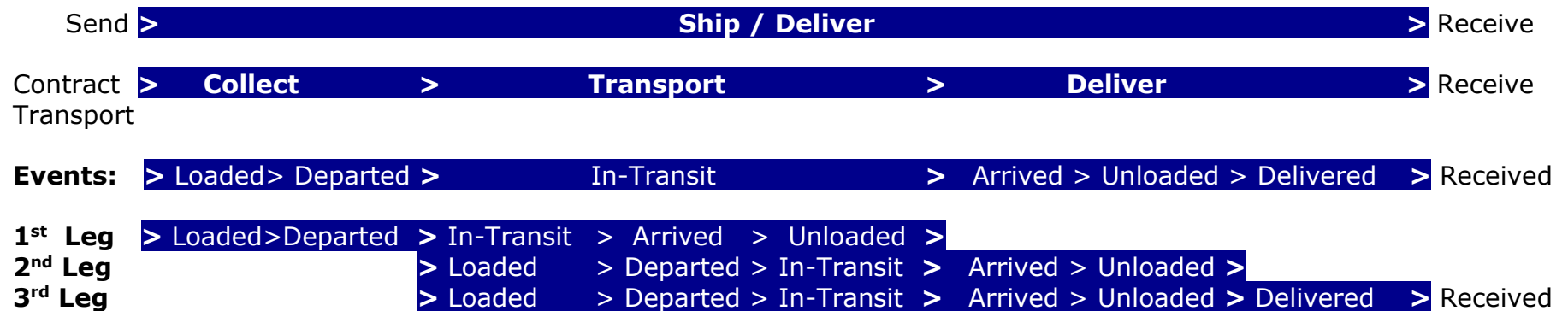
Event Durations

Event	1st Leg - ROAD	2nd Leg - SEA	3rd Leg - ROAD
Loading	15min – 60min	15min – 60min	15min – 60min
Departing	10min – 30min	10min – 30min	10min – 30min
In-Transit	Geelong to West Melbourne Shipping Terminal (75 km) 60min – 90min	West Melbourne Shipping Terminal to Tasmanian Ports Devonport (TAS) (491 km) 11hrs – 15hrs	Tasmanian Ports Devonport to Derwent Park (250 - 280 km) 3hrs – 3.5hrs
Arrival	10min – 30min	10min – 30min	10min – 30min
Unloading	15min – 60min	15min – 60min	15min – 60min
Staging	15min – 60min	15min – 60min	
Delivered			10min – 30min

Transport Execution Messages

As transport execution processes vary greatly based on each trading partner's business model, getting logistics units from manufacturing sites to retailer's stores may demand using multiple transport modes – road, rail, air, and sea. And based on the geographical regions being served, transport infrastructures and options will vary.

Additionally, retailers and manufacturers may plan and execute directly with transport carriers or use logistics service providers (LSPs) to manage part (3PL) or all (4PL) of the transport processes.

Transport execution messages provide a standardised way for trading partners to communicate throughout the execution processes.
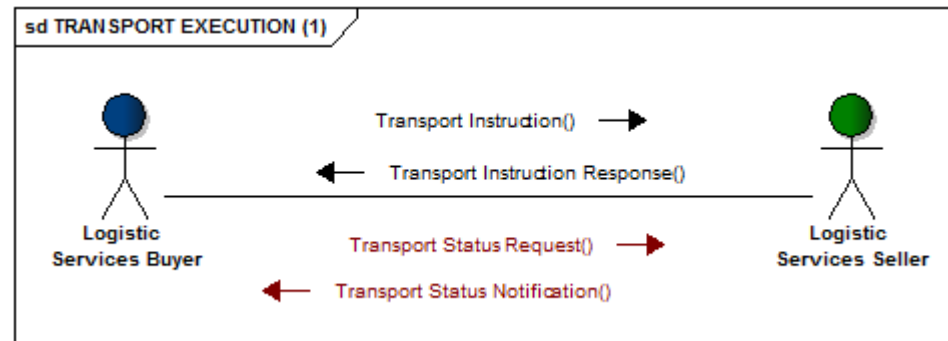
Transport Instruction (TI)
The main objective of the Transport Instruction is to communicate the arrangements (through the agreed conditions) of the movement of the goods (including collection and delivery) between all parties involved and providing the information necessary to perform the handling of the goods.

The Transport Instruction will be sent by the Logistic Services Buyer (supplier, retailer, 3rd party warehouse or freight forwarder) to a Logistic Services Seller (freight forwarder or carrier) upon order creation.

The Transport Instruction can include a request for either executing a consignment or executing a shipment. The trading partners need the ability to differentiate between less detailed transport instructions (shipments) and more detailed instructions (consignments).

Transport Instruction Response (TIR)

A Transport Instruction Response may be sent from Logistic Services Seller to Logistic Services Buyer in order to confirm the instruction and to provide further detail. Exchanging this message is optional.

In many cases there exist standing agreements that the Logistic Services Seller will accept all Transport Instructions from the Logistic Services Buyer 'as sent'.

Transport Status Request (TSR)

Message requesting information on the transport status and movements of a transport related object.

Transport Status Notification (TSN)

This scenario allows for the exchange of information regarding the status of transport execution progress at any point (in time or place) within the full transport chain.

A status message may be sent:
- as the result of a request or requests for information (through the Transport Status Request message) regarding a consignment or consignments;
- on a scheduled basis at predetermined times;
- on the occurrence of a selected event or events;
- on the occurrence of an exceptional event as agreed by the partners involved.

The following transport messages enabled the standardised information flows across the pilot project scenarios:

EDI Transport Message Types

- **Messages Issued:**
  Transport Instruction(TI) Shipment message
  Transport Instruction(TI) Consignment message
  Transport Instruction Response (TIR) Shipment messages
  Transport Status Request(TSR) message

- **Messages Received:**
  Transport Status Notification(TSN) Shipment messages – Status and Movement
  Transport Status Notification(TSN) Shipment messages – Information on Delivery
  Transport Status Notification(TSN) Consignment messages – Status and Movement
  Transport Status Notification(TSN) Consignment messages – Information on Delivery

EPCIS Message Types

EPCIS Transaction Event Messages
EPCIS Object Event Messages
EPCIS Aggregation Event Messages

Process Flow Scenario Events, Steps & Status Updates

Events	Definitions	Steps	Status Updates

0.0 Build Load	• Shipment created
	• Freight load is built
	• Freight ready for pick-up
		Book Transport
		Pick-up
		- Send Transport
		  Instruction request
		
		Receive Accept / Reject TI
		
		Picking
		
		Packing
			Send Transport Instruction
			- Request Committed
			
			Receive Accept/Reject TI
			- Confirmation received
			
			Picking status
			- Pending / In-Progress /
			  Completed
			
			Packing status
			- Pending / In-Progress /
			  Completed

1.0 Loading	• Transport outbound collection • Freight is loaded to transport vehicle	Despatch	Send Despatch status - Despatch Requested - Pending Pick-up - Shipped - Send dispatch confirmation
2.0 Departing	• Transport vehicle departs pick-up location.	Departing	Send Departing status - Departed - On-hold
3.0 In-Transit	• Transport vehicle is on-route to destination	In-Transit	Send In-Transit status - On-route - Stopped
4.0 Arrival	• Transport vehicle arrives at destination	Arrival	Send Arrived status - Arrived
5.0 Unloading	• Freight is unloaded from transport vehicle	Unloading	Send Unloading status - Unloaded - On-hold
6.0 Staging	• Freight is staged, ready for next step	Staging	Send Staging status - Staged
7.0 Delivered	• Delivery received • Transport vehicle departs	Delivered	Send Delivery Received status - Confirmation received

Key:

Event	The name of the business event.
Status	Indicates the result of the action performed.

Visibility & Tracking Information

Carrier Visibility & Tracking Information

Steps/Events	Date & Time Arrival / Start	Date & Time Departure / End	Status	Location Id	Location (City. State)	Number of Items	Party
1. Shipment Created Event: Shipment documents and labels created	-	End Date & Time	Created	Code	City, State	Count	Consignee Name
2. Picked Up	Arrival Date & Time	Departure Date & Time	Departed	Code	City, State	Count	Consignor Name
3. In-Transit Event 1: Loaded at Depot Event 2: Dispatched at Depot Event 3: Arrived at Depot Event 4: Unloaded at Depot	Start Date & Time	End Date & Time	Loaded Dispatched Arrived Unloaded	Code	City, State	Count	Consignee Name
4. Out For Delivery Event 1: Dispatched at Depot for delivery Event 2: Out For Delivery to Receiver	Start Date & Time	End Date & Time	In-Transit	Code	City, State	Count	Consignee Name
5. Delivered Event: Delivered	-	End Date & Time	Delivered	Code	City, State	Count	Receiver Name

Shipment Details	Freight Details	Shipment Documents
Shipment Number	Description	(Receive) Transport Instruction
Estimated Delivery Date	Number of Items	(Send) Accept/Reject Transport Instruction
Sender Details:	Number of Pallets	(Send) Transport Status
Name	Miscellaneous	Carrier Manifest
Full Address	Dimensions (L x W x H cm)	Shipment Documents and Labels
Receiver Details:	Quantity	**Other Documents:**
Name	Total Volume (m3)	Consignment Note
Full Address	Total Weight (kg)	Bill of Lading / Multimodal Bill of Lading
Business Unit	References	Packing List
Service Type	Item Tracking Numbers	Material Safety Data Sheet (MSDS)
Reference/Load Id		
Number of Items		
Total Volume (m3)		
Total Weight (kg)		
Account Number		
Transport Mode		
Appointment Date		
Purchase Order Number		
Instructions		

Sender Visibility & Tracking Information

Builds / Sends / Receives	Visibility &Tracking Information	Information Is Used To
1. Builds Load:	**Mandatory:**	Determine what and how much freight is moving between origin-destination pairs.
Load building	Unique identification (order number)	Determine which routes and corridors are used to transport freight between origin-destination pairs.
2. Sends to Carrier/Tracking Provider:	Carrier Load / Outbound Delivery (OBD) Number	Determine Order Fulfilment In-Progress.
Freight Order Creation/Change	Trailer Number	Determine Order Received Status Update.
Freight Order Cancellation	Vehicle Identification Number	Determine Order Picked Status Update.
		Determine Order Packed Status Update.
Transport Instruction	Driver Identification Number	Determine Order Dispatched Status Update.
		Obtain Truck Arrived for pick-up Status Update.
Payment	Driver Phone Number	Obtain Truck loaded Status Update.
	Event Type:	Determine how much of time was taken to load.
	(Stop [Load, Unload, Pickup delivery]/Arrival/Departure)	Obtain Truck Authorised to Leave Status Update.
3. Receives from Carrier/Tracking Provider:	Event Object / Type of Shipment:	Obtain Truck Departs Status Update.
	(Raw Materials, Finished Goods, Healthcare goods, etc.)	Obtain Order Out for Delivery Status Update.
Accept/Reject Transport Instruction	Date/Time/Time Zone	Obtain Order In-Transit Status Update.
		Send Shipment/Location/Geo Status Update.
		Determine if the delivery is early or late.
Receives Transport Status	Latitude	Determine the condition of the shipment.
Carrier manifest	Longitude	Determine where was the shipment last seen.
Vehicle Information	Current Location	Determine the actual dispatch vs the planned dispatch.
Driver & Vehicle Id Number	Revised ETA	Send Service Time Update.
GEO Coordinates of the vehicle	Departure time for starting point of shipment	Determine how much time was taken to complete the delivery.
Condition/Temperature of shipment	Destination Arrival Time for shipment	Determine the Travel Time Distribution (mean, median, variation) for freight moving between specific origin-destination pairs.
Expected time of arrival	Planned route	Determine what proportion of freight consignments are delayed.
Stop / Arrival / Departure	Time sensitivity of goods	Determine the proportion of freight consignments that are unable to be delivered (failed deliveries).
Vehicle Tracking Status	Condition / Temperature of shipment	Determine if there are there identifiable systematic (network-related) delays to freight consignments, and if so where.
4. Sends to Receiver:	**Nice to have:**	Estimate, in real time, the ETA for a freight consignment observed at some point in time.
Invoice	Transport plan	Determine when Proof of Delivery (POD) completed.
	Authority to Leave (Government approvals etc.)	Determine when Order received.
	Quantity of goods	Raise different types of alerts.
		Display the position of the vehicle on the map based on location updates.
		Revise ETA.

Data Aggregation

The Data Aggregation pilot project assesses the feasibility and utility of aggregating freight consignment event/message data to produce outputs that can help inform network operations, infrastructure planning and freight transport policy using a data exchange model, as depicted below.

Data Exchange Model

Send	**> Ship / Deliver**						**>**	Receive
Contract Transport	**> Collect >**		**Transport**		**> Deliver**		**>**	Receive
Events:	**> Loaded> Departed >**		**In-Transit**		**> Arrived > Unloaded > Delivered**		**>**	Received

| 1.0 Loading | 2.0 Departing | 3.0 In-Transit | 4.0 Arrival | 5.0 Unloading | 6.0 Staging | 7.0 Delivered |
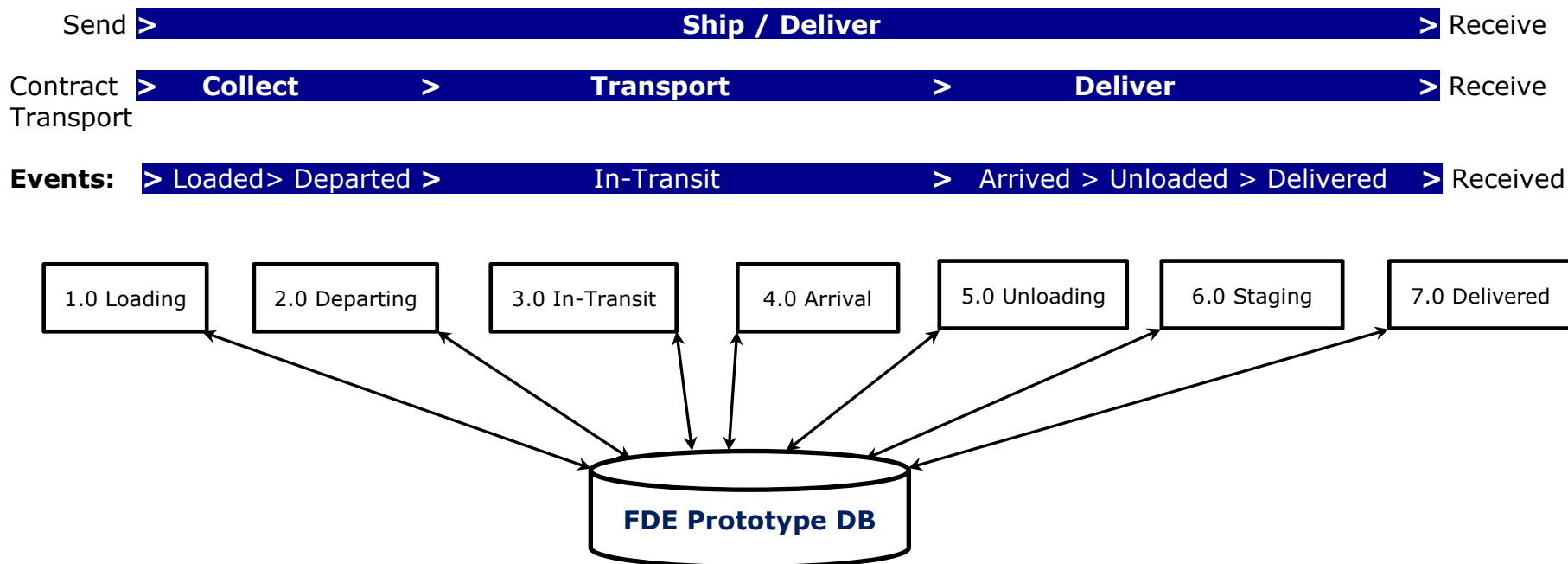
FDE Prototype DB

Note: Within this data exchange model, the messages exchanged are interactions between the data providers (which can be multiple participants) and the prototype database; and between the prototype database and the data users of the information (which can be multiple participants).

Key: The bi-directional arrows depicts data communication and exchanges including:

Capture	Data/ Records/Transactions
Collect	Update Repositories
Share	Enable Querying / Send file or message

Recommendations for Moving Beyond the Pilot

The Australian T&L sector is highly fragmented with not a single operator owning the supply chain from end to end. This places high dependencies on downstream freight forwarders and contractors, most of whom are small-medium enterprises and in many cases, are not technologically equipped to provide the integration required to efficiently close the visibility gaps that currently exist.

There has been a growing recognition among industry leaders that Global Data Standards (GDS) are a fundamental requirement if Australia is to realise the stated benefits of end to end supply chain visibility and integration. A national approach of how to achieve implementation is required with recommendations that Industry and Government need to work together to meet the impending challenges ahead.

Strong direction and leadership from Industry and Government alike will be required to mobilise and enable these critical players to adopt standards based technology to enable end to end supply chain visibility across the sector and realise the potential of end to end supply chain visibility and integration.

Any non-value added process, waste or unnecessary duplication of manual handling effort must be eliminated as much as possible from our transport processes and this will largely depend on the accuracy and timeliness of the information systems that drive the operational activities in the sector.

Recommendation resulting for the freight data exchange pilot project includes:

Expanding Collaboration

Trading partners are faced with different business scenarios and data interchanges, especially when they move into more advanced interactions with Logistics Service Providers. Thus, there is a need for common understanding of business processes, as well as common communication and identification solutions to overcome barriers of interoperability and scalability. These solutions will lead to more transparency of operations and visibility of the flow of goods, and ultimately remove redundant excessive cost from the supply chain. These outcomes can only be achieved through expanded collaboration between supply chain trading partners.

Establishing Products, Tools and Techniques

Establishing products, tools and techniques based on a National Data Integration Interoperability Model that provides for consistent data models, documentation, improved security and near real-time integration, and the establishment of Data Level Agreements to streamline the process of granting trading partner application access to the required freight data will enable product, services and information to move efficiently and securely through the supply chain.

Plans for the Future

Plans for the future should include considerations regarding:

- Business process interoperability - where diverse business processes work together, and common ways exist to exchange information within the supply chain, where all trading partners can effectively collaborate, achieving interoperability.

- Visibility of goods - as they move from manufacturing sites, traveling from port to port, onto trucks, into distribution centres, and eventually onto retailers' shelves. All trading partners can effectively track and trace their products, achieving traceability. Enabling all trading partners to uniquely identify individual products, trading partners, locations, logistics units, assets, shipments and services and efficiently capture and share data.

- Greater Efficiency – balancing the need for speed and cost savings with the need for accuracy and collaboration.

- Improved Security – protecting products as they travel from manufacturers to retailers and consumers worldwide.

- Gains in Sustainability – considering the environmental, social and economic implications of supply chain decisions.

Appendices

Processes, Events, Parties and Roles

PROCESSES / EVENTS Master Data Alignment	Mandatory /Optional	Retailer /Role	LSP /Role	Supplier /Role
Parties	M			
Retailer		Customer		
Manufacturer				
Material Supplier				Origin/Source

Logistic Services Provider (LSP)
- Warehouse, and or
- Transport Service Provider - Consignor
  - Carrier, or
  - Freight Forwarder
			Consignor Pick-up and Delivery	

Logistic Services Client (LSC) - Consignee		Consignee		
Party Master Data				
- Unique Party Id - GLN - Party Name and Address - Etc.	M	Retailer	LSP	Supplier
Locations				
Inventory Location	M	Customer DC		Origin/Source DC
Ship From Location	M			Origin/Source DC
Ship To Location	M	Customer DC		
Pick-up Location	M			Origin/Source DC
Drop-off Location	M	Customer DC		
Location Master Data				
- Unique Location Id - Global Location Number - GLN - Location Name and Address, Postcode - Geocoordinates - Etc.	M	Retailer	LSP	Supplier
Trade Item Master Data				
- Global Trade Item Number - GTIN				
Logistic Unit Master Data				
- Serial Shipping Container Code - SSCC				
Consignment Master Data				
- Global Shipment Identification Number GSIN	M	Consignee		

Procurement	Mandatory / Optional	Retailer	LSP	Supplier
Raise Purchase Order(s) - Unique Identification (Order Number)	**M**	Customer		
Send Purchase Order(s)	M	Customer		
Transport & Warehousing Planning	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Logistic Service Conditions Data				

- Postcode
- Load Unit Type and or Loading Metres
- Commodity type
- Type of goods
  - Hazardous, Frozen, Chilled, Ambient
- Service Level
  - Expedited, Standard, Deferred
- Mass or Volume
	M	Consignee		

Warehousing Requirements Data				
- No. of picking / pallet spots (warehouse capacity) - No. of order pickers / forklift drivers (people capacity) - No. of in and outbound trucks (dock door capacity) - Anticipated Dates / Period				
Transport Routing Data				
- Origin - Destination - Route - Mode of transport (road, rail, sea, air) - Number of Drop-off and Pick-ups	M		Consignor	
Transport Requirements Data				
- Type and No. of Transport - Trade-lane (from / to location indicators) - Available transport Logistic Service Providers - Anticipated Dates / Period	M	Consignee	Consignor	
Book Transport	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Transport Booking Data				

Tender Offer - Send tender offer to LSP (Consignor)	M	Consignee		
Tender Response - Receive response from LSP (Consignor)	M		Consignor	
Book Transport - Pick-up from Supplier	M	Consignee		
Receive Accept/Reject Confirmation	M	Consignee	Consignor	
Transport Plan (Advance Planning – a day ahead) - Planned Route	M	Consignee	Consignor	
Mileage/Distance Data - Distance between the pick-up and drop-of points for the planned route	M		Consignor	
Fulfilment	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Fulfilment Data				
Order Received - Purchase Order Number - Sales Order Number - Delivery Order Number - Shipment Number	M			Supplier
Order Fulfilment In-Progress				Supplier
- Order Picked				Supplier
- Order Packed				Supplier

- Order Despatched
    - Estimated Value of goods in shipment
    - Estimate Weight of good in shipment
    - Order completed and ready for collection
				Supplier

Transport Management – Outbound Collection	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Collection Data				
Transport Pick-up - Vehicle Id - Pick-up Location - Pick-up Date, Time & Time zone - Type of goods - Hazardous, Frozen, Chilled, Ambient - Product Category	M		Consignor	

- Type of Shipment (FG, HC goods, etc) - Quantity of Goods (Items) - Mass or Volume - Sensitivity of Goods				
Load Truck - Time taken to load	O		Consignor	
Authority to leave - and Govt approvals required	M			Supplier
Truck departs				Supplier
Transport Pick-up Confirmation	M		Consignor	
Transport Management – In-Transit Status Monitoring	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
In-Transit Status Monitoring Data				
- Vehicle Id - Location - Arrival Date, Time & Time zone - Geo Status	M		Consignor	
- Vehicle Id - Location - Departure Date, Time & Time zone (from starting point of shipment)			Consignor	
- Condition/Temperature of shipment	M		Consignor	
- Location of the shipment	M		Consignor	
Delay Alert				
- Vehicle Id - Location - Date, Time & Time zone	M		Consignor	
Transport Management - Inbound Delivery	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Delivery Data				
- Vehicle Id - Location - Destination Arrival Date, Time & Time zone for shipment - Quantity of Goods - Mass or Volume - Sensitivity of Goods	M		Consignor	
Service Time Data				

- Time taken to complete the Delivery	O		Consignor	
Proof Of Delivery Data				
- Pick-up Date, Time & Time zone - Delivery Date, Time & Time zone - Pick-up From Location - Deliver To Location - Consignment Number - Reference Number - Business Division - Shipment Date - Cubic Meters - Declared Weight - Items - Service (Road, Rail, Ship, Air) - Account - Pick-up Depot - Delivery Depot - ETA Date	M		Consignor	

Receiving	**Mandatory / Optional**	**Retailer**	**LSP**	**Supplier**
Receiving Data				

- DC Receiving
   - Consignment
   - Location
   - Date, Time & Time zone
	M	Consignee		

Key:

Party	Supplier, Carrier or Customer
Location	Location where the process is performed
Process	Business process
Event	The name of the business event.
Status	Indicates the result of the action performed by the system. Statuses include Pending, In -progress, Completed, etc.
Date, Time & Time zone	Shows the date, time and time zone at which the business event occurred.

Freight Data Sets and Attributes

Master Data Alignment Data Set	
Party Master Data Attributes	- Unique Party Identification – GLN (Global Location Number) - Party Name and Address - Etc.
Location Master Data Attributes	- Unique Location Identification - GLN (Global Location Number) - Location Name and Address, Postcode - Geocoordinates - Etc.
Trade Item Master Data Attributes	- Unique Trade Item Identification – GTIN (Global Trade Item Number)
Logistic Unit Master Data Attributes	- Unique Logistic Unit Identification – SSCC (Serial Shipping Container Code)
Consignment Master Data Attributes	- Unique Consignment Identification – GSIN (Global Shipment Identification Number) - Unique Shipment Identification – GINC (Global Identification Number for Consignment)

Transport & Warehousing Planning Data Set	
Logistic Service Conditions Data Attributes	- Origin and Destination Postcodes - Load Unit Type and or Loading Metres - Commodity type - Type of goods - Hazardous, Frozen, Chilled, Ambient - Service Level - Expedited, Standard, Deferred - Mass or Volume
Transport Routing Data Attributes	- Origin - Destination - Route - Modes of transport (road, rail, sea, air) - Number of Drop-off and Pick-ups
Transport Requirements Data Attributes	- Type and No. of Transport - Trade-lane (from / to location indicators) - Available transport Logistic Service Providers - Anticipated Dates / Period

Book Transport Data Set	

Transport Booking Data Attributes	- Booking Reference number
	- Shipment Number
	- Shipment Date
	- Sender Details:
	  - Name
	  - Full Address
	- Receiver Details:
	  - Name
	  - Full Address
	- Total Gross Volume (Cubic Meters)
	- Total Gross Weight (Declared Weight (kg)
	- Items
	- Account number
	- Pick-up Depot
	- Delivery Depot
	- Estimated Delivery Date
	- Business Unit
	- Service Type (Road, Rail, Ship, Air)
	- Reference/Load Id
	- Number of Items
	- Account Number
	- Transport Mode
	- Appointment Date
	- Purchase Order Number
	- Instructions

Fulfilment Data Set	

Fulfilment Data Attributes	- Order Received
	  - Purchase Order Number
	  - Sales Order Number
	  - Delivery Order Number
	  - Shipment Number
	- Order Fulfilment In-Progress
	  - Order Picked
	  - Order Packed
	  - Order Despatched
	    - Estimated Value of goods in shipment
	    - Estimate Weight of good in shipment
	- Order completed and ready for collection

Transport Management – Outbound Collection Data Set	
Collection (Arrival/Pick-up/Depart) Data Attributes	- Consignment Number - Reference number - Vehicle Id - Pick-up Location - Pick-up Date, Time & Time zone - Type of goods (Hazardous, Frozen, Chilled, Ambient) - Product Category - Type of Shipment (FG, HC goods, etc) - Quantity of Goods (Items) - Mass or Volume - Time Sensitivity of Goods - Sender Identifier GLN - Recipient Identifier GLN - Shipment Identification Type GSIN - Shipper GLN - Included Logistic Unit SSCC - Transport Status Condition Code - Transport Mode type Code - Route Identifier - Carrier Name - Arrival Date, Time & Time zone - Actual Loading Logistic Location address (city) - Load Begin Date & Time - Load End Date & Time - Departure Date, Time & Time zone

Transport Management – In-Transit Status Monitoring Data Set	
In-Transit Status Monitoring Data Attributes	- Consignment Number - Reference number - Vehicle Id - Route Identifier - Shipper GLN - Carrier Name - Location of shipment - Date, Time & Time zone - Actual Location Geo Status - Condition/Temperature of goods - Time Sensitivity of goods - Sender Identifier GLN - Recipient Identifier GLN - Shipment Identification Type GSIN - Included Logistic Unit SSCC - Transport Status Condition Code - Transport Mode type Code

Transport Management - Inbound Delivery Data Set	
Delivery Data Attributes	- Consignment Number - Reference number - Vehicle Id - Destination Arrival Date, Time & Time zone - Actual Unloading Logistic Location address (city) - Drop-off Date, Time & Time zone - Unload Begin Date & Time - Unload End Date & Time - Type of goods (Hazardous, Frozen, Chilled, Ambient) - Product Category - Type of Shipment (FG, HC goods, etc) - Quantity of Goods (Items) - Mass or Volume - Geo Status - Condition/Temperature of goods - Time Sensitivity of Goods - Sender Identifier GLN - Recipient Identifier GLN - Shipper GLN - Shipment Identification Type GSIN - Included Logistic Unit SSCC - Transport Status Condition Code - Transport Mode type Code - Carrier Name
Service Time Data Attributes	- Time taken to complete the Delivery
Proof Of Delivery Data Attributes	- Pick-up Date, Time & Time zone - Delivery Date, Time & Time zone - Pick-up From Location - Deliver To Location - Consignment Number - Reference Number - Shipment Date - Cubic Meters - Declared Weight - Items - Service (Road, Rail, Ship, Air) - Customer Account - Pick-up Depot - Delivery Depot - ETA Date

Receiving Data Set	
Receiving Data Attributes	- Consignment Number - Reference number - Location - Date, Time & Time zone - Sender Identifier GLN - Recipient Identifier GLN - Transport Status Provider GLN - Shipment Identification Type GSIN - Shipper GLN - Recipient GLN - Included Logistic Unit SSCC - Transport Status Condition Code - Transport Mode type Code - Route Identifier - Carrier Name - Actual Unloading Logistic Location address (city) - Logistic Event Period End Date & Time - Logistic Event Date & Time - Delivery Time

Freight Data Exchange Data Set	
Freight Data Exchange Data Attributes	- Consignment Number - Reference number - Transport Status Provider GLN - Carrier Name - Pick-up date/time - Pick-up location - Consignment type - Volume/mass - Delivery date/time - Delivery location

Transport Instruction Message Structure and Content

The following table provides an overview of the Transport Instruction message structure and content. The message elements are defined by means of their data types, cardinality (the C column) and a textual description. The cardinality is the number of instances of this element that has to or can be provided.

Whenever an element is of the same type as a previous element, a reference is made to the line number the (# column) where it is defined. Thus, each data type is only described once.

Data elements in the GS1 standard which are not to be used are highlighted in grey.

Transport Instruction Shipment message structure and content

#	Message elements				Data types, etc.	C	Description
2	transportInstructionMessage				Type: TransportInstructionMessageType	1	
3	StandardBusinessDocumentHeader				Type: StandardBusinessDocumentHeader	1	The UN/CEFACT standard,. Contains information about routing and processing of the business document, identifies the message set sent together with on SBDH and the version number of the document, identifies the message set sent together with on SBDH and the version number of the document(s) contained.
4		HeaderVersion			Type: string	1	Version number of the SBDH standard used.
5		Sender			Type: Partner	1..n	Sender of the message, party representing the organization which created the standard business document.
6			Identifier		Type: PartnerIdentification	1	A unique identification key for the Sender party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
7			ContactInformation		Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
8				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
9				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
10				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
11				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
12				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
13		Receiver			Type: Partner (see line 5)	1..n	Receiver of the message, party representing the organization which receives the standard business document.
			Identifier		Type: PartnerIdentification	1	A unique identification key for the Receiver party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
			ContactInformation		Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
14		DocumentIdentification			Type: DocumentIdentification	1	Identification information for the document
15			Standard		Type: string	1	The name of the document standard contained in the payload. The value of the element „Standard" MUST be set to the value „GS1"
16			TypeVersion		Type: string	1	The version number of the XSD schema used in the payload of the message
17			InstanceIdentifier		Type: string	1	Identifies the instance of the transport instruction message. This identifier identifies thisdocument as being distinct from others.
18			Type		Type: string	1	Identifies the type of the document, e.g. "Transport Instruction"

19		MultipleType		Type: boolean	0..1	TRUE if many different document types after the same header. Will not be used.
20		CreationDateAndTime		Type: dateTime	1	The update time of this submission, e.g. 2006-03-23T01:00:78.000+02:00
21		**Manifest**		Type: Manifest	0..1	Attachments to the instruction. Will not be used.
22		NumberOfItems		Type: integer	1	
23		**ManifestItem**		Type: ManifestItem	1..n	
24			MimeTypeQualifierCode	Type: MimeTypeQualifier	1	
25			UniformResourceIdentifier	Type: anyURi	1	
26			Description	Type: string	0..1	
27			LanguageCode	Type: Language	0..1	
28		**BusinessScope**		Type: BusinessScope	0..1	Description of the complete business environment in which the SBDH and SBD will be processed. The business scope provides a basis to determine which rules are applicable to the transaction involving the enclosed business documents.
29		**Scope**		Type: Scope	0..n	
30			**ScopeAttributes**	Group	1	
31			Type	Type: string	1	Name of XSD profile used.
32			InstanceIdentifier	Type: string	1	Leave empty
33			Identifier	Type: string	0..1	
34			**ScopeInformation**	Type: anyType	0..n	This is an abstract element with a substitution group. Will not be used.
35			**BusinessService**	SubstitutionGroup	0..1	
36				BusinessServiceName	Type: string	0..1	
37				ServiceTransaction	ServiceTransaction	0..1	
38				ScopeInformation	Substitution Group: anyType	0..1	
39			**CorrelationInformation**	SubstitutionGroup	0..1	
40				RequestingDocumentCreationDateTime	Type: dateTime	0..1	
41				RequestingDocumentInstanceIdentifier	Type: string	0..1	
42				ExpectedResponseDateTime	Type: dateTime	0..1	
43				ScopeInformation	Substitution Group: anyType	0..1	
44	**TransportInstruction**			Type: TransportInstructionType	1..n	The main objectives of the Transport Instruction are to communicate and share the arrangements (through the agreed conditions) of the movement of the goods (including collection and delivery) between all parties involved and providing the information necessary to perform the handling of the goods.
45	**DocumentType**			Extention base	1	
46		creationDateTime		Type: dateTime	1	Date and time when the document was created.
47		documentStatusCode		Enum type: DocumentStatusEnumerationType	1	Indicates if the document is a copy or an original.
48		documentActionCode		Enum type: DocumentActionEnumerationType	0..1	Code specifying the action to be taken in the system of the recipient using the information in the document.
49		documentStructureVersion		Type: string	0..1	Specification of the version of the standard on which the structure of the document is based, for example 3.0.
50		lastUpdateDateTime		Type: dateTime	0..1	Date and time when the document was last updated.
51		extension		ExtentionType	0..1	Extension point for inclusion of additional information through an extension to the document. Will not be used.
52	**transportInstructionIdentification**			Type: EntityIdentificationType	1	The identification of the transport instruction document.
53		entityIdentification		Type: restricted string	1	The unique identifier of the piece of information, such as the object id or the document id.
54		**contentOwner**		Type: PartyIdentificationType	0..1	Uniquely identifies the creator of the entity identification.
55			gln	Type: GLNType	1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
56			additionalPartyIdentification	Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.

57	transportInstructionFunction				Enum type: TransportInstructionFunctionEnumerationType	1	The transport instruction function identifies whether the transport instruction is consignment-based or shipment-based.
58	**logisticServicesSeller**				Type: TransactionalPartyType	1	A party that provides logistics services to another party.
59		gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
60		additionalPartyIdentification			Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
61		**address**			Type: AddressType	0..1	Address of the party involved in the business transaction.
62			city		Type: restricted string	0..1	Text specifying the name of the city.
63			cityCode		Type: restricted string	0..1	Identifier for a city, expressed as a short code rather than the full name
64			countryCode		Type: CountryCodeType	0..1	Code specifying the country for the address.
65			countyCode		Type: restricted string	0..1	A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. Will not be used.
66			crossStreet		Type: restricted string	0..1	A street intersecting a main street (usually at right angles) and continuing on both sides of it. Will not be used.
67			currencyOfPartyCode		Type: CurrencyCodeType	0..1	Code specifying the currency of an addressed party. Will not be used.
68			languageOfThePartyCode		Type: LanguageCodeType	0..1	Code specifying the language of an addressed party. Will not be used.
69			name		Type: restricted string	0..1	The name of the party expressed in text.
70			pOBoxNumber		Type: restricted string	0..1	The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept.
71			postalCode		Type: restricted string	0..1	Text specifying the postal code for an address.
72			state		Type: restricted string	0..1	One of the constituent units of a nation having a federal government.
73			streetAddressOne		Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
74			streetAddressTwo		Type: restricted string	0..1	The second free form line of an address, This second part is printed on paper as the second line below the name. The second free form line complements the first free form line to locate the party e.g. floor number, name of a building, suite number.
75			**geographicalCoordinates**		Type: GeographicalCoordinatesType	0..1	Geographical coordinates for the address.
76				latitude	Type: restricted string	1	Angular distance North or South from the earth's equator measured through 90 degrees.
77				longitude	Type: restricted string	1	The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed either in degrees or in time
78		**contact**			Type: ContactType	0..1	Person or department that can be contacted regarding the business transaction.
79			contactTypeCode		Type: ContactTypeCodeType	0..1	Code specifying the function or role of a contact.
80			personName		Type: restricted string	0..1	The name of the individual that can be contacted to provide additional information.
81			departmentName		Type: restricted string	0..1	The name of the department that can be contacted to provide additional information.
82			jobTitle		Type: restricted string	0..1	The job title of the person that can be contacted.
83			responsibility		Type: Description70Type	0..n	Text further specifying the area of responsibility of the trade contact. Will not be used.
84			communicationChannel		Type: CommunicationChannelType	0..n	The channel or manner in which a communication can be made with the contact, such as telephone or email.
85				communicationChannelCode	Type: CommunicationChannelCodeType	1	Code specifying the type of communication channel, for example TELEPHONE.
86				communicationValue	Type: restricted string	1	Text identifying the endpoint for the communication channel, for example a telephone number or an email address.
87			afterHoursCommunicationChannel		Type: CommunicationChannelType (see line 84)	0..n	The channel or manner in which a communication can be made with the contact after regular office hours.

88	dutyFeeTaxRegistration				Type: DutyFeeTaxRegistrationType	0..n	The registration details of a party related to a particular duty, tax or fee.
89		dutyFeeTaxRegistrationID			Type: IdentifierType	1	Identifier of the party for this particular duty, fee or tax.
90		duryFeeTaxTypeCode			Type: DuryFeeTaxTypeCodeType	1	Code specifying the type of duty, fee or tax.
91		dutyFeeTaxAgencyName			Type: restricted string	0..1	Agency responsible for the collection of this duty, fee or tax.
92		dutyFeeTaxDescription			Type: Description80Type	0..1	Textual description of this duty, fee or tax.
93	organisationDetails				Type: OrganisationType	0..1	Information about the legal organisation of the party involved in the business transaction.
94		organisationName			Type: restricted string	1	The official name of the organisation.
95		issuedCapital			Type: AmountType	0..1	The amount of the issued capital. Will not be used.
96		legalStructure			Type: Description80Type	0..1	Description of the type of legal structure of the organisation. Will not be used.
97		officialAddress			Type: AddressType (see line 61)	0..1	The address where the organisation is officially based.
98		legalRegistration			Type: LegalRegistrationType	0..n	The registration details of an organisation in a particular legal register.
99			legalRegistrationNumber		Type: restricted string	1	Unique identifier of the organization in the legal register.
100			legalRegistrationType		Type: LegalRegistrationCodeType	1	Code specifying the type of legal register.
101	financialInstitutionInformation				Type: FinancialInstitutionInformationType	0..n	Information on the financial institution(s) where the party holds an account.
102		financialInstitutionName			Type: restricted string	0..1	The name of the account holder's financial institution.
103		financialInstitutionBranchName			Type: restricted string	0..1	The name of a division or location of the account holder's financial institution.
104		financialAccount			Type: FinancialAccountType	0..1	Information identifying a client's financial account with a financial institution.
105			financialAccountNumber		Type: restricted string	1	Text specifying the number of the financial account.
106			financialAccountNumberTypeCode		Type: FinancialAccountNumberTypeCodeType	1	Identifies the type of financial account number.
107			financialAccountName		Type: restricted string	0..1	Text specifying the name of the financial account.
108		financialRoutingNumber			Type: FinancialRoutingNumberType	0..1	Provides the Routing Number for the Financial Institution.
109			financialRoutingNumber		Type: restricted string	1	Number assigned to a transaction in financial routing between parties. The number is determined by and used in conjunction with the type of routing, e.g. SWIFT,ABA,CHIPS.
110			financialRoutingNumberTypeCode		Type: FinancialRoutingNumberTypeCodeType	1	Code specifying the type of financial routing, e.g. SWIFT.
111		additionalFinancialInformation			Type: MultiDescription70Type	0..1	A description used to provide any additional information about a financial institution. Will not be used.
112			description		Type: Description70Type	1..n	Text content of the description. Will not be used.
113		address			Type: AddressType (see line 61)	0..1	Address of the financial institution involved in the business transaction.
114	logisticServicesBuyer				Type: TransactionalPartyType (see line 58)	1	A party that purchases logistics services from another party.
		gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
115	billTo				Type: TransactionalPartyType (see line 58)	0..1	Identifies the party who will receive the invoice for the transport services. Synonym: Invoicee.
331	transportInstructionShipment				Type: TransportInstructionShipmentType	0..n	Provides the information on a shipment contained in this transport instruction.
332		ShipmentIdentification			Type Extention base: ShipmentIdentificationType (see line 246)	1	
			gsin		Type: GSINType	1	Global Shipment Identification Number (GSIN), the GS1 key used for the identification of shipments.
333		parentShipmentID			Type: ShipmentIdentificationType (see line 246)	0..1	Information used to identify a shipment.
334		transportInstructionSatusCode			Type: TransportInstructionStatusEnumerationType	0..1	Code specifying the instruction status of this shipment.
335		transportInstructionStatusDescription			Type: Description70Type	0..1	Textual description of the instruction status of this shipment.
336		transportInstructionStatusReasonCode			Type: TransportInstructionStatusReasonCodeType	0..1	Code specifying the instruction status reason for this shipment.
337		note			Type: Description500Type	0..1	Free text used to convey information that is not processed by applications. Only meant to present the information to a user as on a screen, in a browser, etc.
338		receiver			Type: TransactionalPartyType (see line 58)	1	A party which engages in receiving this shipment of goods.
		gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.

339	shipper			Type: TransactionalPartyType (see line 58)	1	A party which engages in shipping this shipment of goods
	gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
340	carrier			Type: TransactionalPartyType (see line 58)	0..1	A party that physically transports goods from one place to another.
	gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
341	notifyParty			Type: TransactionalPartyType (see line 58)	0..n	Identification of and additional information about a party involved in a business transaction, such as "order" or "invoice".
342	shipTo			Type: TransactionalPartyType (see line 58)	0..1	The physical location to where goods will be or have been shipped.
	address			Type: AddressType	0..1	Address of the party involved in the business transaction.
		city		Type: restricted string	0..1	Text specifying the name of the city.
		postalCode		Type: restricted string	0..1	Text specifying the postal code for an address.
		streetAddressOne		Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
343	shipFrom			Type: TransactionalPartyType (see line 58)	0..1	The physical location from where goods will be or have been shipped.
	address			Type: AddressType	0..1	Address of the party involved in the business transaction.
		city		Type: restricted string	0..1	Text specifying the name of the city.
		postalCode		Type: restricted string	0..1	Text specifying the postal code for an address.
		streetAddressOne		Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
344	importAgent			Type: TransactionalPartyType (see line 58)	0..1	Identification of and additional information about a party involved in a business transaction, such as "order" or "invoice".
345	exportAgent			Type: TransactionalInstructionTermsType (see line 137)	0..1	Identification of and additional information about a party involved in a business transaction, such as "order" or "invoice".
346	transportInstructionTerms			Type: TransactionalPartyType (see line 58)	1	Code specifying the service level requested for the transport service. For example: Express service.
	transportServiceCategoryType			Type: TransportServiceCategoryCodeType	1	Code specifying the type of transport service that will be provided. For example: Courier service.
347	transportCargoCharacteristics			Type: TransportCargoCharacteristicsType (see line 149)	1	Aggregate information on the goods that are contained in this shipment.
	cargoTypeCode			Type: CargoTypeCodeType	1	Code specifying the classification of a type of cargo for example hazardous cargo.
	cargoTypeDescription			Type: Description200Type	0..1	Free text specifying the classification of a type of cargo.
	totalGrossVolume			Type: MeasurementType	0..1	A measure of the volume, normally calculated by multiplying the maximum length, width, and height of the packaged goods.
	totalGrossWeight			Type: MeasurementType	0..1	A measure of the mass of the goods including the weight of transport packaging, and potentially the weight of any transport equipment.
	totalTransportNetWeight			Type: MeasurementType	0..1	A measure of the mass of the goods excluding the weight of transport packaging and excluding the weight of any transport equipment.
	totalPackageQuantity			Type: QuantityType	0..1	Total number of logistic units (e.g. pallets) in this transport cargo.
348	plannedDelivery			Type: LogisticEventType (see line 165)	1	Details on the planned delivery of the shipment.
	logisticEventDateTime			Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
		date		Type: date	1	The specification of a day as calendar date.
		time		Type: time	0..1	The specification of a point in time during the day.

349	plannedDespatch		Type: DeliveryTermsType (see line 229)	0..1	Details on the planned despatch of the shipment.
350	deliveryTerms		Type: LogisticEventType (see line 165)	0..1	The applicable legal, customs, financial and insurance terms that have been agreed for the delivery of the shipment
351	packageTotal		Type: PackageTotalType (see line 234)	0..n	Aggregate information per type of package contained in the shipment.
	packageTypeCode		Type: PackageTypeCodeType	1	The code specifying the type of logistics package.
	totalPackageQuantity		Type: positiveInteger	1	The total number of units of this package type.
352	transportReference		Type: TransportReferenceType (see line 249)	0..n	References to the commercial transaction or to transport and legal documents related to the shipment.
353	handlingInstruction		Type: HandlingInstructionType (see line 255)	0..n	Instruction on the way to treat the goods during transport and storage.
354	dangerousGoodsInformation		Type: DangerousGoodsInformationType (see line 262)	0..n	Hazardous instructions for this shipment, such as where or how specified packages or containers are to be handled because of restriction from dangerous goods.
355	transportInstructionShipmentItem		Type: TransportInstructionShipmentItemType	0..n	A line item included in this shipment of goods.
356	lineItemNumber		Type: positiveInteger	1	The sequence number for this shipment item.
357	note		Type: Description500Type	0..1	A string of no more than 500 characters in a specified language.
358	logisticUnit		Type: LogisticUnitType (see line 311)	0..n	Information on the logistic unit(s) included in the shipment item.
	sscc		Type: SSCCType	1	Serial Shipping Container Code (SSCC),the GS1 key used for the identification of logistic units.
	packageTypeCode		Type: PackageCodeType	0..1	Code specifying the type of logistic unit based on its primary packaging.
359	transactionalTradeItem		Type: transactionalTradeItemType	0..n	Information on the trade item(s) included in the shipment item.
360	TradeItemIdentificationType		Extention base	1	
361	gtin		Type: GTINType	1	Global Trade Item Number (GTIN), the GS1 key used for the identification of trade items.
362	additionalTradeItemIdentification		Type: AdditionalTradeItemIdentificationType	0..n	Alternative means to the Global Trade Item Number to identify a trade item.
363	tradeItemQuantity		Type: QuantityType	0..1	Specification of the number of units of the trade item. To be applied when no other quantity information, such as the requested quantity or the billed quantity, is present.
364	tradeItemDescription		Type: Description200Type	0..1	Textual description of the trade item.
365	transactionalItemData		Type: TransactionalItemDataType	0..n	Dynamic characteristics used to specify individual instances of a trade item, such as the best before date, batch number or serial number.
366	availableForSaleDate		Type: data	0..1	Dynamic characteristics used to specify individual instances of a trade item, such as the best before date, batch number or serial number.
367	batchNumber		Type: string	0..1	A batch unites products or items that have undergone or are grouped together to undergo the same transformation process, not necessarily a production process.
368	bestBeforeDate		Type: date	0..1	The date before which the product is best used or consumed. It is a statement about quality.
369	countryOfOrigin		Type: CountryCodeType	0..1	Country from which the goods are supplied.
370	itemExpirationDate		Type: date	0..1	The date after which the product should not be used or consumed. Its meaning is determined based on the trade item context (e.g., for food, the date will indicate the possibility of a direct health risk resulting from use of the product after the date, for pharmaceutical products, it will indicate the possibility of an indirect health risk resulting from the ineffectiveness of the product after the date). It is often referred to as "use by date" or "maximum durability date."
371	lotNumber		Type: restricted string	0..1	A distinctive combination of numbers and/or letters from which the complete history of the manufacture, processing, packaging, coding and distribution of a batch can be determined.

372				packagingDate	Type: data	0..1	The date on which the packaging of a product took place.
373				productionDate	Type: date	0..1	The date that the product was produced.
374				productQualityIndication	Type: QuantityType	0..1	Value used to indicate the quality, such as grade or strength, of a specific batch of products.
375				sellByDate	Type: date	0..1	The date before or on which, the product should be sold.
376				serialNumber	Type: restricted string	0..n	A unique identifier assigned to a specific trade item.
377				shelfLife	Type: restricted string	0..1	The length of time a material, substance, product, or reagent can be stored under specified environmental conditions and continue to meet all applicable specification requirements and/or remain suitable for its intended function.
378				tradeItemQuantity	Type: QuantityType	0..1	The total number of individual trade items being specified.
379				transactionalItemWeight	Type: UnitMeasurementType	0..n	Weight is a measurement of the gravitational force acting on a transactional object.
380				**serialNumberRange**	Type: StringRangeType	0..n	The difference or interval between the minimum and maximum value of the serial numbers expressed as a string
381				maximumValue	Type: string	0..1	Specifies the upper limit of the string range.
382				minimumValue	Type: string	0..1	Specifies the lower limit of the string range.
383			**colour**		Type: ColourType	0..n	Information specifying the colour of the trade item.
384				colourCode	Type: ColourCodeType	0..1	A code depicting the colour of an object according to a specified list of code lists. Each industry needs to determine which code agency is will use.
385				colourDescription	Type: Description80Type	0..n	A description of a colour of an object.
386			**size**		Type: SizeType	0..n	The physical dimensions or proportions of the transactional trade item depicted as a code or a description.
387				descriptiveSize	Type: Description80Type	0..1	A description of the size of an object.
388				sizeCode	Type: SizeCodeType	0..1	Code specifying the size of an object and the size coding system being applied, for example L (buyer assigned).
389		**transportCargoCharacteristics**			**Type: TransportCargoCharacteristicsType (see line 347)**	0..1	Aggregate information on the goods that are included in this shipment item.
390		**transportReference**			**Type: TransportReferenceType (see line 352)**	0..n	References to the commercial transaction or to transport or legal documents related to the shipment item.
391		**packageTotal**			**Type: PackageTotalType (see line 351)**	0..n	Aggregate information per type of package included in the shipment item.
392		**handlingInstruction**			**Type: HandlingInstructionType (see line 353)**	0..n	Handling instructions for the consignment item.
393		**dangerousGoodsInformation**			**Type: DangerousGoodsInformationType (see line 262)**	0..n	Hazardous instructions for this shipment item, such as where or how specified packages or containers are to be handled because of restriction from dangerous goods.

Transport Instruction Consignment message structure and content

#	Message elements			Data types, etc.	C	Description
2	transportInstructionMessage			Type: TransportInstructionMessageType	1	
3	StandardBusinessDocumentHeader			Type: StandardBusinessDocumentHeader	1	The UN/CEFACT standard,. Contains information about routing and processing of the business document, identifies the message set sent together with on SBDH and the version number of the document, identifies the message set sent together with on SBDH and the version number of the document(s) contained.
4		HeaderVersion		Type: string	1	Version number of the SBDH standard used.
5		Sender		Type: Partner	1..n	Sender of the message, party representing the organization which created the standard business document.
6			Identifier	Type: PartnerIdentification	1	A unique identification key for the Sender party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
7			ContactInformation	Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
8				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
9				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
10				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
11				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
12				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
13		Receiver		Type: Partner (see line 5)	1..n	Receiver of the message, party representing the organization which receives the standard business document.
			Identifier	Type: PartnerIdentification	1	A unique identification key for the Receiver party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
			ContactInformation	Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.

14	DocumentIdentification			Type: DocumentIdentification	1	Identification information for the document
15		Standard		Type: string	1	The name of the document standard contained in the payload. The value of the element „Standard" MUST be set to the value „GS1"
16		TypeVersion		Type: string	1	The version number of the XSD schema used in the payload of the message
17		InstanceIdentifier		Type: string	1	Identifies the instance of the transport instruction message. This identifier identifies thisdocument as being distinct from others.
18		Type		Type: string	1	Identifies the type of the document, e.g. "Transport Instruction"
19		MultipleType		Type: boolean	0..1	TRUE if many different document types after the same header. Will not be used.
20		CreationDateAndTime		Type: dateTime	1	The update time of this submission, e.g. 2006-03-23T01:00:78.000+02:00
21	Manifest			Type: Manifest	0..1	Attachments to the instruction. Will not be used.
22		NumberOfItems		Type: integer	1	
23		ManifestItem		Type: ManifestItem	1..n	
24			MimeTypeQualifierCode	Type: MimeTypeQualifier	1	
25			UniformResourceIdentifier	Type: anyURi	1	
26			Description	Type: string	0..1	
27			LanguageCode	Type: Language	0..1	
28	BusinessScope			Type: BusinessScope	0..1	Description of the complete business environment in which the SBDH and SBD will be processed. The business scope provides a basis to determine which rules are applicable to the transaction involving the enclosed business documents.
29		Scope		Type: Scope	0..n	
30			ScopeAttributes	Group	1	
31			Type	Type: string	1	Name of XSD profile used.
32			InstanceIdentifier	Type: string	1	Leave empty
33			Identifier	Type: string	0..1	
34			ScopeInformation	Type: anyType	0..n	This is an abstract element with a substitution group. Will not be used.
35			BusinessService	SubstitutionGroup	0..1	
36			BusinessServiceName	Type: string	0..1	
37			ServiceTransaction	ServiceTransaction	0..1	
38			ScopeInformation	Substitution Group: anyType	0..1	
39			CorrelationInformation	SubstitutionGroup	0..1	
40			RequestingDocumentCreationDateTime	Type: dateTime	0..1	
41			RequestingDocumentInstanceIdentifier	Type: string	0..1	
42			ExpectedResponseDateTime	Type: dateTime	0..1	
43			ScopeInformation	Substitution Group: anyType	0..1	
44	TransportInstruction			Type: TransportInstructionType	1..n	The main objectives of the Transport Instruction are to communicate and share the arrangements (through the agreed conditions) of the movement of the goods (including collection and delivery) between all parties involved and providing the information necessary to perform the handling of the goods.
45	DocumentType			Extention base	1	
46		creationDateTime		Type: dateTime	1	Date and time when the document was created.
47		documentStatusCode		Enum type: DocumentStatusEnumerationType	1	Indicates if the document is a copy or an original.
48		documentActionCode		Enum type: DocumentActionEnumerationType	0..1	Code specifying the action to be taken in the system of the recipient using the information in the document.
49		documentStructureVersion		Type: string	0..1	Specification of the version of the standard on which the structure of the document is based, for example 3.0.
50		lastUpdateDateTime		Type: dateTime	0..1	Date and time when the document was last updated.
51		extension		ExtentionType	0..1	Extension point for inclusion of additional information through an extension to the document. Will not be used.

52	transportInstructionIdentification				Type: EntityIdentificationType	1	The identification of the transport instruction document.
53		entityIdentification			Type: restricted string	1	The unique identifier of the piece of information, such as the object id or the document id.
54		contentOwner			Type: PartyIdentificationType	0..1	Uniquely identifies the creator of the entity identification.
55			gln		Type: GLNType	1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
56			additionalPartyIdentification		Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
57	transportInstructionFunction				Enum type: TransportInstructionFunctionEnumerationType	1	The transport instruction function identifies whether the transport instruction is consignment-based or shipment-based.
58	logisticServicesSeller				Type: TransactionalPartyType	1	A party that provides logistics services to another party.
59			gln		Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
60			additionalPartyIdentification		Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
61		address			Type: AddressType	0..1	Address of the party involved in the business transaction.
62			city		Type: restricted string	0..1	Text specifying the name of the city.
63			cityCode		Type: restricted string	0..1	Identifier for a city, expressed as a short code rather than the full name
64			countryCode		Type: CountryCodeType	0..1	Code specifying the country for the address.
65			countyCode		Type: restricted string	0..1	A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. Will not be used.
66			crossStreet		Type: restricted string	0..1	A street intersecting a main street (usually at right angles) and continuing on both sides of it. Will not be used.
67			currencyOfPartyCode		Type: CurrencyCodeType	0..1	Code specifying the currency of an addressed party. Will not be used.
68			languageOfThePartyCode		Type: LanguageCodeType	0..1	Code specifying the language of an addressed party. Will not be used.
69			name		Type: restricted string	0..1	The name of the party expressed in text.
70			pOBoxNumber		Type: restricted string	0..1	The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept.
71			postalCode		Type: restricted string	0..1	Text specifying the postal code for an address.
72			state		Type: restricted string	0..1	One of the constituent units of a nation having a federal government.
73			streetAddressOne		Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
74			streetAddressTwo		Type: restricted string	0..1	The second free form line of an address, This second part is printed on paper as the second line below the name. The second free form line complements the first free form line to locate the party e.g. floor number, name of a building, suite number.
75			geographicalCoordinates		Type: GeographicalCoordinatesType	0..1	Geographical coordinates for the address.
76				latitude	Type: restricted string	1	Angular distance North or South from the earth's equator measured through 90 degrees.
77				longitude	Type: restricted string	1	The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed either in degrees or in time
78		contact			Type: ContactType	0..1	Person or department that can be contacted regarding the business transaction.
79			contactTypeCode		Type: ContactTypeCodeType	0..1	Code specifying the function or role of a contact.
80			personName		Type: restricted string	0..1	The name of the individual that can be contacted to provide additional information.
81			departmentName		Type: restricted string	0..1	The name of the department that can be contacted to provide additional information.
82			jobTitle		Type: restricted string	0..1	The job title of the person that can be contacted.
83			responsibility		Type: Description70Type	0..n	Text further specifying the area of responsibility of the trade contact. Will not be used.

84			communicationChannel			Type: CommunicationChannelType	0..n	The channel or manner in which a communication can be made with the contact, such as telephone or email.
85				communicationChannelCode		Type: CommunicationChannelCodeType	1	Code specifying the type of communication channel, for example TELEPHONE.
86				communicationValue		Type: restricted string	1	Text identifying the endpoint for the communication channel, for example a telephone number or an email address.
87			afterHoursCommunicationChannel			Type: CommunicationChannelType (see line 84)	0..n	The channel or manner in which a communication can be made with the contact after regular office hours.
88		**dutyFeeTaxRegistration**				Type: DutyFeeTaxRegistrationType	0..n	The registration details of a party related to a particular duty, tax or fee.
89			dutyFeeTaxRegistrationID			Type: IdentifierType	1	Identifier of the party for this particular duty, fee or tax.
90			duryFeeTaxTypeCode			Type: DuryFeeTaxTypeCodeType	1	Code specifying the type of duty, fee or tax.
91			dutyFeeTaxAgencyName			Type: restricted string	0..1	Agency responsible for the collection of this duty, fee or tax.
92			dutyFeeTaxDescription			Type: Description80Type	0..1	Textual description of this duty, fee or tax.
93		**organisationDetails**				Type: OrganisationType	0..1	Information about the legal organisation of the party involved in the business transaction.
94			organisationName			Type: restricted string	1	The official name of the organisation.
95			issuedCapital			Type: AmountType	0..1	The amount of the issued capital. Will not be used.
96			legalStructure			Type: Description80Type	0..1	Description of the type of legal structure of the organisation. Will not be used.
97			**officialAddress**			Type: AddressType (see line 61)	0..1	The address where the organisation is officially based.
98			**legalRegistration**			Type: LegalRegistrationType	0..n	The registration details of an organisation in a particular legal register.
99				legalRegistrationNumber		Type: restricted string	1	Unique identifier of the organization in the legal register.
100				legalRegistrationType		Type: LegalRegistrationCodeType	1	Code specifying the type of legal register.
101		**financialInstitutionInformation**				Type: FinancialInstitutionInformationType	0..n	Information on the financial institution(s) where the party holds an account.
102			financialInstitutionName			Type: restricted string	0..1	The name of the account holder's financial institution.
103			financialInstitutionBranchName			Type: restricted string	0..1	The name of a division or location of the account holder's financial institution.
104			**financialAccount**			Type: FinancialAccountType	0..1	Information identifying a client's financial account with a financial institution.
105				financialAccountNumber		Type: restricted string	1	Text specifying the number of the financial account.
106				financialAccountNumberTypeCode		Type: FinancialAccountNumberTypeCodeType	1	Identifies the type of financial account number.
107				financialAccountName		Type: restricted string	0..1	Text specifying the name of the financial account.
108			**financialRoutingNumber**			Type: FinancialRoutingNumberType	0..1	Provides the Routing Number for the Financial Institution.
109				financialRoutingNumber		Type: restricted string	1	Number assigned to a transaction in financial routing between parties. The number is determined by and used in conjunction with the type of routing, e.g. SWIFT,ABA,CHIPS.
110				financialRoutingNumberTypeCode		Type: FinancialRoutingNumberTypeCodeType	1	Code specifying the type of financial routing, e.g. SWIFT.
111			additionalFinancialInformation			Type: MultiDescription70Type	0..1	A description used to provide any additional information about a financial institution. Will not be used.
112				description		Type: Description70Type	1..n	Text content of the description. Will not be used.
113			address			Type: AddressType (see line 61)	0..1	Address of the financial institution involved in the business transaction.
114		logisticServicesBuyer				Type: TransactionalPartyType (see line 58)	1	A party that purchases logistics services from another party.
			gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
115		billTo				Type: TransactionalPartyType (see line 58)	0..1	Identifies the party who will receive the invoice for the transport services. Synonym: Invoicee.

116	transportInstructionConsignment			Type: TransportInstructionConsignmentType	0..n	Provides the information on a consignment contained in this transport instruction.
117		ConsignmentIdentification		Type Extention base	1	
120			ginc	Type: GINCType	1	The GS1 Global Identification Number for Consignment (GINC) key used for the identification of consignments
121			additionalIndividualAssetIdentification	Type: AdditionalConsignmentIdentificationType	0..n	Identifier of the consignment specified in addition to the GINC.
122		parentConsignmentID		Type: ConsignmentIdentificationType (see line 117)	0..1	Reference to another consignment that contains this consignment (and several other consignments).
125		transportInstructionStatusCode		Enum type: TransportInstructionStatusEnumerationType	0..1	Code specifying the instruction status of this consignment.
126		transportInstructionStatusDescription		Type: Description70Type	0..1	Specify transport instruction status
127		transportInstructionStatusReasonCode		Type: TransportInstructionStatusReasonCodeType	0..1	Code specifying the instruction status reason for this consignment.
128		transportInstructionStatusReasonDescription		Type: Description70Type	0..1	Textual description of the instruction status reason for this consignment.
129		note		Type: String 500Type	0..1	Free text used to convey information that is not processed by applications. Only meant to present the information to a user as on a screen, in a browser, etc.
130		consignor		Type: TransactionalPartyType (see line 58)	1	The party despatching a consignment of goods.
			gln	Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
131		consignee		Type: TransactionalPartyType (see line 58)	1	The party receiving a consignment of goods.
			gln	Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
132		notifyParty		Type: TransactionalPartyType (see line 58)	0..n	The party which needs to be informed regarding the consignment information to fulfill the end to end transportation process.
			gln	Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
133		pickUpParty		Type: TransactionalPartyType (see line 58)	0..1	Identification of the physical location from where goods will be picked up for delivery.
			gln	Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
134		dropOffParty		Type: TransactionalPartyType (see line 58)	0..1	Identification of the physical location to where goods will be or have been shipped.
			gln	Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
135		exportAgent		Type: TransactionalPartyType (see line 58)	0..1	Identification of and additional information about a party involved in a business transaction, such as "order" or invoice".
136		importAgent		Type: TransactionalPartyType (see line 58)	0..1	Identification of and additional information about a party involved in a business transaction, such as "order" or "invoice".
137		transportInstructionTerms		Type: TransportInstructionTermsType	1	The agreed transport service conditions for this consignment.
138			transportServiceCategoryType	Type: TransportServiceCategoryCodeType	1	Code specifying the type of transport service that will be provided. For example: Courier service.
139			transportCollectChargeAmount	Type: AmountType	0..1	The total monetary value of all freight and other service charges which are to be collected from the consignee at or after delivery of the goods.
140			transportPaymentMethodTypeCode	Type: TransportPaymentMethodCodeType	0..1	The method of payment for the transport and service charges.
141			transportPickUpChargeAmount	Type: AmountType	0..1	The total monetary value of all freight and other service charges which are to be collected from the consignor at or after pick-up of the goods.
142			transportServiceConditionType	Type: TransportServiceConditionTypeCodeType	0..1	Code specifying the type of contractual conditions applicable to these transport terms
143			transportServiceLevelCode	Type: TransportServiceLevelCodeType	0..1	Specifies the level of service. E.g. EXPRESS_SERVICE

144	**logisticService**		Type: LogisticServiceType	0..n	Details on the additional services agreed as part of the transport instruction terms.
145		logisticServiceRequirementCode	Type: LogisticServiceRequirementCodeType	1	Code specifying the type of service required.
146		cashOnDeliveryAmount	Type: AmountType	0..1	Monetary amount applicable in case the logistic services provider is requested collect the payment for the delivered goods.
147		insuranceValue	Type: AmountType	0..1	Monetary amount applicable in case the logistic service provider is requested to arrange the insurance of the delivered goods.
148		logisticServiceChargeAmount	Type: AmountType	0..1	Monetary amount to be paid to the logistic service provider as compensation for the provided service.
149	**transportCargoCharacteristics**		Type: TransportCargoCharacteristicsType	1	Aggregate information on the goods that are contained in this consignment.
150		cargoTypeCode	Type: CargoTypeCodeType	1	Code specifying the classification of a type of cargo for example hazardous cargo.
151		harmonizedSystemCode	Type: HarmonizedSystemCodeType	0..1	Code specifying the cargo according to the Harmonised Commodity Description and Coding System (HS) of tariff nomenclature, developed and maintained by the World Customs Organization (WCO).
152		cargoTypeDescription	Type: Description200Type	0..1	Free text specifying the classification of a type of cargo.
153		countryOfOriginCodet	Type: CountryCodeType	0..1	The country where this transport cargo has been manufactured.
154		finalDestinationCountry	Type: CountryCodeType	0..1	The country considered to be the final destination for this transport cargo, for regulatory compliance purposes.
155		totalGrossVolume	Type: MeasurementType	0..1	A measure of the volume, normally calculated by multiplying the maximum length, width, and height of the packaged goods.
156		totalGrossWeight	Type: MeasurementType	0..1	A measure of the mass of the goods including the weight of transport packaging, and potentially the weight of any transport equipment.
157		totalTransportNetWeight	Type: MeasurementType	0..1	A measure of the mass of the goods excluding the weight of transport packaging and excluding the weight of any transport equipment.
158		totalChargeableWeight	Type: MeasurementType	0..1	Measure of the weight on which freight charges may be calculated for this transport cargo.
159		declaredWeightForCustoms	Type: MeasurementType	0..1	Measure of the weight of the goods for customs declaration purposes.
160		totalLoadingLength	Type: MeasurementType	0..1	Measure of the total length the goods occupy in a transport means / on a piece of transport equipment. E.g. Loading metres in a truck or trailer.
161		associatedInvoiceAmount	Type: AmountType	0..1	The commercial value of the cargo.
162		declaredValueForCustoms	Type: AmountType	0..1	The monetary value declared for customs purposes for this transport cargo.
163		totalPackageQuantity	Type: QuantityType	0..1	Total number of logistic units (e.g. pallets) in this transport cargo.
164		totalItemQuantity	Type: QuantityType	0..1	The number of trade items on which freight charges may be calculated for this transport cargo
165	**plannedPickUp**		Type: LogisticEventType	0..1	Details on the planned collection of the consignment.
166		logisticEventTypeCode	Type: LogisticEventTypeCodeType	0..1	Code specifying the type of logistic event. Example: Customs clearance. Will not be used.
167		logisticEventDuration	Type: TimeMeasurementType	0..1	Measurement value specifying the duration of the logistic event. Will not be used.
168		**logisticLocation**	Type: LogisticLocationType	0..1	The location where the logistic event occurs.
169		unLocationCode	Type: UNLocationCodeType	0..1	UN/LOCODE is a geographic coding scheme maintained by UN/ECE for locations used in trade and transport with functions such as seaports, rail and road terminals, airports, post offices and border crossing points.
170		gln	Type:GLNType	0..1	The GS1 global location number (GLN) of this logistic location.
171		additionalLocationIdentification	Type: IdentifierType	0..n	Identification of a location by use of a code other than the Global Location Number.

172	sublocationIdentification	Type: resricted string	0..1	Text further specifying the exact logistic location. For example: dock door, department, building.
173	locationName	Type: resricted string	0..1	The name of this logistic location.
174	locationSpecificInstructions	Type: Description200Type	0..1	Instructions related to the pick-up or drop-off of goods at this location.
175	utcOffset	Type: float	0..1	Numeric value specifying the time zone of the location as offset from the Coordinated Universal Time (UTC).
176	**address**	**Type: AddressType (see line 61)**	0..1	Address details of this logistic location.
177	**contact**	**Type: ContactType (see line 78)**	0..n	Person or department that can be contacted at this logistic location.
178	**regularOperatingHours**	Type: OperatingHoursType	0..n	The period during which a business or facility is operational on a weekday.
179	dayOfTheWeekCode	Type: DayOfTheWeekEnumerationType	1	Code specifying the day of the week to which the operating hours apply.
180	isOperational	Type: boolean	1	Indicator specifying whether or not the business or facility is operational on the specified day.
181	closingTime	Type: time	0..1	Time on which the business or facility closes on the specified day.
182	openingTime	Type: time	0..1	Time on which the business or facility opens on the specified day.
183	**specialOperatingHours**	Type: SpecialOperatingHoursType	0..n	The period during which the location is operational on special days, such as holidays.
184	isOperational	Type: boolean	1	Indicator specifying whether or not the business or facility is operational on the specified day.
185	specialDate	Type: date	1	Date specifying the day to which the special operating hours apply.
186	closingTime	Type: time	0..1	Time on which the business or facility closes on the specified day.
187	openingTime	Type: time	0..1	Time on which the business or facility opens on the specified day.
188	specialDateName	Type: Description80Type	0..1	Text describing the day to which the special operating hours apply. Example: Christmas.
189	**logisticEventPeriod**	Type: DateTimeRangeType	0..1	The timeframe during which the logistic event occurs.
190	beginDate	Type: date	0..1	Date specifying the first day for the date time range.
191	BeginTime	Type: time	0..1	Time specifying the start time for the date time range.
192	endDate	Type: date	0..1	Date specifying the last day for the date time range.
193	endTime	Type: time	0..1	Time specifying the end time for the date time range.
194	**logisticEventDateTime**	Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
195	date	Type: date	1	The specification of a day as calendar date.
196	time	Type: time	0..1	The specification of a point in time during the day.
197	**plannedDropOff**	**Type: LogisticEventType (see line 165)**	0..1	Details on the planned delivery of the consignment.
198	**transportInstructionTransportMovement**	Type: TransportInstructionTransportMovementType	1..n	The transport movement details for this consignment.
199	sequenceNumber	Type: positiveInteger	1	Unique number identifying the sequence of this transport movement with respect to the other specified movements.
200	transportModeTypeCode	Type: TransportModeCodeType	1	Code specifying the transportation mode used for this transport movement.
201	routeID	Type: IdentifierType	0..1	Unique identifier of the standard route that will be used for this transport movement.
202	**carrier**	**Type: TransactionalPartyType (see line 58)**	0..1	A party that physically transports goods from one place to another.
203	**transportStatusResponsibleParty**	**Type: TransactionalPartyType (see line 58)**	0..1	Party in charge of collecting and forwarding the information about the transport movement.
204	**transportMeans**	Type: TransportMeansType	0..1	The type of vehicle, aircraft, vessel or other device used for the transport of goods in this transport movement.
205	transportMeansType	Type: TransportMeansTypeCodeType	1	Code specifying the type of vehicle, aircraft, vessel or other device used for the transport of goods.
206	transportMeansID	Type: TransportMeansIdentifyerType	0..1	The unique identifier of a particular means of transport. E.g. A license plate number or vessel id.
207	transportMeansName	Type: restricted string	0..1	The name, expressed as text, of a particular means of transport. E.g. The vessel name.
208	**communicationChannel**	**Type: CommunicationChannelType (see line 205)**	0..n	The channel or manner in which a communication can be made with the transport means. E.g. telephone or email.

209		**plannedDeparture**		**Type: LogisticEventType (see line 165)**	0..1	Details on the planned departure of the transport means.
		logisticLocation		Type: LogisticLocationType	0..1	The location where the logistic event occurs.
			address	**Type: AddressType (see line 61)**	0..1	Address details of this logistic location.
			city	Type: restricted string	0..1	Text specifying the name of the city.
		logisticEventDateTime		Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
			date	Type: date	1	The specification of a day as calendar date.
			time	Type: time	0..1	The specification of a point in time during the day.
210		**plannedArrival**		**Type: LogisticEventType (see line 165)**	0..1	Details on the planned arrival of the transport means.
		logisticLocation		Type: LogisticLocationType	0..1	The location where the logistic event occurs.
			address	**Type: AddressType (see line 61)**	0..1	Address details of this logistic location.
			city	Type: restricted string	0..1	Text specifying the name of the city.
211		**plannedWaypoint**		**Type: LogisticEventType (see line 165)**	0..n	An administrative procedure taking place at a specific location that may have an effect on the lead time of a transport movement, such as dangerous goods handling, customs clearance, …
212		**associatedPerson**		Type: PersonType	0..n	The name and/or identification of an individual associated with this transport movement.
221			personName	Type: string	1	Text used to identify the person, such as the family name and given name.
222			dateOfBirth	Type: date	0..1	Calendar date on which the person was born.
223			gender	Type: GenderEnumerationType	0..1	Code specifying the sex of the person.
224			nationality	Type: CountryCodeType	0..n	Code specifying the nation the person belongs to by birth or naturalization.
225			**identityDocument**	Type: IdentityDocumentType	0..n	An identity document is any document which may be used to verify aspects of a person's personal identity or of a person's relationship with an organisation. If issued in the form of a small, mostly standard-sized card, it is usually called an identity card (IC).
226				identityDocumentNumber	Type: string	1	Unique identifier in this identity document, intended to identify a particular person.
227				identityDocumentType	Type: IdentityDocumentTypeCodeType	1	Code specifying the type of identity document.
228				identityDocumentIssuer	Type: string	0..1	Text specifying the issuer of the identity document.
229	**deliveryTerms**			Type: DeliveryTermsType	0..1	The applicable legal, customs, financial and insurance terms that have been agreed for the delivery of the consignment.
230		incotermsCode		Type: IncotermsCodeType	0..1	Code specifying the incoterms. Incoterms is an abbreviation for International Commercial Terms. The International Chamber of Commerce manages the Incoterms codes and their definitions.
231		alternateDeliveryTermsCode		Type: CodeType	0..1	Code specifying the delivery terms according to a system other than the Incoterms.
232		deliveryInstructions		Description500Type	0..1	Instructions on the final delivery of the goods.
233		**deliveryTermsLocation**		**Type:LogisticLocationType (see line 168)**	0..1	Location that is applicable to these delivery terms, such as the Free On Board (FOB) destination location.

234	packageTotal			Type: PackageTotalType	0..n	Aggregate information per type of package contained in the consignment.
235		packageTypeCode		Type: PackageTypeCodeType	1	The code specifying the type of logistics package.
236		totalPackageQuantity		Type: positiveInteger	1	The total number of units of this package type.
237		totalGrossVolume		Type: MeasurementType	0..1	A measure of the gross volume normally calculated by multiplying the maximum length, width, and height of this package type.
238		totalGrossWeight		Type: MeasurementType	0..1	A measure of the gross weight (mass) of this package which includes the weight of packaging but which excludes the weight of any transport equipment.
239		returnablePackaging		Type: ReturnablePackagingType	0..n	Provides detailed information for the administration of returnable packaging.
240			packagingQuantity	Type: positiveInteger	1	The number of packaging units (that are returnable).
241			newHolderRegistration	Type: IdentifierType	0..1	Identification of the party the returnable packaging is being transferred to.
242			currentHolderRegistration	Type: IdentifierType	0..1	Identification of the current administrative holder of the returnable packaging.
243			returnableAssetIdentification	Type: ReturnableassetIdentificationType	1	Information used to identify the returnable packaging.
244				grai	Type: GRAIType	1	Global Returnable Asset Identifier (GRAI), the GS1 key used for the identification of returnable assets.
245				additionalReturnableAssetIdentification	Type: AdditionalReturnableassetIdentificationType	0..n	The additional identification key used to identify returnable assets.
246	containedShipmentReference			Type: ShipmentIdentificationType	0..n	Information used to identify a shipment.
247		gsin		Type: GSINType	1	Global Shipment Identification Number (GSIN), the GS1 key used for the identification of shipments.
248		additionalShipmentIdentification		Type: AdditionalShipmentIdentificationType	0..n	Additional identification key used to identify a shipment.
249	transportReference			Type: TransportReferenceType	0..n	References to the commercial transaction or to transport or legal documents related to the consignment.
250		DocumentReferenceType		Extention base	1	
251			EntityIdentificationType	Extention base: EntityIdentificationType (see line 52)	1	
252			creationDateTime	Type: dateTime	0..1	Date and time of creation of the referenced document.
253			lineItemNumber	Type: nonNegativeInteger	0..1	Number specifying a line in the referenced document.
254		transportReferenceTypeCode		Type: TransportReferenceTypeCodeType	1	Code specifying the type of information that is being referred to.
255	handlingInstruction			Type:HandlingInstructionType	0..n	Instruction on the way to treat the goods during transport and storage.
256		handlingInstructionCode		Type:HandlingInstructionCodeType	0..1	Code specifying an instruction applicable to the transport or storage of goods.
257		handlingInstructionText		Type: Description500Type	0..1	Free text instruction applicable to the transport or storage of goods.
258		printingInstructionCode		Type:PrintingInstructionCodeType	0..n	Code specifying the document on which the specified information needs to be printed.
259		storageTemperature		Type: TemperatureRangeType	0..1	The minimum and maximum temperature applicable to the storage of goods.
260			maximumTemperature	Type: TemperatureMeasurementType	0..1	Specifies the upper limit of the temperature range.
261			minimumTemperature	Type: TemperatureMeasurementType	0..1	Specifies the lower limit of the temperature range.
262	dangerousGoodsInformation			Type: DangerousGoodsInformationType	0..n	Hazardous instructions for this consignment, such as where or how specified packages or containers are to be handled because of restriction from dangerous goods.
263		dangerousGoodsUNIdentifier		Type: IdentifierType	1	Number to identify hazardous substances or articles, as defined by United Nations Committee of Experts on the Transport of Dangerous Goods.
264		dangerousGoodsShippingName		Type: Description200Type	1	Shipping name of the trade item (dangerous goods). Regulations provide a list of all acceptable proper shipping names.
265		dangerousGoodsTechnicalName		Type: Description200Type	0..1	A technical name provided for a hazardous good by an organisation or regulation
266		dangerousGoodsDescription		Type: Description1000Type	0..1	Description of the hazardous materials.
267		contact		Type: ContactType (see line 173)	0..n	A contact in relation to the handling of hazardous materials.
268		dangerousGoodsRegulationInformation		Type: DangerousGoodsRegulationInformationType	0..n	Hazardous instructions applicable to delivered goods according to a particular dangerous goods regulation.
269			dangerousGoodsRegulationCode	Type: DangerousGoodsRegulationCodeType	1	An indication of the classification system of dangerous goods and/or the Agency responsible for it.
270			dangerousGoodsRegulationName	Type: restricted string	0..1	The name of the classification system of dangerous goods and/or the Agency responsible for it.

271				dangerousGoodsHazardClass	Type: restricted string	1	The name of the class within the classification of hazardous materials for example Class A.
272				dangerousGoodsPackingGroup	Type: restricted string	0..1	Identifies the degree of risk these dangerous goods present during transport according to the specified regulation.
273				**dangerousGoodsAttribute**	Type: DangerousGoodsAttributeType	0..n	Hazardous instructions attribute details specific to a particular dangerous goods regulation.
274				dangerousGoodsAttributeTypeCode	Type: DangerousGoodsAttributeTypeCodeType	1	Code specifying the type of dangerous goods attribute.
275				dangerousGoodsAttributeText	Type: restricted string	0..1	Textual value of the dangerous goods attribute.
276				dangerousGoodsAttributeMeasurement	Type: MeasurementType	0..1	Provides measurement value and an associated unit of measure code.
277				dangerousGoodsAttributeIndicator	Type: boolean	0..1	Boolean value of the dangerous goods attribute.
278				dangerousGoodsAttributeDateTime	Type: dateTime	0..1	Date time value of the dangerous goods attribute.
279		**includedTransportMeans**			**Type: TransportMeansType (see line 204)**	0..n	Details on the transport means contained in the consignment, such as trucks being transported on a ferry.
280		**includedTransportEquipment**			Type: TransportInstructionTransportEquipmentType	0..n	Details on the transport equipment contained in the consignment.
281			**TransportEquipmentType Extention base**		Type Extention base		
282			transportEquipmentTypeCode		Type: CodeType	1	Code specifying the transport equipment size and type.
283			returnableAssetTypeIdentification		Type: ReturnableAssetIdentificationType	0..1	The returnable asset identifier for the type of transport equipment.
284			individualReturnableAssetIdentification		Type: ReturnableAssetIdentificationType	0..n	The returnable asset identifier for an individual piece of transport equipment.
285			**individualAssetIdentification**		Type: IndividualAssetIdentificationType	0..n	The individual asset identifier for an individual piece of transport equipment.
286				giai	Type: GIAIType	1	Global Individual Asset Identifier (GIAI), the GS1 key used for the identification of individual assets.
287				additionalIndividualAssetIdentification	Type: AdditionalIndividualAssetIdentificationType	0..n	Identifier of the asset, specified in addition to the GIAI.
288			transportEquipmentWeight		Type: MeasurementType	0..1	A measure of the mass of this type of transport equipment.
289			transportEquipmentProviderPartyRole		Type: TransportPartyRoleCodeType	0..1	The code specifying the role of the party responsible for supplying this piece of logistics transport equipment.
290			**pickUpLocation**		**Type:LogisticLocationType (see line 168)**	0..1	The physical location from where the equipment will be collected.
291			**returnLocation**		**Type:LogisticLocationType (see line 168)**	0..1	The physical location to where the equipment will be returned.
292			**transportSeal**		Type: TransportSealType	0..1	Details on the seal affixed to this piece of transport equipment.
293				sealIdentification	Type: IdentifierType	1	Provides the seal number or identification of the seal.
294				sealTypeCode	Type: SealTypeCodeType	1	A code identifying the type of seal used on the cargo
295				sealAffixingPartyRole	Type: TransportPartyRoleCodeType	0..1	The code specifying the role of the party responsible for the sealing of this transport seal.
296				sealConditionCode	Type: SealConditionCodeType	0..1	The code specifying the working condition of a seal. E.g. Damaged.
297			**dimension**		Type: DimensionType	0..1	The linear dimensions of this type of transport equipment.
298				depth	Type: MeasurementType	1	Measurement of the distance between the front and the back.
299				height	Type: MeasurementType	1	The vertical dimension from the lowest extremity to the highest extremity.
300				width Type: MeasurementType 1			The measurement of the extent of something from side to side. Width is the measurement from left to right.
301		**passengerInformation**			Type: PassengerInformationType	0..n	Details on persons travelling together with the consignment, for example a guard.
302			numberOfPassengers		Type: positiveInteger	1	The number of persons being transported.
303			passengerCategoryCode		Type: PassengerCategoryCodeType	0..1	Code specifying the role, function or other main characteristic categorizing the type of passenger.
304				passengerTariffGroup	Description80Type	0..1	Text describing the tariff group of the transported passengers.
305			**person**		**Type: PersonType (see line 212)**	0..n	Information on the individual persons travelling as passengers.
306		**transportInstructionConsignmentItem**			Type: TransportInstructionConsignmentItemType	0..n	A line item included in this consignment of goods.
307			lineItemNumber		Type: positiveInteger	1	The sequence number for this consignment item.
308			note		Type: Description500Type	0..1	Free text used to convey information that is not processed by applications. Only meant to present the information to a user as on a screen, in a browser, etc.

309	transportCargoCharacteristics	Type: TransportCargoCharacteristicsType (see line 106)	1	Aggregate information on the goods that are included in this consignment item.
	cargoTypeCode	Type: CargoTypeCodeType	1	Code specifying the classification of a type of cargo for example hazardous cargo.
	cargoTypeDescription	Type: Description200Type	0..1	Free text specifying the classification of a type of cargo.
310	packageTotal	Type: PackageTotalType (see line 234)	0..n	Aggregate information per type of package included in the consignment item.
311	logisticUnit	Type: LogisticUnitType	0..n	Information on the logistic unit(s) included in the consignment item.
312	LogisticUnitIdentificationType	Extention base	1	
313	sscc	Type: SSCCType	1	Serial Shipping Container Code (SSCC),the GS1 key used for the identification of logistic units.
314	additionalLogisticUnitIdentification	Type: AdditionalLogisticUnitIdentificationType	0..n	Additional (non-SSCC) identification attached to a shipping container or shipping package and used for logistical and traceability purposes.
315	parentLogisticUnitId	Type: LogisticUnitType (see line 311)	0..1	Reference to the logistic unit that contains this logistic unit.
316	grossWeight	Type: MeasurementType	0..1	The weight of the logistic unit including packaging.
317	packageLevelCode	Type: PackageLevelCodeType	0..1	Code specifying the hierarchical level of this logistical unit within a consignment or shipment.
318	packageTypeCode	Type: PackageCodeType	0..1	Code specifying the type of logistic unit based on its primary packaging.
319	tradeItemQuantity	Type: QuantityType	0..1	The number of trade items contained in the logistic unit.
320	packagingMarking	Type: PackagingMarkingType	0..n	Details on the markings present on the packaging of the logistic unit.
321	markingTypeCode	Type: PackagingMarkingTypeCodeType	1	The code specifying the type of marking on the package for example batch number.
322	markingContentDateTime	Type: dateTime	0..1	The value as printed on the packaging, specified as date time value.
323	markingContentText	Type: restricted string	0..1	The value as printed on the packaging, specified as text.
324	referencedTransportEquipment	Type: TransportEquipmentType (see line 281)	0..1	Reference to the transport equipment that contains this logistic unit.
325	returnablePackaging	Type: ReturnablePackagingType (see line 239)	0..n	Details on the returnable packaging included in the logistic unit.
326	dimension	Type: DimensionType (see line 297)	0..1	The depth, height and width of the logistic unit.
327	referencedTransportEquipment	Type: TransportEquipmentType (see line 281)	0..n	Identification of the transport equipment that contains the consignment item.
328	transportReference	Type: TransportReferenceType (see line 249)	0..n	References to the commercial transaction or to transport or legal documents related to the consignment item.
329	handlingInstruction	Type: HandlingInstructionType (see line 255)	0..n	Handling instructions for the consignment item.
330	dangerousGoodsInformation	Type: DangerousGoodsInformationType (see line 262)	0..n	Hazardous instructions for this consignment item, such as where or how specified packages or containers are to be handled because of restriction from dangerous goods.

Transport Instruction Response message structure and content

#	Message elements					Data types, etc.	C	Description
2	transportInstructionMessage					Type: TransportInstructionMessageType	1	
3	StandardBusinessDocumentHeader					Type: StandardBusinessDocumentHeader	1	The UN/CEFACT standard,. Contains information about routing and processing of the business document, identifies the message set sent together with on SBDH and the version number of the document, identifies the message set sent together with on SBDH and the version number of the document(s) contained.
4		HeaderVersion				Type: string	1	Version number of the SBDH standard used.
5		Sender				Type: Partner	1..n	Sender of the message, party representing the organization which created the standard business document.
6			Identifier			Type: PartnerIdentification	1	A unique identification key for the Sender party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
7			ContactInformation			Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
8				Contact		Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
9				EmailAddress		Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
10				FaxNumber		Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
11				TelephoneNumber		Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
12				ContactTypeIdentifier		Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
13		Receiver				Type: Partner (see line 5)	1..n	Receiver of the message, party representing the organization which receives the standard business document.
			Identifier			Type: PartnerIdentification	1	A unique identification key for the Receiver party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
			ContactInformation			Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
				Contact		Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
				EmailAddress		Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
				FaxNumber		Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
				TelephoneNumber		Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
				ContactTypeIdentifier		Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
14		DocumentIdentification				Type: DocumentIdentification	1	Identification information for the document
15			Standard			Type: string	1	The name of the document standard contained in the payload. The value of the element „Standard" MUST be set to the value „GS1"
16			TypeVersion			Type: string	1	The version number of the XSD schema used in the payload of the message
17			InstanceIdentifier			Type: string	1	Identifies the instance of the transport instruction message. This identifier identifies thisdocument as being distinct from others.
18			Type			Type: string	1	Identifies the type of the document, e.g. "Transport Instruction"
19			MultipleType			Type: boolean	0..1	TRUE if many different document types after the same header. Will not be used.
20			CreationDateAndTime			Type: dateTime	1	The update time of this submission, e.g. 2006-03-23T01:00:78.000+02:00

21	**Manifest**				Type: Manifest	0..1	Attachments to the instruction. Will not be used.
22		NumberOfItems			Type: integer	1	
23		**ManifestItem**			Type: ManifestItem	1..n	
24			MimeTypeQualifierCode		Type: MimeTypeQualifier	1	
25			UniformResourceIdentifier		Type: anyURi	1	
26			Description		Type: string	0..1	
27			LanguageCode		Type: Language	0..1	
28	**BusinessScope**				Type: BusinessScope	0..1	Description of the complete business environment in which the SBDH and SBD will be processed. The business scope provides a basis to determine which rules are applicable to the transaction involving the enclosed business documents.
29		**Scope**			Type: Scope	0..n	
30			ScopeAttributes		Group	1	
31				Type	Type: string	1	Name of XSD profile used.
32				InstanceIdentifier	Type: string	1	Leave empty
33				Identifier	Type: string	0..1	
34			ScopeInformation		Type: anyType	0..n	This is an abstract element with a substitution group. Will not be used.
35			**BusinessService**		SubstitutionGroup	0..1	
36				BusinessServiceName	Type: string	0..1	
37				ServiceTransaction	ServiceTransaction	0..1	
38				ScopeInformation	Substitution Group: anyType	0..1	
39			**CorrelationInformation**		SubstitutionGroup	0..1	
40				RequestingDocumentCreationDateTime	Type: dateTime	0..1	
41				RequestingDocumentInstanceIdentifier	Type: string	0..1	
42				ExpectedResponseDateTime	Type: dateTime	0..1	
43				ScopeInformation	Substitution Group: anyType	0..1	
44	**TransportInstruction**				Type: TransportInstructionType	1..n	The main objectives of the Transport Instruction are to communicate and share the arrangements (through the agreed conditions) of the movement of the goods (including collection and delivery) between all parties involved and providing the information necessary to perform the handling of the goods
45	**DocumentType**				Extention base	1	
46		creationDateTime			Type: dateTime	1	Date and time when the document was created.
47		documentStatusCode			Enum type: DocumentStatusEnumerationType	1	Indicates if the document is a copy or an original.
48		documentActionCode			Enum type: DocumentActionEnumerationType	0..1	Code specifying the action to be taken in the system of the recipient using the information in the document.
49		documentStructureVersion			Type: string	0..1	Specification of the version of the standard on which the structure of the document is based, for example 3.0.
50		lastUpdateDateTime			Type: dateTime	0..1	Date and time when the document was last updated.
51		extension			ExtentionType	0..1	Extension point for inclusion of additional information through an extension to the document. Will not be used.
52	**transportInstructionIdentification**				Type: EntityIdentificationType	1	The identification of the transport instruction document.
53		entityIdentification			Type: restricted string	1	The unique identifier of the piece of information, such as the object id or the document id.
54		**contentOwner**			Type: PartyIdentificationType	0..1	Uniquely identifies the creator of the entity identification.
55			gln		Type: GLNType	1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
56			additionalPartyIdentification		Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
57	transportInstructionFunction				Enum type: TransportInstructionFunctionEnumerationType	1	The transport instruction function identifies whether the transport instruction is consignment-based or shipment-based.

58	**logisticServicesSeller**				Type: TransactionalPartyType	1	A party that provides logistics services to another party.
59		gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
60		additionalPartyIdentification			Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
61		**address**			Type: AddressType	0..1	Address of the party involved in the business transaction.
62			city		Type: restricted string	0..1	Text specifying the name of the city.
63			cityCode		Type: restricted string	0..1	Identifier for a city, expressed as a short code rather than the full name
64			countryCode		Type: CountryCodeType	0..1	Code specifying the country for the address.
65			countyCode		Type: restricted string	0..1	A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. Will not be used.
66			crossStreet		Type: restricted string	0..1	A street intersecting a main street (usually at right angles) and continuing on both sides of it. Will not be used.
67			currencyOfPartyCode		Type: CurrencyCodeType	0..1	Code specifying the currency of an addressed party. Will not be used.
68			languageOfThePartyCode		Type: LanguageCodeType	0..1	Code specifying the language of an addressed party. Will not be used.
69			name		Type: restricted string	0..1	The name of the party expressed in text.
70			pOBoxNumber		Type: restricted string	0..1	The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept.
71			postalCode		Type: restricted string	0..1	Text specifying the postal code for an address.
72			state		Type: restricted string	0..1	One of the constituent units of a nation having a federal government.
73			streetAddressOne		Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
74			streetAddressTwo		Type: restricted string	0..1	The second free form line of an address, This second part is printed on paper as the second line below the name. The second free form line complements the first free form line to locate the party e.g. floor number, name of a building, suite number.
75			**geographicalCoordinates**		Type: GeographicalCoordinatesType	0..1	Geographical coordinates for the address.
76				latitude	Type: restricted string	1	Angular distance North or South from the earth's equator measured through 90 degrees.
77				longitude	Type: restricted string	1	The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed either in degrees or in time
78		**contact**			Type: ContactType	0..1	Person or department that can be contacted regarding the business transaction.
79			contactTypeCode		Type: ContactTypeCodeType	0..1	Code specifying the function or role of a contact.
80			personName		Type: restricted string	0..1	The name of the individual that can be contacted to provide additional information.
81			departmentName		Type: restricted string	0..1	The name of the department that can be contacted to provide additional information.
82			jobTitle		Type: restricted string	0..1	The job title of the person that can be contacted.
83			responsibility		Type: Description70Type	0..n	Text further specifying the area of responsibility of the trade contact. Will not be used.
84			communicationChannel		Type: CommunicationChannelType	0..n	The channel or manner in which a communication can be made with the contact, such as telephone or email.
85				communicationChannelCode	Type: CommunicationChannelCodeType	1	Code specifying the type of communication channel, for example TELEPHONE.
86				communicationValue	Type: restricted string	1	Text identifying the endpoint for the communication channel, for example a telephone number or an email address.
87			afterHoursCommunicationChannel		Type: CommunicationChannelType (see line 84)	0..n	The channel or manner in which a communication can be made with the contact after regular office hours.
88		**dutyFeeTaxRegistration**			Type: DutyFeeTaxRegistrationType	0..n	The registration details of a party related to a particular duty, tax or fee.
89			dutyFeeTaxRegistrationID		Type: IdentifierType	1	Identifier of the party for this particular duty, fee or tax.
90			duryFeeTaxTypeCode		Type: DuryFeeTaxTypeCodeType	1	Code specifying the type of duty, fee or tax.
91			dutyFeeTaxAgencyName		Type: restricted string	0..1	Agency responsible for the collection of this duty, fee or tax.
92			dutyFeeTaxDescription		Type: Description80Type	0..1	Textual description of this duty, fee or tax.
93		**organisationDetails**			Type: OrganisationType	0..1	Information about the legal organisation of the party involved in the business transaction.
94			organisationName		Type: restricted string	1	The official name of the organisation.
95			issuedCapital		Type: AmountType	0..1	The amount of the issued capital. Will not be used.
96			legalStructure		Type: Description80Type	0..1	Description of the type of legal structure of the organisation. Will not be used.
97			**officialAddress**		Type: AddressType (see line 61)	0..1	The address where the organisation is officially based.
98			**legalRegistration**		Type: LegalRegistrationType	0..n	The registration details of an organisation in a particular legal register.
99				legalRegistrationNumber	Type: restricted string	1	Unique identifier of the organization in the legal register.
100				legalRegistrationType	Type: LegalRegistrationCodeType	1	Code specifying the type of legal register.

101	financialInstitutionInformation				Type: FinancialInstitutionInformationType	0..n	Information on the financial institution(s) where the party holds an account.
102		financialInstitutionName			Type: restricted string	0..1	The name of the account holder's financial institution.
103		financialInstitutionBranchName			Type: restricted string	0..1	The name of a division or location of the account holder's financial institution.
104		financialAccount			Type: FinancialAccountType	0..1	Information identifying a client's financial account with a financial institution.
105			financialAccountNumber		Type: restricted string	1	Text specifying the number of the financial account.
106			financialAccountNumberTypeCode		Type: FinancialAccountNumberTypeCodeType	1	Identifies the type of financial account number.
107			financialAccountName		Type: restricted string	0..1	Text specifying the name of the financial account.
108		financialRoutingNumber			Type: FinancialRoutingNumberType	0..1	Provides the Routing Number for the Financial Institution.
109			financialRoutingNumber		Type: restricted string	1	Number assigned to a transaction in financial routing between parties. The number is determined by and used in conjunction with the type of routing, e.g. SWIFT,ABA,CHIPS.
110			financialRoutingNumberTypeCode		Type: FinancialRoutingNumberTypeCodeType	1	Code specifying the type of financial routing, e.g. SWIFT.
111		additionalFinancialInformation			Type: MultiDescription70Type	0..1	A description used to provide any additional information about a financial institution. Will not be used.
112			description		Type: Description70Type	1..n	Text content of the description. Will not be used.
113		address			Type: AddressType (see line 61)	0..1	Address of the financial institution involved in the business transaction.
114	logisticServicesBuyer				Type: TransactionalPartyType (see line 58)	1	A party that purchases logistics services from another party.
		gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
115	billTo				Type: TransactionalPartyType (see line 58)	0..1	Identifies the party who will receive the invoice for the transport services. Synonym: Invoicee.
396	transportInstructionResponseMessage				Type: TransportInstructionResponseMessageType	1	The UN/CEFACT standard, containing information about the routing and processing of the business document. It also identifies the message set that is sent together with on SBDH and the version number of the document(s) contained.
397		StandardBusinessDocumentHeader			Type: StandardBusinessDocumentHeader (see line 3)	1	
398		transportInstructionResponse			Type: TransportInstructionResponseType	1..n	The main objective of the Transport Instruction Response is to confirm the requested transport services and where needed provide additional information.
399			DocumentType		Extention base: DocumentType (see line 45)	1	
400			transportInstructionResponseIdentification		Type: EntityIdentificationType (see line 52)	1	The identification of the transport instruction response document.
401			responseType		Type: TransportInstructionResponseTypeEnumerationType	1	Code specifying the acceptance or non-acceptance of the services requested in the Transport Instruction.
402			logisticServicesSeller		Type: TransactionalPartyType (see line 58)	1	A party that provides logistics services to another party.
403			logisticServiceBuyer		Type: TransactionalPartyType (see line 58)	1	A party that purchases logistics services from another party.
404			billTo		Type: TransactionalPartyType (see line 58)	0..1	Identifies the party who will receive the invoice.
405			transportInstruction		Type: DocumentReferenceType (see line 250)	1	The identification of the referenced transport instruction.
406			transportInstructionConsignment		Type: TransportInstructionConsignmentType (see line 116)	0..n	Provides the information on a consignment contained in this transport instruction response.
407			transportInstructionShipment		Type: TransportInstructionShipmentType (see line 331)	0..n	Provides the information on a shipment contained in this transport instruction response.

Transport Status Notification Instruction Message Structure and Content

The following table provides an overview of the Transport Status Notification Instruction message structure and content. The message elements are defined by means of their data types, cardinality (the C column) and a textual description. The cardinality is the number of instances of this element that has to or can be provided.

Whenever an element is of the same type as a previous element, a reference is made to the line number the (# column) where it is defined. Thus, each data type is only described once.

Data elements in the GS1 standard which are not to be used are highlighted in grey.

Transport Status Notification Instruction message structure and content

#	Message elements				Data types, etc.	C	Description
2	transportInstructionMessage				Type: TransportInstructionMessageType	1	
3	**StandardBusinessDocumentHeader**				Type: StandardBusinessDocumentHeader	1	The UN/CEFACT standard,. Contains information about routing and processing of the business document, identifies the message set sent together with on SBDH and the version number of the document, identifies the message set sent together with on SBDH and the version number of the document(s) contained.
4		HeaderVersion			Type: string	1	Version number of the SBDH standard used.
5		**Sender**			Type: Partner	1..n	Sender of the message, party representing the organization which created the standard business document.
6			Identifier		Type: PartnerIdentification	1	A unique identification key for the Sender party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
7			**ContactInformation**		Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
8				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
9				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
10				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
11				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
12				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
13		**Receiver**			**Type: Partner (see line 5)**	1..n	Receiver of the message, party representing the organization which receives the standard business document.
			Identifier		Type: PartnerIdentification	1	A unique identification key for the Receiver party. The value may be a GLN. Or another identifier. In case of the latter the Authority attribute should be used to indicate the authority agency of the identification key.
			ContactInformation		Type: ContactInformation	0..n	Contact information for contact person or department. The element although optional, should be used, if possible.
				Contact	Type: string	1	Name of contact person or department. Although optional, should be used, if possible.
				EmailAddress	Type: string	0..1	Email address of contact person or department according to ITU-T Recommendation E.123.
				FaxNumber	Type: string	0..1	Fax number of contact person or department according to ITU-T Recommendation E.123.
				TelephoneNumber	Type: string	0..1	Telephone number of contact person or department according to ITU-T Recommendation E.123.
				ContactTypeIdentifier	Type: string	0..1	The role of the contact person or department, e.g. EDI coordinator.
14		**DocumentIdentification**			Type: DocumentIdentification	1	Identification information for the document
15			Standard		Type: string	1	The name of the document standard contained in the payload. The value of the element „Standard" MUST be set to the value „GS1"
16			TypeVersion		Type: string	1	The version number of the XSD schema used in the payload of the message
17			InstanceIdentifier		Type: string	1	Identifies the instance of the transport instruction message. This identifier identifies thisdocument as being distinct from others.
18			Type		Type: string	1	Identifies the type of the document, e.g. "Transport Instruction"
19			MultipleType		Type: boolean	0..1	TRUE if many different document types after the same header. Will not be used.
20			CreationDateAndTime		Type: dateTime	1	The update time of this submission, e.g. 2006-03-23T01:00:78.000+02:00
21		**Manifest**			Type: Manifest	0..1	Attachments to the instruction. Will not be used.
22			NumberOfItems		Type: integer	1	
23			**ManifestItem**		Type: ManifestItem	1..n	
24				MimeTypeQualifierCode	Type: MimeTypeQualifier	1	
25				UniformResourceIdentifier	Type: anyURi	1	
26				Description	Type: string	0..1	
27				LanguageCode	Type: Language	0..1	

28	**BusinessScope**				Type: BusinessScope	0..1	Description of the complete business environment in which the SBDH and SBD will be processed. The business scope provides a basis to determine which rules are applicable to the transaction involving the enclosed business documents.
29		**Scope**			Type: Scope	0..n	
30			ScopeAttributes		Group	1	
31				Type	Type: string	1	Name of XSD profile used.
32				InstanceIdentifier	Type: string	1	Leave empty
33				Identifier	Type: string	0..1	
34			ScopeInformation		Type: anyType	0..n	This is an abstract element with a substitution group. Will not be used.
35			**BusinessService**		SubstitutionGroup	0..1	
36				BusinessServiceName	Type: string	0..1	
37				ServiceTransaction	ServiceTransaction	0..1	
38				ScopeInformation	Substitution Group: anyType	0..1	
39			**CorrelationInformation**		SubstitutionGroup	0..1	
40				RequestingDocumentCreationDateTime	Type: dateTime	0..1	
41				RequestingDocumentInstanceIdentifier	Type: string	0..1	
42				ExpectedResponseDateTime	Type: dateTime	0..1	
43				ScopeInformation	Substitution Group: anyType	0..1	
44	**TransportInstruction**				Type: TransportInstructionType	1..n	The main objectives of the Transport Instruction are to communicate and share the arrangements (through the agreed conditions) of the movement of the goods (including collection and delivery) between all parties involved and providing the information necessary to perform the handling of the goods.
45		**DocumentType**			Extention base	1	
46			creationDateTime		Type: dateTime	1	Date and time when the document was created.
47			documentStatusCode		Enum type: DocumentStatusEnumerationType	1	Indicates if the document is a copy or an original.
48			documentActionCode		Enum type: DocumentActionEnumerationType	0..1	Code specifying the action to be taken in the system of the recipient using the information in the document.
49			documentStructureVersion		Type: string	0..1	Specification of the version of the standard on which the structure of the document is based, for example 3.0.
50			lastUpdateDateTime		Type: dateTime	0..1	Date and time when the document was last updated.
51			extension		ExtentionType	0..1	Extension point for inclusion of additional information through an extension to the document. Will not be used.
52		**transportInstructionIdentification**			Type: EntityIdentificationType	1	The identification of the transport instruction document.
53			entityIdentification		Type: restricted string	1	The unique identifier of the piece of information, such as the object id or the document id.
54			**contentOwner**		Type: PartyIdentificationType	0..1	Uniquely identifies the creator of the entity identification.
55				gln	Type: GLNType	1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
56				additionalPartyIdentification	Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
57		transportInstructionFunction			Enum type: TransportInstructionFunctionEnumerationType	1	The transport instruction function identifies whether the transport instruction is consignment-based or shipment-based.
58		**logisticServicesSeller**			Type: TransactionalPartyType	1	A party that provides logistics services to another party.
59			gln		Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
60			additionalPartyIdentification		Type: AdditionalPartyIdentificationType	0..n	Identification of a party by use of a code other than the Global Location Number.
61			**address**		Type: AddressType	0..1	Address of the party involved in the business transaction.
62				city	Type: restricted string	0..1	Text specifying the name of the city.
63				cityCode	Type: restricted string	0..1	Identifier for a city, expressed as a short code rather than the full name
64				countryCode	Type: CountryCodeType	0..1	Code specifying the country for the address.
65				countyCode	Type: restricted string	0..1	A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. Will not be used.
66				crossStreet	Type: restricted string	0..1	A street intersecting a main street (usually at right angles) and continuing on both sides of it. Will not be used.
67				currencyOfPartyCode	Type: CurrencyCodeType	0..1	Code specifying the currency of an addressed party. Will not be used.
68				languageOfThePartyCode	Type: LanguageCodeType	0..1	Code specifying the language of an addressed party. Will not be used.

69	name	Type: restricted string	0..1	The name of the party expressed in text.
70	pOBoxNumber	Type: restricted string	0..1	The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept.
71	postalCode	Type: restricted string	0..1	Text specifying the postal code for an address.
72	state	Type: restricted string	0..1	One of the constituent units of a nation having a federal government.
73	streetAddressOne	Type: restricted string	0..1	The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building.
74	streetAddressTwo	Type: restricted string	0..1	The second free form line of an address, This second part is printed on paper as the second line below the name. The second free form line complements the first free form line to locate the party e.g. floor number, name of a building, suite number.
75	**geographicalCoordinates**	Type: GeographicalCoordinatesType	0..1	Geographical coordinates for the address.
76	latitude	Type: restricted string	1	Angular distance North or South from the earth's equator measured through 90 degrees.
77	longitude	Type: restricted string	1	The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed either in degrees or in time
78	**contact**	Type: ContactType	0..1	Person or department that can be contacted regarding the business transaction.
79	contactTypeCode	Type: ContactTypeCodeType	0..1	Code specifying the function or role of a contact.
80	personName	Type: restricted string	0..1	The name of the individual that can be contacted to provide additional information.
81	departmentName	Type: restricted string	0..1	The name of the department that can be contacted to provide additional information.
82	jobTitle	Type: restricted string	0..1	The job title of the person that can be contacted.
83	personName	Type: restricted string	0..1	The name of the individual that can be contacted to provide additional information.
84	departmentName	Type: restricted string	0..1	The name of the department that can be contacted to provide additional information.
85	jobTitle	Type: restricted string	0..1	The job title of the person that can be contacted.
86	responsibility	Type: Description70Type	0..n	Text further specifying the area of responsibility of the trade contact. Will not be used.
87	**communicationChannel**	Type: CommunicationChannelType	0..n	The channel or manner in which a communication can be made with the contact, such as telephone or email.
88	communicationChannelCode	Type: CommunicationChannelCodeType	1	Code specifying the type of communication channel, for example TELEPHONE.
89	communicationValue	Type: restricted string	1	Text identifying the endpoint for the communication channel, for example a telephone number or an email address.
90	**afterHoursCommunicationChannel**	**Extention base:CommunicationChannelType (see line 87)**	0..n	The channel or manner in which a communication can be made with the contact after regular office hours.
91	**dutyFeeTaxRegistration**	Type: DutyFeeTaxRegistrationType	0..n	The registration details of a party related to a particular duty, tax or fee.
92	dutyFeeTaxRegistrationID	Type: IdentifierType	1	Identifier of the party for this particular duty, fee or tax.
93	duryFeeTaxTypeCode	Type: DuryFeeTaxTypeCodeType	1	Code specifying the type of duty, fee or tax.
94	dutyFeeTaxAgencyName	Type: restricted string	0..1	Agency responsible for the collection of this duty, fee or tax.
95	dutyFeeTaxDescription	Type: Description80Type	0..1	Textual description of this duty, fee or tax.
96	**organisationDetails**	Type: OrganisationType	0..1	Information about the legal organisation of the party involved in the business transaction.
97	organisationName	Type: restricted string	1	The official name of the organisation.
98	issuedCapital	Type: AmountType	0..1	The amount of the issued capital. Will not be used.
99	legalStructure	Type: Description80Type	0..1	Description of the type of legal structure of the organisation. Will not be used.
100	**officialAddress**	Type: AddressType (see line 61)	0..1	The address where the organisation is officially based.
101	**legalRegistration**	Type: LegalRegistrationType	0..n	The registration details of an organisation in a particular legal register.
102	legalRegistrationNumber	Type: restricted string	1	Unique identifier of the organization in the legal register.
103	legalRegistrationType	Type: LegalRegistrationCodeType	1	Code specifying the type of legal register.
104	**financialInstitutionInformation**	Type: FinancialInstitutionInformationType	0..n	Information on the financial institution(s) where the party holds an account.
105	financialInstitutionName	Type: restricted string	0..1	The name of the account holder's financial institution.
106	financialInstitutionBranchName	Type: restricted string	0..1	The name of a division or location of the account holder's financial institution.
107	**financialAccount**	Type: FinancialAccountType	0..1	Information identifying a client's financial account with a financial institution.
108	financialAccountNumber	Type: restricted string	1	Text specifying the number of the financial account.
109	financialAccountNumberTypeCode	Type: FinancialAccountNumberTypeCodeType	1	Identifies the type of financial account number.
110	financialAccountName	Type: restricted string	0..1	Text specifying the name of the financial account.
111	**financialRoutingNumber**	Type: FinancialRoutingNumberType	0..1	Provides the Routing Number for the Financial Institution.
112	financialRoutingNumber	Type: restricted string	1	Number assigned to a transaction in financial routing between parties. The number is determined by and used in conjunction with the type of routing, e.g. SWIFT,ABA,CHIPS.
113	financialRoutingNumberTypeCode	Type: FinancialRoutingNumberTypeCodeType	1	Code specifying the type of financial routing, e.g. SWIFT.
114	additionalFinancialInformation	Type: MultiDescription70Type	0..1	A description used to provide any additional information about a financial institution. Will not be used.
115	description	Type: Description70Type	1..n	Text content of the description. Will not be used.
116	address	Type: AddressType (see line 64)	0..1	Address of the financial institution involved in the business transaction.

117	transportStatusProvider			Type: TransactionalPartyType (see line 61)	1	A party that purchases logistics services from another party.
	gln			Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
118	transportStatusRequest			Type: DocumentReferenceType	0..1	Optional reference to the transport status request that triggered the sending of the transport status notification.
119	EntityIdentificationType			Extention base: EntityIdentificationType (see line 54)	1	Identifies the request
120	creationDateTime			Type: dateTime	0..1	Date and time of creation of the referenced document.
121	lineItemNumber			Type: nonNegativeInteger	0..1	Number specifying a line in the referenced document.
122	transportStatusNotificationConsignment			Type: TransportStatusNotificationConsignmentType	0..1	Information on the status and movements of a consignment.
123	ConsignmentIdentificationType			Extention base	1	Identifies the consignment
124	ginc			Type: GINCType	1	The GS1 Global Identification Number for Consignment (GINC) key used for the identification of consignments
125	additionalConsignmentIdentification			Type: AdditionalConsignmentIdentificationType	0..n	Identifier of the consignment specified in addition to the GINC.
126	parentConsignment			Type: ConsignmentIdentificationType (see line 123)	0..1	Reference to another consignment that contains this consignment (and several other consignments).
127	cargoTypeCode			Type: CargoTypeCodeType	1	Code specifying the classification of a type of cargo for example hazardous cargo.
128	cargoTypeDescription			Type: Description70Type	0..1	Free text specifying the classification of a type of cargo.
129	consignor			Type: TransactionalPartyType (see line 61)	0..1	The party despatching a consignment of goods.
130	consignee			Type: TransactionalPartyType (see line 61)	0..1	The party receiving a consignment of goods.
131	includedShipment			Type: ShipmentIdentificationType	0..n	Reference to the shipment(s) contained in this consignment.
132	gsin			Type: GSINType	1	Global Shipment Identification Number (GSIN), the GS1 key used for the identification of shipments.
133	additionalShipmentIdentification			Type: AdditionalShipmentIdentificationType	0..n	Additional identification key used to identify a shipment.
134	includedTransportEquipment			Type: TransportEquipmentType	0..n	Details on the transport equipment contained in the consignment.
135	transportEquipmentTypeCode			Type: CodeType	1	Code specifying the transport equipment size and type.
136	returnableAssetTypeIdentification			Type: ReturnableAssetIdentificationType	0..1	The returnable asset identifier for the type of transport equipment.
137	individualReturnableAssetIdentification			Type: ReturnableAssetIdentificationType	0..n	The returnable asset identifier for an individual piece of transport equipment.
138	individualAssetIdentification			Type: IndividualAssetIdentificationType	0..n	The individual asset identifier for an individual piece of transport equipment.
139	giai			Type: GIAIType	1	Global Individual Asset Identifier (GIAI), the GS1 key used for the identification of individual assets.
140	additionalIndividualAssetIdentification			Type: AdditionalIndividualAssetIdentificationType	0..n	Identifier of the asset, specified in addition to the GIAI.
141	includedLogisticUnit			Type: LogisticUnitIdentificationType	0..n	Identification of the logistic units contained in the consignment.
142	sscc			Type: SSCCType	1	Serial Shipping Container Code (SSCC),the GS1 key used for the identification of logistic units.
143	additionalLogisticUnitIdentification			Type: AdditionalLogisticUnitIdentificationType	0..n	Additional (non-SSCC) identification attached to a shipping container or shipping package and used for logistical and traceability purposes.
144	transportReference			Type: TransportReferenceType	0..n	References to the commercial transaction or to transport or legal documents related to the consignment.
145	DocumentReferenceType			Extention base	1	
146	EntityIdentificationType			Extention base: EntityIdentificationType (see line 54)	1	Identifies the commercial transaction or the transport or the legal documents related to the consignment.
147	creationDateTime			Type: dateTime	0..1	Date and time of creation of the referenced document.
148	lineItemNumber			Type: nonNegativeInteger	0..1	Number specifying a line in the referenced document.
149	transportReferenceTypeCode			Type: TransportReferenceTypeCodeType	1	Code specifying the type of information that is being referred to.
150	transportStatus			Type: TransportStatusType	1..n	The transport status details for this consignment.
151	transportStatusConditionCode			Type: TransportStatusConditionCodeType	1..n	Code specifying a transport status condition. Allowed code values are specified in GS1 Code List.
152	transportStatusDateTime			Type: dateTime	0..1	A date time that applies to the reported transport status.
153	transportStatusDescription			Type: Description500Type	0..1	The textual description of the transport status.
154	transportStatusReasonCode			Type: TransportStatusReasonCodeType	0..n	Code specifying a transport status reason. Allowed code values are specified in GS1 Code List
155	transportStatusReasonDescription			Type: Description500Type	0..1	A reason, expressed as text, for the transport status.
156	logisticLocation			Type: LogisticLocationType	0..1	A location related to the reported transport status.
157	unLocationCode			Type: UNLocationCodeType	0..1	UN/LOCODE is a geographic coding scheme maintained by UN/ECE for locations used in trade and transport with functions such as seaports, rail and road terminals, airports, post offices and border crossing points.
158	gln			Type:GLNType	0..1	The GS1 global location number (GLN) of this logistic location.
159	additionalLocationIdentification			Type: IdentifierType	0..n	Identification of a location by use of a code other than the Global Location Number.
160	sublocationIdentification			Type: resricted string	0..1	Text further specifying the exact logistic location. For example: dock door, department, building.
161	locationName			Type: resricted string	0..1	The name of this logistic location.
162	locationSpecificInstructions			Type: Description200Type	0..1	Instructions related to the pick-up or drop-off of goods at this location.
163	utcOffset			Type: float	0..1	Numeric value specifying the time zone of the location as offset from the Coordinated Universal Time (UTC).

164			address	Type: AddressType (see line 64)	0..1	Address details of this logistic location.
165			contact	Type: ContactType (see line 81)	0..n	Person or department that can be contacted at this logistic location.
166			regularOperatingHours	Type: OperatingHoursType	0..n	The period during which a business or facility is operational on a weekday.
167			dayOfTheWeekCode	Type: DayOfTheWeekEnumerationType	1	Code specifying the day of the week to which the operating hours apply.
168			isOperational	Type: boolean	1	Indicator specifying whether or not the business or facility is operational on the specified day.
169			closingTime	Type: time	0..1	Time on which the business or facility closes on the specified day.
170			openingTime	Type: time	0..1	Time on which the business or facility opens on the specified day.
171			specialOperatingHours	Type: SpecialOperatingHoursType	0..n	The period during which the location is operational on special days, such as holidays.
172			isOperational	Type: boolean	1	Indicator specifying whether or not the business or facility is operational on the specified day.
173			specialDate	Type: date	1	Date specifying the day to which the special operating hours apply.
174			closingTime	Type: time	0..1	Time on which the business or facility closes on the specified day.
175			openingTime	Type: time	0..1	Time on which the business or facility opens on the specified day.
176			specialDateName	Type: Description80Type	0..1	Text describing the day to which the special operating hours apply. Example: Christmas.
177		transportStatusNotificationTransportMovement		Type: TransportStatusNotificationTransportMovementType	0..n	The transport movement details for this consignment.
178			sequenceNumber	Type: positiveInteger	1	Unique number identifying the sequence of this transport movement with respect to the other specified movements.
179			transportModeTypeCode	Type: TransportModeCodeType	1	Code specifying the transportation mode used for this transport movement.
180			routeIdentifier	Type: IdentifierType	0..1	Unique identifier of the standard route used for this transport movement.
181			carrier	Type: TransactionalPartyType (see line 61)	0..1	A party that physically transports goods from one place to another.
182			transportStatusResponsibleParty	Type: TransactionalPartyType (see line 61)	0..1	Party in charge of collecting and forwarding the information about the transport movement.
183			plannedDeparture	Type: LogisticEventType	0..1	The expected time of departure from the designated departure location.
184			logisticEventTypeCode	Type: LogisticEventTypeCodeType	0..1	Code specifying the type of logistic event. Example: Customs clearance Will not be used.
185			logisticEventDuration	Type: TimeMeasurementType	0..1	Measurement value specifying the duration of the logistic event. Will not be used.
186			logisticLocation	Type: LogisticLocationType (see line 156)	0..1	The location where the logistic event occurs.
187			logisticEventPeriod	Type: DateTimeRangeType	0..1	The timeframe during which the logistic event occurs.
188			beginDate	Type: date	0..1	Date specifying the first day for the date time range.
189			BeginTime	Type: time	0..1	Time specifying the start time for the date time range.
190			endDate	Type: date	0..1	Date specifying the last day for the date time range.
191			endTime	Type: time	0..1	Time specifying the end time for the date time range.
192			logisticEventDateTime	Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
193			date	Type: date	1	The specification of a day as calendar date.
194			time	Type: time	0..1	The specification of a point in time during the day.
195			plannedArrival	Type: LogisticEventType (see line 183)	0..1	The expected time of arrival on the designated arrival location.
196			actualDeparture	Type: LogisticEventType (see line 183)	0..1	The actual time of departure from the designated departure location.
197			actualArrival	Type: LogisticEventType (see line 183)	0..1	The actual time of arrival to designated arrival location.
198			actualLoading	Type: LogisticEventType (see line 183)	0..1	The actual time and location of loading.
199			actualUnloading	Type: LogisticEventType (see line 183)	0..1	The actual time and location of unloading.
200			recipientSignOff	Type: LogisticEventType (see line 183)	0..1	Details on the sign-off of the receipt at the arrival location, such as the responsible person.
201			plannedWayPoint	Type: LogisticEventType (see line 183)	0..n	An planned administrative procedure taking place at a specific location that may have an effect on the lead time of a transport movement, such as dangerous goods handling, customs clearance,
202			actualWayPoint	Type: LogisticEventType (see line 183)	0..n	An administrative procedure that took place at a specific location that may have an effect on the lead time of a transport movement, such as dangerous goods handling, customs clearance, …
203			associatedPerson	Type: PersonType	0..n	A person associated with the execution of this transport movement, for example the driver.
204			personName	Type: string	1	Text used to identify the person, such as the family name and given name.
205			dateOfBirth	Type: date	0..1	Calendar date on which the person was born.
206			gender	Type: GenderEnumerationType	0..1	Code specifying the sex of the person.
207			nationality	Type: CountryCodeType	0..n	Code specifying the nation the person belongs to by birth or naturalization.
208			identityDocument	Type: IdentityDocumentType	0..n	An identity document is any document which may be used to verify aspects of a person's personal identity or of a person's relationship with an organisation. If issued in the form of a small, mostly standard-sized card, it is usually called an identity card (IC).
209			identityDocumentNumber	Type: string	1	Unique identifier in this identity document, intended to identify a particular person.
210			identityDocumentType	Type: IdentityDocumentTypeCodeType	1	Code specifying the type of identity document.
211			identityDocumentIssuer	Type: string	0..1	Text specifying the issuer of the identity document.
212			relatedTransportMeans	Type: TransportMeansType	0..1	The type of vehicle, aircraft, vessel or other device used for the transport of goods in this transport movement.
213			transportMeansType	Type: TransportMeansTypeCodeType	1	Code specifying the type of vehicle, aircraft, vessel or other device used for the transport of goods.
214			transportMeansName	Type: IdentifierType	0..1	The unique identifier of a particular means of transport. E.g. A license plate number or vessel id.
215			transportMeansID	Type: string	0..1	The name, expressed as text, of a particular means of transport. E.g. The vessel name.
216			communicationChannel	Type:CommunicationChannelType (see line 87)	0..n	The channel or manner in which a communication can be made with the transport means. E.g. telephone or email.
217			relatedTransportEquipment	Type: TransportEquipmentType (see line 134)	0..n	The type of trailer, container, ULD or other device used for the transport of goods in this transport movement.

218	transportStatusNotificationShipment				Type: TransportStatusNotificationShipmentType	0..1	Information on the status and movements of a shipment.
219		ShipmentIdentificationType			Extention base:ShipmentIdentificationType (see line 131)	1	The shipment addressed in this status report
			gsin		Type: GSINType	1	Global Shipment Identification Number (GSIN), the GS1 key used for the identification of shipments.
220		parentShipmentReference			Type: ShipmentIdentificationType (see line 129)	0..1	The unique identifier of a shipment in which this shipment is included
221		shipper			Type: TransactionalPartyType (see line 61)	0..1	A party which engages in shipping this shipment of goods.
			gln		Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
222		receiver			Type: TransactionalPartyType (see line 61)	0..1	A party which engages in receiving this shipment of goods.
			gln		Type: GLNType	0..1	Global Location Number (GLN), the GS1 key used for the identification of parties and locations.
223		transportReference			Type: TransportReferenceType (see line 144)	0..n	References to the commercial transaction or to transport or legal documents related to the shipment.
224		includedLogisticUnit			Type: LogisticUnitIdentificationType (see line 141)	0..n	Identification of the logistic units contained in the shipment.
			sscc		Type: SSCCType	1	Serial Shipping Container Code (SSCC),the GS1 key used for the identification of logistic units.
225		transportStatus			Type: TransportStatusType (see line 150)	1..n	The transport status details for this shipment.
			transportStatusConditionCode		Type: TransportStatusConditionCodeType	1..n	Code specifying a transport status condition. Allowed code values are specified in GS1 Code List.
226		transportStatusNotificationTransportMovement			Type: TransportStatusNotificationTransportMovementType (see line 177)	0..n	The transport movement details for this shipment.
			sequenceNumber		Type: positiveInteger	1	Unique number identifying the sequence of this transport movement with respect to the other specified movements.
			transportModeTypeCode		Type: TransportModeCodeType	1	Code specifying the transportation mode used for this transport movement.
			routeIdentifier		Type: IdentifierType	0..1	Unique identifier of the standard route used for this transport movement.
			carrier		Type: TransactionalPartyType (see line 61)	0..1	A party that physically transports goods from one place to another.
			address		Type: AddressType	0..1	Address of the party involved in the business transaction.
			city		Type: restricted string	0..1	Text specifying the name of the city.
			cityCode		Type: restricted string	0..1	Identifier for a city, expressed as a short code rather than the full name
			countryCode		Type: CountryCodeType	0..1	Code specifying the country for the address.
			name		Type: restricted string	0..1	The name of the party expressed in text.
			transportStatusResponsibleParty		Type: TransactionalPartyType (see line 61)	0..1	Party in charge of collecting and forwarding the information about the transport movement.
			plannedDeparture		Type: LogisticEventType	0..1	The expected time of departure from the designated departure location.
				logisticEventTypeCode	Type: LogisticEventTypeCodeType	0..1	Code specifying the type of logistic event. Example: Customs clearance Will not be used.
				logisticEventDuration	Type: TimeMeasurementType	0..1	Measurement value specifying the duration of the logistic event. Will not be used.
				logisticLocation	Type: LogisticLocationType (see line 156)	0..1	The location where the logistic event occurs.
				logisticEventPeriod	Type: DateTimeRangeType	0..1	The timeframe during which the logistic event occurs.
					beginDate	Type: date	0..1	Date specifying the first day for the date time range.
					BeginTime	Type: time	0..1	Time specifying the start time for the date time range.
					endDate	Type: date	0..1	Date specifying the last day for the date time range.
					endTime	Type: time	0..1	Time specifying the end time for the date time range.
				logisticEventDateTime	Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
					date	Type: date	1	The specification of a day as calendar date.
					time	Type: time	0..1	The specification of a point in time during the day.
			plannedArrival		Type: LogisticEventType (see line 183)	0..1	The expected time of arrival on the designated arrival location.
			actualDeparture		Type: LogisticEventType (see line 183)	0..1	The actual time of departure from the designated departure location.
				logisticLocation	Type: LogisticLocationType (see line 156)	0..1	The location where the logistic event occurs.
			address		Type: AddressType	0..1	Address of the party involved in the business transaction.
			city		Type: restricted string	0..1	Text specifying the name of the city.
			logisticEventPeriod		Type: DateTimeRangeType	0..1	The timeframe during which the logistic event occurs.
				beginDate	Type: date	0..1	Date specifying the first day for the date time range.
				BeginTime	Type: time	0..1	Time specifying the start time for the date time range.
				endDate	Type: date	0..1	Date specifying the last day for the date time range.
				endTime	Type: time	0..1	Time specifying the end time for the date time range.
			logisticEventDateTime		Type: DateOptionalTimeType	0..1	The date and time on which the logistic event occurs.
				date	Type: date	1	The specification of a day as calendar date.
				time	Type: time	0..1	The specification of a point in time during the day.

			actualArrival		Type: LogisticEventType (see line 183)		0..1	The actual time of arrival to designated arrival location.
				logisticLocation	Type: LogisticLocationType (see line 156)		0..1	The location where the logistic event occurs.
			address		Type: AddressType		0..1	Address of the party involved in the business transaction.
			city		Type: restricted string		0..1	Text specifying the name of the city.
				logisticEventPeriod	Type: DateTimeRangeType		0..1	The timeframe during which the logistic event occurs.
				beginDate	Type: date		0..1	Date specifying the first day for the date time range.
				BeginTime	Type: time		0..1	Time specifying the start time for the date time range.
				endDate	Type: date		0..1	Date specifying the last day for the date time range.
				endTime	Type: time		0..1	Time specifying the end time for the date time range.
				logisticEventDateTime	Type: DateOptionalTimeType		0..1	The date and time on which the logistic event occurs.
				date	Type: date		1	The specification of a day as calendar date.
				time	Type: time		0..1	The specification of a point in time during the day.
			actualLoading		Type: LogisticEventType (see line 183)		0..1	The actual time and location of loading.
				logisticLocation	Type: LogisticLocationType (see line 156)		0..1	The location where the logistic event occurs.
			address		Type: AddressType		0..1	Address of the party involved in the business transaction.
			city		Type: restricted string		0..1	Text specifying the name of the city.
				logisticEventPeriod	Type: DateTimeRangeType		0..1	The timeframe during which the logistic event occurs.
				beginDate	Type: date		0..1	Date specifying the first day for the date time range.
				BeginTime	Type: time		0..1	Time specifying the start time for the date time range.
				endDate	Type: date		0..1	Date specifying the last day for the date time range.
				endTime	Type: time		0..1	Time specifying the end time for the date time range.
				logisticEventDateTime	Type: DateOptionalTimeType		0..1	The date and time on which the logistic event occurs.
				date	Type: date		1	The specification of a day as calendar date.
				time	Type: time		0..1	The specification of a point in time during the day.
			actualUnloading		Type: LogisticEventType (see line 183)		0..1	The actual time and location of unloading.
				logisticLocation	Type: LogisticLocationType (see line 156)		0..1	The location where the logistic event occurs.
			address		Type: AddressType		0..1	Address of the party involved in the business transaction.
			city		Type: restricted string		0..1	Text specifying the name of the city.
				logisticEventPeriod	Type: DateTimeRangeType		0..1	The timeframe during which the logistic event occurs.
				beginDate	Type: date		0..1	Date specifying the first day for the date time range.
				BeginTime	Type: time		0..1	Time specifying the start time for the date time range.
				endDate	Type: date		0..1	Date specifying the last day for the date time range.
				endTime	Type: time		0..1	Time specifying the end time for the date time range.
				logisticEventDateTime	Type: DateOptionalTimeType		0..1	The date and time on which the logistic event occurs.
				date	Type: date		1	The specification of a day as calendar date.
				time	Type: time		0..1	The specification of a point in time during the day.
			recipientSignOff		Type: LogisticEventType (see line 183)		0..1	Details on the sign-off of the receipt at the arrival location, such as the responsible person.
			plannedWayPoint		Type: LogisticEventType (see line 183)		0..n	An planned administrative procedure taking place at a specific location that may have an effect on the lead time of a transport movement, such as dangerous goods handling, customs clearance,
			actualWayPoint		Type: LogisticEventType (see line 183)		0..n	An administrative procedure that took place at a specific location that may have an effect on the lead time of a transport movement, such as dangerous goods handling, customs clearance, …

			associatedPerson	Type: PersonType	0..n	A person associated with the execution of this transport movement, for example the driver.
				personName	Type: string	1	Text used to identify the person, such as the family name and given name.
				dateOfBirth	Type: date	0..1	Calendar date on which the person was born.
				gender	Type: GenderEnumerationType	0..1	Code specifying the sex of the person.
				nationality	Type: CountryCodeType	0..n	Code specifying the nation the person belongs to by birth or naturalization.
				identityDocument	Type: IdentityDocumentType	0..n	An identity document is any document which may be used to verify aspects of a person's personal identity or of a person's relationship with an organisation. If issued in the form of a small, mostly standard-sized card, it is usually called an identity card (IC).
					identityDocumentNumber	Type: string	1	Unique identifier in this identity document, intended to identify a particular person.
					identityDocumentType	Type: IdentityDocumentTypeCodeType	1	Code specifying the type of identity document.
					identityDocumentIssuer	Type: string	0..1	Text specifying the issuer of the identity document.
			relatedTransportMeans	Type: TransportMeansType	0..1	The type of vehicle, aircraft, vessel or other device used for the transport of goods in this transport movement.
				transportMeansType	Type: TransportMeansTypeCodeType	1	Code specifying the type of vehicle, aircraft, vessel or other device used for the transport of goods.
				transportMeansName	Type: IdentifierType	0..1	The unique identifier of a particular means of transport. E.g. A license plate number or vessel id.
				transportMeansID	Type: string	0..1	The name, expressed as text, of a particular means of transport. E.g. The vessel name.
				communicationChannel	Type:CommunicationChannelType (see line 87)	0..n	The channel or manner in which a communication can be made with the transport means. E.g. telephone or email.
			relatedTransportEquipment	Type: TransportEquipmentType (see line 134)	0..n	The type of trailer, container, ULD or other device used for the transport of goods in this transport movement.
				transportEquipmentTypeCode	Type: CodeType	1	Code specifying the transport equipment size and type.
				returnableAssetTypeIdentification	Type: ReturnableAssetIdentificationType	0..1	The returnable asset identifier for the type of transport equipment.
				individualReturnableAssetIdentification	Type: ReturnableAssetIdentificationType	0..n	The returnable asset identifier for an individual piece of transport equipment.
				individualAssetIdentification	Type: IndividualAssetIdentificationType	0..n	The individual asset identifier for an individual piece of transport equipment.
					giai	Type: GIAIType	1	Global Individual Asset Identifier (GIAI), the GS1 key used for the identification of individual assets.
					additionalIndividualAssetIdentification	Type: AdditionalIndividualAssetIdentificationType	0..n	Identifier of the asset, specified in addition to the GIAI.
227		transportStatusNotificationLogisticUnit	Type: transportStatusNotificationLogisticUnitType	0..1	Information on the status and movements of a logistic unit.
228			logisticUnitIdentificationType	**Extention base: LogisticUnitIdentificationType (see line 141)**	1	The logistic unit addressed in this status report
229			shipper	**Type: TransactionalPartyType (see line 61)**	0..1	A party which engages in shipping this logistic unit.
230			receiver	**Type: TransactionalPartyType (see line 61)**	0..1	A party which engages in receiving this logistic unit.
231			relatedConsignment	**Type: ConsignmentIdentificationType (see line 123)**	0..1	Identification of the consignment in which the logistic unit is contained.
232			reassignedConsignment	**Type: ConsignmentIdentificationType (see line 123)**	0..1	Identification of the consignment to which the logistic unit has been reassigned.
233			relatedShipment	**Type: ShipmentIdentificationType (see line 129)**	0..1	Identification of the shipment in which the logistic unit is contained.
234			transportStatus	**Type: TransportStatusType (see line 150)**	1..n	The transport status details for this logistic unit.
235			transportStatusNotificationTransportMovement	**Type: TransportStatusNotificationTransportMovementType (see line 177)**	0..n	The transport movement details for this logistic unit.
236		transportStatusNotificationTransportMeans	Type: transportStatusNotificationTransportMeansType	0..n	Information on the status, movements and event log of one or more means of transport
237			TransportMeansType	**Extention base: TransportMeansType (see line 212)**	1	
238			transportMeansOwner	**Type: TransactionalPartyType (see line 61)**	0..1	The party who owns the transport means.
239			transportStatus	**Type: TransportStatusType (see line 150)**	1..n	The transport status details for this transport means.
240			transportStatusNotificationTransportMovement	**Type: TransportStatusNotificationTransportMovementType (see line 177)**	0..n	The transport movement details for this transport means.
241			transportTrackingLogEvent	Type: transportTrackingLogEventType	0..n	The transport tracking details for this piece of transport means
242				logEventDateTime	Type: dateTime	1	The date time of the recorded event.

243	transortTrackingObservation				Type: transortTrackingObservationType	0..n	Information on one or more observations. An amount, size, or extent as established by measuring during transport.
244			transportObservationTypeCode		Type: String80Type	1	Code specifying the type of observation.
245			transportObservationValueCode		Type: CodeType	0..1 Cod	Coded vale of the observation.
246			transportObservationValueMeasurement		Type: MeasurementType	0..1	Measurement value of the observation.
247			transportObservationValueNumeric		Type: float	0..1	Numeric value of the observation.
248		transportTrackingSensorObservation			Type: TransportTrackingSensorObservationType	0..n	Information on one or more observations grouped by sensor.
249			sensorLocation		Type: string	1	Text specifying the location of the sensor. For example: rear door.
250			transportTrackingObservation		Type: transportTrackingObservationType	0..n	The observations reported by the sensor. An amount, size, or extent as established by measuring during transport.
251				transportObservationTypeCode	Type: String80Type	0..1	Code specifying the type of observation.
252				transportObservationValueCode	Type: CodeType	0..1	Coded vale of the observation.
253				transportObservationValueMeasurement	Type: MeasurementType	0..1	Measurement value of the observation.
254				transportObservationValueNumeric	Type: float	0..n	Numeric value of the observation.
255	transportStatusNotificationTransportEquipment				Type: TransportStatusNotificationTransportEquipmentType	0..n	Information on the status, movements and event log of one or more pieces of transport equipment.
256	TransportEquipmentType				**Extention type: TransportEquipmentType (see line 134)**	1	Provides information on the transport equipment
257		transportEquipmentOwner			**Type: TransactionalPartyType (see line 61)**	0..1	The party who owns the transport equipment
258		transportStatus			**Type: TransportStatusType (see line 150)**	1..n	The transport status details for this transport equipment
259		transportStatusNotificationTransportMovement			**Type: TransportStatusNotificationTransportMovementType (see line 177)**	0..n	The transport movement details for this transport equipment
260		transportTrackingLogEvent			**Type: transportTrackingLogEventType (see line 241)**	0..n	The transport tracking details for this piece of transport equipment.

EPCIS Transaction Event Message

The following table provides an overview of the EPCIS Transaction Event Message structure and content.

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<epcis:EPCISDocument
creationDate="2016-02-15T16:47:16.00+08:00" schemaVersion="1.1"
xsi:schemaLocation="urn:epcglobal:epcis:xsd:1 EPCIS\EPCIS.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:epcis="urn:epcglobal:epcis:xsd:1"
xmlns:eztrack="http://epcis.eztrack.org/ns/event">
```

```xml
<EPCISHeader>
<sbdh:StandardBusinessDocumentHeader>
<sbdh:HeaderVersion>1.0</sbdh:HeaderVersion>
<sbdh:Sender>
<sbdh:Identifier Authority="SGLN">urn:epc:id:sgln:937777.806907.4</sbdh:Identifier>
</sbdh:Sender>
<sbdh:Receiver>
<sbdh:Identifier Authority="SGLN">urn:epc:id:sgln:937777.813323.2</sbdh:Identifier>
</sbdh:Receiver>
<sbdh:DocumentIdentification>
<sbdh:Standard>EPCglobal</sbdh:Standard>
<sbdh:TypeVersion>1.0</sbdh:TypeVersion>
<sbdh:InstanceIdentifier>urn:uuid:EPCISS2TIS001</sbdh:InstanceIdentifier>
<sbdh:Type>Events</sbdh:Type>
<sbdh:CreationDateAndTime>2019-07-02T09:00:00+10:00</sbdh:CreationDateAndTime>
</sbdh:DocumentIdentification>
</sbdh:StandardBusinessDocumentHeader>
```

```xml
<EPCISBody>
<EventList>
<!-- Scenario 1 Nestle Step 1_0 Staging Outbound -->
<TransactionEvent>
<eventTime>2019-07-02T09:00:00+10:00</eventTime>
<eventTimeZoneOffset>+10:00</eventTimeZoneOffset>
<epcList>
<epc>urn:epc:id:sscc:093006000.000000976</epc>
</epcList>
<action>ADD</action>
<bizStep>urn:epcglobal:cbv:bizstep:picking</bizStep>
<disposition>urn:epcglobal:cbv:disp:in_progress</disposition>
<readPoint><id>urn:fdepilot:epcis:id:loc:Nestle Arndell Park</id></readPoint>
<bizLocation><id>urn:fdepilot:epcis:id:loc:Nestle Arndell Park</id></bizLocation>
<bizTransactionList>
<bizTransaction type="http://epcis.woolworths.com.au/btt/po">http://epcis.woolworths.com.au/bt/poWW-S2001</bizTransaction>
<bizTransaction type="http://epcis.nestle.com.au/btt/so">http://epcis.nestle.com.au/bt/soNESTLE-S2001</bizTransaction>
</bizTransactionList>
<fdepilot:packageTypeCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">201</fdepilot:packageTypeCode>
<fdepilot:cargoTypeCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">12</fdepilot:cargoTypeCode>


<eztrack:fdechain>SC_Nestle</eztrack:fdechain>
<eztrack:fdestep>SC_Nestle-step01</eztrack:fdestep>
</TransactionEvent>
</EventList>
</EPCISBody>
</epcis:EPCISDocument>
```

EPCIS Object Event Message

The following table provides an overview of the EPCIS Object Event Message structure and content.

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<epcis:EPCISDocument
creationDate="2016-02-15T16:47:16.00+08:00" schemaVersion="1.1"
xsi:schemaLocation="urn:epcglobal:epcis:xsd:1 EPCIS\EPCIS.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:epcis="urn:epcglobal:epcis:xsd:1"
xmlns:eztrack="http://epcis.eztrack.org/ns/event">
<**EPCISHeader**>
<sbdh:StandardBusinessDocumentHeader>
<sbdh:HeaderVersion>1.0</sbdh:HeaderVersion>
<sbdh:**Sender**>
<sbdh:Identifier Authority="SGLN">urn:epc:id:sgln:**937777.813323.2**</sbdh:Identifier>
</sbdh:Sender>
<sbdh:**Receiver**>
<sbdh:Identifier Authority="SGLN">urn:epc:id:sgln:**937777.806907.4**</sbdh:Identifier>
</sbdh:Receiver>
<sbdh:**DocumentIdentification**>
<sbdh:Standard>EPCglobal</sbdh:Standard>
<sbdh:TypeVersion>1.0</sbdh:TypeVersion>
<sbdh:**InstanceIdentifier**>**urn:uuid:EPCISS2L1TSNLD001**</sbdh:InstanceIdentifier>
<sbdh:Type>**Events**</sbdh:Type>
<sbdh:**CreationDateAndTime**>**2019-07-02T10:30:00+10:00**</sbdh:CreationDateAndTime>
</sbdh:DocumentIdentification>
</sbdh:StandardBusinessDocumentHeader>
<**EPCISBody**>
<**EventList**>
<!-- Scenario 2 **Nestle step 2_0 Loading** -->

```
<ObjectEvent>
<eventTime>2019-07-02T10:30:00+10:00</eventTime>
<eventTimeZoneOffset>+10:00</eventTimeZoneOffset>
<epcList>
<epc>urn:epc:id:sscc:093006000.000000976</epc>
</epcList>
<action>OBSERVE</action>
<bizStep>urn:epcglobal:cbv:bizstep:loading</bizStep>
<disposition>urn:epcglobal:cbv:disp:in_progress</disposition>
<readPoint><id>urn:fdepilot:epcis:id:loc:Nestle Arndell Park</id></readPoint>
<bizLocation><id>urn:fdepilot:epcis:id:loc:Nestle Arndell Park</id></bizLocation>
<bizTransactionList>
<bizTransaction type="http://epcis.woolworths.com.au/btt/po">http://epcis.woolworths.com.au/bt/poWW-S2001</bizTransaction>
<bizTransaction type="http://epcis.nestle.com.au/btt/so">http://epcis.nestle.com.au/bt/soNESTLE-S2001</bizTransaction>
</bizTransactionList>
<fdepilot:packageTypeCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">201</fdepilot:packageTypeCode>
<fdepilot:cargoTypeCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">12</fdepilot:cargoTypeCode>
<fdepilot:transportStatusConditionCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">48</fdepilot:transportStatusConditionCode>
<fdepilot:transportModeCode xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">30</fdepilot:transportModeCode>
<fdepilot:carrierName xmlns:fdepilot="http://epcis.gs1au.org/ns/extensions">Toll Holdings</fdepilot:carrierName>
<eztrack:fdechain>SC_Nestle</eztrack:fdechain>
<eztrack:fdestep>SC_Nestle-step02</eztrack:fdestep>
</ObjectEvent>
</EventList>
</EPCISBody>
</epcis:EPCISDocument>
```

GS1 Global Data Dictionary (GDD) Code Lists and Codes used for the pilot

Several of the data types in the EDI and EPCIS standard messages are code lists dependent. In is important to note that only applicable code values have been selected based on the type of transport (mode, service category, status condition, cargo and Package as it related to the depicted process flow scenarios.

Code Lists	Selected Code Values	Name	Definition
Transport Mode Codes	10	Maritime transport	This code should be used whenever the transport vehicle completes any part of its journey by sea.
	20	Rail transport	Rail transport
	30	Road transport	Road transport
Transport Service Category Codes	10	Maritime transport	This code should be used whenever the transport vehicle completes any part of its journey by sea.
	20	Rail transport	Rail transport
	30	Road transport	Road transport
Transport Status Condition Codes	48	Loaded	Loading, completed. The goods /consignment / equipment has been loaded onto a means of transport.
	27	Departed	Despatch, completed. The goods / consignment / equipment has departed from a location in the transport chain.
	31	In-Transit	On route. The goods/consignment/equipment are in the normal course of transportation to the next destination.
	1E	Arrived	Arrived. The goods/consignment/equipment/means of transport has arrived at a location.
	29	Unloaded	Unloaded. The goods/consignment/equipment have been unloaded from a means of transport.
	21	Delivery completed	Delivered. The goods/consignment/equipment/means of transport has been delivered.
Cargo Type Codes	11	Hazardous cargo	Cargo with dangerous properties, according to appropriate dangerous goods regulations.
	12	General cargo	Cargo of a general nature, not otherwise specified.
	13	Liquid cargo	Cargo in liquid form.
	14	Temperature controlled cargo	Cargo transported under specified temperature conditions.
	21	Household foods and personal effects	Cargo consisting of household foods and personal effects.
	21	Frozen cargo	Cargo of frozen products.
Package Type Codes	201	Pallet	
	4H	Box, plastic	
	8B	Crate, wooden	
	CT	Carton	
	BZ	Bars, in bundle/bunch/truss	

Freight Data Exchange Prototype Database Tables and Data Attributes

A. TI Consignment Table

Attribute	Example Value
message.header..version.1.0	NA
sender	NA
identifier	NA
identifier.authority	9312345000005
contact	Bronny Cuminos
emailaddress	Bronny.Cuminos@gs1au.org
faxnumber	61-3-9550-3401
telephonenumber	61-3-95503401
contact.type	Seller
receiver	NA
identifier__1	NA
identifier.authority__1	9312345000012
contact__1	Lorraine Luks
emailaddress__1	Lorraine.Luks@gs1auu.org
faxnumber__1	61-2-9695-2201
telephonenumber__1	61-2-9695-2200
contact.type__1	Buyer
document.identification	NA
standard	GS1
type.version	3.2
instance.identifier	TRINS00001
type	Transport Instruction
multiple.type	FALSE
creationdateandtime	2020-01-30T12:00:00.000-05:00
transportinstruction	NA
creationdatetime	2020-01-30T12:00:00.000-05:00
documentstatuscode	ORIGINAL
transportinstructionidentification	NA
entityidentification	TRINS00001

transportinstructionfunction	CONSIGNMENT
logisticservicesseller	NA
gln	9312345000005
logisticservicesbuyer	NA
gln__1	9312345000012
transportinstructionconsignment	NA
ginc	9377778133232Toll Priority1
consignor	NA
gln__2	9312345000005
consignee	NA
gln__3	9377778133232
transportinstructionterms	NA
transportservicecategorytype	100
codelistversion	NA
transportcargocharacteristics	NA
cargotypecode	12
codelistversion__1	NA
cargotypedescription	General cargo
languagecode	en
codelistversion__2	NA
totalgrossvolume	0
measurementunitcode	CBM
codelistversion__3	NA
totalgrossweight	1
measurementunitcode__1	KGM
codelistversion__4	NA
totalpackagequantity	1
measurementunitcode__2	NA
codelistversion__5	NA
transportinstructiontransportmovement	NA
sequencenumber	1
transportmodetypecode	30
codelistversion__6	NA
planneddeparture	NA

logisticlocation	NA
address	NA
city	Mulgrave
logisticeventdatetime	NA
date	30/01/2020
plannedarrival	NA
logisticlocation__1	NA
address__1	NA
city__1	Botany
packagetotal	NA
packagetypecode	BX
codelistversion__7	NA
totalpackagequantity__1	1
transportinstructionconsignmentitem	NA
lineitemnumber	1
transportcargocharacteristics__1	NA
cargotypecode__1	12
codelistversion__8	NA
cargotypedescription__1	Poster
languagecode__1	en
codelistversion__9	NA
logisticunit	NA
packagetypecode__1	BX
codelistversion__10	NA
sscc	93125450000050000
ginc__1	9377778133232Toll Priority1
creationdatetime__1	2020-01-30T12:00:00.000-05:00
documentstatuscode__1	ORIGINAL

B. TS Delivery Table

Attribute	Example Value
message.header..version.1.0	NA
sender	NA
identifier	NA
identifier.authority	9312345000005
contact	Bronny Cuminos
emailaddress	Bronny.Cuminos@gs1au.org
faxnumber	61-3-9550-3401
telephonenumber	61-3-95503401
contact.type	Buyer
receiver	NA
identifier__1	NA
identifier.authority__1	9312345000012
contact__1	Lorraine Luks
emailaddress__1	Lorraine.Luks@gs1auu.org
faxnumber__1	61-2-9695-2201
telephonenumber__1	61-2-9695-2200
contact.type__1	Seller
document.identification	NA
standard	GS1
type.version	3.2
instance.identifier	TRSN00002
type	NA
multiple.type	FALSE
creation.date	2019-12-20T12:00:00.000-05:00
transportstatusnotification	NA
transportstatusnotificationidentification	NA
entityidentification	TRSN00002
transportstatusinformationcode	INFORMATION_ON_DELIVERY
transportstatusobjectcode	CONSIGNMENT
transportstatusrequestor	NA
gln	9312345000005

transportstatusprovider	NA
gln__1	9377778133232
transportstatusrequest	NA
entityidentification__1	TRSR00002
transportstatusnotificationconsignment	NA
cargotypecode	12
codelistversion	NA
consignor	NA
gln__2	9312345000005
consignee	NA
gln__3	9312345000012
transportstatus	NA
transportstatusconditioncode	21
codelistversion__1	NA
transportstatusnotificationtransportmovement	NA
sequencenumber	1
transportmodetypecode	30
codelistversion__2	NA
actualdeparture	NA
logisticlocation	NA
address	NA
city	Mulgrave
logisticeventdatetime	NA
date	20/12/2019
time	31/12/2019 12:08
actualarrival	NA
logisticlocation__1	NA
address__1	NA
city__1	Botany
logisticeventdatetime__1	NA
date__1	20/12/2019
time__1	31/12/2019 12:08
ginc	9377778133232Toll Priority2
creationdatetime	2019-12-20T12:00:00.000-05:00

documentstatuscode	ORIGINAL

C. TS Pickup Table

Attribute	Example Value
message.header..version.1.0	NA
sender	NA
identifier	NA
identifier.authority	9312345000005
contact	Bronny Cuminos
emailaddress	Bronny.Cuminos@gs1au.org
faxnumber	61-3-9550-3401
telephonenumber	61-3-95503401
contact.type	Buyer
receiver	NA
identifier__1	NA
identifier.authority__1	9312345000012
contact__1	Lorraine Luks
emailaddress__1	Lorraine.Luks@gs1auu.org
faxnumber__1	61-2-9695-2201
telephonenumber__1	61-2-9695-2200
contact.type__1	Seller
document.identification	NA
standard	GS1
type.version	3.2
instance.identifier	TRSN00001
type	NA
multiple.type	no
creation.date	2020-01-31T12:00:00.000-05:00
transportstatusnotification	NA
transportstatusnotificationidentification	NA
entityidentification	TRSN00001
transportstatusinformationcode	STATUS_AND_MOVEMENT
transportstatusobjectcode	CONSIGNMENT

transportstatusrequestor	NA
gln	9312345000005
transportstatusprovider	NA
gln__1	9377778133232
transportstatusrequest	NA
entityidentification__1	TRSR00001
transportstatusnotificationconsignment	NA
cargotypecode	12
codelistversion	NA
consignor	NA
gln__2	9312345000005
consignee	NA
gln__3	9312345000012
transportstatus	NA
transportstatusconditioncode	13
codelistversion__1	NA
transportstatusnotificationtransportmovement	NA
sequencenumber	1
transportmodetypecode	30
codelistversion__2	NA
actualdeparture	NA
logisticlocation	NA
address	NA
city	Mulgrave
logisticeventdatetime	NA
date	31/01/2020
time	31/12/2019 11:08
actualarrival	NA
logisticlocation__1	NA
address__1	NA
city__1	Botany
logisticeventdatetime__1	NA
date__1	31/01/2020
time__1	31/12/2019 11:08

ginc	9377778133232Toll Priority1
creationdatetime	2020-01-30T12:00:00.000-05:00
documentstatuscode	ORIGINAL

D. Data Aggregation (list of the source attributes used to compile the freight transport measures)

Source Attribute(s)	Resultant Attribute
gsin; cargoTypeDescription; totalGrossVolume	Total Freight Volume by commodity type
gsin; transportModeTypeCode; totalGrossVolume	Total Freight Volume by transport mode
gsin; totalGrossVolume; routeIdentifier; address (shipFrom, shipTo)	Original-Destination freight volumes by route
gsin; beginDate/time; endDate/time;address (shipFrom, shipTo)	Origin-Destination average travel time
gsin; totalGrossVolume; address (shipFrom, shipTo)	Origin-Destination freight volume
gsin; beginDate/time; endDate/time; - transit	Freight Travel time spent – in transit
gsin; beginDate/time; endDate/time;	Freight Travel time spent – at DC
gsin; beginDate/time; endDate/time; - transit	Total Transit time
gsin; beginDate/time; endDate/time; sequenceNumber	Freight Transit Time by supply chain leg and handling stages
gsin; beginDate/time; endDate/time; sequenceNumber	Freight travel time for each transport leg and for the entire supply chain
gsin; beginDate/time; endDate/time; sequenceNumber	Shipment supply chain duration by stage and leg
gsin; beginDate/time; endDate/time – actual ; planned - planned	Shipment supply chain late delivery distribution
gsin; beginDate/time; endDate/time – loading	Loading Duration
gsin; beginDate/time; endDate/time - unloading	Unloading Duration
gsin; beginDate/time; endDate/time	Staging Duration
gsin; beginDate/time; endDate/time – from 1st leg departure to last leg delivery	Travel Duration
gsin; beginDate/time; endDate/time– from 1st leg loading to last leg unloading	Total Duration

Glossaries

Glossary of GS1 Terms.docx
Glossary of Transportation & Logistics Terms.docx
Glossary of Common Open Data Terms.docx

References

GS1 Global Data Standards - GS1 Australia Submission.pdf
GS1 standards recognised by ISO and other standard bodies.pdf
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Freight and Logistics Message Implementation Guidelines (MIGS)
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Australian Transport Instruction Guideline v1.0.pdf
Australian Transport Status Notification Guideline v1.0.pdf
GS1 Global MIG – Transport Instruction and Response R3-2-2014.pdf
GS1 Global MIG – Transport Status Request and Notification R3-2-2014.pdf

The National Freight Data Hub.docx
National Freight and Supply Chain Strategy.pdf
National Action Plan – August 2019.pdf
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iMove - Freight_Data_Requirements_Study_Final_Report_v2.1.pdf