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Report

META: Transport Service Description Implementation Guide

Logical and technical implementation issues for the UBL Transport Service Description

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ABSTRACT
This implementation guide is developed by the META project. It aims to describe and clarify how the Transport Service Description transaction should be implemented. The purpose of the Transport Service Description transaction is to support a Logistics Service Provider in announcing his services electronically. The Transport Service Description is composed of two XML messages; namely the Transport Service Description Request and the Transport Service Description.

This implementation guide has a technical and a logical part. In the technical part the XML schema structures and associated information elements are described. Furthermore, the so-called profiles which define relevant subsets of the complete messages are specified. In the logical part a scenario illustrates how the Transport Service Description should be used in a practical setting.

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Foreword

This implementation guide is established by the META project. META is an acronym for More Efficient Transport with ARKTRANS, and addresses the improvement of freight transport by means of standardised information exchange in the transport chains. The solutions are established by means of the ARKTRANS framework, and its successor the European Common Framework for Freight Information Exchange.

The META project is funded by the Research Council of Norway and by the participants which are ITS Norway, the TakeCargo transport portal, the logistic department of the consumers cooperative society Coop, Short Sea Promotion Centre, the Norwegian Public Road Administration, the software company Timpex and the forwarder Tollpost Globe. The project is managed by SINTEF.

The implementation guide addresses the implementation of the Transport Service Description transaction which takes place between Logistics Service Clients and Logistics Service Providers. The guide is based on needs expressed by the stakeholders, and the solutions expressed by are also discussed with OASIS UBL and other initiatives, in particular the European Project e-Freight.

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Terms and abbreviations

Term	Description
Transaction	The combined set of messages being communicated between the Logistics Service Client and Logistics Service Provider roles.
Common Framework	European initiative that spans several European research projects. Builds on the ARKTRANS framework.
Customization	A user defined customization (subset) of a UBL standard message.
LSC	Logistics Service Client. The role responsible for gathering information about a transport service as well as purchasing and following up a logistics service.
LSP	Logistics Service Provider. The role responsible for announcing, selling and executing logistics services.
Message	One single XML message being communicated between the Logistics Service Client and Logistics Service Provider roles. A message is a part of a transaction.
Profile	A user-defined profile of a customization of a UBL standard message.
Transaction	The message exchange that takes place between two collaborating partners. May involve one or more messages in order to complete the transaction.
UBL	Universal Business Language. A library of standard electronic XML business documents.
XML	A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.
XSD Schema	A schema describing the structure of an XML document.

1 Introduction

This implementation guide is established by the META project and addresses the implementation of the Transport Service Description transaction. Guidelines and examples on the information content to be exchanged (i.e. the messages) are described.

1.1 The META project

The META project is funded by the Research Council of Norway, ITS Norway, the TakeCargo transport portal; the logistic department of the consumer's cooperative society Coop; the freight operator Tollpost; Norwegian Public Road Administration; the Short Sea Promotion Centre; and the Timpex software company. META is managed by SINTEF, and SINTEF has also through participation in several projects had a central role in the establishment and standardisation of the Transport Instruction, Transport Status Notification and Transport Service Description transactions.

To achieve more efficient, reliable, flexible and environmental friendly freight transport META aims to stimulate the implementation of standardised information exchange in transport chains in the Norwegian transport sector. This is done through an involvement in the standardisation processes of OASIS UBL and GS1 to ensure fulfilment of the requirements of the META participants. META has via participation in technical committees contributed to the establishment of the following standards:

- The GS1-defined Transport Instruction and Response [1]
- The GS1-defined Transport Status Request and Notification [2]
- The OASIS UBL-defined Transport Service Description [3] (the main focus of this implementation guide)

Together these standards represent a common way for information exchange in all phases of transport.

1.2 Involved transactions

As described above, META addresses a family of transactions consisting of the Transport Service Description transaction, the Transport Instruction transaction and the Transport Status transaction. Assuming that a Logistics Service Clients (LSC) has a transport demand and a Logistics Service Provider (LSP) can provide a transport service, these transactions enable an LSC to find, initiate and follow up transport services provided by an LSP.

As indicated by Table 1, this implementation guide will focus on the Transport Service Description transaction. The other transactions and the associated messages have their own implementation guides.

Table 1 Transactions and messages

Transactions	Messages	Sender	Receiver	Addressed by META deliverables
Transport Instruction	Transport Instruction	LSC	LSP	The Transport Instruction and Response implementation guide
	Transport Instruction Response	LSP	LSC	
Transport Status	Transport Status Request	LSC	LSP	The Transport Status Request and Notification implementation guide
	Transport Status Notification	LSP	LSC	
Transport Service Description	Transport Service Description Request	LSC	LSP	This implementation guide
	Transport Service Description	LSP	LSC	

1.2.1 Transport Service Description

The Transport Service Description transaction supports acquisition and provision of information about relevant transport services by means of two messages:

- The Transport Service Description Request message defines a query which defines the properties of a service that is requested.

- The Transport Service Description message supports announcements of transport services in a standardised way that enable LSC to find relevant transport services.

The LSC issues a Transport Service Description Request message to a LSP which in turn returns a Transport Service Description message. A Transport Service Description may however also be issued independent of e Request to provide information about available services.

One of the foreseen usages of the Transport Service Description is that the LSC queries a repository of stored Transport Service Descriptions and receives one or more relevant Transport Service Descriptions in return. In Figure 1 this is however illustrated as an interaction between LSP and LSC since the realisation may be done in several ways. A repository may for example represent one or more LSPs.

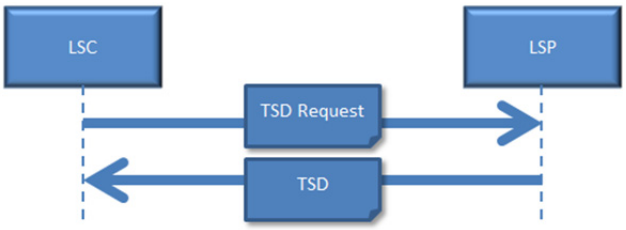


Figure 1 Transport Service Description transaction

1.2.2 Transport Instruction

Transport service call-offs are supported by two messages:

- The Transport Instruction message carries a request for a transport related service for any transport mode.
- The Transport Instruction Response message carries either an acceptance, a partial acceptance, an amendment or a rejection of the transport service request expressed by the Transport Instruction message.

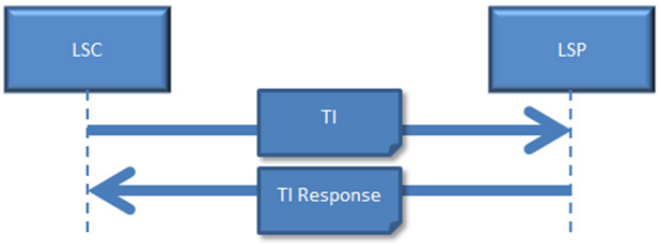


Figure 2 Transport Instruction transaction

The LSC issues a Transport Instruction to a LSP which in turn returns a Transport Instruction Response.

1.2.3 Transport Status

Transport status reporting is supported by two messages:

- The Transport Status Request message requests a status report.
- The Transport Status Notification message support status reporting both related to the entire transport and to the individual cargo units.

The LSC may issue a Transport Status Request resulting in a Transport Status Notification sent from the LSP, or a Transport Status Notification may be pushed from the LSP on events or according to agreements.

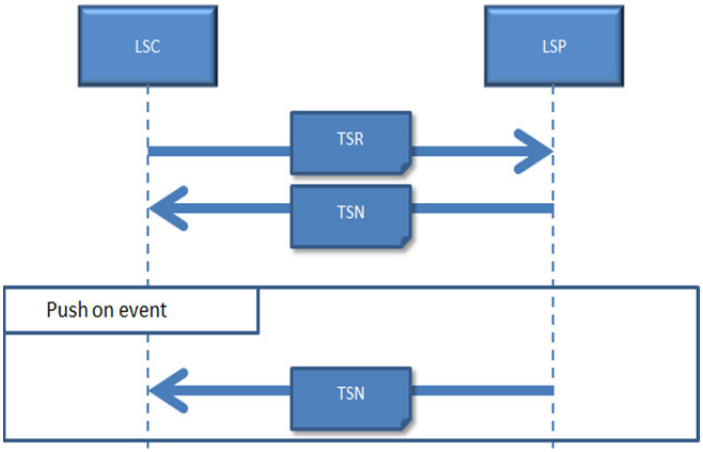


Figure 3 Transport Status Notification transaction

1.3 Message profiles

For each of the messages in the Transport Service Description transactions there is a Full Profile and a Core Profile specified. The Full Profile is a set of mandatory and optional information elements based on the captured requirements and is a subset of the original standard model (in this case the UBL standardised Transport Service Description). The Core Profile is a stringent subset of the Full Profile, both in terms of having a smaller set of selectable elements and stricter cardinality constraints associated with the elements.

Parties claiming to be fully conformant with the standard message must *understand* every single data element defined in the core profile; that does not mean that they will have to use all these information elements in each message exchange, but they must be able to interpret both mandatory and optional information elements specified in the core profile. The intention is hence that parties communicating the core profile do not need to agree on the information elements to be included prior to the information exchange.

The core profile is stringent, but contains necessary and sufficient information to fulfil the purpose of the message the information model represent. For example, a core profile of a Transport Service Description must contain enough information to enable the Logistics Service Client to make a decision as to whether he can book such a service.

The Full Profile contains other information elements that can be used to extend the core profile. For example, relevant extensions would be to add elements particularly suited for scheduled service transports such as ferry departures. The parties communicating a Full Profile must agree on the set of information elements (extensions) being interchanged.

The relationship between the standard message model, the Full Profile and the Core Profile is illustrated in Figure 4.

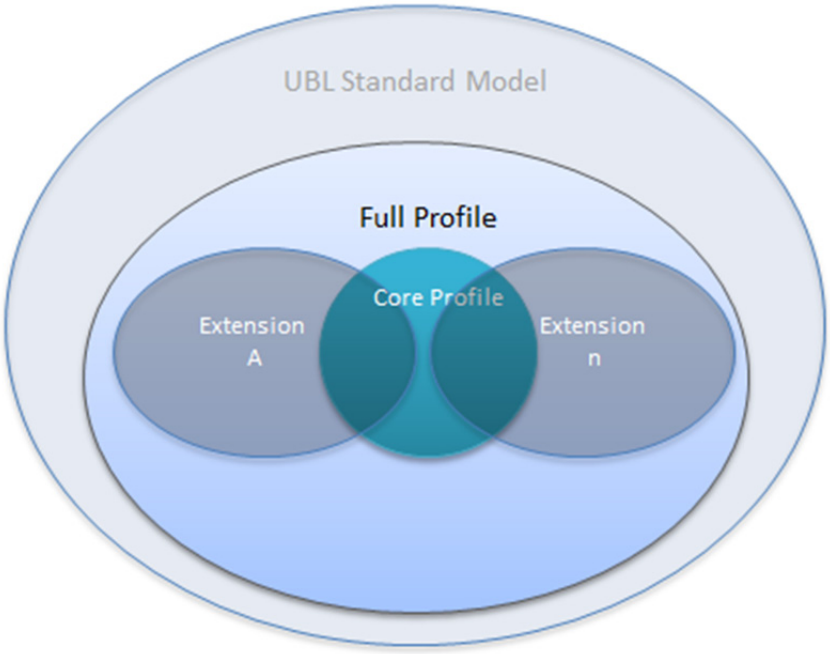


Figure 4: Relationship between the standardized model, the Full Profile and Core Profile

The outer layer is the message standard as announced by UBL 2.1. The Full Profile is the Common Framework specialisation (subset) of the UBL 2.1 message standard. The Core Profile is a stringent specialisation (subset) of the Full Profile. In order to create specific extensions the Core Profile should always be used as a basis and elements from within the Full Profile will be added.

1.4 Implementation guide content

The implementation guide has two parts, one part addressing technical issues and one part addressing logical issues.

The technical part describes how relevant transactions are to be implemented.

- Chapter 2 defines the XML structures and content that are used to implement the messages

The logical part describes how the Transport Service Description is used in transport management processes:

- Chapter 3 provides scenario descriptions that illustrate the use of the messages addressed. This scenario is used in all implementation guides to better explain usage of the different services and transactions.

There are three annexes that provide additional details:

- Annex A presents example XML instances of the Transport Service Description. This annex is an integrated part of this report.
- Annex B presents the data types and code lists being used in the messages. This is an external annex provided in a zip-file.
- Annex C provides XML Schema files (XSD) and XML example instances. This is an external annex provided in a zip-file.

Technical part

2 Message structure and content

This chapter describes the structure of the Transport Service Description messages. In addition to the Core Profile of the Transport Service Description one relevant and clearly defined extension has been included. In the external Annex D the XML schemas (XSDs) are provided.

2.1 Transport Service Description profiles and extensions

As described in chapter 1.3 a set of profiles has been developed based on the entire content of the Transport Service Description messages. First of all a Full Profile of each message is defined. From the Full Profile collaboration partners can agree on which elements that should be included in their message exchange. In addition a Core Profile has been defined for each message. Every stakeholder using the Transport Service Description messages must be able to interpret the information elements in a core profile, which enable them to exchange information without having to include a process where they agree on which elements to include in their message exchange.

In addition to the abovementioned profile levels two extensions have been defined. The first extension contains information elements suited for announcing scheduled services, for example ferry transports. The other extension contains elements to describe environmental data associated with an announced transport service. The extensions have been developed from the elements included in the Full Profile.

Table 2: Defined extensions of Transport Service Description

Extension name	Description
Scheduled Service Extension	Includes information elements typically used for scheduled services such as planned departure time, route information, etc.
Environmental Extension	Includes information elements that describe the environmental profile of a transport service.

The extensions described in the table above are implemented as separate XSD schemas. Each XSD schema includes a combination of the Core Profile and the elements belonging to the extension.

2.2 Defining which profiles are used in a Transport Service Description message

The Transport Service Description is developed as a part of the European Common Framework initiative and based on collected requirements from European projects contributing to the Common Framework a customised profile of the OASIS UBL standard has been defined. A combination of three elements defines which profile is being used in a message.

- The `UBLVersionID` specifies that version 2.1 of the OASIS UBL standard is used.
- The `CustomizationID` specifies that the Common Framework customisation of UBL 2.1 is being employed.
- The `ProfileID` specifies which profile of the Common Framework customisation is being used.

The following example demonstrates how one should specify that the Core Profile of the Transport Service Descrption is used in an XML message:

```
<cbc:UBLVersionID>2.1</cbc:UBLVersionID>
<cbc:CustomizationID>Common Framework</cbc:CustomizationID>
<cbc:ProfileID>TSD_REQ_CORE</cbc:ProfileID>
```

Figure 5: Example showing how to specify customization ID and Profile ID

2.3 Transport Service Description messages

This chapter presents the XSD structures associated with the Transport Service Description Request and Transport Service Description messages. In the below tables the profiles and extensions are defined in the rightmost vertical columns. Associations to other elements are indicated in blue.

2.3.1 Transport Service Description Request

#	Elements	Data type	Full Profile	Core Profile	Sceduled Service	Environmental	Definitions
2	TransportServiceDescriptionRequest						A message used to request for a Transport Service Description
3	UBLVersionID	Identifier. Type	0..1	1			The UBL version used.
4	CustomizationID	Identifier. Type	0..1	1			Identifies a user-defined customization of UBL for a specific use.
5	ProfileID	Identifier. Type	0..1	1			Identifies a user-defined profile of the customization of UBL being used.
6	ID	Identifier. Type	1	1			The identifier of the message.
7	IssueDate	Date. Type	1	1			The date this message is issued
8	IssueTime	Time. Type	1	1			The time this message is issued
9	ServiceInformationPreferenceCode	Code. Type	0..1				A code specifying the type of service information to be announced in a Transport Service Description. E.g. Scheduled Services, Environmental information.
10	SenderParty	Party	0..1	1			The party sending the message
11	WebsiteURI	Identifier. Type	0..1				Describes a Uniform Resource Identifier (URI) related to the party.
12	EndpointID	Identifier. Type	0..1				Identifies an endpoint related to the party (e.g. WSDL)
13	IndustryClassificationCode	Code. Type	0..1				Describes the role or industry association of a Party
14	PartyIdentification	PartyIdentification	0..n	0..1			Identifies the party
15	ID	Identifier. Type	1	1			Identifies the party
16	PartyName	PartyName	0..n	0..1			Describes the name of the party
17	Name	Name. Type	1	1			The name of the party.
18	PostalAddress	Address	0..1	0..1			A class to define common information within an address.
19	ID	Identifier. Type	0..1				An identifier for an address within an agreed scheme of address identifiers.
20	AddressTypeCode	Code. Type	0..1				A mutually agreed code specifying the format of the address.
21	Postbox	Text. Type	0..1	0..1			The post office box number (registered for postal delivery by a postal service

										provider)
22				StreetName	Name. Type	0..1	0..1			The name of the street, road, avenue, way, etc. to which the number of the building is attached.
23				BuildingName	Name. Type	0..1	0..1			The name of a building.
24				BuildingNumber	Text. Type	0..1	0..1			The number of a building within the street.
25				CityName	Name. Type	0..1	0..1			The name of a city, town, or village.
26				PostalZone	Text. Type	0..1	0..1			The postal identifier according to the relevant national postal service, such as a ZIP code or Post Code.
27				Region	Text. Type	0..1	0..1			The recognized region (or group of countries).
28				District	Text. Type	0..1				The geographical division of a country or region.
29				AddressLine	AddressLine	0..n	0..n			Describes a series of unstructured lines for addressing.
30				Line	Text. Type	1	1			A line of address expressed as unstructured text.
31				Country	Country	0..1	0..1			Describes the country for the address.
32				IdentificationCode	Country Identification_ Code. Type	0..1	0..1			An identifier for the Country.
33				Name	Name. Type	0..1	0..1			The name of the Country.
34			PhysicalLocation		Location	0..1	0..1			A class to define common information for a location
35				ID	Identifier. Type	0..1	0..1			The unique identifier for the location, e.g., UNLOCODE, GLN.
36				Description	Text. Type	0..1				The description or name of the location.
37				LocationTypeCode	Code. Type	0..1	0..1			A code specifying the location type. E.g. warehouse, port terminal, etc.
38				InformationURI	Identifier. Type	0..1	0..1			A URI pointing to information about location.
39				Name	Name. Type	0..1				Describes given name of a location.
40				Address	Address (see line 18)	0..1	0..1			Describes the address associated with a location
41				SubsidiaryLocation	Location (see line 34)	0..n	0..n			Describes any subsidiary locations, for example a quay at a port, a gate at a terminal, etc.
42				LocationCoordinate	LocationCoordinate	0..n	0..1			Describes the geographical coordinates for the location.
43				CoordinateSystemCode	Code. Type	0..1	0..1			An identifier for the location system used.
44				LatitudeDegreesMeasure	Measure. Type	0..1	0..1			The measure of latitude in degrees.
45				LatitudeMinutesMeasure	Measure. Type	0..1	0..1			The measure of latitude in minutes.
46				LatitudeDirectionCode	Latitude Direction_ Code. Type	0..1	0..1			The direction of latitude measurement from the equator.

47					LongitudeDegreesMeasure	Measure. Type	0..1	0..1			The measure of longitude in degrees.
48					LongitudeMinutesMeasure	Measure. Type	0..1	0..1			The measure of longitude in minutes.
49					LongitudeDirectionCode	Longitude Direction_ Code. Type	0..1	0..1			The direction of longitude measurement from the meridian.
50				PartyLegalEntity		PartyLegalEntity	0..n				A class to define details related to the party as a legal entity
51					RegistrationName	Name. Type	0..1				The name of a party as registered with the legal authority.
52					CompanyID	Identifier. Type	0..1				Identifies a company as registered with the company registration scheme.
53				Contact		Contact	0..1	0..1			A class to define contact details associated with a party
54					ID	Identifier. Type	0..1	0..1			An identifier for the Contact.
55					Name	Name. Type	0..1	0..1			The name of the Contact (it is recomanded this is not to be used for person name but for functional names).
56					Telephone	Text. Type	0..1	0..1			The telephone number of the Contact.
57					Telefax	Text. Type	0..1	0..1			The fax number of the Contact.
58					ElectronicMail	Text. Type	0..1	0..1			The email address of the Contact.
59					Note	Text. Type	0..n				A note such as Emergency or After Hours describing the circumstances in which the Contact can be used.
60					OtherCommunication	Communication	0..n				A class to define additional communication means to be used for the contact
61						ChannelCode	Channel_ Code. Type	0..1				The method of communication, expressed as a code.
62						Channel	Text. Type	0..1				The method of communication, expressed as text.
63						Value	Text. Type	0..1				The communication value, for example a telex number, skype profile, etc.
64				Person		Person	0..n	0..n			A class to define details related to a person associated with the party
65					ID	Identifier. Type	0..1				Identifier for this person.
66					FirstName	Name. Type	0..1	0..1			A person s forename or first name.
67					FamilyName	Name. Type	0..1	0..1			A person s surname or family name.
68					Title	Text. Type	0..1				A person s title of address, e.g., Mr, Ms, Dr, Sir.
69					MiddleName	Name. Type	0..1				A person s middle name(s) and/or initial(s).
70					NameSuffix	Text. Type	0..1				A suffix to a person s name, e.g., PhD, OBE, Jnr.
71					JobTitle	Text. Type	0..1				A person s job title within an organization (for a particular role).
72					NationalityID	Identifier. Type	0..1				A person's nationality

73				GenderCode	Code. Type	0..1				The gender of a Person (see ISO Gender Code 5218).
74				BirthDate	Date. Type	0..1				The birth date of a Person.
75				OrganizationDepartment	Text. Type	0..1				The department or subdivision of an organization that the person belongs to (for a particular role).
76				Contact	Contact (see line 53)	0..1	0..1			A class to define contact details associated with a person
77				IdentityDocumentReference	DocumentReference	0..n				A class to define identity documents associated with a person
78			FinancialAccount		FinancialAccount	0..1				A class to describe financial accounts (bank accounts and other payment means).
79				ID	Identifier. Type	0..1				The identifier for the Financial Account, e.g. the bank account number.
80				Name	Name. Type	0..1				The name of the Financial Account.
81				AccountTypeCode	Code. Type	0..1				The type of Financial Account, expressed as a code.
82				CurrencyCode	Currency_ Code. Type	0..1				The currency in which the Financial Account is held, expressed as a code.
83				PaymentNote	Text. Type	0..n				Free-form text applying to the Payment to the owner of this account.
84				FinancialInstitutionBranch	Branch	0..1				The financial institution/branch being responsible for the financial account.
85					ID	Identifier. Type	0..1				An identifier for a branch or division of an organization.
86					Name	Name. Type	0..1				The name of a branch or division of an organization.
87					Address	Address (see line 18)	0..1				An address to the financial institution/branch
88		ReceiverParty				Party (see line 10)	0..1	1			The party receiving the message
89		TransportServiceProviderParty				Party (see line 10)	0..1	0..1			The party being responsible for the services in a Transport Service Description.
90		TransportationService				TransportationService	1..n	1..n			Describes a transport service announced in the Transport Service Description.
91			TransportServiceCode			Code. Type	0..1	1			A code speficying the transport service
92			TransportationServiceDescription			Text. Type	0..1	0..1			A textual description of the transportation service
93			TransportationServiceDetailsURI			Identifier. Type	0..1				An URI to additional specification of the transportation service, e.g. a company website with service specifications
94			Name			Name. Type	0..1	0..1			A name associated with the transport service
95			SequenceNumeric			Numeric. Type	0..1	0..1			A sequence number to differentiate and order the transport services.
96			TransportEquipment			TransportEquipment	0..n				Describes equipment to be used in a transportation service.
97				ID		Identifier. Type	0..1				Identifies the transport equipment.
98				TransportEquipmentTypeCode		Transport Equipment Type_ Code. Type	0..1				Identifies the type of the transport equipment.

99				SizeTypeCode	Code. Type	0..1				The size and type of a piece of transport equipment, expressed as a code.
100				FullnessIndicationCode	Code. Type	0..1				A code indicating whether a piece of transport equipment is full, partially full, or empty.
101				ReturnabilityIndicator	Indicator. Type	0..1				Indicates whether a particular item of transport equipment is returnable.
102				RefrigeratedIndicator	Indicator. Type	0..1				The indication that the transport equipment is refrigerated.
103				Description	Text. Type	0..1				Description of the transprort equipment expressed as text.
104				GrossWeightMeasure	Measure. Type	0..1				The measure of the gross weight for this transport equipment.
105				GrossVolumeMeasure	Measure. Type	0..1				The measure of the gross volume for this transport equipment.
106				TareWeightMeasure	Measure. Type	0..1				The measure of the tare weight for this transport equipment.
107				PowerIndicator	Indicator. Type	0..1				Indicates whether a Transport Equipment has power supply.
108				TraceID	Identifier. Type	0..1				An identifier used for tracing the transport equipment. E.g. an EPC identifier used together with an RFID tag.
109				MeasurementDimension	Dimension	0..n				Dimension details for the transport equipment
110				AttributeID	Identifier. Type	1				An identifier for the attribute to which the measure applies.
111				Measure	Measure. Type	0..1				The measurement value.
112				Description	Text. Type	0..n				A description of the measurement attribute.
113				MinimumMeasure	Measure Type	0..1				The minimum value in a range of measurement.
114				MaximumMeasure	Measure. Type	0..1				The maximum value in a range of measurement.
115				TransportEquipmentSeal	TransportEquipmentSeal	0..1				A reference to the seal unit used for the transport equipment
116				ID	Identifier. Type	1				Identifies the seal.
117				Condition	Text. Type	0..1				Information about the condition of a seal.
118				SealStatusCode	Code. Type	0..1				The status of a seal, expressed as a code.
119				MinimumTemperature	Temperature	0..1				Describes the minimum required operating temperature for the container (reefer).
120				AttributeID	Identifier. Type	1				An identifier for temperature.
121				Measure	Measure. Type	1				The temperature measurement value.
122				Description	Text. Type	0..n				A description of the temperature measurement.
123				MaximumTemperature	Temperature (see line 119)	0..n				Describes the maximum allowed operating temperature for the container (reefer).

124				ContainedInTransportEquipment			TransportEquipment (see line 96)	0..n				Other transport equipment being contained inside this transport equipment
125				ContainedPackage			Package	0..n				Packages contains inside this transport equipment
126					ID		Identifier. Type	0..1				Identifies the package.
127					Quantity		Quantity. Type	0..1				The quantity (of items) contained in the package.
128					ReturnableMaterialIndicator		Indicator. Type	0..1				Indicates whether the packaging material is returnable (true) or not (false).
129					PackageLevelCode		Code. Type	0..1				Code specifying a level of packaging.
130					PackagingTypeCode		Packaging Type_ Code. Type	0..1				Code specifying the type of packaging of an item.
131					PackingMaterial		Text. Type	0..n				Description of the type of packaging of an item.
132					TraceID		Identifier. Type	0..1				An identifier used for tracing the package such as the EPC number used in RFID.
133					ContainedPackage		Package (see line 125)	0..n				A package contained within another package
134					ContainingTransportEquipment		TransportEquipment (see line 96)	0..1				A reference to the transport equipment containing this package
135					GoodsItem		GoodsItem	0..n				Goods Items being contained within this package
136						ID	Identifier. Type	0..1				An identifier for the goods item.
137						SequenceNumberID	Identifier. Type	0..1				Sequence number differentiating a specific goods item within a consignment.
138						Description	Text. Type	0..n				Plain language description of a goods item sufficient to identify it for customs, statistical, or transport purposes.
139						HazardousRiskIndicator	Indicator. Type	0..1				Indicates whether the goods item includes hazardous items (dangerous goods).
140						DeclaredCustomsValueAmount	Amount. Type	0..1				Amount declared for Customs purposes of those goods in a consignment which are subject to the same Customs procedure and have the same tariff/statistical heading, country information, and duty regime.
141						DeclaredForCarriageValueAmount	Amount. Type	0..1				Value declared by the shipper or his agent solely for the purpose of varying the carrier s level of liability from that provided in the contract of carriage in case of loss or damage to goods or delayed delivery.
142						DeclaredStatisticsValueAmount	Amount. Type	0..1				Value declared by the shipper or his agent solely for the purpose of varying the carrier s level of liability from that provided in the contract of carriage in case of loss or damage to goods or delayed delivery.
143						InsuranceValueAmount	Amount. Type	0..1				The amount covered by an insurance for a particular goods item.
144						ValueAmount	Amount. Type	0..1				Specifies the amount on which a duty, tax, or fee will be assessed.
145						GrossWeightMeasure	Measure. Type	0..1				Weight (mass) of goods, including packaging but excluding the carrier s equipment.
146						NetWeightMeasure	Measure. Type	0..1				Weight (mass) of goods item, excluding all packing but including any packaging that normally goes with the goods.

147						NetNetWeightMeasure	Measure. Type	0..1				Weight (mass) of goods without any packaging.
148						ChargeableWeightMeasure	Measure. Type	0..1				Gross weight (mass) on which a charge is to be based.
149						GrossVolumeMeasure	Measure. Type	0..1				Measurement normally arrived at by multiplying the maximum length, width, and height of the goods item.
150						NetVolumeMeasure	Measure. Type	0..1				The volume contained by a goods item, excluding the volume of any packaging material.
151						Quantity	Quantity. Type	0..1				Number of goods items.
152						PreferenceCriterionCode	Code. Type	0..1				A code specifying the treatment preference for this good according to international trading agreements.
153						RequiredCustomsID	Identifier. Type	0..1				Additional tariff codes required to specify a type of goods for Customs, transport, statistical, or other regulatory purposes.
154						CustomsStatusCode	Code. Type	0..1				A code specifying the status of goods as identified by customs for regulation purposes.
155						CustomsTariffQuantity	Quantity. Type	0..1				Quantity of the goods in the unit as required by Customs for tariff, statistical, or fiscal purposes.
156						CustomsImportClassifiedIndicator	Indicator. Type	0..1				Indicates whether the goods have been customs classified for import.
157						ChargeableQuantity	Quantity. Type	0..1				The number of units in the goods item to which charges apply.
158						ReturnableQuantity	Quantity. Type	0..1				The number of units in the goods item that may be returned.
159						TraceID	Identifier. Type	0..1				An identifier used for tracing the goods item. E.g. an EPC identifier used together with an RFID tag.
160						Item	Item	0..1				A class to describe details about the actual trade items
161						Description	Text. Type	0..n				Free-form field that can be used to give a text description of the item.
162						Name	Name. Type	0..1				A short name optionally given to an item, such as a name from a Catalogue, as distinct from a description.
163						HazardousRiskIndicator	Indicator. Type	0..1				Indicates whether the item as delivered is hazardous.
164						AdditionalInformation	Text. Type	0..1				Provides more details of the item (e.g., the URL of a relevant web page).
165						BrandName	Name. Type	0..n				Brand name for the item.
166						ModelName	Name. Type	0..n				Model name for the item.
167						OriginCountry	Country (see line 31)	0..1				Associates the item with its country of origin.
168						CommodityClassification	CommodityClassification	0..n				Associates the item with its classification(s) according to a commodity classifying system.
169						CargoTypeCode	Code. Type	0..1				The type of cargo, expressed as a code.

170								CommodityCode	Code. Type	0..1				The harmonized international commodity code for regulatory (customs and trade statistics) purposes.
171								ItemClassificationCode	Code. Type	0..1				The trade commodity classification, expressed as a code.
172							HazardousItem		HazardousItem	0..n				A class to describe items being classified as hazardous items.
173								ID	Identifier. Type	0..1				The identifier for a Hazardous Item.
174								AdditionalInformation	Text. Type	0..1				Additional information about the hazardous substance. Can be used to specify information such as the type of regulatory requirements that apply to a description.
175								UNDGCode	Code. Type	0..1				The identifier assigned to transportable hazardous goods by the United Nations, expressed as a code.
176								TechnicalName	Name. Type	0..1				The full technical name of the specific hazardous substance.
177								CategoryName	Name. Type	0..1				The name of the category of hazard that applies to the Item.
178								HazardousCategoryCode	Code. Type	0..1				Code specifying a kind of hazard for a material.
179								MarkingID	Identifier. Type	0..1				Identifies the marking of dangerous goods.
180								HazardClassID	Identifier. Type	0..1				Identifies a hazard class applicable to dangerous goods as defined by the relevant regulation authority, such as the IMDG Class Number of the SOLAS Convention of IMO and the ADR/RID Class Number for the road/rail environment.
181								ContactParty	Party (see line 10)	0..1				Details of an individual, group, or body that is the contact in case of hazard incident.
182								EmergencyTemperature	Temperature	0..1				The temperature at which emergency procedures apply during the handling of temperature-controlled hazardous goods.
183									AttributeID	Identifier. Type	1			An identifier for temperature.
184									Measure	Measure. Type	1			The temperature measurement value.
185									Description	Text. Type	0..n			A description of the temperature measurement.
186								FlashpointTemperature	Temperature (see line 182)	0..1				The lowest temperature at which the vapor of a combustible liquid can be made to ignite momentarily in air, known in hazardous goods procedures as the flashpoint.
187								AdditionalItemProperty	ItemProperty	0..n				Information about specific Item Properties.
188									ID	Identifier. Type	0..1			An identifie for the Item Property.
189									Name	Name. Type	0..1			The name of the Item Property.
190									NameCode	Code. Type	0..1			The name of the Item Property expressed as code.
191									Value	Text. Type	0..1			The Item Property value expressed as a text.

192									UsabilityPeriod	Period	0..1				The period in which the item is usable.
193									StartDate	Date. Type	0..1				The start date of the period.
194									StartTime	Time. Type	0..1				The start time of the period.
195									EndDate	Date. Type	0..1				The end date of the period.
196									EndTime	Time. Type	0..1				The end time of the period.
197									DurationMeasure	Measure. Type	0..1				The duration of a period.
198									ItemPropertyGroup	ItemPropertyGroup	0..n				Information about sets of classifications (or groups) of Item Properties.
199									ID	Identifier. Type	1				An identifier for the Item Property Group.
200									Name	Name. Type	0..1				The name of the Item Property Group.
201									ImportanceCode	Code. Type	0..1				A code establishing the importance for the property group when using it to describe a required Item.
202									ItemPropertyRange	ItemPropertyRange	0..1				The range of values for the Item Property.
203									MinimumValue	Text. Type	1				The minimum value in a range of property.
204									MaximumValue	Text. Type	0..1				The maximum value in a range of property.
205							ItemInstance			ItemInstance	0..n				Information about a specific instance of an item.
206								ProductTraceID		Identifier. Type	0..1				An identifier used for tracing the item, such as the EPC number used in RFID.
207								SerialID		Identifier. Type	0..1				The serial number of the Item Instance.
208						GoodsItemContainer				GoodsItemContainer	0..n				A class identifying the container of a goods item
209							ID			Identifier. Type	1				Identifies goods items split across transport equipment.
210						ContainedGoodsItem				GoodsItem (see line 135)	0..n				An association to a package containing this goods item
211						ContainingPackage				Package (see line 125)	0..n				An association to a package containing this goods item
212						MeasurementDimension				Dimension (see line 109)	0..n				Measurement normally arrived at by multiplying the maximum length, width, and height of the goods item.
213					ContainedGoodsItem					GoodsItem (see line 135)	0..n				Goods Items being contained within this package
214					ContainingPackage					Package (see line 125)	0..n				"Outer" packages used to contain this particular package
215				ContainedGoodsItem						GoodsItem (see line 135)	0..n				Goods Items being contained within this transport equipment
216			CommodityClassification							CommodityClassification	0..n				Associates the item with its classification(s) according to a commodity classifying

										system.
217				CargoTypeCode	Code. Type	0..1				The type of cargo, expressed as a code.
218				CommodityCode	Code. Type	0..1				The harmonized international commodity code for regulatory (customs and trade statistics) purposes.
219				ItemClassificationCode	Code. Type	0..1				The trade commodity classification, expressed as a code.
220			ShipmentStage		ShipmentStage	0..n	0..n	0..n		Describes the transport movement of a transportation service.
221				ID	Identifier. Type	0..1	0..1	0..1		Identifies a shipment stage.
222				TransportModeCode	Transport Mode_ Code. Type	0..1	0..1	0..1		The method of transport used for a shipment stage.
223				TransportMeansTypeCode	Code. Type	0..1		0..1		The type of vehicle used for a shipment stage.
224				TransitPeriod	Period (see line 192)	0..1				An association to when the shipment stage is in transit.
225				CarrierParty	Party (see line 10)	0..n				An association to a carrier responsible for this shipment stage.
226				TransportMeans	TransportMeans	0..1	0..1	0..1		The particular vehicle used for the transport of goods or persons.
227					JourneyID	Identifier. Type	0..1	0..1	0..1		An identifier assigned to a regularly scheduled service of a means of transport.
228					RegistrationNationalityID	Identifier. Type	0..1		0..1		Formal identification of the country in which a means of transport is registered.
229					RegistrationNationality	Text. Type	0..n		0..n		Name of the country in which a means of transport is registered.
230					TransportMeansTypeCode	Code. Type	0..1	0..1	0..1		A code indicating what kind of transport means this is. E.g. Vessel, Truck, etc.
231					Stowage	Stowage	0..1				A location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
232						LocationID	Identifier. Type	0..1			Identifies a location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
233						Location	Text. Type	0..n			Describes a location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
234						MeasurementDimension	Dimension (see line 109)	0..n			Associates any measurements (including lengths, mass, and volume) for this stowage.
235					AirTransport	AirTransport	0..1		0..1		Information related to an aircraft.
236						AircraftID	Identifier. Type	1		0..1		Identifies a specific aircraft.
237					RoadTransport	RoadTransport	0..1		0..1		Describes a road transport vehicle.
238						LicensePlateID	Identifier. Type	1		0..1		Identifies a specific vehicle.
239					RailTransport	RailTransport	0..1		0..1		Describes a train.
240						TrainID	Identifier. Type	1		0..1		Identifies a train.

241						RailCarID	Identifier. Type	0..1		0..1		Identifies the rail car on the train used for the means of transport.
242					MaritimeTransport		MaritimeTransport	0..1		0..1		Describes a water (including sea, river, and canal) transport vessel.
243						VesselID	Identifier. Type	0..1		0..1		Identifies a specific vessel.
244						VesselName	Name. Type	0..1		0..1		The name of the vessel.
245						RadioCallSignID	Identifier. Type	0..1		0..1		Identifies the radio call sign of the vessel.
246					DriverParty		Party (see line 10)	0..n				The party responsible for driving the transport means
247					PassengerParty		Party (see line 10)	0..n				A party being a passenger on board the transport means
248					MeasurementDimension		Dimension (see line 109)	0..n				The measurement dimension of a transport means.
249				RequestedDepartureTransportEvent			TransportEvent	0..1	0..1	0..1		The departure for a shipment stage as requested by the TU
250					OccurrenceDate		Date. Type	0..1		0..1		The date of an occurrence of the event. The Occurrence Date and Time are for example used for actual events (historic events) while the period is typically used for planned and future events.
251					OccurrenceTime		Time. Type	0..1		0..1		The time of an occurrence of the event. The Occurrence Date and Time are for example used for actual events (historic events) while the period is typically used for planned and future events.
252					TransportEventTypeCode		Code. Type	0..1	0..1	0..1		A code specifying the type of event.
253					Description		Text. Type	0..1		0..1		A textual description of the event.
254					Contact		Contact (see line 53)	0..n				Any contacts for the event.
255					Location		Location (see line 34)	0..1	1	1		A location related to a transport event
256					Signature		Signature	0..1				Defines any signatures needed for security operations related to events during a transport service. For example a signature or identification key used for accessing/departing terminal areas.
257						ID	Identifier. Type	0..1				An identifier to hold the signature
258					Period		Period (see line 192)	0..1	1	1		A Period associated with a Transport Event
259				RequestedArrivalTransportEvent			TransportEvent (see line 249)	0..1	0..1	0..1		The arrival for a shipment stage as requested by the LSC
260				RequestedWaypointTransportEvent			TransportEvent (see line 249)	0..n		0..1		One or more waypoints in a shipment stage as requested by the LSC
261				PlannedDepartureTransportEvent			TransportEvent (see line 249)	0..1				The departure for a shipment stage as planned by the LSP
262				PlannedArrivalTransportEvent			TransportEvent (see line 249)	0..1				The arrival for a shipment stage as planned by the LSP
263				PlannedWaypointTransportEvent			TransportEvent (see line 249)	0..n				One or more waypoints in a shipment stage as planned by the LSP
264				ActualDepartureTransportEvent			TransportEvent (see line 249)	0..1				The actual departure for a shipment stage

265				ActualArrivalTransportEvent	TransportEvent (see line 249)	0..1				The actual arrival for a shipment stage
266				ActualWaypointTransportEvent	TransportEvent (see line 249)	0..n				One or more actual waypoints in a shipment stage
267				TransportEvent	TransportEvent (see line 249)	0..n	0..n			An association to Transport Event. The Transport Event contains a Transport Event Type Code BBIE which can be used to further specify the nature of the event.
268			TransportEvent		TransportEvent (see line 249)	0..n	0..n	0..n		An association to Transport Event. The Transport Event contains a Transport Event Type Code BBIE which can be used to further specify the nature of the event.
269			EnvironmentalEmission		EnvironmentalEmission	0..n				Specifies the environmental emission associated with services in a Transport Service Description.
270				EnvironmentalEmissionTypeCode	Code. Type	1				Defines the type of environmental emission. For example CO2, NOX, etc.
271				ValueMeasure	Measure. Type	1				Specifies the value of the environmental emission.
272				Description	Text. Type	0..n				Textual descriptions related to the environmental emission.
273				EmissionCalculationMethod	EmissionCalculationMethod	0..1				Specifies the method used to calculate the emission
274					CalculationMethodCode	Code. Type	0..1				The calculation method used. E.g. fastest route/shortest route, full load factor/average load factor, etc.
275					FullnessIndicationCode	Code. Type	0..1				Specifies the load factor used in the emission calculation. E.g. Empty/Average/Full.
276					MeasurementFromLocation	Location (see line 34)	0..1				Describes a start location for which an environmental emission is calculated from.
277					MeasurementToLocation	Location (see line 34)	0..1				Describes an end location for which an environmental emission is calculated from.
278			ResponsibleTransportServiceProviderParty			Party (see line 10)	0..1				The Transport Service Provider responsible for a particular transport service
279			EstimatedDurationPeriod			Period (see line 192)	0..1				Describes the estimated duration of a transportation service.
280			ScheduledServiceFrequency			ScheduledServiceFrequency	0..n				Describes the operational frequency of a scheduled service
281				WeekDayCode		Code. Type	1				Specifies the day of the week the scheduled service is operational

2.3.2 Transport Service Description

#	Elements	Data type	Full Profile	Core Profile	Sceduled Service	Environmental	Definitions
2	TransportServiceDescription						A message used to announce transport services
3	UBLVersionID	Identifier. Type	0..1	1			The UBL version used.
4	CustomizationID	Identifier. Type	0..1	1			Identifies a user-defined customization of UBL for a specific use.
5	ProfileID	Identifier. Type	0..1	1			Identifies a user-defined profile of the customization of UBL being used.
6	ID	Identifier. Type	1	1			The identifier of the message.
7	IssueDate	Date. Type	1	1			The date this message is issued
8	IssueTime	Time. Type	1	1			The time this message is issued
9	ServiceName	Name. Type	0..1				A name given to the service announced.
10	ResponseCode	Code. Type	0..1				A code specifying a response associated with the Transport Service Description. For example error codes or other types of information that might be useful for the recipient.
11	SenderParty	Party	0..1	1			The party sending the message
12	WebsiteURI	Identifier. Type	0..1				Describes a Uniform Resource Identifier (URI) related to the party.
13	EndpointID	Identifier. Type	0..1				Identifies an endpoint related to the party (e.g. WSDL)
14	IndustryClassificationCode	Code. Type	0..1				Describes the role or industry association of a Party
15	PartyIdentification	PartyIdentification	0..n	0..1			Describes a party
16	ID	Identifier. Type	1	1			Identifies the party
17	PartyName	PartyName	0..1	0..1			Describes the name of the party
18	Name	Name. Type	1	0..1			The name of the party.
19	PostalAddress	Address	0..1	0..1			A class to define common information within an address.
20	ID	Identifier. Type	0..1				An identifier for an address within an agreed scheme of address identifiers.

21				AddressTypeCode	Code. Type	0..1				A mutually agreed code specifying the format of the address.
22				Postbox	Text. Type	0..1	0..1			The post office box number (registered for postal delivery by a postal service provider)
23				StreetName	Name. Type	0..1	0..1			The name of the street, road, avenue, way, etc. to which the number of the building is attached.
24				BuildingName	Name. Type	0..1	0..1			The name of a building.
25				BuildingNumber	Text. Type	0..1	0..1			The number of a building within the street.
26				CityName	Name. Type	0..1	0..1			The name of a city, town, or village.
27				PostalZone	Text. Type	0..1	0..1			The postal identifier according to the relevant national postal service, such as a ZIP code or Post Code.
28				Region	Text. Type	0..1	0..1			The recognized region (or group of countries).
29				District	Text. Type	0..1				The geographical division of a country or region.
30				AddressLine	AddressLine	0..n	0..n			Describes a series of unstructured lines for addressing.
31				Line	Text. Type	1	1			A line of address expressed as unstructured text.
32				Country	Country	0..1	0..1			Describes the country for the address.
33				IdentificationCode	Country Identification_ Code. Type	0..1	0..1			An identifier for the Country.
34				Name	Name. Type	0..1	0..1			The name of the Country.
35			PhysicalLocation		Location	0..1	0..1			A class to define common information for a location
36				ID	Identifier. Type	0..1	0..1			The unique identifier for the location, e.g., UNLOCODE, GLN.
37				Description	Text. Type	0..1				The description or name of the location.
38				LocationTypeCode	Code. Type	0..1	0..1			A code specifying the location type. E.g. warehouse, port terminal, etc.
39				InformationURI	Identifier. Type	0..1	0..1			A URI pointing to information about location.
40				Name	Name. Type	0..1				Describes given name of a location.
41				Address	Address (see line 19)	0..1	0..1			Describes the address associated with a location
42				SubsidiaryLocation	Location (see line 35)	0..n	0..n			Describes any subsidiary locations, for example a quay at a port, a gate at a terminal, etc.
43				LocationCoordinate	LocationCoordinate	0..n	0..1			Describes the geographical coordinates for the location.
44				CoordinateSystemCode	Code. Type	0..1	0..1			An identifier for the location system used.
45				LatitudeDegreesMeasure	Measure. Type	0..1	0..1			The measure of latitude in degrees.

46					LatitudeMinutesMeasure	Measure. Type	0..1	0..1			The measure of latitude in minutes.
47					LatitudeDirectionCode	Latitude Direction_ Code. Type	0..1	0..1			The direction of latitude measurement from the equator.
48					LongitudeDegreesMeasure	Measure. Type	0..1	0..1			The measure of longitude in degrees.
49					LongitudeMinutesMeasure	Measure. Type	0..1	0..1			The measure of longitude in minutes.
50					LongitudeDirectionCode	Longitude Direction_ Code. Type	0..1	0..1			The direction of longitude measurement from the meridian.
51			PartyLegalEntity			PartyLegalEntity	0..n				A class to define details related to the party as a legal entity
52				RegistrationName		Name. Type	0..1				The name of a party as registered with the legal authority.
53				CompanyID		Identifier. Type	0..1				Identifies a company as registered with the company registration scheme.
54			Contact			Contact	0..1	0..1			A class to define contact details associated with a party
55				ID		Identifier. Type	0..1				An identifier for the Contact.
56				Name		Name. Type	0..1	0..1			The name of the Contact (it is recomanded this is not to be used for person name but for functional names).
57				Telephone		Text. Type	0..1	0..1			The telephone number of the Contact.
58				Telefax		Text. Type	0..1	0..1			The fax number of the Contact.
59				ElectronicMail		Text. Type	0..1	0..1			The email address of the Contact.
60				Note		Text. Type	0..n				A note such as Emergency or After Hours describing the circumstances in which the Contact can be used.
61				OtherCommunication		Communication	0..n				A class to define additional communication means to be used for the contact
62					ChannelCode	Channel_ Code. Type	0..1				The method of communication, expressed as a code.
63					Channel	Text. Type	0..1				The method of communication, expressed as text.
64					Value	Text. Type	0..1				The communication value, for example a telex number, skype profile, etc.
65			Person			Person	0..n	0..n			A class to define details related to a person associated with the party
66				ID		Identifier. Type	0..1				Identifier for this person.
67				FirstName		Name. Type	0..1	0..1			A person s forename or first name.
68				FamilyName		Name. Type	0..1	0..1			A person s surname or family name.
69				Title		Text. Type	0..1				A person s title of address, e.g., Mr, Ms, Dr, Sir.

70				MiddleName	Name. Type	0..1			A person s middle name(s) and/or initial(s).
71				NameSuffix	Text. Type	0..1			A suffix to a person s name, e.g., PhD, OBE, Jnr.
72				JobTitle	Text. Type	0..1			A person s job title within an organization (for a particular role).
73				NationalityID	Identifier. Type	0..1			A person's nationality
74				GenderCode	Code. Type	0..1			The gender of a Person (see ISO Gender Code 5218).
75				BirthDate	Date. Type	0..1			The birth date of a Person.
76				OrganizationDepartment	Text. Type	0..1			The department or subdivision of an organization that the person belongs to (for a particular role).
77				Contact	Contact (see line 54)	0..1	0..1		A class to define contact details associated with a person
78				IdentityDocumentReference	DocumentReference (see line 90)	0..n			A class to define identity documents associated with a person
79			FinancialAccount		FinancialAccount	0..1			A class to describe financial accounts (bank accounts and other payment means).
80				ID	Identifier. Type	0..1			The identifier for the Financial Account, e.g. the bank account number.
81				Name	Name. Type	0..1			The name of the Financial Account.
82				AccountTypeCode	Code. Type	0..1			The type of Financial Account, expressed as a code.
83				CurrencyCode	Currency_ Code. Type	0..1			The currency in which the Financial Account is held, expressed as a code.
84				PaymentNote	Text. Type	0..n			Free-form text applying to the Payment to the owner of this account.
85				FinancialInstitutionBranch	Branch	0..1			The financial institution/branch being responsible for the financial account.
86					ID	Identifier. Type	0..1			An identifier for a branch or division of an organization.
87					Name	Name. Type	0..1			The name of a branch or division of an organization.
88					Address	Address (see line 19)	0..1			An address to the financial institution/branch
89		ReceiverParty				Party (see line 11)	0..1	1		The party receiving the message
90		TransportServiceDescriptionRequestDocumentReference				DocumentReference	0..1	0..1		A reference to the Transport Service Description Request message.
91			ID			Identifier. Type	1	1		Identifies the document being referred to.
92			IssueDate			Date. Type	0..1			The date, assigned by the sender of the referenced document, on which the referenced document was issued.
93			IssueTime			Time. Type	0..1			The time, assigned by the sender of the referenced document, on

									which the referenced document was issued.
94			DocumentTypeCode		Code. Type	0..1			The referenced document type, expressed as a code.
95			DocumentType		Text. Type	0..1			The referenced document type, expressed as text.
96			VersionID		Identifier. Type	0..1			Indicates the current version of the referred document.
97			DocumentDescription		Text. Type	0..n			Textual description of the referred document.
98			Attachment		Attachment	0..1			A class to define attachments associated with the referenced document
99				EmbeddedDocumentBinaryObject	Binary Object. Type	0..1			Contains an embedded document as a BLOB (binary large object).
100				ExternalReference	ExternalReference	0..1			A class to define external references associated with the referenced document
101					URI	Identifier. Type	0..1		The Uniform Resource Identifier (URI) that identifies where the external document is located.
102					MimeCode	Code. Type	0..1		The mime type of the external document.
103					FormatCode	Code. Type	0..1		The format of the external document.
104					FileName	Name. Type	0..1		The filename of the external document.
105					Description	Text. Type	0..n		Textual description of the external document.
106			ValidityPeriod		Period	0..1			Describes the validity period for the document being referred to
107				StartDate	Date. Type	0..1			The start date of the period.
108				StartTime	Time. Type	0..1			The start time of the period.
109				EndDate	Date. Type	0..1			The end date of the period.
110				EndTime	Time. Type	0..1			The end time of the period.
111				DurationMeasure	Measure. Type	0..1			The duration of a period.
112		TransportServiceProviderParty			Party (see line 11)	0..1	0..1		The party being responsible for the services in a Transport Service Description.
113		ServiceChargePaymentTerms			PaymentTerms	0..1	0..1		Payment Terms related to the charges that apply for a transport service
114			ID		Identifier. Type	0..1			Identifies the Payment Terms.
115			PrepaidPaymentReferenceID		Identifier. Type	0..1			Identifies a reference to a prepaid payment.
116			Note		Text. Type	0..n			Free-form text applying to the Payment Terms.
117			Amount		Amount. Type	0..1	0..1		The payment amount associated with the Payment Terms.

118			PaymentDueDate	Date. Type	0..1	0..1			The date the payment is due
119			SettlementPeriod	Period (see line 106)	0..1				The period where settlement should be made.
120			PenaltyPeriod	Period (see line 106)	0..1				If payment is not received within this period penalties will be given.
121			ValidityPeriod	Period (see line 106)	0..1				The period in which the payment terms are valid.
122		ValidityPeriod		Period (see line 106)	0..1	1			The validity period of the Transport Service Description
123		TransportationService		TransportationService	1..n	1..n			Describes a transport service announce in the Transport Service Description.
124			TransportServiceCode	Code. Type	0..1	1			A code speficying the transport service
125			TransportationServiceDescription	Text. Type	0..1	0..1			A textual description of the transportation service
126			TransportationServiceDetailsURI	Identifier. Type	0..1				An URI to additional specification of the transportation service, e.g. a company website with service specifications
127			Name	Name. Type	0..1	0..1			A name associated with the transport service
128			SequenceNumeric	Numeric. Type	0..1	0..1			A sequence number to differentiate and order the transport services.
129			TransportEquipment	TransportEquipment	0..n				Describes equipment to be used in a transportation service.
130				ID	Identifier. Type	0..1				Identifies the transport equipment.
131				TransportEquipmentTypeCode	Transport Equipment Type_ Code. Type	0..1				Identifies the type of the transport equipment.
132				SizeTypeCode	Code. Type	0..1				The size and type of a piece of transport equipment, expressed as a code.
133				FullnessIndicationCode	Code. Type	0..1				A code indicating whether a piece of transport equipment is full, partially full, or empty.
134				ReturnabilityIndicator	Indicator. Type	0..1				Indicates whether a particular item of transport equipment is returnable.
135				RefrigeratedIndicator	Indicator. Type	0..1				The indication that the transport equipment is refrigerated.
136				Description	Text. Type	0..1				Description of the transprort equipment expressed as text.
137				GrossWeightMeasure	Measure. Type	0..1				The measure of the gross weight for this transport equipment.
138				GrossVolumeMeasure	Measure. Type	0..1				The measure of the gross volume for this transport equipment.
139				TareWeightMeasure	Measure. Type	0..1				The measure of the tare weight for this transport equipment.
140				PowerIndicator	Indicator. Type	0..1				Indicates whether a Transport Equipment has power supply.
141				TraceID	Identifier. Type	0..1				An identifier used for tracing the transport equipment. E.g. an EPC identifier used together with an RFID tag.

142				MeasurementDimension			Dimension	0..n				Dimension details for the transport equipment
143					AttributeID		Identifier. Type	1				An identifier for the attribute to which the measure applies.
144					Measure		Measure. Type	0..1				The measurement value.
145					Description		Text. Type	0..n				A description of the measurement attribute.
146					MinimumMeasure		Measure Type	0..1				The minimum value in a range of measurement.
147					MaximumMeasure		Measure. Type	0..1				The maximum value in a range of measurement.
148				TransportEquipmentSeal			TransportEquipmentSeal	0..1				A reference to the seal unit used for the transport equipment
149					ID		Identifier. Type	1				Identifies the seal.
150					Condition		Text. Type	0..1				Information about the condition of a seal.
151					SealStatusCode		Code. Type	0..1				The status of a seal, expressed as a code.
152				MinimumTemperature			Temperature	0..1				Describes the minimum required operating temperature for the container (reefer).
153					AttributeID		Identifier. Type	1				An identifier for temperature.
154					Measure		Measure. Type	1				The temperature measurement value.
155					Description		Text. Type	0..n				A description of the temperature measurement.
156				MaximumTemperature			Temperature (see line 152)	0..n				Describes the maximum allowed operating temperature for the container (reefer).
157				ContainedInTransportEquipment			TransportEquipment (see line 129)	0..n				Other transport equipment being contained inside this transport equipment
158				Package			Package	0..n				Packages contains inside this transport equipment
159					ID		Identifier. Type	0..1				Identifies the package.
160					Quantity		Quantity. Type	0..1				The quantity (of items) contained in the package.
161					ReturnableMaterialIndicator		Indicator. Type	0..1				Indicates whether the packaging material is returnable (true) or not (false).
162					PackageLevelCode		Code. Type	0..1				Code specifying a level of packaging.
163					PackagingTypeCode		Packaging Type_ Code. Type	0..1				Code specifying the type of packaging of an item.
164					PackingMaterial		Text. Type	0..n				Description of the type of packaging of an item.
165					TraceID		Identifier. Type	0..1				An identifier used for tracing the package such as the EPC number used in RFID.
166					ContainedPackage		Package (see line 158)	0..n				A package contained within another package

167					ContainingTransportEquipment		TransportEquipment (see line 129)	0..1				A reference to the transport equipment containing this package
168					GoodsItem		GoodsItem	0..n				Goods Items being contained within this package
169						ID	Identifier. Type	0..1				An identifier for the goods item.
170						SequenceNumberID	Identifier. Type	0..1				Sequence number differentiating a specific goods item within a consignment.
171						Description	Text. Type	0..n				Plain language description of a goods item sufficient to identify it for customs, statistical, or transport purposes.
172						HazardousRiskIndicator	Indicator. Type	0..1				Indicates whether the goods item includes hazardous items (dangerous goods).
173						DeclaredCustomsValueAmount	Amount. Type	0..1				Amount declared for Customs purposes of those goods in a consignment which are subject to the same Customs procedure and have the same tariff/statistical heading, country information, and duty regime.
174						DeclaredForCarriageValueAmount	Amount. Type	0..1				Value declared by the shipper or his agent solely for the purpose of varying the carrier s level of liability from that provided in the contract of carriage in case of loss or damage to goods or delayed delivery.
175						DeclaredStatisticsValueAmount	Amount. Type	0..1				Value declared by the shipper or his agent solely for the purpose of varying the carrier s level of liability from that provided in the contract of carriage in case of loss or damage to goods or delayed delivery.
176						InsuranceValueAmount	Amount. Type	0..1				The amount covered by an insurance for a particular goods item.
177						ValueAmount	Amount. Type	0..1				Specifies the amount on which a duty, tax, or fee will be assessed.
178						GrossWeightMeasure	Measure. Type	0..1				Weight (mass) of goods, including packaging but excluding the carrier s equipment.
179						NetWeightMeasure	Measure. Type	0..1				Weight (mass) of goods item, excluding all packing but including any packaging that normally goes with the goods.
180						NetNetWeightMeasure	Measure. Type	0..1				Weight (mass) of goods without any packaging.
181						ChargeableWeightMeasure	Measure. Type	0..1				Gross weight (mass) on which a charge is to be based.
182						GrossVolumeMeasure	Measure. Type	0..1				Measurement normally arrived at by multiplying the maximum length, width, and height of the goods item.
183						NetVolumeMeasure	Measure. Type	0..1				The volume contained by a goods item, excluding the volume of any packaging material.
184						Quantity	Quantity. Type	0..1				Number of goods items.
185						PreferenceCriterionCode	Code. Type	0..1				A code specifying the treatment preference for this good according

													to international trading agreements.
186						RequiredCustomsID		Identifier. Type	0..1				Additional tariff codes required to specify a type of goods for Customs, transport, statistical, or other regulatory purposes.
187						CustomsStatusCode		Code. Type	0..1				A code specifying the status of goods as identified by customs for regulation purposes.
188						CustomsTariffQuantity		Quantity. Type	0..1				Quantity of the goods in the unit as required by Customs for tariff, statistical, or fiscal purposes.
189						CustomsImportClassifiedIndicator		Indicator. Type	0..1				Indicates whether the goods have been customs classified for import.
190						ChargeableQuantity		Quantity. Type	0..1				The number of units in the goods item to which charges apply.
191						ReturnableQuantity		Quantity. Type	0..1				The number of units in the goods item that may be returned.
192						Item		Item	0..1				A class to describe details about the items
193							Description	Text. Type	0..n				Free-form field that can be used to give a text description of the item.
194							Name	Name. Type	0..1				A short name optionally given to an item, such as a name from a Catalogue, as distinct from a description.
195							HazardousRiskIndicator	Indicator. Type	0..1				Indicates whether the item as delivered is hazardous.
196							AdditionalInformation	Text. Type	0..1				Provides more details of the item (e.g., the URL of a relevant web page).
197							BrandName	Name. Type	0..n				Brand name for the item.
198							ModelName	Name. Type	0..n				Model name for the item.
199							OriginCountry	Country (see line 32)	0..1				Associates the item with its country of origin.
200							CommodityClassification	CommodityClassification	0..n				Associates the item with its classification(s) according to a commodity classifying system.
201								CargoTypeCode	Code. Type	0..1				The type of cargo, expressed as a code.
202								CommodityCode	Code. Type	0..1				The harmonized international commodity code for regulatory (customs and trade statistics) purposes.
203								ItemClassificationCode	Code. Type	0..1				The trade commodity classification, expressed as a code.
204							HazardousItem		HazardousItem	0..n				A class to describe items being classified as hazardous items.
205								ID	Identifier. Type	0..1				The identifier for a Hazardous Item.
206								AdditionalInformation	Text. Type	0..1				Additional information about the hazardous substance. Can be used to specify information such as the type of regulatory requirements that apply to a description.

207								UNDGCode	Code. Type	0..1				The identifier assigned to transportable hazardous goods by the United Nations, expressed as a code.
208								TechnicalName	Name. Type	0..1				The full technical name of the specific hazardous substance.
209								CategoryName	Name. Type	0..1				The name of the category of hazard that applies to the Item.
210								HazardousCategoryCode	Code. Type	0..1				Code specifying a kind of hazard for a material.
211								MarkingID	Identifier. Type	0..1				Identifies the marking of dangerous goods.
212								HazardClassID	Identifier. Type	0..1				Identifies a hazard class applicable to dangerous goods as defined by the relevant regulation authority, such as the IMDG Class Number of the SOLAS Convention of IMO and the ADR/RID Class Number for the road/rail environment.
213								ContactParty	Party (see line 11)	0..1				Details of an individual, group, or body that is the contact in case of hazard incident.
214								EmergencyTemperature	Temperature	0..1				The temperature at which emergency procedures apply during the handling of temperature-controlled hazardous goods.
215								AttributeID	Identifier. Type	1				An identifier for temperature.
216								Measure	Measure. Type	0..1				The temperature measurement value.
217								Description	Text. Type	0..n				A description of the temperature measurement.
218								FlashpointTemperature	Temperature (see line 152)	0..1				The lowest temperature at which the vapor of a combustible liquid can be made to ignite momentarily in air, known in hazardous goods procedures as the flashpoint.
219								AdditionalItemProperty	ItemProperty	0..n				Information about specific Item Properties.
220								ID	Identifier. Type	0..1				An identifie for the Item Property.
221								Name	Name. Type	0..1				The name of the Item Property.
222								NameCode	Code. Type	0..1				The name of the Item Property expressed as code.
223								Value	Text. Type	0..1				The Item Property value expressed as a text.
224								UsabilityPeriod	Period (see line 106)	0..1				The period in which the item is usable.
225								ItemPropertyGroup	ItemPropertyGroup	0..n				Information about sets of classifications (or groups) of Item Properties.
226									ID	Identifier. Type	1				An identifier for the Item Property Group.
227									Name	Name. Type	0..1				The name of the Item Property Group.
228									ImportanceCode	Code. Type	0..1				A code establishing the importance for the property group when using it to describe a required Item.

229									ItemPropertyRange	ItemPropertyRange	0..1				The range of values for the Item Property.
230									MinimumValue	Text. Type	1				The minimum value in a range of property.
231									MaximumValue	Text. Type	0..1				The maximum value in a range of property.
232							ItemInstance			ItemInstance	0..n				Information about a specific instance of an item.
233								ProductTraceID		Identifier. Type	0..1				An identifier used for tracing the item, such as the EPC number used in RFID.
234								SerialID		Identifier. Type	0..1				The serial number of the Item Instance.
235						GoodsItemContainer				GoodsItemContainer	0..n				A class identifying the container of a goods item
236							ID			Identifier. Type	1				Identifies goods items split across transport equipment.
237						ContainedGoodsItem				GoodsItem (see line 168)	0..n				An association to a package containing this goods item
238						ContainingPackage				Package (see line 158)	0..n				An association to a package containing this goods item
239						MeasurementDimension				Dimension (see line 142)	0..n				Measurement normally arrived at by multiplying the maximum length, width, and height of the goods item.
240				ContainedGoodsItem						GoodsItem (see line 168)	0..n				Goods Items being contained within this package
241			SupportedTransportEquipment							TransportEquipment (see line 129)	0..n				Describes equipment that is supported in a transportation service. E.g. a reefer container is not supported.
242			UnsupportedTransportEquipment							TransportEquipment (see line 129)	0..n				Describes equipment that is not supported in a transportation service. E.g. a reefer container is not supported.
243			CommodityClassification							CommodityClassification (see line 200)	0..n				Describes types of commodities transported by a transportation service.
244			SupportedCommodityClassification							CommodityClassification (see line 200)	0..n				Describes types of commodities supported in a transportation service.
245			UnsupportedCommodityClassification							CommodityClassification (see line 200)	0..n				Describes types of commodities that are not supported in a transportation service. E.g. live animals or tobacco are not supported.
246			TotalCapacityDimension							Dimension (see line 142)	0..1				The total capacity supported by the transport service
247			ShipmentStage							ShipmentStage	0..n	0..n	0..n		Describes the transport movement of a transportation service.
248				ID						Identifier. Type	0..1	0..1	0..1		Identifies a shipment stage.
249				TransportModeCode						Transport Mode_ Code. Type	0..1	0..1	0..1		The method of transport used for a shipment stage.
250				TransportMeansTypeCode						Code. Type	0..1		0..1		The type of vehicle used for a shipment stage.
251				TransitPeriod						Period (see line 106)	0..1		0..1		An association to when the shipment stage is in transit.

252				CarrierParty			Party (see line 11)	0..n		0..1		An association to a carrier responsible for this shipment stage.
253				TransportMeans			TransportMeans	0..1	0..1	0..1		The particular vehicle used for the transport of goods or persons.
254					JourneyID		Identifier. Type	0..1	0..1	0..1		An identifier assigned to a regularly scheduled service of a means of transport.
255					RegistrationNationalityID		Identifier. Type	0..1		1		Formal identification of the country in which a means of transport is registered.
256					RegistrationNationality		Text. Type	0..n		0..n		Name of the country in which a means of transport is registered.
257					TransportMeansTypeCode		Code. Type	0..1	0..1	0..1		A code indicating what kind of transport means this is. E.g. Vessel, Truck, etc.
258					Stowage		Stowage	0..1		1		A location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
259						LocationID	Identifier. Type	0..1		0..1		Identifies a location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
260						Location	Text. Type	0..n		0..1		Describes a location on board a means of transport where specified goods or transport equipment have been or are to be stowed.
261						MeasurementDimension	Dimension (see line 142)	0..n				Associates any measurements (including lengths, mass, and volume) for this stowage.
262					AirTransport		AirTransport	0..1	0..1	0..1		Information related to an aircraft.
263						AircraftID	Identifier. Type	1	1	0..1		Identifies a specific aircraft.
264					RoadTransport		RoadTransport	0..1	0..1	0..1		Describes a road transport vehicle.
265						LicensePlateID	Identifier. Type	1	1	0..1		Identifies a specific vehicle.
266					RailTransport		RailTransport	0..1	0..1	0..1		Describes a train.
267						TrainID	Identifier. Type	1	1	0..1		Identifies a train.
268						RailCarID	Identifier. Type	0..1	0..1	0..n		Identifies the rail car on the train used for the means of transport.
269					MaritimeTransport		MaritimeTransport	0..1	0..1	0..1		Describes a water (including sea, river, and canal) transport vessel.
270						VesselID	Identifier. Type	0..1	0..1	0..1		Identifies a specific vessel.
271						VesselName	Name. Type	0..1	0..1	0..1		The name of the vessel.
272						RadioCallSignID	Identifier. Type	0..1	0..1	0..1		Identifies the radio call sign of the vessel.
273					DriverParty		Party (see line 25)	0..n				The party responsible for driving the transport means
274					PassengerParty		Party (see line 25)	0..n				A party being a passenger on board the transport means
275					MeasurementDimension		Dimension (see line 142)	0..n				The measurement dimension of a transport means.

276				RequestedDepartureTransportEvent			TransportEvent (see line 279)	0..1	0..1	0..1		The departure for a shipment stage as requested by the TU
277				RequestedArrivalTransportEvent			TransportEvent (see line 279)	0..1	0..1	0..1		The arrival for a shipment stage as requested by the TU
278				RequestedWaypointTransportEvent			TransportEvent (see line 279)	0..n	0..1	0..n		One or more waypoints in a shipment stage as requested by the TU
279				PlannedDepartureTransportEvent			TransportEvent	0..1	0..1	0..1		The departure for a shipment stage as planned by the TSP
280					OccurrenceDate		Date. Type	0..1				The date of an occurrence of the event. The Occurrence Date and Time are for example used for actual events (historic events) while the period is typically used for planned and future events.
281					OccurrenceTime		Time. Type	0..1				The time of an occurrence of the event. The Occurrence Date and Time are for example used for actual events (historic events) while the period is typically used for planned and future events.
282					TransportEventTypeCode		Code. Type	0..1	0..1	0..1		A code specifying the type of event.
283					Description		Text. Type	0..1				A textual description of the event.
284					CurrentStatus		Status	0..n		0..n		A status associated with a transport event.
285						ConditionCode	Code. Type	0..1		0..1		A code specifying the status condition of the related object.
286						ReferenceDate	Date. Type	0..1		0..1		A reference date value for this status.
287						ReferenceTime	Time. Type	0..1		0..1		A reference time value for this status.
288						Description	Text. Type	0..n		0..n		A textual description of this status.
289						StatusReasonCode	Code. Type	0..1		0..1		A code specifying a reason for a status condition.
290						StatusReason	Text. Type	0..n		0..n		The reason, expressed as text, for this status condition or position.
291						ConditionValueMeasure	Measure. Type	0..n		0..n		Provides a measurement of the condition. For example if it is the temperature condition, then this measurement could be degrees celcius or fahrenheit.
292					Contact		Contact (see line 54)	0..n				Any contacts for the event.
293					Location		Location (see line 35)	0..1	1	1		A location related to a transport event
294					Signature		Signature	0..1				Defines any signatures needed for security operations related to events during a transport service. For example a signature or identification key used for accessing/departing terminal areas.
295						ID	Identifier. Type	0..1				An identifier to hold the signature
296					Period		Period (see line 106)	0..1	1	1		A Period associated with a Transport Event
297				PlannedArrivalTransportEvent			TransportEvent (see line 279)	0..1	0..1	0..1		The arrival for a shipment stage as planned by the TSP
298				PlannedWaypointTransportEvent			TransportEvent (see line 279)	0..n		0..1		One or more waypoints in a shipment stage as planned by the TSP

299				ActualDepartureTransportEvent	TransportEvent (see line 279)	0..1				The actual departure for a shipment stage
300				ActualArrivalTransportEvent	TransportEvent (see line 279)	0..1				The actual arrival for a shipment stage
301				ActualWaypointTransportEvent	TransportEvent (see line 279)	0..n				One or more actual waypoints in a shipment stage
302				TransportEvent	TransportEvent (see line 279)	0..n	0..n			An association to Transport Event. The Transport Event contains a Transport Event Type Code BBIE which can be used to further specify the nature of the event.
303			TransportEvent		TransportEvent (see line 279)	0..n	0..n	0..n		An association to Transport Event. The Transport Event contains a Transport Event Type Code BBIE which can be used to further specify the nature of the event.
304			EnvironmentalEmission		EnvironmentalEmission	0..n			1..n	Specifies the environmental emission associated with services in a Transport Service Description.
305				EnvironmentalEmissionTypeCode	Code. Type	1			1	Defines the type of environmental emission. For example CO2, NOX, etc.
306				ValueMeasure	Measure. Type	1			1	Specifies the value of the environmental emission.
307				Description	Text. Type	0..n			0..n	Textual descriptions related to the environmental emission.
308				EmissionCalculationMethod	EmissionCalculationMethod	0..1			0..1	Specifies the method used to calculate the emission
309					CalculationMethodCode	Code. Type	0..1			0..1	The calculation method used. E.g. fastest route/shortest route, full load factor/average load factor, etc.
310					FullnessIndicationCode	Code. Type	0..1			0..1	Specifies the load factor used in the emission calculation. E.g. Empty/Average/Full.
311					MeasurementFromLocation	Location (see line 35)	0..1				Describes a start location for which an environmental emission is calculated from.
312					MeasurementToLocation	Location (see line 35)	0..1				Describes an end location for which an environmental emission is calculated from.
313			ResponsibleTransportServiceProviderParty			Party (see line 11)	0..1	0..1	0..1		The Transport Service Provider responsible for a particular transport service
314			EstimatedDurationPeriod			Period (see line 106)	0..1		0..1		Describes the estimated duration of a transportation service.
315			ScheduledServiceFrequency			ScheduledServiceFrequency	0..n		0..n		Describes the operational frequency of a scheduled service
316				WeekDayCode		Code. Type	1		1		Specifies the day of the week the scheduled service is operational

Logical Part

In this logical part of the implementation guide a scenario will be used to explain the usage and structures of the Transport Service Description more in depth. The overall scenario is broken down into sub-scenarios covering different logistics services. XML examples are provided in order to demonstrate how the Transport Service Description should be used.

3 Scenario

This scenario describes a transport chain example in order to demonstrate the use of the Transport Service Description messages. To address specific details, the scenario is decomposed into sub-scenarios all focusing on different situations. The scenario introduction section provides an overview of the transport chain and refers to the sub-scenarios that will provide detailed information on how the transactions are used. The same scenario is applied in the implementation guides for Transport Instruction and Transport Status, providing a consistent description of the three transactions.

3.1 Scenario introduction

The transport chain is illustrated in Figure 6. The route and locations highlighted in red show the scope addressed by the scenario while the rest of the illustration shows other relevant elements. Transport Service Description information exchange is illustrated in orange. CONSIGNEE 2 contacts the FORWARDER to arrange for transport of three pallets (P1-P3) from O1 (Munich, Germany) to D2 (Hamar, Norway). The FORWARDER also gets a transport instruction of other pallets destined for Norway (P4-P6), and the transport chain of all the pallets is organized.

The pallets are transported by ROAD CARRIER 1 from the two suppliers in the Munich area to the FORWARDER's distribution centre (DC1) in Hamburg.

- The 6 pallets are consolidated into one rail wagon and transported by a RAIL CARRIER to the port terminal in Kiel (T).
- A SEA CARRIER consolidates the pallets in a container before the container is transported by sea from Kiel (T) to Oslo (DC 2).
- In Oslo (DC 2) a de-consolidation (break-bulk) service takes place by a TERMINAL OPERATOR. The six pallets are taken out of the container. Furthermore, customs duties (import) are being done at the terminal in Oslo (DC2).
- ROAD CARRIER 2 transports three of the six pallets from Oslo (DC 2) to Hamar (D2) where they will be delivered to CONSIGNEE 2.

Table 3 summarises all the transport legs from the origin in Munich to the destination in Hamar.

Table 3: Transport legs from Munich to Hamar

From	To	Departure date and time	Arrival date and time	Responsible for transport service
Munich	Hamar	01.08.2011	08.08.2011	FORWARDER
Munich	Hamburg	01.08.2011	02.08.2011	ROAD CARRIER 1
Hamburg	Kiel	03.08.2011	04.08.2011	RAIL CARRIER
Kiel	Oslo	06.08.2011	07.08.2011	SEA CARRIER
Oslo	Hamar	08.08.2011	08.08.2011	ROAD CARRIER 2

The transport of the pallets is initiated by two shipments requests from CONSIGNEE1 and CONSIGNEE 2, as described in Table 4.

Table 4: Shipment descriptions (main shipments)

Element	Values for the shipment from SUPPLIER 1 to CONSIGNEE 2 (the focus of this scenario)	Values for the shipment from SUPPLIER 2 to CONSIGNEE 1
Shipper GLN Address Contact	SENDER 1 7365566156190 Putzbunnerstrasse 3, Munchen, DE Jens Klein, jens@supplier1.de, +4995556648	SENDER 2 - (not used) Torgauerstrasse 6, Munchen, DE Fredrich Dieter, fredrich@supplier2.de, +4995556648
Receiver GLN Address Contact	RECEIVER 2 7365566156191 Jølstadbakken 2, Hamar, NO Per Kristiansen, per@receiver2.no, +4792894444	RECEIVER 1 7365566156191 Krokvegen 4, Kongsvinger, NO Jan Paulsen, jan@receiver1.no , +4792224542
Planned Despatch Time	2011-08-01 10:00	2011-08-01 10:00
Planned Delivery Time	2011-08-08 16:00	2011-08-08 16:00
Logistics Units	SSCC: 123456789123456700 750 kg gross weight 120x80x120 cm 1.152 m³ Pallet containing 50 packages of general cargo	SSCC: 123456789123456703 500 kg 120x80x100 cm 0.96 m³ Pallet containing 20 packages of general cargo
Logistics Units	SSCC: 123456789123456701 750 kg gross weight 120x80x120 cm 1.152 m³ Pallet containing 50 packages of general cargo	SSCC: 123456789123456704 500 kg 120x80x100 cm 0.96 m³ Pallet containing 20 packages of general cargo
Logistics Units	SSCC: 123456789123456702 750 kg gross weight 120x80x120 cm 1.152 m³ Pallet containing 50 packages of general cargo	SSCC: 123456789123456705 500 kg 120x80x100 cm 0.96 m³ Pallet containing 20 packages of general cargo
Package Total	150	60
Cargo Type	12 (General Cargo)	12 (General Cargo)
Total Net Weight	2160 kg	1410 kg
Total Gross Weight	2250 kg	1500 kg
Total Gross Volume	3.4 m³	2.88 m³

3.1.1 Transport Service Description interactions

The LSP in the scenario can be identified in several ways. The LSC may have a long-term contract with the LSP, or the LSP may be identified through service announcements. Such service announcements may be done by means of Transport Service Description. Figure 6 and Table 5 provides an overview of the service announcements of relevance for the scenario. The announcements describe details related to the transport services provided, locations relevant for the services such as pickup and delivery location, and relevant terms and conditions such as payment details.

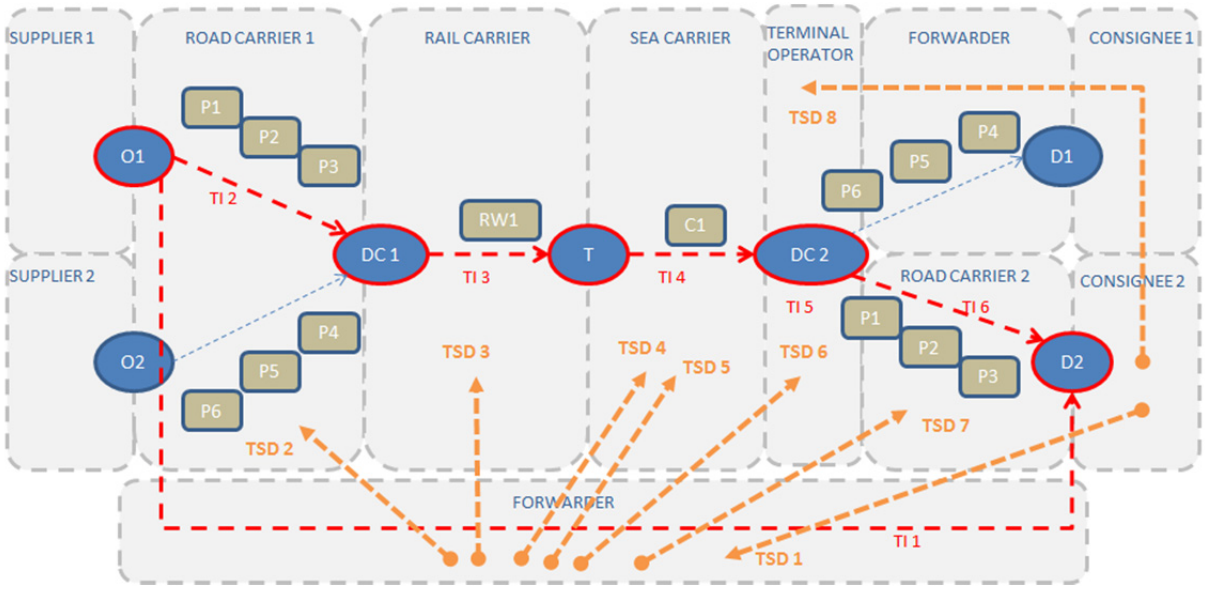


Figure 6: Overall scenario - the Transport Service Descriptions and Transport Instructions associated with the different legs related to the complete service

Table 5: Description of Transport Service Descriptions

Transport Service Description	Logistics Service Client	Logistics Service Provider	Services Provided	Profile extensions	Locations	Sub-scenarios
TSD 1	CONSIGNEE 2	FORWARDER	International door-to-door transport	Core Profile	From: Munich To: Hamar	D2D service from Munich to Hamar, (see 3.2.1)
TSD 2	FORWARDER	ROAD CARRIER 1	Road transport	Core Profile	From: Munich To: Hamburg	Carrier Services (see 3.2.2.1)
TSD 3	FORWARDER	RAIL CARRIER	Rail transport	Core Profile	From: Hamburg To: Kiel	Not included as a separate sub-scenario. Refer to Carrier Service (see 3.2.2)
TSD 4	FORWARDER	SEA CARRIER	Sea transport	Scheduled Service Extension	From: Kiel To: Oslo	Carrier Services (see 3.2.2.1)
TSD 5	FORWARDER	SEA CARRIER	Consoli-dation	Full Profile	At Kiel Port	Consolidation Service (see 3.2.3)
TSD 6	FORWARDER	TERMINAL OPERATOR	De-consolidation	Full Profile	At Oslo port	De-consolidation Service (see 3.2.4)
TSD 7	FORWARDER	ROAD CARRIER 2	Road transport	Core profile	From: Oslo To: Hamar	Not included as a separate sub-scenario. Refer to Carrier Service (see 3.2.2)
TSD 8	CONSIGNEE 2	TERMINAL	Customs	Full Profile	At Oslo Port	Customs Service

OPERATOR	broking	(see 3.2.5)

3.2 Transport service announcement sub-scenarios

In order to show how the Transport Service Description transaction is structured and intended to be used this chapter describes its usage in a set of different sub-scenarios or use cases. Note that the illustrations showing the message exchange suggests a request/call-back message pattern, but that does not preclude that other message patterns (e.g. synchronous) may be used to exchange a Transport Service Description/Request.

3.2.1 Complete D2D service from Munich to Hamar

CONSIGNEE 2 will request for a Transport Service Description that covers the entire transport from SUPPLIER 1 in Munich to his facilities in Hamar. Both the Transport Service Description Request and the Transport Service Description messages are using the Full Profile in this sub-scenario.

The request includes relevant parameters that state the transport demand of CONSIGNEE 2 and the response includes a relevant Transport Service Description with details associated with an announced service. The choreography of the message exchange is shown in Figure 7. Note that since CONSIGNEE 2 and FORWARDER are using the Full Profile of the TSD they may have to agree on which elements to include as a part of the message exchange beforehand.

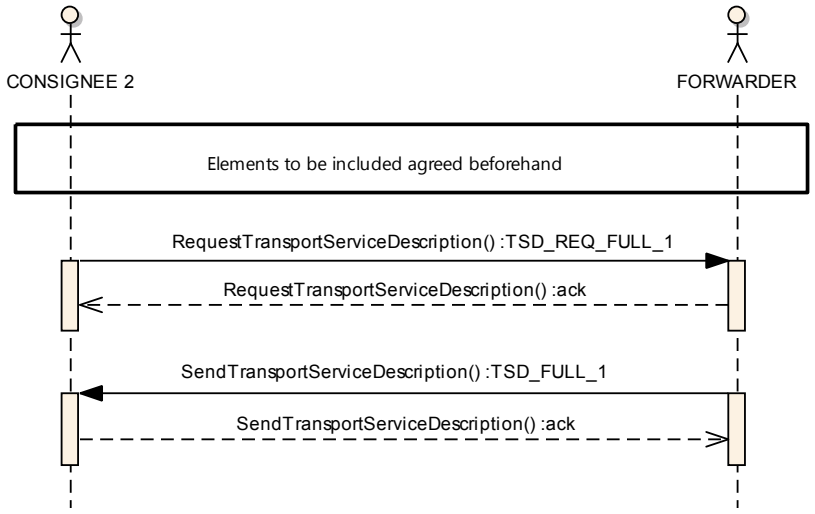


Figure 7: Transport Service Description message exchange in complete D2D service sub-scenario

3.2.1.1 Transport Service Description Request message

In this case CONSIGNEE 2 issues a Transport Service Description Request (TSD_REQ_FULL_1) in order to receive relevant Transport Service Descriptions (TSD_FULL_1) from the FORWARDER. Relevant parameters to include in the Transport Service Description Request are which type of service is requested (transport of 3 pallets containing packages of antibiotics); pickup location (address in Munich) and delivery location (address in Hamar); and relevant dates for pickup and delivery.

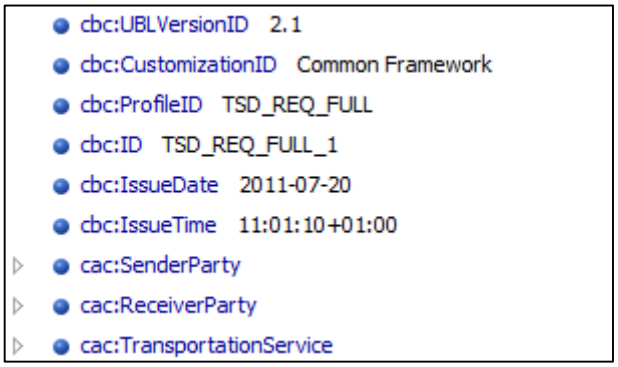


Figure 8: Administrative data in a Transport Service Description Request

Figure 8 shows the overall structure of a Transport Service Description Request message and how the more administrative data such as UBL Version ID, Customization ID and Profile ID are being used. In addition the ID (agreed between the sender and receiver), and the issue data and time of the message is shown. All these elements are mandatory.

Each message using the core profile, as this message is, must include information about the sender and receiver of the message. Both these are instantiations of the Party structure as shown below.

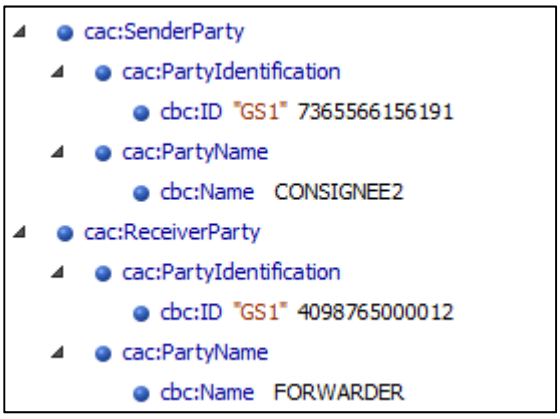


Figure 9: Sender and Receiver Party

Figure 10 below shows the Transportation Service structure. The `TransportServiceCode` is using values from the TransportationServiceCode code list (see Annex C). `TransportServiceDescription` is a free-text element for including textual descriptions associated with the announced transport service.

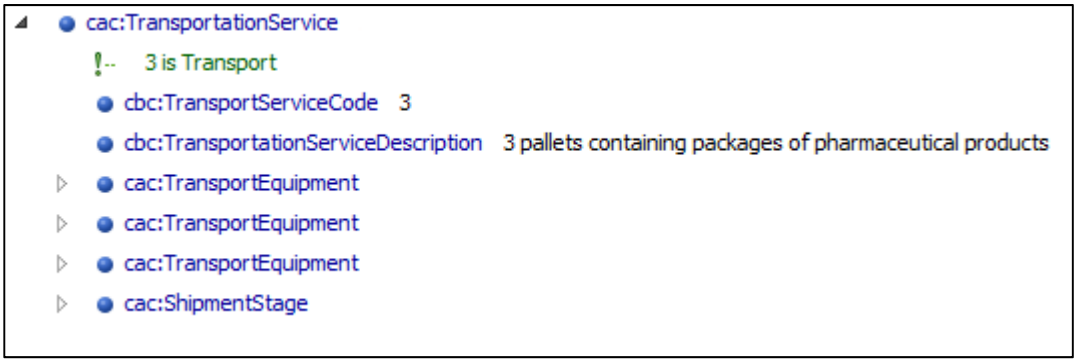


Figure 10: Transportation Service Element describes specific details about the transport service

In this particular Transport Service Description Request message CONSIGNEE 2 includes characteristics about the three pallets he would like to have transported as well as of the commodities that will be transported on the pallets. This type of information is only included in the Full Profile, not the Core Profile. The structure for specifying this is illustrated in Figure 11. The dotted line between Package and Goods Item illustrate that if the packages should be specified (e.g. a container filled with packages each containing a certain set of goods items) there is also an association from Package to Goods Item.

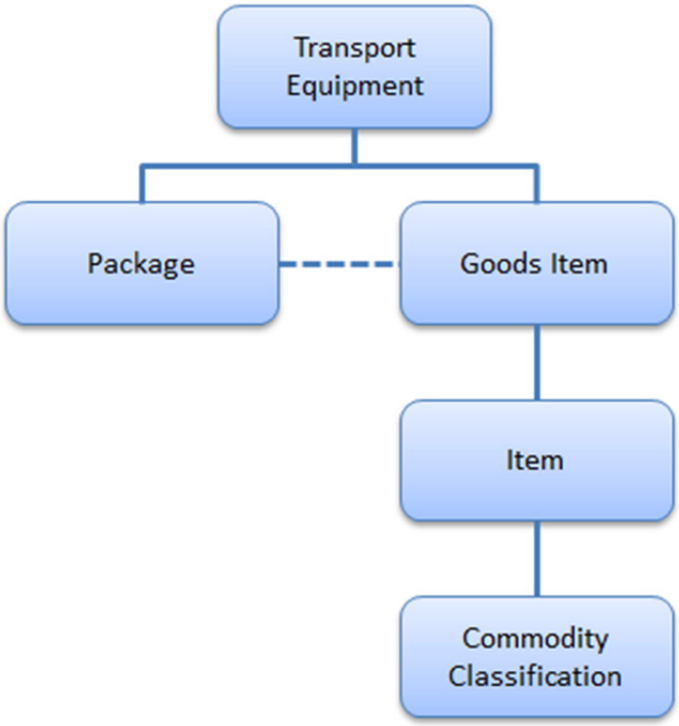


Figure 11: Equipment, Packaging and Goods Structure

As Figure 12 shows there are three `TransportEquipment` elements, one for each pallet. For each pallet the MeasurementDimension specifies the type of pallet, the gross weight, length, width and height of the pallet. The content on each pallet is specified by means of the `GoodsItem` element which has a sub-element called `CommodityClassification` where the cargo type is described.

Figure 12: Transport Equipment element to describe the pallets to be transported

The `ShipmentStage` element is used for describing the requested transport movement of the transport service. The ID element is used to order `ShipmentStage` elements if there are more than one transport legs. In the `RequestedDeparture`- and `RequestedArrivalTransportEvent` elements the LSC adds origin and destination locations and at which times the transport should take place.

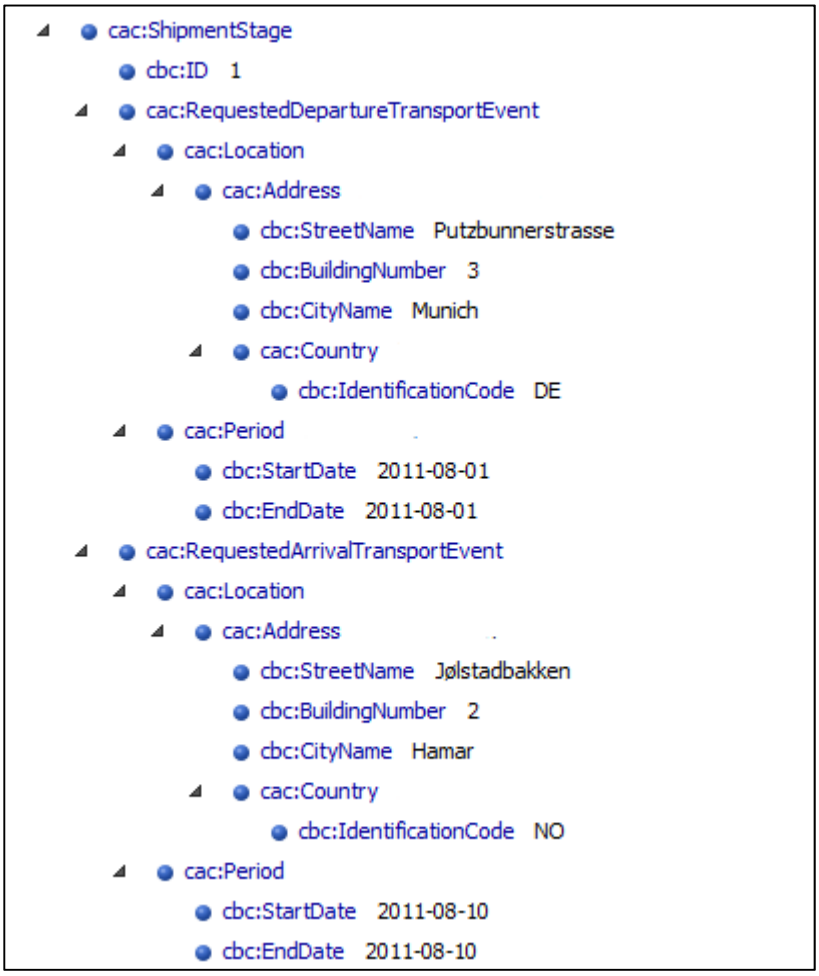


Figure 13: Shipment Stage element describes the requested transport movement

3.2.1.2 Transport Service Description Response message

In the Transport Service Description Response message the FORWARDER includes some additional elements. The Party structures are similar to the previous message.

The `TransportServiceDescriptionRequestDocumentReference` refers to the incoming Transport Service Description Request message sent from CONSIGNEE2. `ServiceChargePaymentTerms` summarise the charges associated with the announced transport service. This element is in the Core Profile limited to the amount to be paid and the payment due date. The `ValidityPeriod` signifies the period in which the transport service announcement is valid.

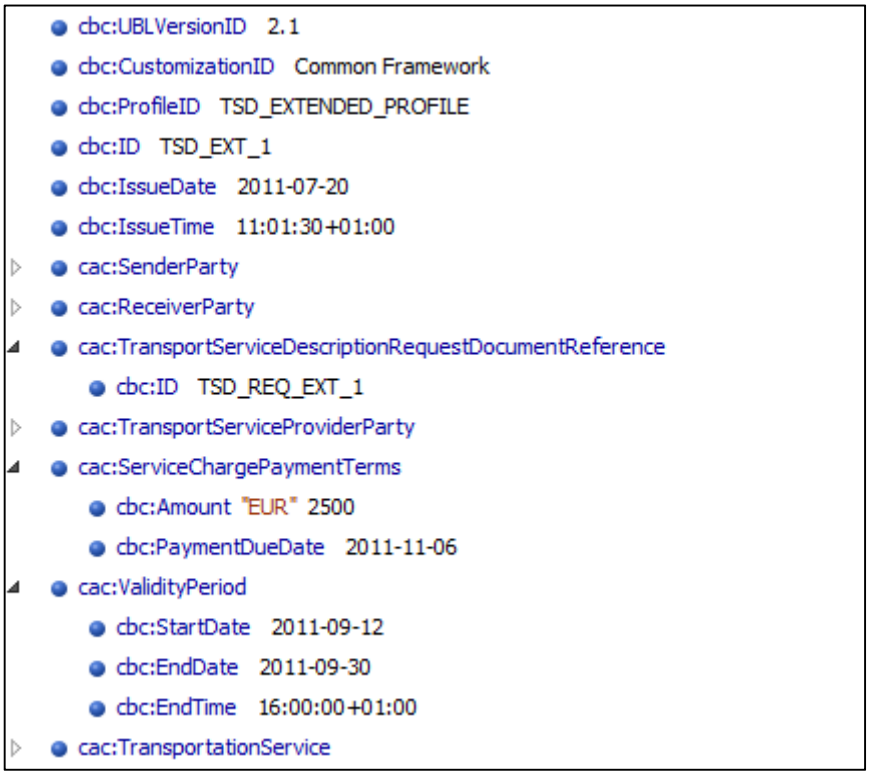


Figure 14: Transport Service Description sent from FORWARDER to CONSIGNEE 2

The Transportation Service element contains some of the same elements as the Transport Service Description Request, such as the `TransportServiceCode`, `TransportServiceDescription` and `TransportEquipment` elements, this as a confirmation to CONSIGNEE 2.

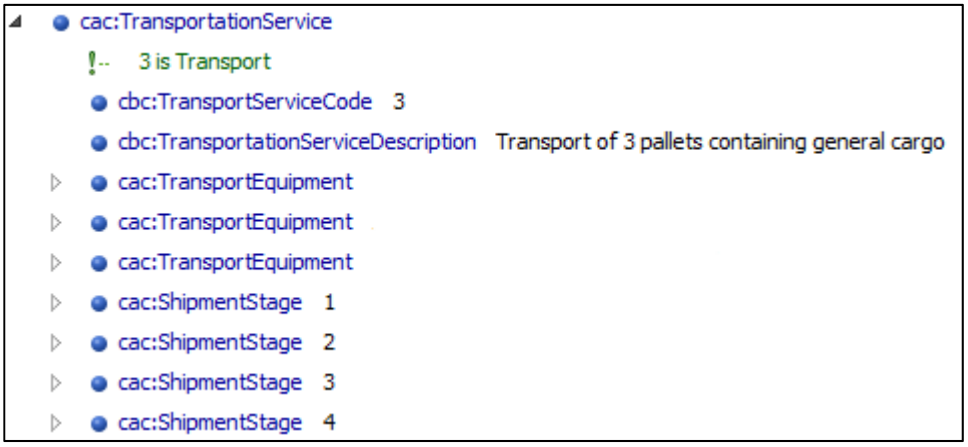


Figure 15: Transportation Service element

As for the transport movement this is now more detailed than in the Transport Service Description Request. In this Transport Service Description each transport leg is specified in its own `ShipmentStage` element. Each ShipmentStage has an ID to keep track of each transport leg. As Figure 16 shows the following transport legs are specified (with timing included):

- Putzbunnerstrasse (Munich) to Billwerder (Hamburg)
- Billwerder to Kiel Port
- Kiel Port to Oslo Port
- Oslo Port to Jølstadbakken (Hamar)

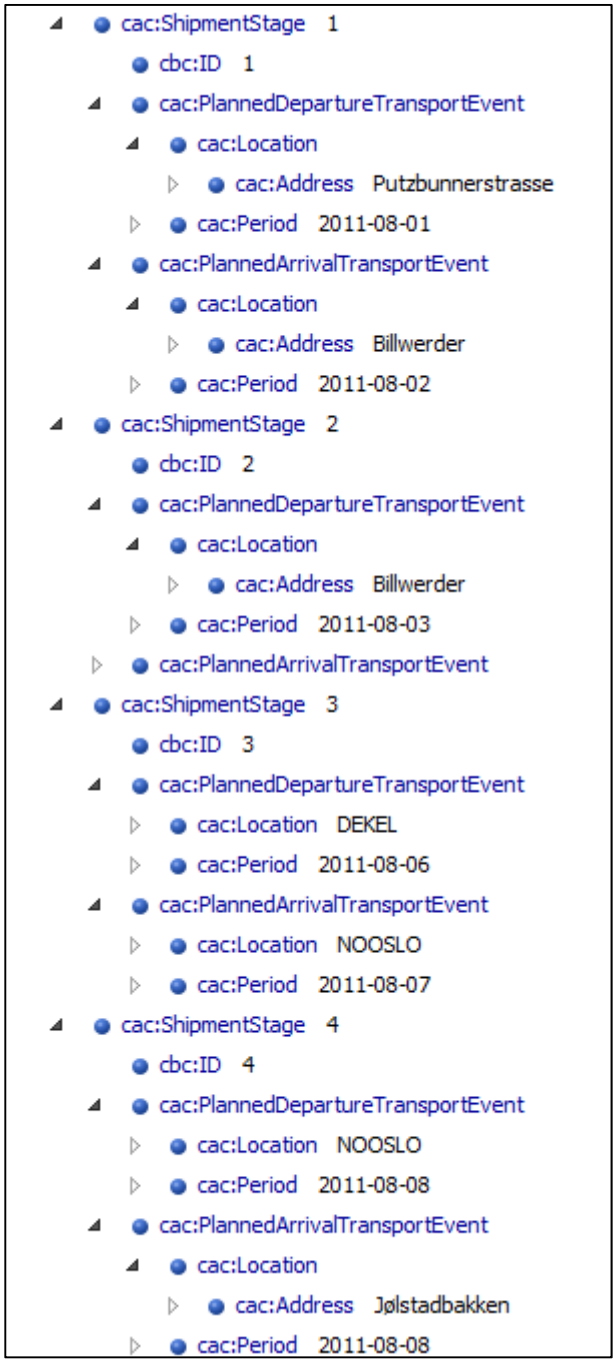


Figure 16: Shipment Stages from Munich to Hamar in a Transport Service Description

3.2.2 Carrier services

The FORWARDER will in this sub-scenario arrange for the following carrier services:

- Road transport from SUPPLIER 1 in Munich to the distribution centre in Hamburg. In this scenario the FORWARDER also arranges for transport for the other shipment (from SUPPLIER 2) since this is also destined for the distribution centre in Hamburg. This is typically called a milk-run service where goods from different locations are being picked up in one "run" and then delivered to one drop-point.
- Rail transport from the distribution centre in Hamburg to the port terminal in Kiel. This scenario is very similar to the road transport scenario and will not require further specification.
- Maritime transport from the port terminal in Kiel to the port terminal in Oslo. In this scenario the FORWARDER has an agreed allotment on a particular vessel travelling from Kiel to Oslo and he issues a Transport Service Description Request requesting details related to departures for this particular vessel.
- Road transport from the port terminal in Oslo to CONSIGNEE 2 in Hamar. This scenario is very similar to the first road transport scenario from Munich to the distribution centre in Hamburg and will not require further specification.

The road and rail transport services listed above uses the Core Profile of the Transport Service Description, whereas the maritime transport uses the Schedule Service Extension (for requesting transport route for a vessel) in addition to the Core Profile for arranging the consolidation. Since the messages used for the road and rail services will be very similar to the Complete D2D scenario in chapter 3.2.1 we do not include XML examples for those. The XML messages related to these scenarios can be seen in Annex A.

3.2.2.1 Road transport from Munich to Hamburg sub-scenario

In this sub-scenario the FORWARDER issues a Transport Service Description Request to ROAD CARRIER 1, requesting for details related to the road transport leg from two different pickup locations in Munich to the distribution center in Hamburg (a so-called milk-run service). ROAD CARRIER 1 responds with a Transport Service Description matching the request. This interaction uses the Core Profile.

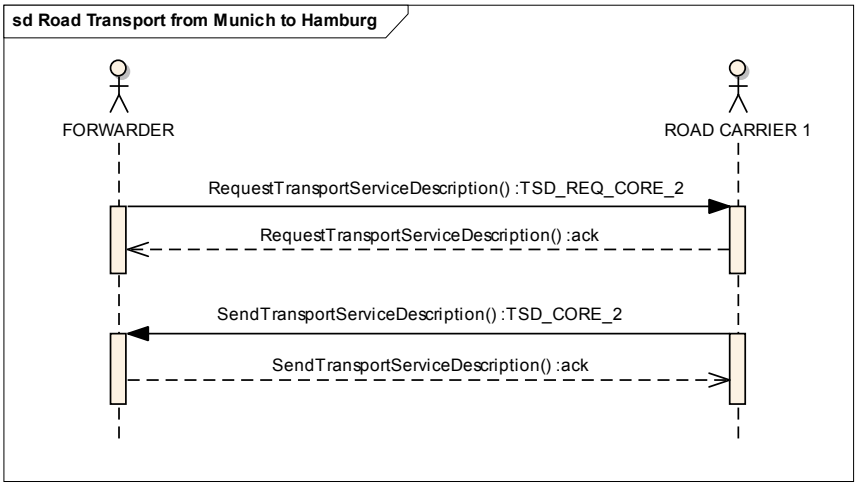


Figure 17: Transport Service Description message exchange in Road Transport from Munich to Hamburg sub-scenario

3.2.2.1.1 Transport Service Description Request Message

In the Transport Service Description Request message FORWARDER includes one `TransportationService` element including two `ShipmentStage` elements, one for each shipment destined for Hamburg.

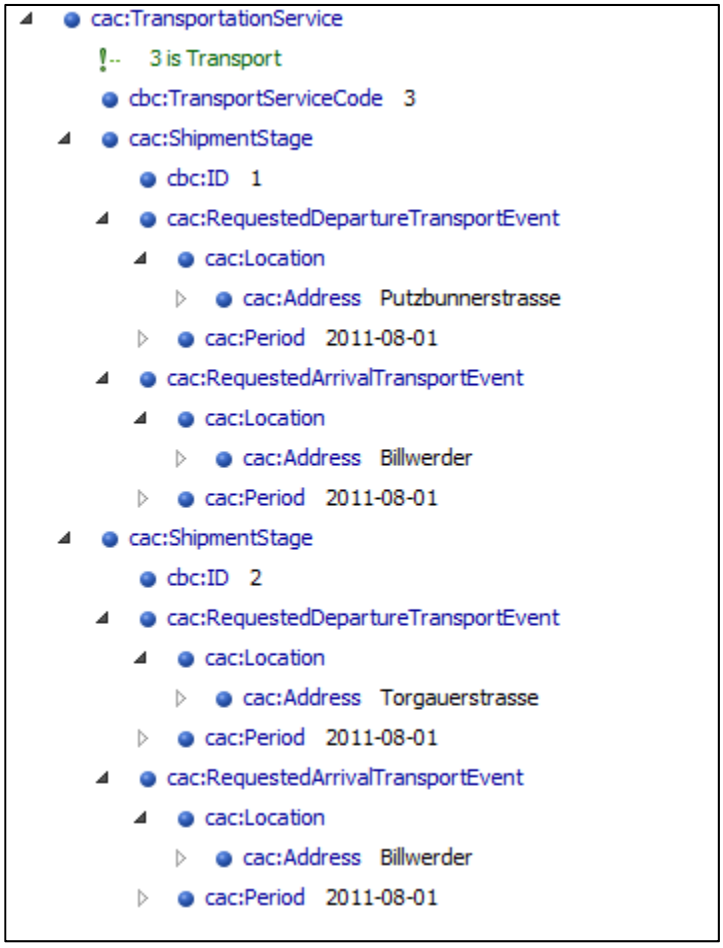


Figure 18: Requesting a Transport Service Description for two shipments in Munich to be transported by road to Hamburg

3.2.2.1.2 Transport Service Description Response Message

In the response message ROAD CARRIER 1 may include additional details related to the planned pickup and delivery. Service charge details may also be added in the `ServiceChargePaymentTerms` element (we refer to chapter 3.2.1 for a description of this).

Figure 19: Transport Service Description announcing a road carriage service from Munich to Hamburg

3.2.2.2 Maritime Transport from Kiel to Oslo

In this sub-scenario the FORWARDER has an agreed allotment on a vessel operated by the SEA CARRIER. Therefore he issues a Transport Service Description Request asking for the departures of this particular vessel travelling on a schedule from Kiel to Oslo. This will enable the FORWARDER to select the appropriate departure to book in a Transport Instruction. This scenario is using the Scheduled Service extension of the Transport Service Description Request and Transport Service Description. In chapter 3.2.3 the FORWARDER will request a consolidation service from the same SEA CARRIER, but then using the Core Profile of the Transport Service Description.

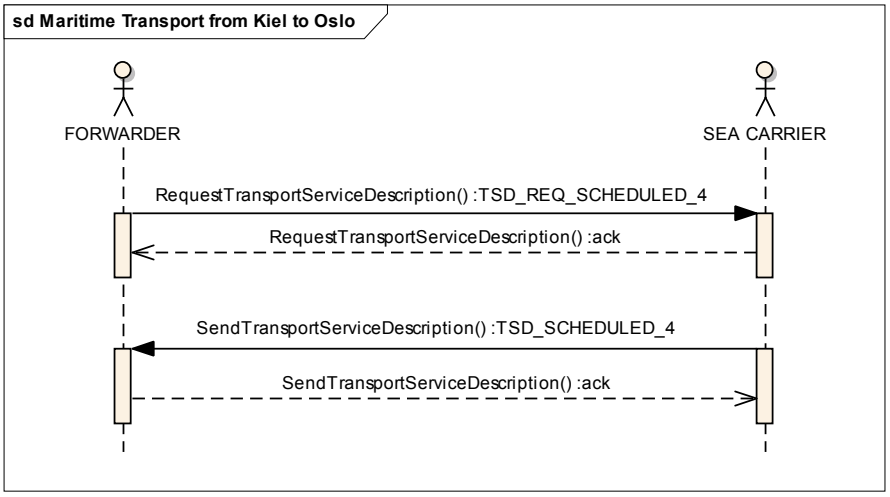


Figure 20: Transport Service Description message exchange in Maritime Transport from Kiel to Oslo sub-scenario

3.2.2.2.1 Transport Service Description Request Message

In this example the Transport Service Description Request is very simple. It states that the service required is transport (indicated by the TransportServiceCode value 3), that the departure location is Kiel (indicated by the UN/LOCODE value DEKEL), the arrival location is Oslo (indicated by the UN/LOCODE value NOOSL) and that the departure should take place at August 6 and that the vessel should be in the port of Oslo on August 7th.

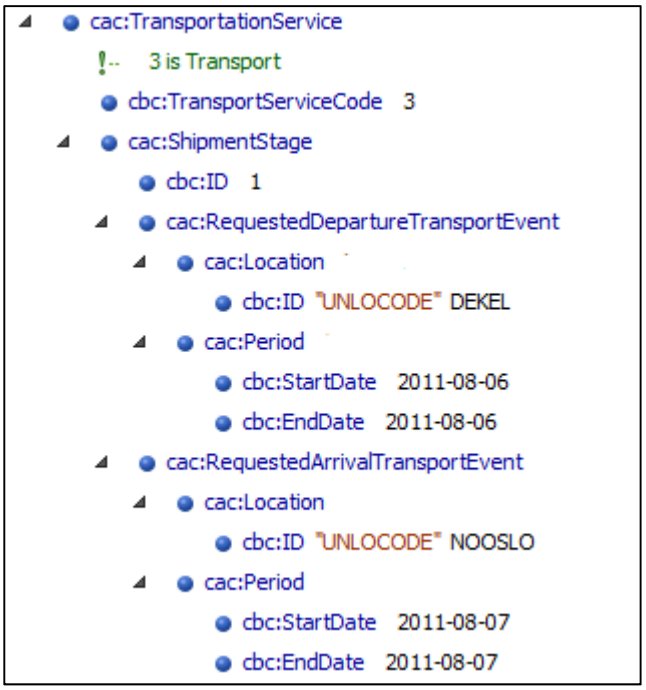


Figure 21: Transport Service Description Request to request for a scheduled vessel service announcement

3.2.2.2.2 Transport Service Description Response Message

In the Transport Service Description the SEA CARRIER announces a scheduled vessel service from Kiel to Oslo. The route code is KIELOSL indicated by the `JourneyID` element in `TransportMeans`. Planned departure for this vessel is specified in the `PlannedDepartureTransportEvent` element and the arrival in Oslo is specified in the `PlannedArrivalTransportEvent` element. The scheduled frequency of this route is indicated by the element ScheduledServiceFrequency where each weekday this service is in operation is included. The code list values starts on Monday (key 1), hence in this example the service is operational Monday, Wednesday and Friday.

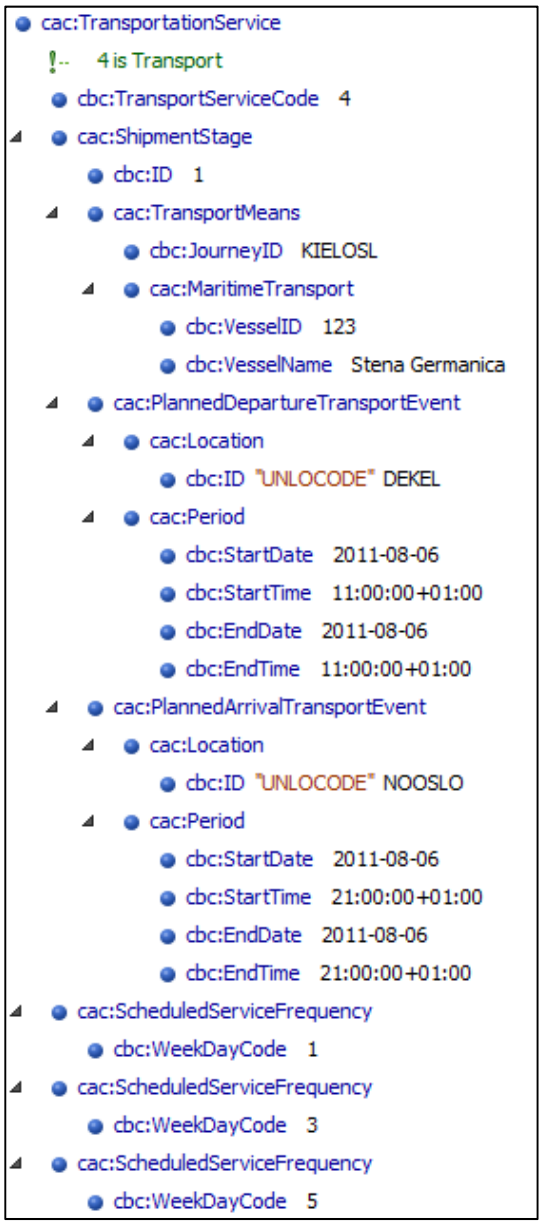


Figure 22: providing a Transport Service Description to announce a vessel scheduled service

3.2.3 Consolidation sub-scenario

The FORWARDER will in this sub-scenario arrange for a consolidation of the six pallets into a container at the port terminal in Kiel. In order to do so he issues one Transport Service Description Request to the SEA CARRIER indicating that a consolidation service is required (as well as which items which will be consolidated). This scenario requires a Full Profile of the Transport Service Description. Note that the carriage service is described in chapter 3.2.2.2.

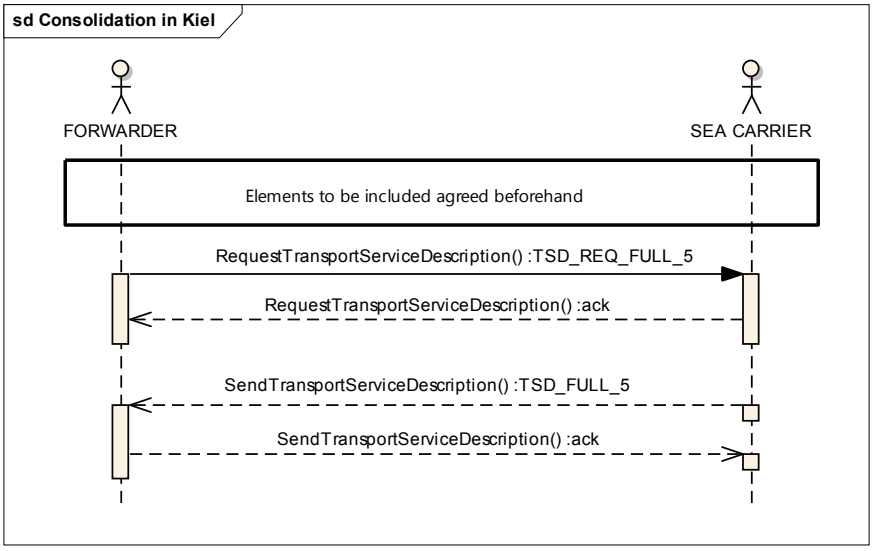


Figure 23: Transport Service Description message exchange in consolidation and maritime transport from Kiel to Oslo sub-scenario

3.2.3.1 Transport Service Description Request message

In this case it is assumed that the SEA CARRIER provides the container the pallets will be consolidated into.

The `TransportationService` element specifies by the `TransportServiceCode` that this is a consolidation service (code value 5 is 'consolidation' in the `TransportServiceCode` code list (see Annex C). In addition this is explained in the `TransportationServiceDescription` free-text element. The pallets to be consolidated into the container are then described in the six `TransportEquipment` elements. At this point there is no need for specific details related to the cargo (e.g. identifiers, cargo owners, etc.) since this is only a service announcement stage, this kind of details will be exchanged in the transport booking phase. But it must be enough details in order for the SEA CARRIER to calculate freight charges.

In order to specify where and when the consolidation should take place a `TransportEvent` element is included containing the `TransportEventTypeCode` element (see Annex C for code list values), a `Location` element and a `Period` element.

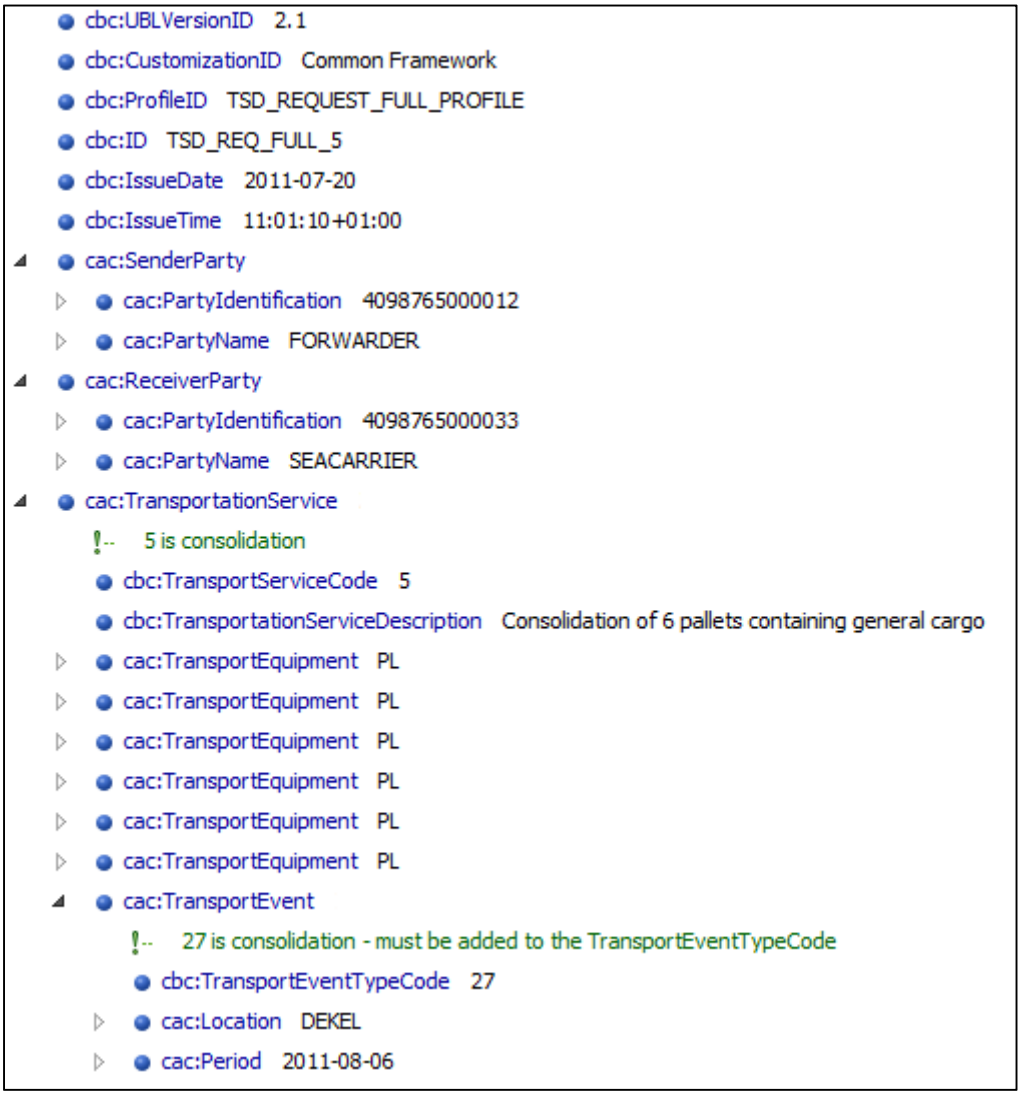


Figure 24: Transport Service Description Request for consolidation service from FORWARDER to SEA CARRIER

3.2.3.2 Transport Service Description Response message

In the Transport Service Description which is sent as a response from the SEA CARRIER to the FORWARDER, the consolidation charges have been defined and the timing at which the consolidation service may take place is specified. Also the period in which the service announcement is valid is included in the `ValidityPeriod` element.

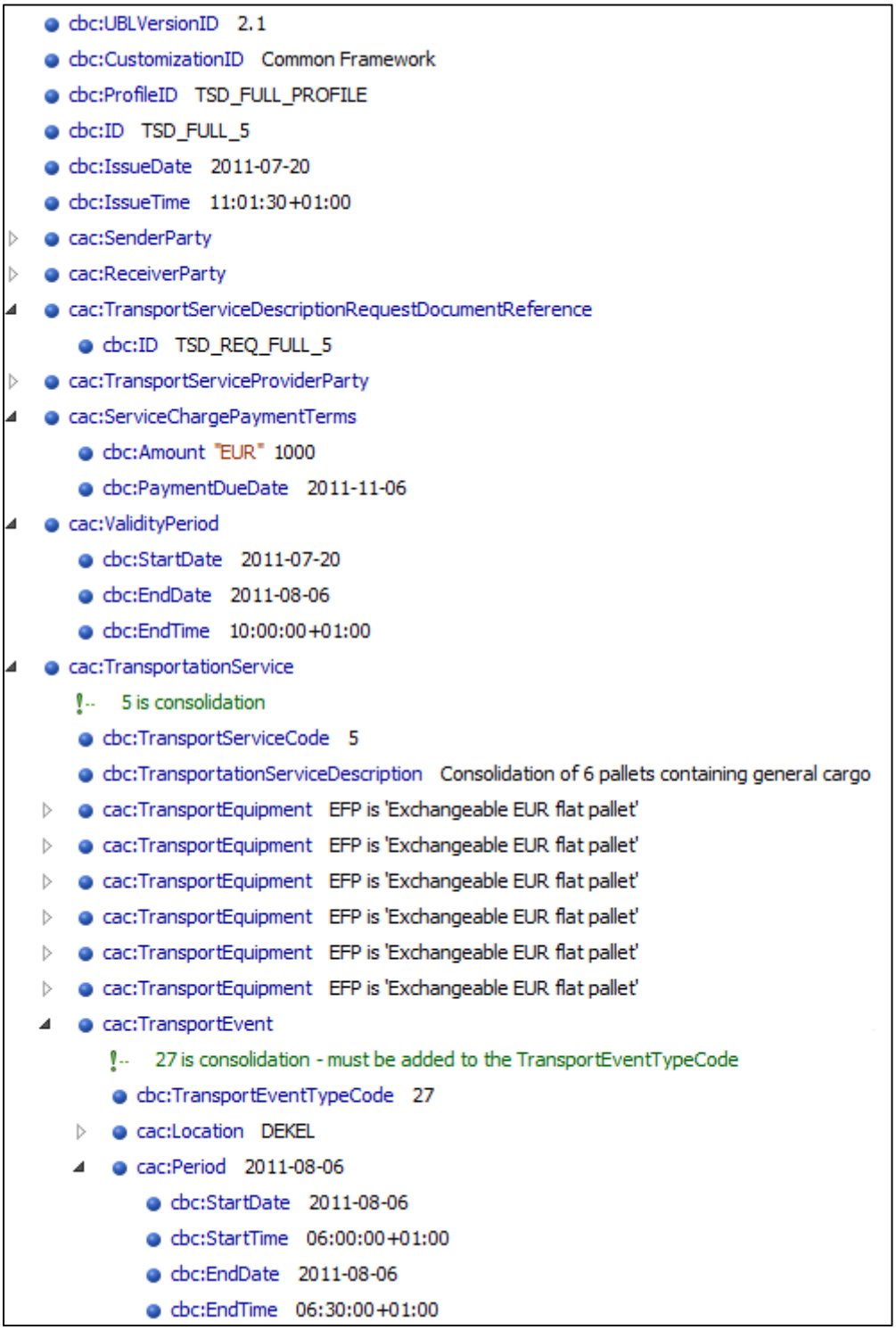


Figure 25: Transport Service Description for consolidation service from FORWARDER to SEA CARRIER

3.2.4 De-consolidation service

In this sub-scenario the FORWARDER will arrange for the de-consolidation of the pallets from the container. The service will be performed by the TERMINAL OPERATOR. The FORWARDER issues a Transport Service Description Request to the TERMINAL OPERATOR requesting for details related to such a service. The De-consolidation service uses the Full Profile of the Transport Service Description.

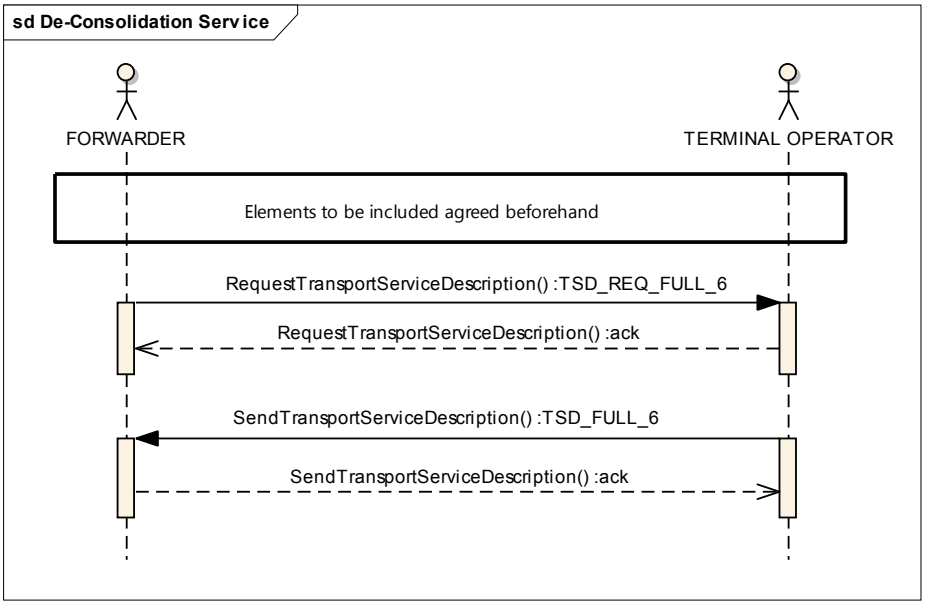


Figure 26: Transport Service Description message exchange in de-consolidation Service

3.2.4.1 Transport Service Description Request message

The request message contains details about the pallets to be unloaded from the container. In order to specify a service the TERMINAL OPERATOR needs to know which type of equipment he will be handling (Euro pallets in this case), the weight and dimensions of the equipment and when and where the service should take place. Based on this information he should be able to decide if he is capable of performing such a service and also calculate a rate for the service.

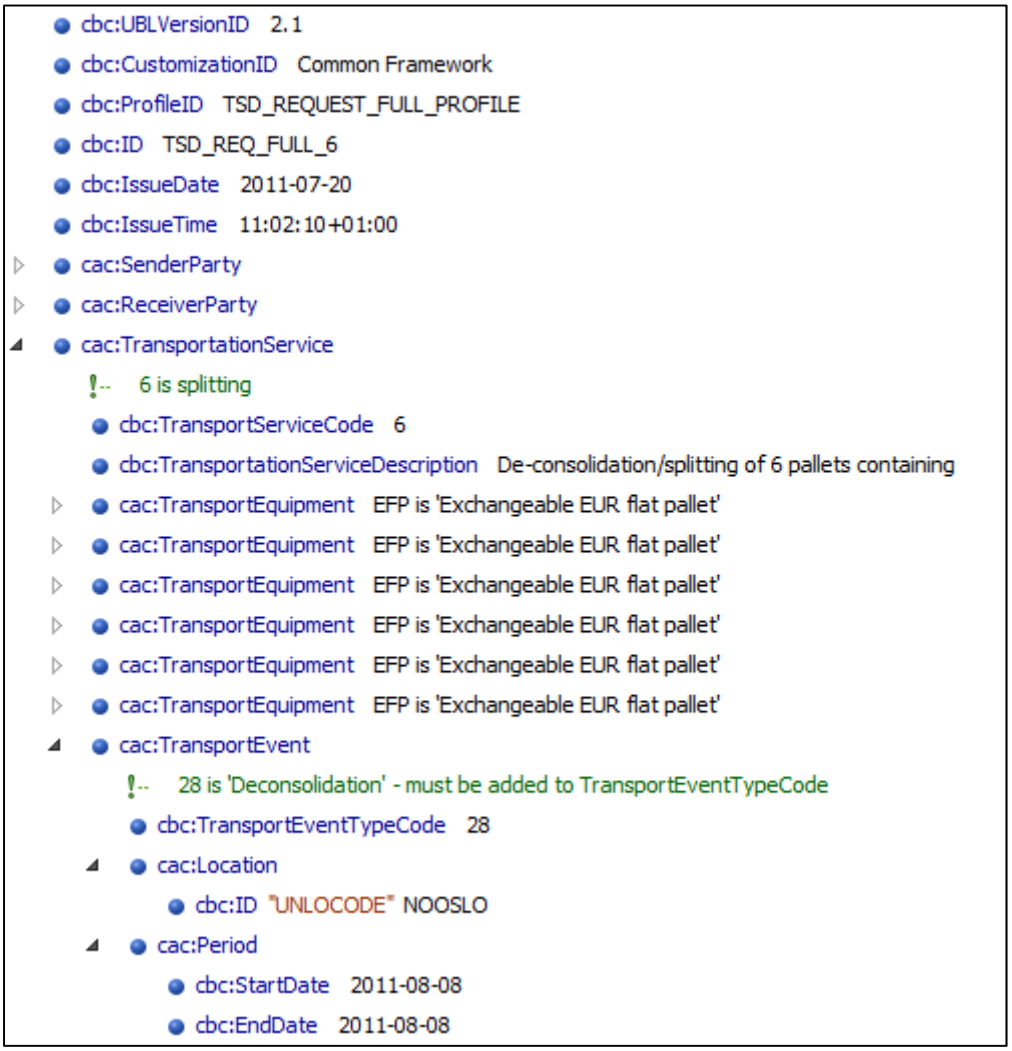


Figure 27: Transport Service Description Request message for de-consolidation

3.2.4.2 Transport Service Description Response message

In the response message, the TERMINAL OPERATOR includes a service charge, a validity period for the service announcement as well as details related to deconsolidation to be performed.

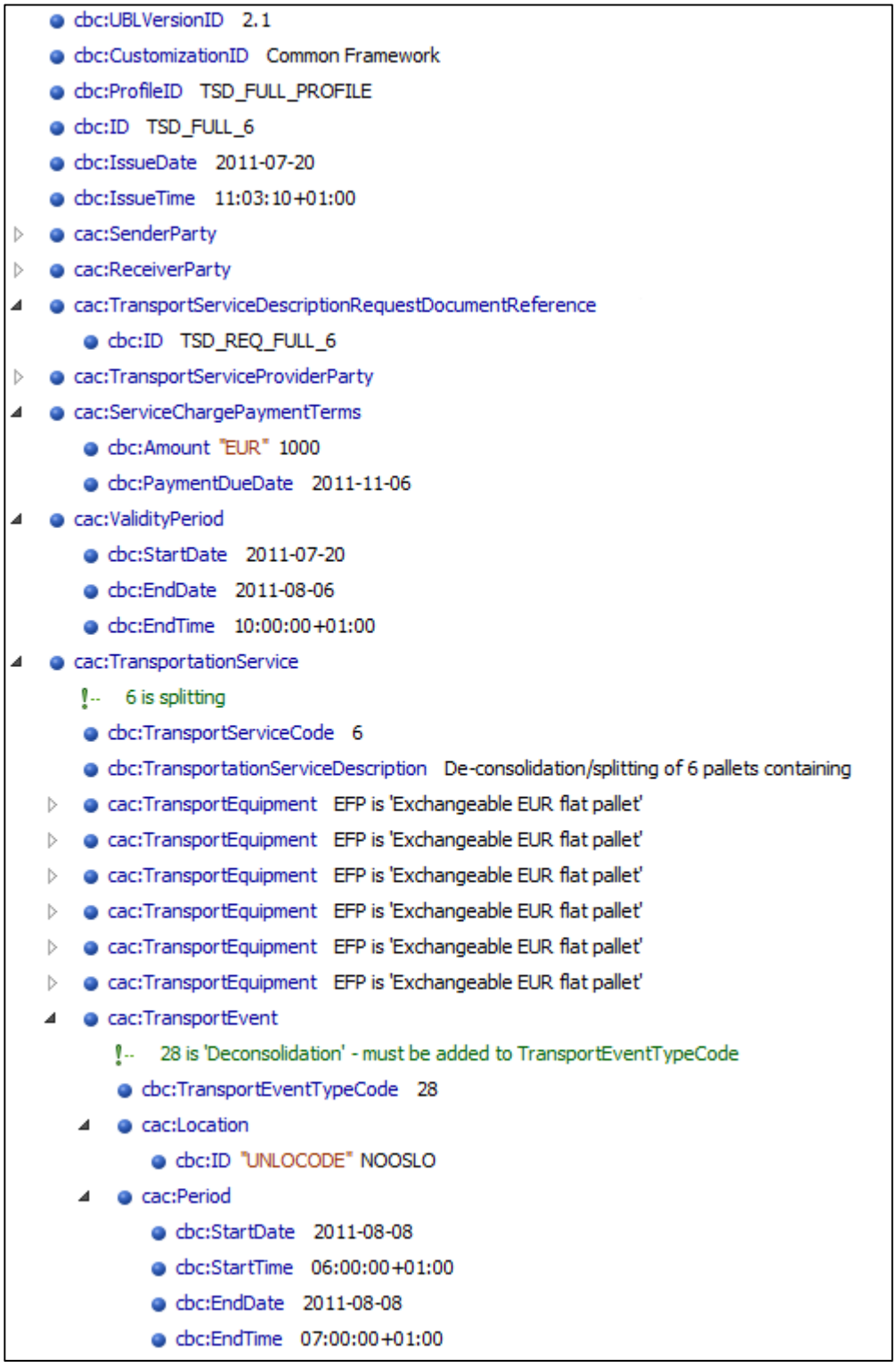


Figure 28: Transport Service Description message for de-consolidation

3.2.5 Customs service

CONSIGNEE 2 will in this sub-scenario request for a service announcement related to the import declaration of the three pallets containing pharmaceutical products through a third-party which will handle the

communication with the customs office. The TERMINAL OPERATOR will perform the services required in order to clear the goods on behalf of CONSIGNEE 2 and will fulfill the customs duties required by the customs office in Oslo. In order make the arrangements CONSIGNEE 2 issues a Transport Service Description Request to the TERMINAL OPERATOR indicating that a customs brokering service is required as well as some details related to the trade items being subject to declaration. This scenario is using the Full Profile of the Transport Service Description. Since this scenario is using the Full Profile of the Transport Service Description it is assumed that the parties have agreed element usage beforehand.

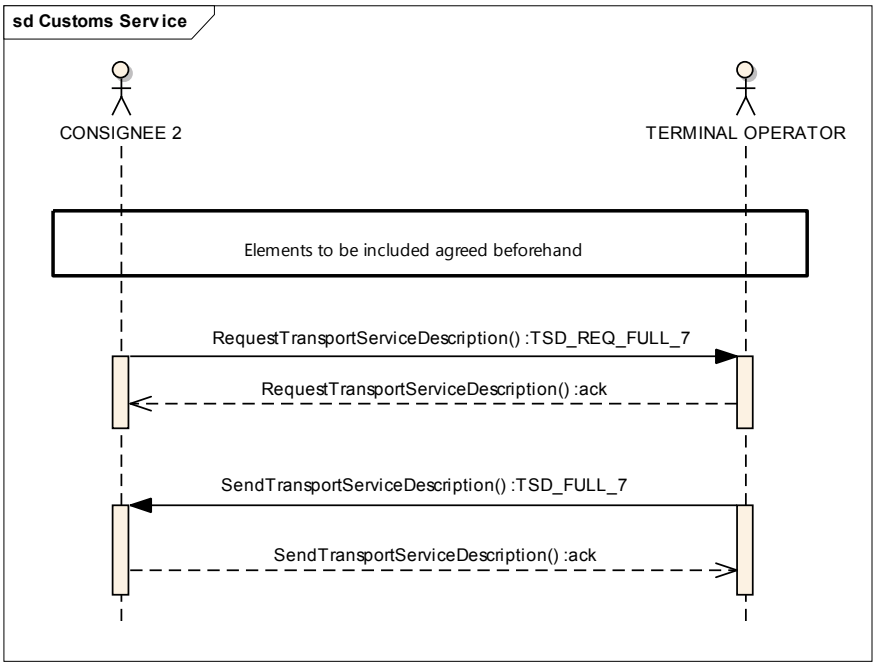


Figure 29: Transport Service Description message exchange in Customs Service

3.2.5.1 Transport Service Description Request message

In the request for the customs brokering service, CONSIGNEE 2 adds some additional details related to the items to be cleared in Oslo. Supposedly TERMINAL OPERATOR would like to know which type of cargo he is requested to broker in case special requirements apply (e.g. dangerous goods, food and veterinary, etc.). The request also includes details related to the arrival of the goods, when the customs brokering has to take place, and how the cargo is packaged (on pallets). Note that further details (for example according to the Single Administrative Document (SAD) or national guidelines) about the shipment must be added in the booking of the service, this is only to request for the customs brokering service offering.

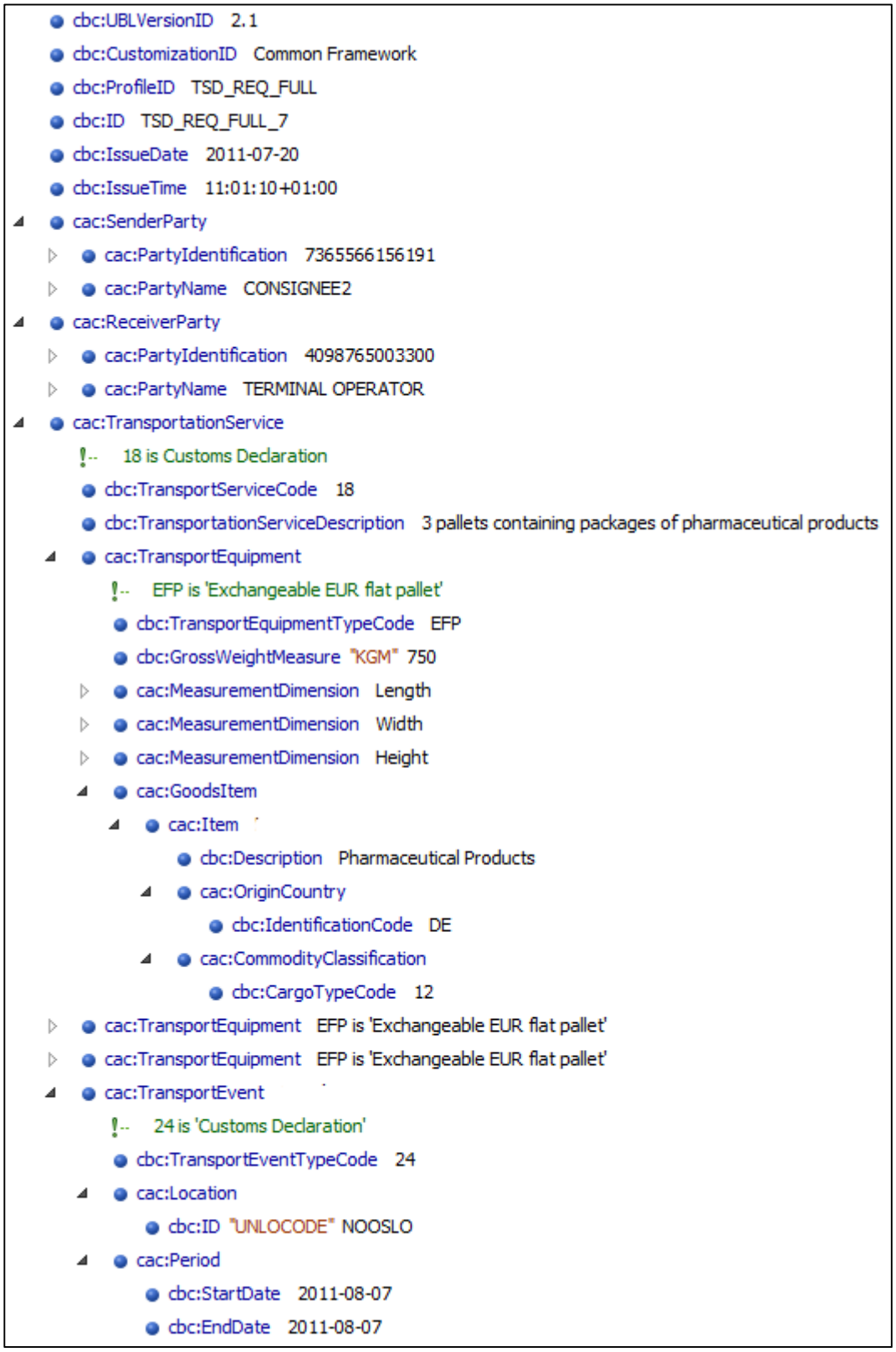


Figure 30: Transport Service Description Request message for customs service

3.2.5.2 Transport Service Description Response message

In the Transport Service Description TERMINAL OPERATOR confirms that he can offer a customs brokering service as requested. Details related to the charge of the service are added.

Figure 31: Transport Service Description message for customs service

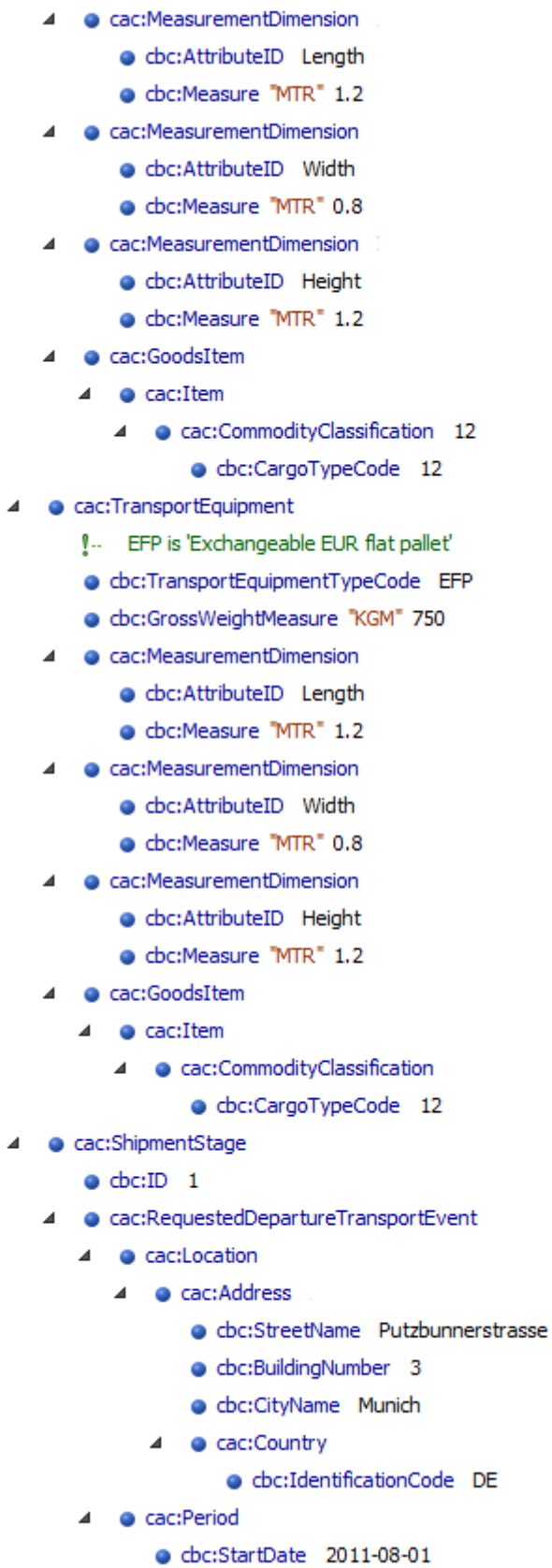
Annex A. Transport Service Description XML Examples

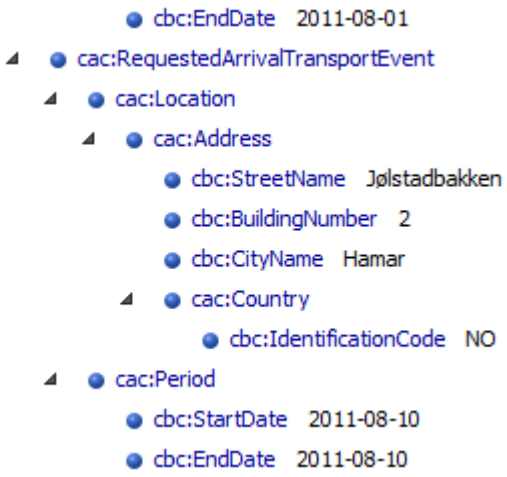
This annex includes a view of all XMLs from the scenarios described in the implementation guide. For the sake of readability the XMLs are shown using an outline view.

A.1. Complete D2D service from Munich to Hamar

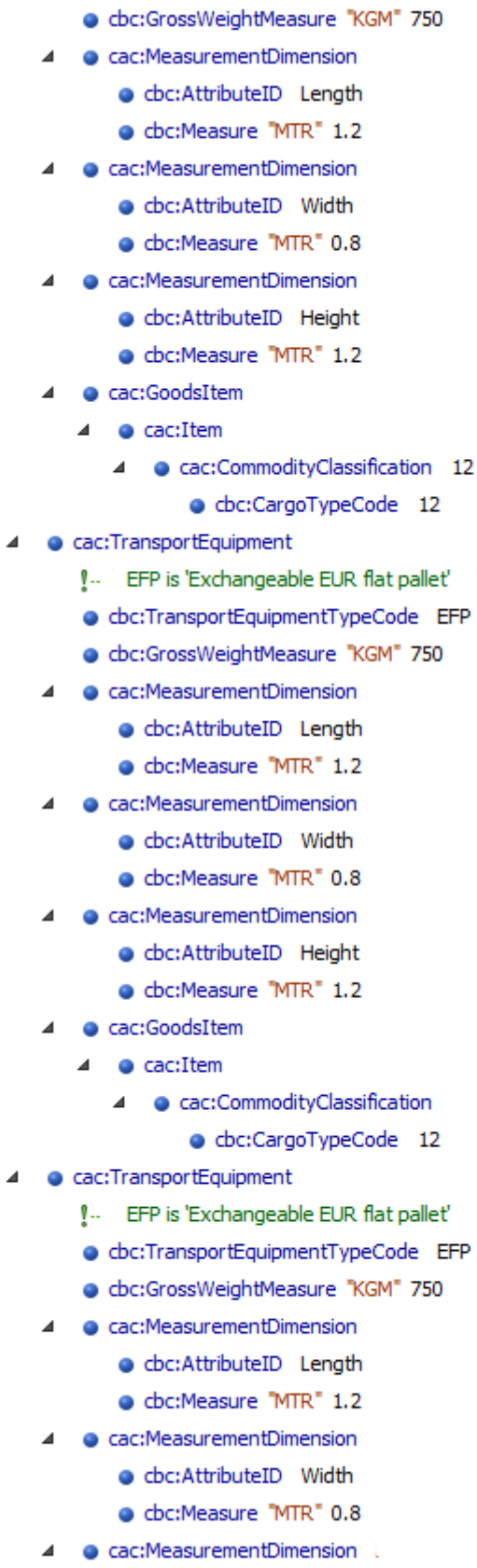
Transport Service Description Request

- ns2:TransportServiceDescriptionRequest "http://www.w3.org/2001/XMLSchema-instance" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_REQUEST_FULL_PROFILE
  - cbc:ID TSD_REQ_FULL_1
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:01:10+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 7365566156191
    - cac:PartyName
      - cbc:Name CONSIGNEE2
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000012
    - cac:PartyName
      - cbc:Name FORWARDER
  - cac:TransportationService
    - <!-- 3 is Transport
    - cbc:TransportServiceCode 3
    - cbc:TransportationServiceDescription 3 pallets containing packages of pharmaceutical products
    - cac:TransportEquipment
      - <!-- EFP is 'Exchangeable EUR flat pallet'
      - cbc:TransportEquipmentTypeCode EFP
      - cbc:GrossWeightMeasure "KGM" 750
      - cac:MeasurementDimension
        - cbc:AttributeID Length
        - cbc:Measure "MTR" 1.2
      - cac:MeasurementDimension
        - cbc:AttributeID Width
        - cbc:Measure "MTR" 0.8
      - cac:MeasurementDimension
        - cbc:AttributeID Height
        - cbc:Measure "MTR" 1.2
      - cac:GoodsItem
        - cac:Item
          - cac:CommodityClassification 12
            - cbc:CargoTypeCode 12
    - cac:TransportEquipment
      - <!-- EFP is 'Exchangeable EUR flat pallet'
      - cbc:TransportEquipmentTypeCode EFP
      - cbc:GrossWeightMeasure "KGM" 750


cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification 12
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:ShipmentStage
cbc:ID 1
cac:RequestedDepartureTransportEvent
cac:Location
cac:Address
cbc:StreetName Putzbunnerstrasse
cbc:BuildingNumber 3
cbc:CityName Munich
cac:Country
cbc:IdentificationCode DE
cac:Period
cbc:StartDate 2011-08-01


cbc:EndDate 2011-08-01
cac:RequestedArrivalTransportEvent
cac:Location
cac:Address
cbc:StreetName Jølstadbakken
cbc:BuildingNumber 2
cbc:CityName Hamar
cac:Country
cbc:IdentificationCode NO
cac:Period
cbc:StartDate 2011-08-10
cbc:EndDate 2011-08-10

Transport Service Description


cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification 12
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension

- cbc:AttributeID Height
- cbc:Measure "MTR" 1.2
- cac:GoodsItem
  - cac:Item
    - cac:CommodityClassification
      - cbc:CargoTypeCode 12
- cac:ShipmentStage
  - cbc:ID 1
  - cac:PlannedDepartureTransportEvent
    - cac:Location
      - cac:Address
        - cbc:StreetName Putzbunnerstrasse
        - cbc:BuildingNumber 3
        - cbc:CityName Munich
        - cac:Country
          - cbc:IdentificationCode DE
          - cbc:Name Germany
    - cac:Period
      - cbc:StartDate 2011-08-01
      - cbc:StartTime 10:00:10+01:00
      - cbc:EndDate 2011-08-01
      - cbc:EndTime 10:30:10+01:00
  - cac:PlannedArrivalTransportEvent
    - cac:Location
      - cac:Address
        - cbc:StreetName Billwerder
        - cbc:BuildingNumber 24
        - cbc:CityName Hamburg
        - cac:Country
          - cbc:IdentificationCode DE
          - cbc:Name Germany
    - cac:Period
      - cbc:StartDate 2011-08-02
      - cbc:StartTime 18:30:10+01:00
      - cbc:EndDate 2011-08-02
      - cbc:EndTime 19:30:10+01:00
- cac:ShipmentStage
  - cbc:ID 2
  - cac:PlannedDepartureTransportEvent
    - cac:Location
      - cac:Address
        - cbc:StreetName Billwerder

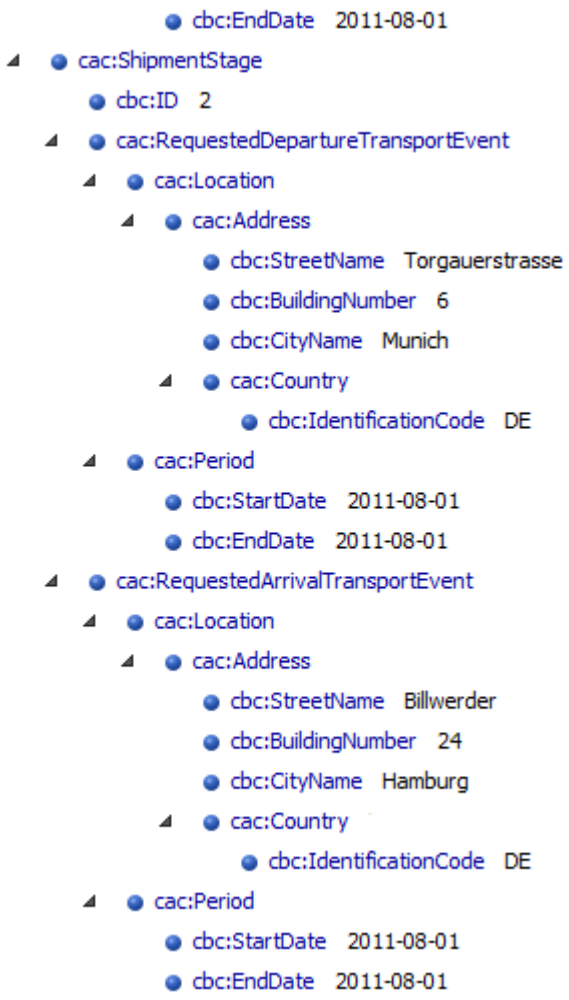
- cbc:BuildingNumber 24
- cbc:CityName Hamburg
- cac:Country
  - cbc:IdentificationCode DE
  - cbc:Name Germany
- cac:Period
  - cbc:StartDate 2011-08-03
  - cbc:StartTime 09:30:10+01:00
  - cbc:EndDate 2011-08-03
  - cbc:EndTime 09:30:10+01:00
- cac:PlannedArrivalTransportEvent
  - cac:Location
    - cbc:ID "UNLOCODE" DEKEL
  - cac:Period
    - cbc:StartDate 2011-08-04
    - cbc:StartTime 15:30:10+01:00
    - cbc:EndDate 2011-08-04
    - cbc:EndTime 18:30:10+01:00
- cac:ShipmentStage
  - cbc:ID 3
  - cac:PlannedDepartureTransportEvent
    - cac:Location
      - cbc:ID "UNLOCODE" DEKEL
    - cac:Period
      - cbc:StartDate 2011-08-06
      - cbc:StartTime 09:30:10+01:00
      - cbc:EndDate 2011-08-06
      - cbc:EndTime 12:30:10+01:00
  - cac:PlannedArrivalTransportEvent
    - cac:Location
      - cbc:ID "UNLOCODE" NOOSLO
    - cac:Period
      - cbc:StartDate 2011-08-07
      - cbc:StartTime 12:30:10+01:00
      - cbc:EndDate 2011-08-07
      - cbc:EndTime 15:30:10+01:00
- cac:ShipmentStage
  - cbc:ID 4
  - cac:PlannedDepartureTransportEvent
    - cac:Location
      - cbc:ID "UNLOCODE" NOOSLO
    - cac:Period

- cbc:StartDate 2011-08-08
- cbc:StartTime 09:30:10+01:00
- cbc:EndDate 2011-08-08
- cbc:EndTime 10:30:10+01:00

- cac:PlannedArrivalTransportEvent
  - cac:Location
    - cac:Address
      - cbc:StreetName Jølstadbakken
      - cbc:BuildingNumber 2
      - cbc:CityName Hamar
      - cac:Country
        - cbc:IdentificationCode NO
  - cac:Period
    - cbc:StartDate 2011-08-08
    - cbc:StartTime 15:00:10+01:00
    - cbc:EndDate 2011-08-08
    - cbc:EndTime 15:30:10+01:00

A.2. Road transport service from Munich to Hamar

Transport Service Description Request


cbc:EndDate 2011-08-01
cac:ShipmentStage
cbc:ID 2
cac:RequestedDepartureTransportEvent
cac:Location
cac:Address
cbc:StreetName Torgauerstrasse
cbc:BuildingNumber 6
cbc:CityName Munich
cac:Country
cbc:IdentificationCode DE
cac:Period
cbc:StartDate 2011-08-01
cbc:EndDate 2011-08-01
cac:RequestedArrivalTransportEvent
cac:Location
cac:Address
cbc:StreetName Billwerder
cbc:BuildingNumber 24
cbc:CityName Hamburg
cac:Country
cbc:IdentificationCode DE
cac:Period
cbc:StartDate 2011-08-01
cbc:EndDate 2011-08-01

Transport Service Description

- ns2:TransportServiceDescription "http://www.w3.org/2001/XMLSchema-instance" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_RESP_CORE
  - cbc:ID TSD_RESP_2
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:12:10+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000013
    - cac:PartyName
      - cbc:Name ROAD CARRIER 1
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000012
    - cac:PartyName
      - cbc:Name FORWARDER
  - cac:TransportServiceDescriptionRequestDocumentReference
    - cbc:ID TSD_REQ_2
  - cac:ServiceChargePaymentTerms
    - cbc:Amount "EUR" 1000
  - cac:TransportationService
    - cbc:TransportServiceCode 3
    - cac:ShipmentStage
      - cbc:ID 1
      - cac:PlannedDepartureTransportEvent
        - cac:Location
          - cac:Address
            - cbc:StreetName Putzbunnerstrasse
            - cbc:BuildingNumber 3
            - cbc:CityName Munich
            - cac:Country
              - cbc:IdentificationCode DE
        - cac:Period
          - cbc:StartDate 2011-08-01
          - cbc:StartTime 11:00:00+01:00
          - cbc:EndDate 2011-08-01
          - cbc:EndTime 11:30:00+01:00
      - cac:PlannedArrivalTransportEvent
        - cac:Location
          - cac:Address
            - cbc:StreetName Billwerder

- cbc:BuildingNumber 24
- cbc:CityName Hamburg
- cac:Country
  - cbc:IdentificationCode DE
- cac:Period
  - cbc:StartDate 2011-08-01
  - cbc:StartTime 18:00:00+01:00
  - cbc:EndDate 2011-08-01
  - cbc:EndTime 18:30:00+01:00

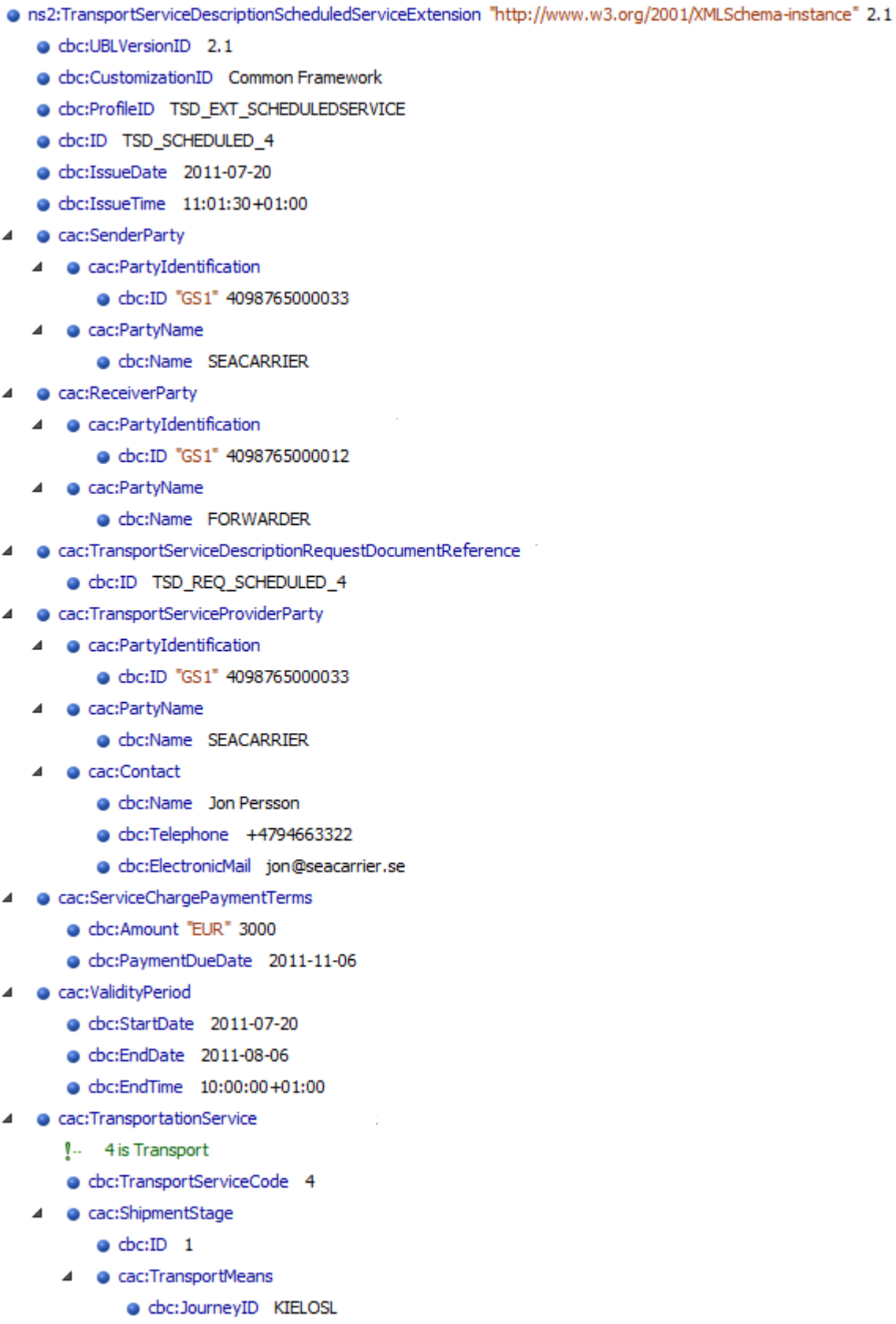
- cac:ShipmentStage
  - cbc:ID 2
  - cac:PlannedDepartureTransportEvent
    - cac:Location
      - cac:Address
        - cbc:StreetName Torgauerstrasse
        - cbc:BuildingNumber 6
        - cbc:CityName Munich
        - cac:Country
          - cbc:IdentificationCode DE
    - cac:Period
      - cbc:StartDate 2011-08-01
      - cbc:StartTime 11:30:00+01:00
      - cbc:EndDate 2011-08-01
      - cbc:EndTime 12:00:00+01:00
  - cac:PlannedArrivalTransportEvent
    - cac:Location
      - cac:Address
        - cbc:StreetName Billwerder
        - cbc:BuildingNumber 24
        - cbc:CityName Hamburg
        - cac:Country
          - cbc:IdentificationCode DE
    - cac:Period
      - cbc:StartDate 2011-08-01
      - cbc:StartTime 18:00:00+01:00
      - cbc:EndDate 2011-08-01
      - cbc:EndTime 18:30:00+01:00

A.3. Maritime Transport from Kiel to Oslo

Transport Service Description Request

```
ns2:TransportServiceDescriptionRequestScheduledServiceExtension "http://www.w3.org/2001/XMLSchema-instance" 2.1
    cbc:UBLVersionID 2.1
    cbc:CustomizationID Common Framework
    cbc:ProfileID TSD_REQUEST_SCHEDULEDSERVICE_EXTENSION
    cbc:ID TSD_REQ_SCHEDULED_4
    cbc:IssueDate 2011-07-20
    cbc:IssueTime 11:01:10+01:00
    cac:SenderParty
        cac:PartyIdentification
            cbc:ID "GS1" 4098765000012
        cac:PartyName
            cbc:Name FORWARDER
    cac:ReceiverParty
        cac:PartyIdentification
            cbc:ID "GS1" 4098765000033
        cac:PartyName
            cbc:Name SEACARRIER
    cac:TransportationService 3 is Transport
        !-- 3 is Transport
        cbc:TransportServiceCode 3
        cac:ShipmentStage
            cbc:ID 1
            cac:RequestedDepartureTransportEvent
                cac:Location
                    cbc:ID "UNLOCODE" DEKEL
                cac:Period
                    cbc:StartDate 2011-08-06
                    cbc:EndDate 2011-08-06
            cac:RequestedArrivalTransportEvent
                cac:Location
                    cbc:ID "UNLOCODE" NOOSLO
                cac:Period
                    cbc:StartDate 2011-08-07
                    cbc:EndDate 2011-08-07
```

Transport Service Description



- cac:MaritimeTransport
  - cbc:VesselID 123
  - cbc:VesselName Stena Germanica
- cac:PlannedDepartureTransportEvent
  - cac:Location
    - cbc:ID "UNLOCODE" DEKEL
  - cac:Period
    - cbc:StartDate 2011-08-06
    - cbc:StartTime 11:00:00+01:00
    - cbc:EndDate 2011-08-06
    - cbc:EndTime 11:00:00+01:00
- cac:PlannedArrivalTransportEvent
  - cac:Location
    - cbc:ID "UNLOCODE" NOOSLO
  - cac:Period
    - cbc:StartDate 2011-08-06
    - cbc:StartTime 21:00:00+01:00
    - cbc:EndDate 2011-08-06
    - cbc:EndTime 21:00:00+01:00
- cac:ScheduledServiceFrequency
  - cbc:WeekDayCode 1
- cac:ScheduledServiceFrequency
  - cbc:WeekDayCode 3
- cac:ScheduledServiceFrequency
  - cbc:WeekDayCode 5

A.4. Consolidation Service in Kiel

Transport Service Description Request

- ns2:TransportServiceDescriptionRequest "http://www.w3.org/2001/XMLSchema-instance" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_REQUEST_FULL_PROFILE
  - cbc:ID TSD_REQ_FULL_5
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:01:10+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000012
    - cac:PartyName
      - cbc:Name FORWARDER
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000033
    - cac:PartyName
      - cbc:Name SEACARRIER
  - cac:TransportationService
    - <!-- 6 is consolidation
    - cbc:TransportServiceCode 6
    - cbc:TransportationServiceDescription Consolidation of 6 pallets containing general cargo
    - cac:TransportEquipment
      - cbc:TransportEquipmentTypeCode PL
      - cac:MeasurementDimension
        - cbc:AttributeID Length
        - cbc:Measure "MTR" 1.2
      - cac:MeasurementDimension
        - cbc:AttributeID Width
        - cbc:Measure "MTR" 0.8
      - cac:MeasurementDimension
        - cbc:AttributeID Height
        - cbc:Measure "MTR" 1.2
      - cac:GoodsItem
        - cac:Item
          - cac:CommodityClassification
            - cbc:CargoTypeCode 12
    - cac:TransportEquipment
      - cbc:TransportEquipmentTypeCode PL
      - cac:MeasurementDimension
        - cbc:AttributeID Length
        - cbc:Measure "MTR" 1.2
      - cac:MeasurementDimension

- cbc:AttributeID Width
- cbc:Measure "MTR" 0.8
- cac:MeasurementDimension
  - cbc:AttributeID Height
  - cbc:Measure "MTR" 1.2
- cac:GoodsItem
  - cac:Item
    - cac:CommodityClassification
      - cbc:CargoTypeCode 12

- cac:TransportEquipment
  - cbc:TransportEquipmentTypeCode PL
  - cac:MeasurementDimension
    - cbc:AttributeID Length
    - cbc:Measure "MTR" 1.2
  - cac:MeasurementDimension
    - cbc:AttributeID Width
    - cbc:Measure "MTR" 0.8
  - cac:MeasurementDimension
    - cbc:AttributeID Height
    - cbc:Measure "MTR" 1.2
  - cac:GoodsItem
    - cac:Item
      - cac:CommodityClassification
        - cbc:CargoTypeCode 12
- cac:TransportEquipment
  - cbc:TransportEquipmentTypeCode PL
  - cac:MeasurementDimension
    - cbc:AttributeID Length
    - cbc:Measure "MTR" 1.2
  - cac:MeasurementDimension
    - cbc:AttributeID Width
    - cbc:Measure "MTR" 0.8
  - cac:MeasurementDimension
    - cbc:AttributeID Height
    - cbc:Measure "MTR" 1.2
  - cac:GoodsItem
    - cac:Item
      - cac:CommodityClassification
        - cbc:CargoTypeCode 12
- cac:TransportEquipment .
  - cbc:TransportEquipmentTypeCode PL
  - cac:MeasurementDimension

- cbc:AttributeID Length
- cbc:Measure "MTR" 1.2
- cac:MeasurementDimension
  - cbc:AttributeID Width
  - cbc:Measure "MTR" 0.8
- cac:MeasurementDimension
  - cbc:AttributeID Height
  - cbc:Measure "MTR" 1.2
- cac:GoodsItem
  - cac:Item
    - cac:CommodityClassification
      - cbc:CargoTypeCode 12

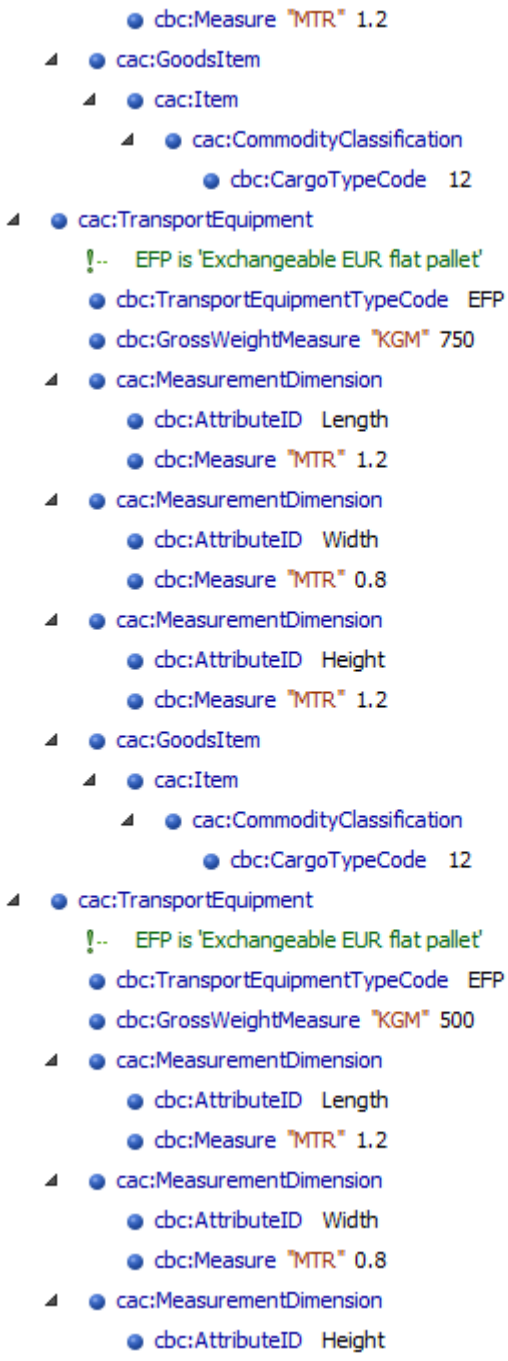
- cac:TransportEquipment
  - cbc:TransportEquipmentTypeCode PL
  - cac:MeasurementDimension
    - cbc:AttributeID Length
    - cbc:Measure "MTR" 1.2
  - cac:MeasurementDimension
    - cbc:AttributeID Width
    - cbc:Measure "MTR" 0.8
  - cac:MeasurementDimension
    - cbc:AttributeID Height
    - cbc:Measure "MTR" 1.2
  - cac:GoodsItem
    - cac:Item
      - cac:CommodityClassification
        - cbc:CargoTypeCode 12

- cac:TransportEvent
  - !-- 27 is consolidation - must be added to the TransportEventTypeCode
  - cbc:TransportEventTypeCode 27
  - cac:Location
    - cbc:ID "UNLOCODE" DEKEL
  - cac:Period
    - cbc:StartDate 2011-08-06
    - cbc:EndDate 2011-08-06

Transport Service Description

- ns2:TransportServiceDescription "http://www.w3.org/2001/XMLSchema-instance" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_FULL_PROFILE
  - cbc:ID TSD_FULL_5
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:01:30+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000033
    - cac:PartyName
      - cbc:Name SEACARRIER
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000012
    - cac:PartyName
      - cbc:Name FORWARDER
  - cac:TransportServiceDescriptionRequestDocumentReference
    - cbc:ID TSD_REQ_FULL_5
  - cac:TransportServiceProviderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000033
    - cac:PartyName
      - cbc:Name SEACARRIER
    - cac:Contact
      - cbc:Name Jon Persson
      - cbc:Telephone +4794663322
      - cbc:ElectronicMail jon@seacarrier.se
  - cac:ServiceChargePaymentTerms
    - cbc:Amount "EUR" 1000
    - cbc:PaymentDueDate 2011-11-06
  - cac:ValidityPeriod
    - cbc:StartDate 2011-07-20
    - cbc:EndDate 2011-08-06


cbc:EndTime 10:00:00+01:00
cac:TransportationService
6 is consolidation
cbc:TransportServiceCode 6
cbc:TransportationServiceDescription Consolidation of 6 pallets containing general cargo
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height


cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
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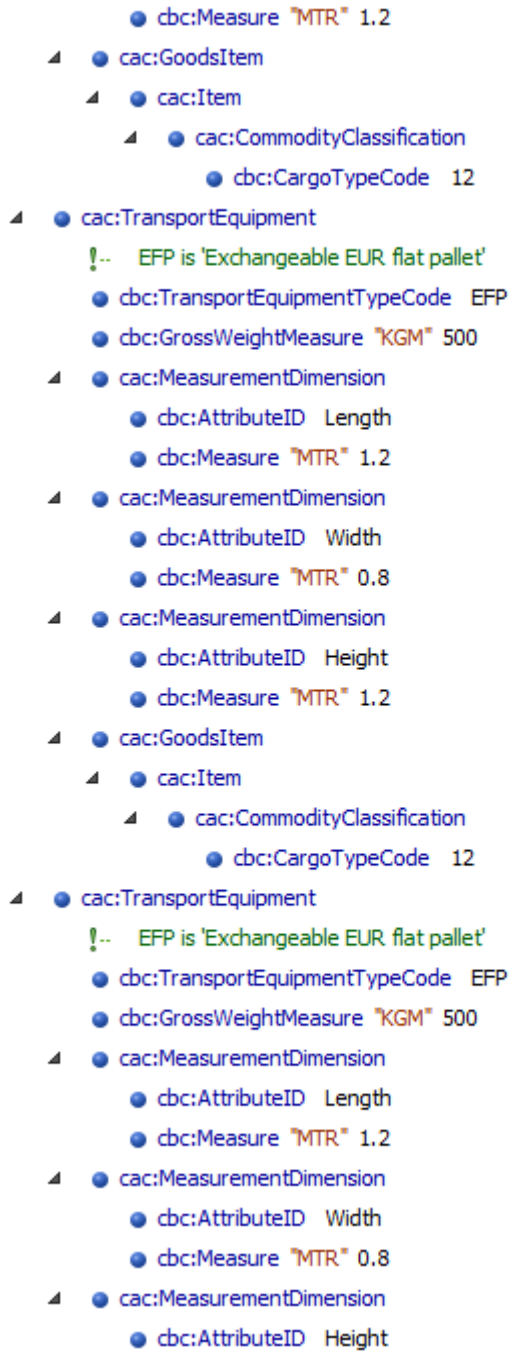
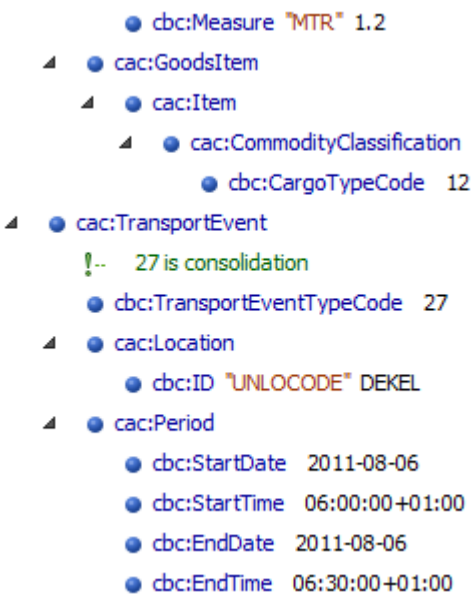
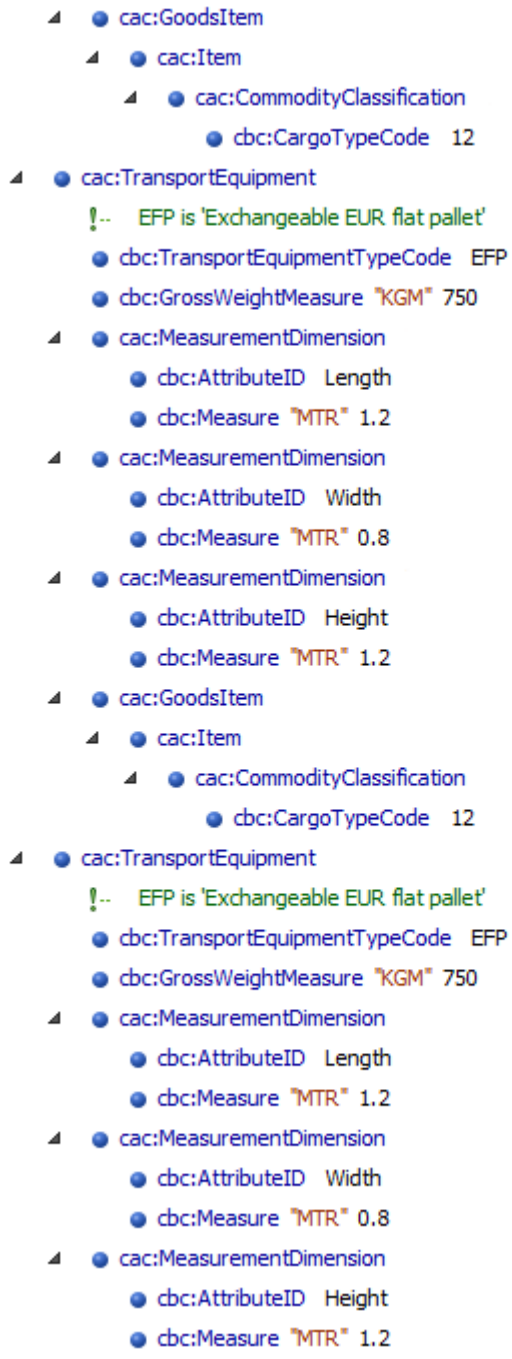

cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height

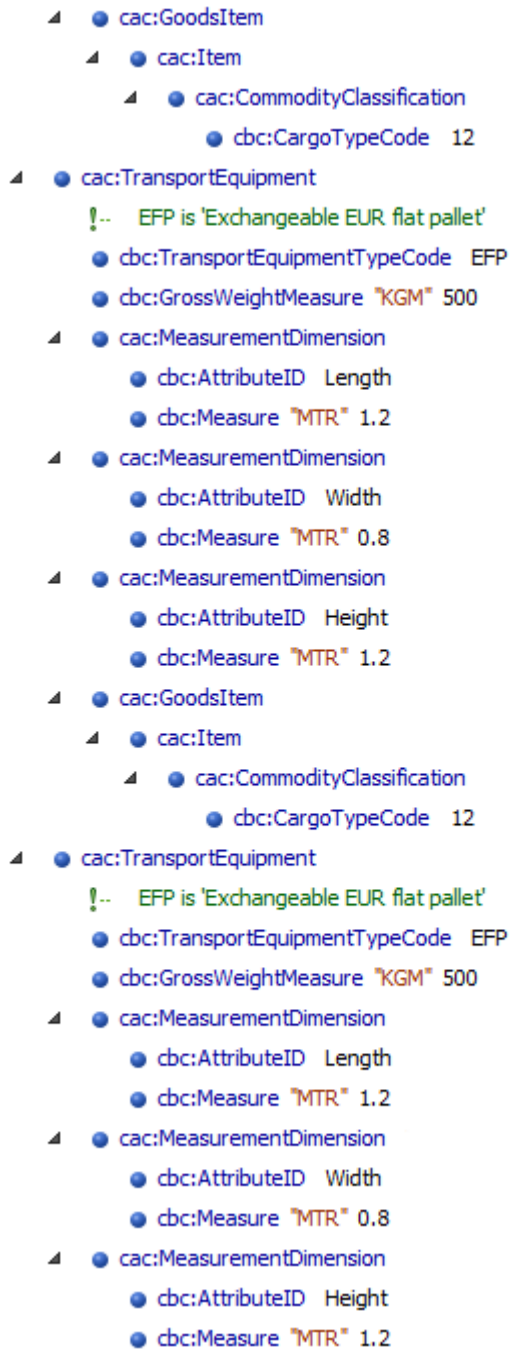

cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEvent
-- 27 is consolidation
cbc:TransportEventTypeCode 27
cac:Location
cbc:ID "UNLOCODE" DEKEL
cac:Period
cbc:StartDate 2011-08-06
cbc:StartTime 06:00:00+01:00
cbc:EndDate 2011-08-06
cbc:EndTime 06:30:00+01:00

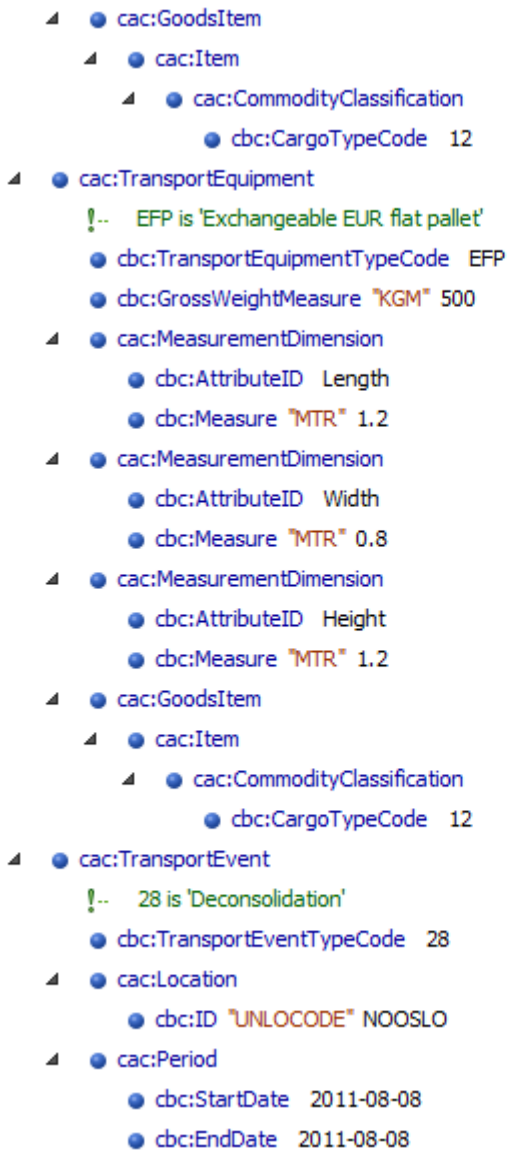
A.5. De-consolidation Service in Oslo

Transport Service Description Request

- ns2:TransportServiceDescriptionRequest "http://www.w3.org/2001/XMLSchema-instance" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_REQUEST_FULL_PROFILE
  - cbc:ID TSD_REQ_FULL_6
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:02:10+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765000012
    - cac:PartyName
      - cbc:Name FORWARDER
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765003300
    - cac:PartyName
      - cbc:Name TERMINAL OPERATOR
  - cac:TransportationService
    - <!-- 7 is splitting
    - cbc:TransportServiceCode 7
    - cbc:TransportationServiceDescription De-consolidation/splitting of 6 pallets containing
    - cac:TransportEquipment
      - <!-- EFP is 'Exchangeable EUR flat pallet'
      - cbc:TransportEquipmentTypeCode EFP
      - cbc:GrossWeightMeasure "KGM" 750
      - cac:MeasurementDimension
        - cbc:AttributeID Length
        - cbc:Measure "MTR" 1.2
      - cac:MeasurementDimension
        - cbc:AttributeID Width
        - cbc:Measure "MTR" 0.8
      - cac:MeasurementDimension
        - cbc:AttributeID Height
        - cbc:Measure "MTR" 1.2

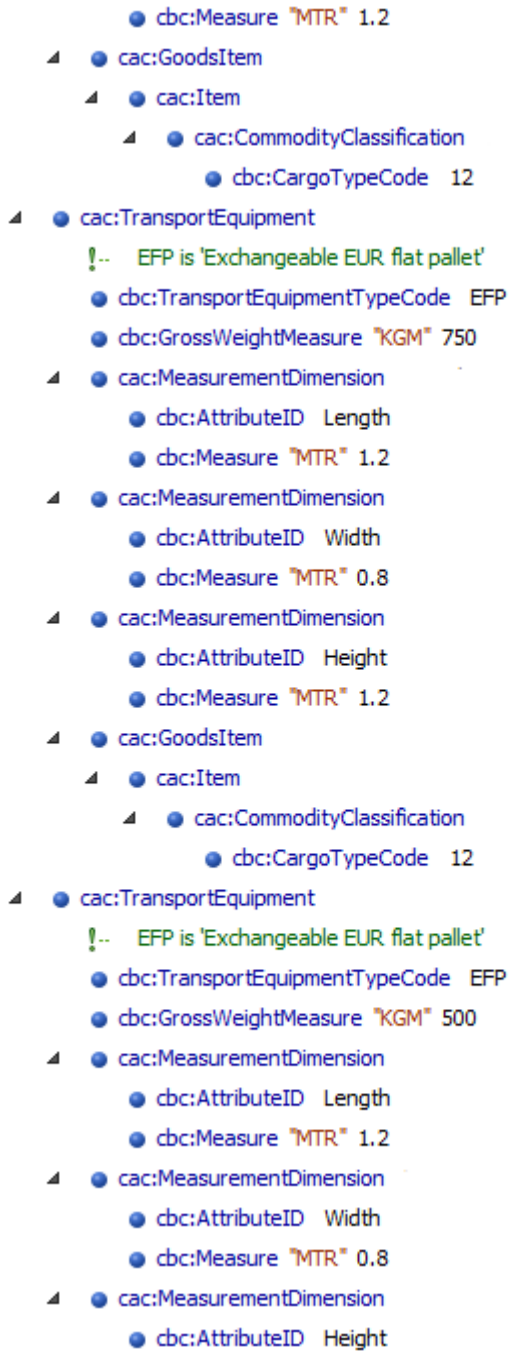

cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2


cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2

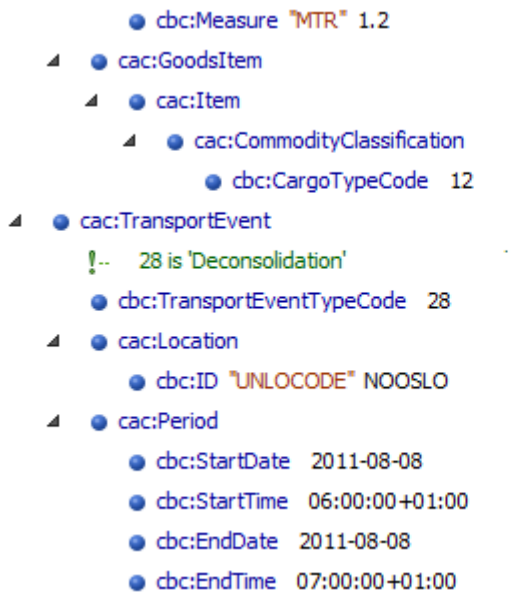

cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEvent
28 is 'Deconsolidation'
cbc:TransportEventTypeCode 28
cac:Location
cbc:ID "UNLOCODE" NOOSLO
cac:Period
cbc:StartDate 2011-08-08
cbc:EndDate 2011-08-08

Transport Service Description


cbc:EndTime 10:00:00+01:00
cac:TransportationService
7 is splitting
cbc:TransportServiceCode 7
cbc:TransportationServiceDescription De-consolidation/splitting of 6 pallets containing
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height

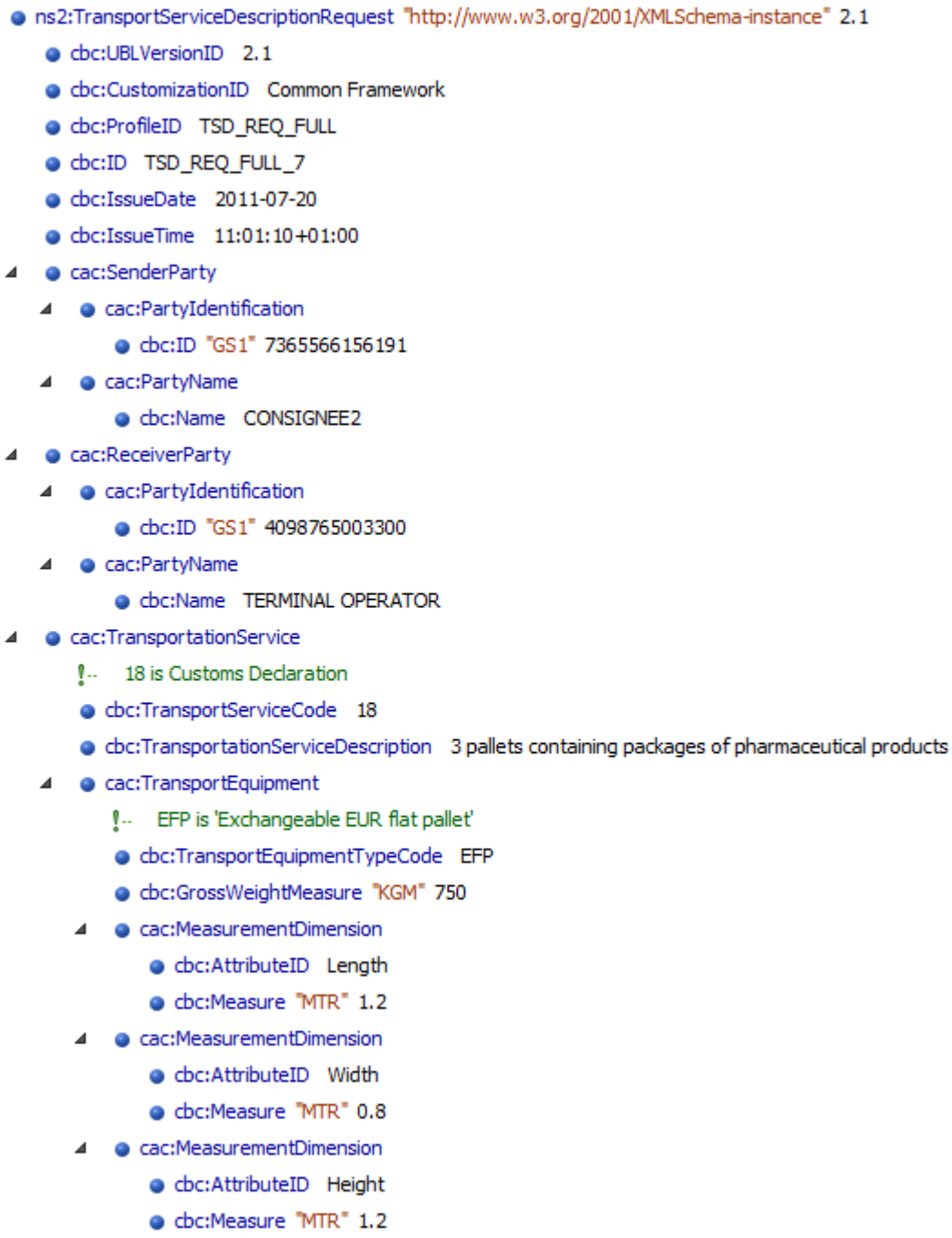

cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height


cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 500
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height

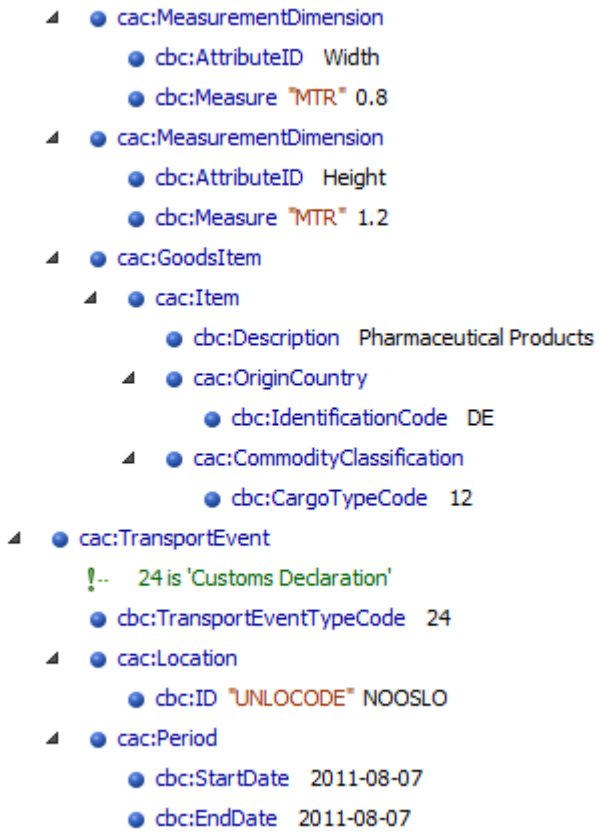

cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEvent
28 is 'Deconsolidation'
cbc:TransportEventTypeCode 28
cac:Location
cbc:ID "UNLOCODE" NOOSLO
cac:Period
cbc:StartDate 2011-08-08
cbc:StartTime 06:00:00+01:00
cbc:EndDate 2011-08-08
cbc:EndTime 07:00:00+01:00

A.6. Customs Service in Oslo

Transport Service Description Request

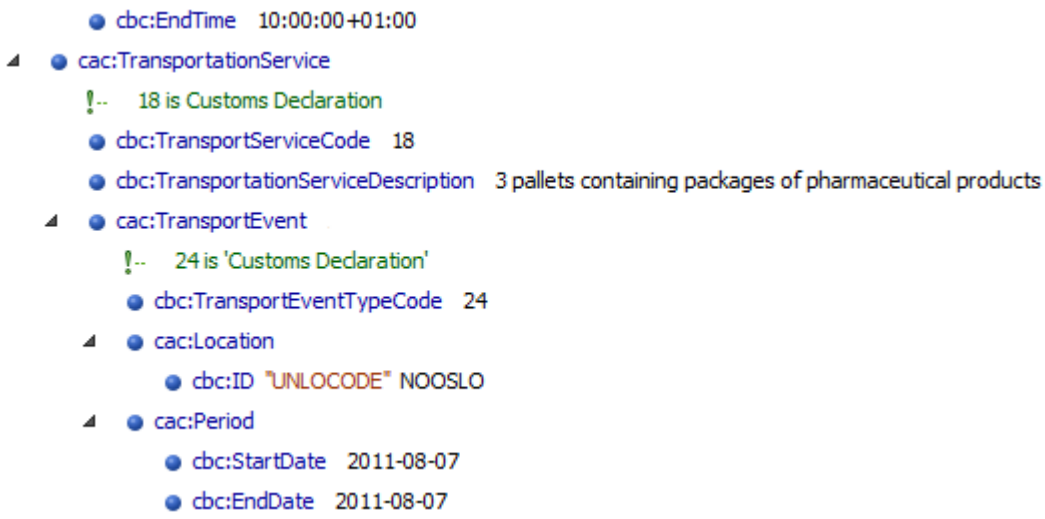



cac:GoodsItem
cac:Item
cbc:Description Pharmaceutical Products
cac:OriginCountry
cbc:IdentificationCode DE
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2
cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cbc:Description Pharmaceutical Products
cac:OriginCountry
cbc:IdentificationCode DE
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEquipment
EFP is 'Exchangeable EUR flat pallet'
cbc:TransportEquipmentTypeCode EFP
cbc:GrossWeightMeasure "KGM" 750
cac:MeasurementDimension
cbc:AttributeID Length
cbc:Measure "MTR" 1.2


cac:MeasurementDimension
cbc:AttributeID Width
cbc:Measure "MTR" 0.8
cac:MeasurementDimension
cbc:AttributeID Height
cbc:Measure "MTR" 1.2
cac:GoodsItem
cac:Item
cbc:Description Pharmaceutical Products
cac:OriginCountry
cbc:IdentificationCode DE
cac:CommodityClassification
cbc:CargoTypeCode 12
cac:TransportEvent
24 is 'Customs Declaration'
cbc:TransportEventTypeCode 24
cac:Location
cbc:ID "UNLOCODE" NOOSLO
cac:Period
cbc:StartDate 2011-08-07
cbc:EndDate 2011-08-07

Transport Service Description

- ns2:TransportServiceDescriptionCoreProfile "urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-2" 2.1
  - cbc:UBLVersionID 2.1
  - cbc:CustomizationID Common Framework
  - cbc:ProfileID TSD_FULL_PROFILE
  - cbc:ID TSD_FULL_7
  - cbc:IssueDate 2011-07-20
  - cbc:IssueTime 11:03:10+01:00
  - cac:SenderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765003300
    - cac:PartyName
      - cbc:Name TERMINAL OPERATOR
  - cac:ReceiverParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 7365566156191
    - cac:PartyName
      - cbc:Name CONSIGNEE2
  - cac:TransportServiceDescriptionRequestDocumentReference
    - cbc:ID TSD_REQ_FULL_7
  - cac:TransportServiceProviderParty
    - cac:PartyIdentification
      - cbc:ID "GS1" 4098765003300
    - cac:PartyName
      - cbc:Name TERMINAL OPERATOR
    - cac:Contact
      - cbc:Name Per Jonsson
      - cbc:Telephone +4794663555
      - cbc:ElectronicMail per@terminaloperator.no
  - cac:ServiceChargePaymentTerms
    - cbc:Amount "EUR" 1000
    - cbc:PaymentDueDate 2011-11-06
  - cac:ValidityPeriod
    - cbc:StartDate 2011-07-20
    - cbc:EndDate 2011-08-06


cbc:EndTime 10:00:00+01:00
cac:TransportationService
18 is Customs Declaration
cbc:TransportServiceCode 18
cbc:TransportationServiceDescription 3 pallets containing packages of pharmaceutical products
cac:TransportEvent
24 is 'Customs Declaration'
cbc:TransportEventTypeCode 24
cac:Location
cbc:ID "UNLOCODE" NOOSLO
cac:Period
cbc:StartDate 2011-08-07
cbc:EndDate 2011-08-07

Annex B. Data types and code lists being used in the messages.

This is an external annex provided in a zip-file. Link to the downloadable file:

http://www.sintef.no/project/META/TSD-AnnexB-DataTypesCodeLists.zip

Annex C. XML Schema files (XSD) and XML example instances.

This is an external annex provided in a zip-file. Link to the downloadable file:

http://www.sintef.no/project/META/TSD-AnnexC-XSDXML.zip

References

1. GS1, *Business Message Standard (BMS) Transport Instruction and Response, BMS Release: 3.0.0, SMG: eCom*. 2011.
2. GS1, *Business Message Standard (BMS) Transport Status Request and Notification, BMS Release: 3.0.0, SMG: eCom*. 2011.
3. OASIS UBL. *Universal Business Language Version 2.1*. 2013; Available from: http://docs.oasis-open.org/ubl/prd3-UBL-2.1/UBL-2.1.html.

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