SDC Use Case A for papiNet®

Notifying one Place of Measuring of a truck delivery with roundwood from one Delivery Origin

Carrier and SDC exchange data about an inbound delivery from one delivery origin that will be measured at one place of measuring.

SDC Use Case ID
A

Date
4 March 2016

Version
3.0

Page
2(21)

Table of Contents

1. Copyright

Copyright 2013 – 2016 SDC ekonomisk förening, which is "Copyright Owner" below. All rights reserved by the Copyright Owner under the laws of the United States, Sweden, the European Economic Community, and all states, domestic and foreign. This document may be downloaded and copied provided that all copies retain and display the copyright and any other proprietary notices contained in this document. This document may not be sold, modified, edited, or taken out of context such that it creates a false or misleading statement or impression as to the purpose or use of the specification. Use of this Standard, in accord with the foregoing limited permission, shall not create for the user any rights in or to the copyright, which rights are exclusively reserved to the Copyright Owner.

SDC, papiNet®, IDEAlliance, and the members of all papiNet Groups (collectively and individually, "Presenters") make no representations or warranties, express or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, title, or non-infringement. The presenters do not make any representation or warranty that the contents of this document are free from error, suitable for any purpose of any user, or that implementation of such contents will not infringe any third party patents, copyrights, trademarks or other rights. By making use of this document, the user assumes all risks and waives all claims against Presenters.

In no event shall Presenters be liable to user (or other person) for direct, indirect, special or consequential damages arising from or related to any use of this document, including, without limitation, lost profits, business interruption, loss of programs, or other data on your information handling system even if Presenters are expressly advised of the possibility of such damages.

Use of Documents in papiNet Implementations
Documents may be used as templates for a papiNet implementation. The Presenters grant the right to modify and edit them to fit an actual implementation project provided all copies display the copyright and any other proprietary notices contained in this document. Such modified documents must not be distributed beyond the trading partners implementing or maintaining a papiNet connection.

2. Document Version History

A change to the version history requires an update of date and version in the page header.

The numbering format is Revision.Version, where Revision is an official document release and Version exceeding 0 is an internal work document. Please note that only if the document version has suffix 0 it is an official SDC version, e.g. 1.0, 2.0, 3.0, but NEITHER 0.1, 1.2 nor 1.10. The version suffix is initialized for each new revision level.

Version	Date	Description	Signature
3.0	16-03-04	Section 3.1 Overview is updated. In section 3.2 the text is updated to show that the Licence Plate Number has to be provided as ID of each Transport Unit. Updated paragraph 5 by adding: new variant A4 showing FirstTrailer and SecondTrailer, enhanced explanation of the variants A1 to A3 and new XML sample file names according to new SDC name format of papiNet documentation. Added paragraph 6 "Required validation of Business Content" indicating what to verify in each e-document before issuing and sending it.	JeNo
2.0	15-01-05	Changed name of the SDC Use Case. Figure 1 extended with Delivery Destination. Updated sections 3.1, 3.2, 3.3, 3.4 and 3.5. New Use Case description including the destination. Updated texts with ShipTo-party and LocationParty for the PlaceOfMeasuring	JeNo
1.0	14-06-10	Final version	JoBj
0.2	14-06-04	First version including a document version history.	JeNo
0.1	14-05-06	Initial version	JoBj

3. SDC Use Case A "Notifying one Place of Measuring of a truck delivery with roundwood from one delivery origin"

3.1 Overview

This use case describes the scenario "Notifying one Place of Measuring of a truck delivery with roundwood from one Delivery Origin". Please refer to the papiNet Data Dictionary for definitions of terms.

An empty timber truck starts its vehicle tour at a Delivery Origin where two different roundwood products are loaded as a delivery and delivers the products to one destination. On the route to the destination, the delivery is measured at one Place of Measuring. The truck performs the transport for a known Carrier on behalf of a LogisticsSupplier. The LogisticsBuyer has issued a Delivery Instruction for the delivery.

SDC acts as a Service Provider and transfers relevant data to and from the Place of Measuring.

The use case described in figure 1 below shows that two products (green and blue on the truck and trailer) are loaded at the Delivery Origin, typically a roadside landing belonging to a logging site. The truck drives to one place of measuring, where both products are measured and then unloaded at the destination. The papiNet e-documents DeliveryMessage and ShipmentStatus are sent to SDC that distributes their content to the appropriate system used by the place of measuring.
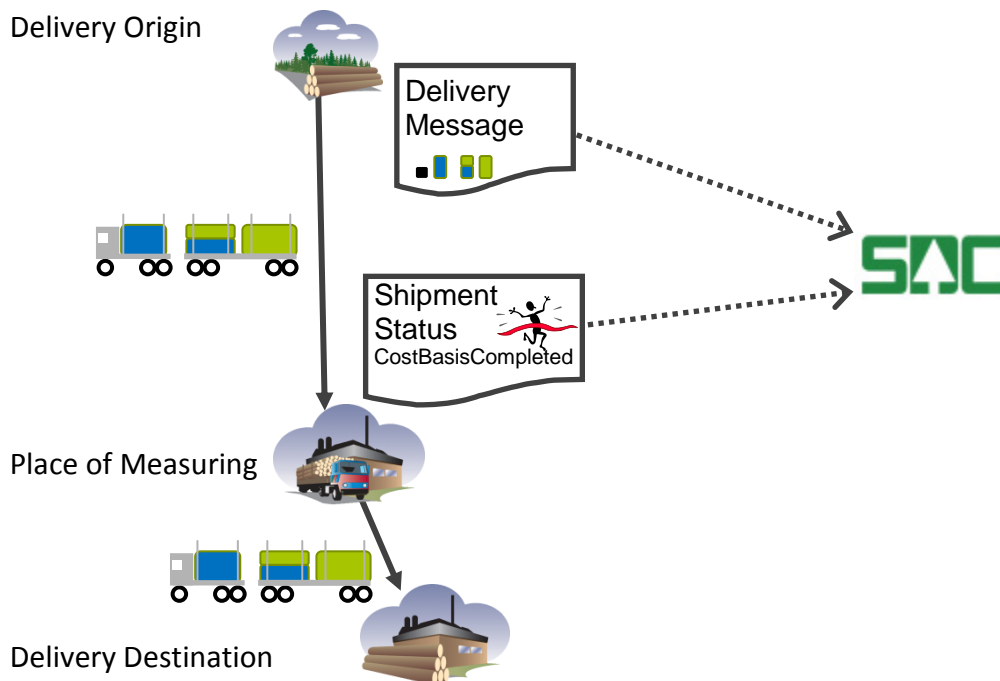
Figure 1: Logical diagram of SDC Use Case A

After the truck has been loaded with one delivery containing two different roundwood products at the Delivery Origin, the Carrier sends a **DeliveryMessage (DeliveryMessage)** to SDC. The DeliveryMessage refers to one OrderNumber only, a VehicleTourNumber assigned by the Carrier and the Delivery Instruction assigned by the LogisticsBuyer. It further details the Delivery Origin, the Place of Measuring, the Delivery Destination, estimated quantities of each product and where they are located on the transport units.

SDC validates the **DeliveryMessage** and verifies to some extent that provided business content is sufficient for measuring the delivery at the Place of Measuring. Then SDC responds by sending a **BusinessAcknowledgement** as an acknowledgement for the received papiNet

SDC Use Case ID
A

Date
4 March 2016

Version
3.0

Page
6(21)

e-document **DeliveryMessage (DeliveryMessage)**. The Business Acknowledgement has a status that confirms whether the e-document has been received, validated OK and stored into the receiving system database or if there are any errors in the e-document causing processing errors.

As the truck arrives at the Place of Measuring the Carrier sends a **ShipmentStatus** to SDC to inform that the delivery is available for measuring. The e-document refers to the DeliveryMessage with the delivery to be measured and contains transport information that can be used as a cost basis for billing of the transport. The Carrier reports details about the truck, the transport units it has transported, carrier specific data, VehicleTourNumber, details on route leg(s) travelled since the Vehicle Tour started etc. In the ShipmentStatus e-document the Carrier should report transport details that used to be communicated orally at the place of measuring, such as loading operator, various codes for zero roadside landing inventory, snow removal, distance with load etc. It also must report whether the vehicle tour is completed at the Place of Measuring or not.

SDC responds by sending a **BusinessAcknowledgement** as a system acknowledgement for the received papiNet e-document **ShipmentStatus**. The Business Acknowledgement confirms whether the e-document has been received, validated OK and stored into the receiving system database or if there are any errors in the e-document causing processing errors.

The sequence diagram in figure 2 below shows the communication in SDC use case A described in this example.
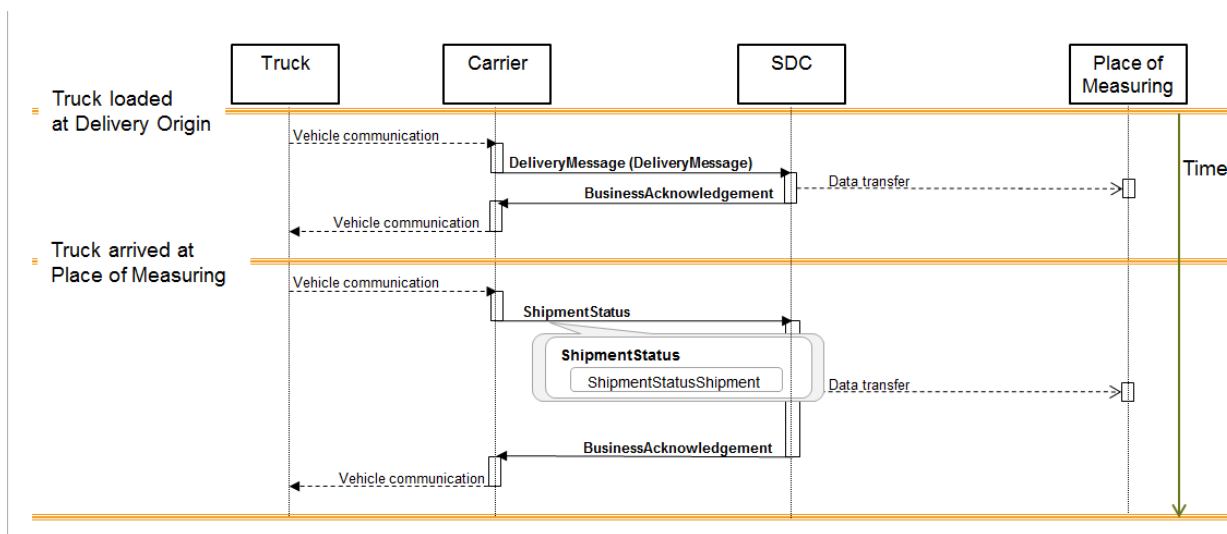
Figure 2: Sequence diagram of SDC Use Case A

papiNet e-documents must be wrapped into a **papiNet Envelope** before they are sent to SDC. The xml-file that is sent to the receiving partner consists of the papiNet Envelope and the e-document. Routing and processing of e-documents are much easier to implement in a consistent way by using the papiNet Envelope. Attachments to the e-document can also be wrapped and sent in the papiNet Envelope. Additional transmission envelopes can be used by the message service when transmitting the message.

3.2 DeliveryMessage(DeliveryMessage)

When the truck and trailer has been loaded, the truck driver communicates with the Carrier. This communication is not included in this use case, but has to include sufficient data for the Carrier to create an appropriate DeliveryMessage. The Carrier then issues a **DeliveryMessage(DeliveryMessage)** and sends it to SDC who forwards it to the system of the Measuring Party.

The most important pieces of information in the **DeliveryMessage(DeliveryMessage)** are:

- The business parties involved in the delivery
- References to a DeliveryInstructionNumber and a DeliveryInstructionSequenceNumber
- Reference to one order number (Swedish: virkesordernummer)
- The Place of Measuring to which the truck is heading
- A DeliveryMessageNumber which is unique for the Sender Party
- The ShipTo destination of the delivery
- Information about the transport unit(s) carrying the delivery including their licence plate numbers. Typically there are two transport unit types used in road transports, RigidLorry and Trailer.
- Reference to the VehicleTourNumber
- Information about the transport vehicle moving the transport unit(s)
- The product or products that are delivered and the quantities of these products.
- In which log piles the products are placed on each transport unit
- Estimated time of arrival to the Place of Measuring

3.3 BusinessAcknowledgement of DeliveryMessage

SDC validates the **DeliveryMessage** and in particular verifies that the provided business content is sufficient for measuring the delivery at the Place of Measuring.

SDC responds to the sender of the **DeliveryMessage** with a **BusinessAcknowledgement** as a system acknowledgement for the received papiNet e-document **DeliveryMessage(DeliveryMessage)**. Business Acknowledgement confirms if the e-document has been received, validated OK and stored into the receiving system database or if there are any errors in the e-document causing processing errors.

The sender of the original e-document should have in place an error resolution process that routes the errors to the correct organisation for resolution.

3.4   ShipmentStatus

As the truck arrives at a Place of Measuring the truck driver communicates with the Carrier. This communication is not included in this use case, but has to include sufficient data for the Carrier to create an appropriate ShipmentStatus. The Carrier then issues a **ShipmentStatus** and sends it without delay to SDC who forwards its content to the system of the Measuring Party before measuring can be done. The ShipmentStatus must refer to all deliveries loaded on the truck that are going to be measured at this place of measuring. In this use case there is only one delivery. The ShipmentStatus e-document is supposed to eliminate the need of oral communication between the driver and the measurer.

In the **ShipmentStatus** there must be one ShipmentStatusShipment per DeliveryInstruction and DeliveryInstructionSequence, i.e. one ShipmentStatusShipment per transports from one DeliveryOrigin to one DeliveryDestination. Many such transports can be reported in one ShipmetStatusShipment. Details for a transport of a delivery are reported in ShipmentEventInformation in ShipmentStatusShipment by referencing the DeliveryMessageNumber of the delivery.

The **ShipmentStatus** contains the following information
- The business partners involved in the delivery
- The location of the event, i.e. the PlaceOfMeasuring
- References to a DeliveryInstructionNumber and a DeliveryInstructionSequenceNumber
- Reference to DeliveryMessageNumber communicated before
- The destination of the delivery
- Reference to VehicleTourNumber
- ShipmentEventType is Unloading
- ShipmentEventQualifierType is CostBasisCompleted
- Total distance with the delivery loaded.
- Information that is provided by the driver for calculating transport charges
- Other parties involved in the delivery, for example loading operator.
- Shipment Event Date and Time, when the driver considers the delivery ready for being measured
- The Route must include each RouteLeg after the VehicleTourNumber was created.
- Each RouteLeg must include:
  - RouteLegNumber in sequence after the VehicleTourNumber was created
  - RouteLegLength
  - RouteLegReference with DeliveryMessageNumber of carried delivery, if the truck was loaded on the RouteLeg

3.5   BusinessAcknowledgement of ShipmentStatus

SDC validates the **ShipmentStatus** and in particular verifies that the provided business content is sufficient for measuring the delivery at the Place of Measuring.

SDC responds to the sender of the **ShipmentStatus** with a **BusinessAcknowledgement** as a system acknowledgement for the received papiNet e-document **ShipmentStatus**. The BusinessAcknowledgement confirms if the e-document has been received, validated OK and stored into the receiving system database or if there are any errors in the e-document causing processing errors.

The sender of the original e-document should have in place an error resolution process that routes the errors to the correct organisation for resolution.

4. Out of scope

All transport modes except road are out of scope.

All products are out of scope except roundwood and its subproducts.

Wood chip trucks are out of scope.

Any case where the measurement recording system is NOT Doris.

5. Supported variants of the use cases

Please notice that the papiNet e –document is wrapped into the papiNet Envelope in all sample files.The papiNet e-document itself is within the XML tag `<BusinessDocument>` of the sample file.

5.1 SDC Use Case ID A: Variant A1

The straightforward variant has sample files for a typical delivery where a combination of a truck and its trailer transports one delivery with roundwood products directly from one logging area to a delivery destination via a place of measuring. As SDC checks of inbound papiNet documents they are found to be correct and SDC issues Business Acknowledgements with status Success.

XML sample files provided in variant A1 and document issue sequence:

SEQUENTIAL ORDER	SAMPLE FILE
1	SDCUseCaseA1-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml
2	SDCUseCaseA1-BusinessAcknowledgement-1-yyyymmdd.xml
3	SDCUseCaseA1-ShipmentStatus-1-yyyymmdd.xml
4	SDCUseCaseA1-BusinessAcknowledgement-2-yyyymmdd.xml

5.1.1 First issue of Delivery Message

DeliveryMessageStatusType is Original meaning that it is the first issue of the DeliveryMessage e-document.

Scope: Carrier Timbertrans reports that a truck with license plate ABC123 on vehicle tour number 12345 will start to move the two transport units ABC123 (a rigid lorry) and DEF456 (the first trailer after the truck) from roadside landing 1 of Logging Area 112233 to supply point Avlastningsplats 3 of Furustadssågen. The delivery is going to be measured at Mätplatsen Furustad (MST999) on its way to the destination.

The delivery has been loaded onto the transport units by loading operator Lasse Lastare. The total log pile volume is visually estimated to 25 m^3. One product is placed as two log piles of different sizes in two different stacks. The second product is also placed in two stacks. Stack number 1 of the trailer has one log pile of each product.

Sample file: `SDCUseCaseA1-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml`

5.1.2 Business Acknowledgement of Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA1-BusinessAcknowledgement-1-yyyymmdd.xml`

5.1.3 First issue of Shipment Status

First issue of a Shipment Status referring to the Delivery Message.

Scope: As the truck arrives at the place of measuring and its delivery is available to be measured, the carrier issues a ShipmentStatus e-document to SDC.

The shipment event TransportDataComplete referring to the DeliveryMessage has ShipmentEventQualifierType = CostBasisCompleted and ShipmentEventStatusType = Original. The Shipment Event Information includes details on Place of Measuring and Transport Information. The distance with load is reported as 54 km by the carrier. The loading operator 121212 has loaded the transport units with a loader having licence plate number CDE567.

The Vehicle Tour started at the DeliveryOrigin of the DeliveryMessage with only one route leg to the Place of Measuring. Hence there is only one route leg with length 54 km in the route named 12345.

In this Shipment Event, a lot of codes are provided in Transport Information as AdditionalItemInfo. They are BefraktarKoder, FRAANTYP, FRAAN (which is required since FRAANTYP is included), FSEDEL2, LastningOchLossning, Omlastning, RETUR with code value 12 kilometer, Slutkort, SnowRemoval and Stickvag.

Sample file: `SDCUseCaseA1-ShipmentStatus-1-yyyymmdd.xml`

5.1.4 Business Acknowledgement of Shipment Status

SDC responds with a BusinessAcknowledgement to inform the sender of the Shipment Status e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA1-BusinessAcknowledgement-2-yyyymmdd.xml`

5.2   SDC Use Case ID A: Variant A2

This variant gives examples on how documents DeliveryMessage and ShipmentStatus should be created to support papiNet processing rules whenever a sender needs to change some piece(s) of information in a DeliveryMessage or ShipmentStatus that has already been sent. It also includes two examples of BusinessAcknowledgement documents with status Failure, that are sent by SDC when an error has been detected in a received document.

DeliveryMessageStatusType is Replaced in updates of a DeliveryMessage. ShipmentEventStatusType is either Original or Amended depending on whether the ShipmentEventInformation key combination is modified or not. Please refer to the current processing rules in papiNet documentation on FWS&B Business Rules.

XML sample files provided in variant A2 and document issue sequence:

SEQUENTIAL ORDER	SAMPLE FILE
1	SDCUseCaseA2-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml
2	SDCUseCaseA2-BusinessAcknowledgement-1-yyyymmdd.xml
3	SDCUseCaseA2-DeliveryMessage-(DeliveryMessage)-2-yyyymmdd.xml
4	SDCUseCaseA2-BusinessAcknowledgement-2-yyyymmdd.xml
5	SDCUseCaseA2-ShipmentStatus-1-yyyymmdd.xml
6	SDCUseCaseA2-BusinessAcknowledgement-3-yyyymmdd.xml
7	SDCUseCaseA2-ShipmentStatus-2-yyyymmdd.xml
8	SDCUseCaseA2-BusinessAcknowledgement-4-yyyymmdd.xml
9	SDCUseCaseA2-ShipmentStatus-3-yyyymmdd.xml
10	SDCUseCaseA2-BusinessAcknowledgement-5-yyyymmdd.xml

5.2.1   First issue of Delivery Message

DeliveryMessageStatusType is Original meaning that it is the first issue of the delivery message e-document.

Scope: Carrier Timbertrans reports in its DeliveryMessage DM20131125-001 that a truck with license plate ABC123 on vehicle tour number 12345 will start to move the two transport units ABC123 (a rigid lorry) and DEF456 (the first trailer after the truck) from roadside landing 1 of Logging Area 112233 to supply point Avlastningsplats 3 of Furustadssågen. The delivery is going to be measured at Mätplatsen Furustad (MST999) on its way to the destination.

There are two products in the delivery. One of the products has ProductIdentifier value "Y11", which is invalid if the Agency is SDC. Due to this it is in this example not going to be accepted by SDC as a proper Delivery Message.

Sample file: `SDCUseCaseA2-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml`

5.2.2 Business Acknowledgement of Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was NOT successful. Hence the Status=Failure and tag `<Error>` must be included. The Error tag provides data for error resolution. The Business Acknowledgement refers to DeliveryMessage DM20131125-001 with TransactionHistoryNumber 1.

Sample file: `SDCUseCaseA2-BusinessAcknowledgement-1-yyyymmdd.xml`

5.2.3 Second issue of Delivery Message

DeliveryMessageStatusType is Replace meaning that it is not the first issue of the delivery message e-document. The TransactionHistoryNumber is higher than in previous version of the DeliveryMessage.

Scope: Carrier Timbertrans reports in its DeliveryMessage DM20131125-001 with TransactionHistoryNumber 2 that a truck with license plate ABC123 on vehicle tour number 12345 will start to move the two transport units ABC123 (a rigid lorry) and DEF456 (the first trailer after the truck) from roadside landing 1 of Logging Area 112233 to supply point Avlastningsplats 3 of Furustadssågen. The delivery is going to be measured at Mätplatsen Furustad (MST999) on its way to the destination.

There are two products in the delivery. The earlier invalid ProductIdentifier value "Y11" has been corrected and is replaced with a valid value. Due to this update, the e-document will be accepted as a proper Delivery Message.

Sample file: `SDCUseCaseA2-DeliveryMessage-(DeliveryMessage)-2-yyyymmdd.xml`

5.2.4 Business Acknowledgement of 2nd Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included. The Business Acknowledgement refers to DeliveryMessage DM20131125-001 with TransactionHistoryNumber 2.

Sample file: `SDCUseCaseA2-BusinessAcknowledgement-2-yyyymmdd.xml`

5.2.5 First issue of Shipment Status

First issue of a Shipment Status referring to the Delivery Message.

Scope: As the truck arrives at the place of measuring and its delivery is available to be measured, the carrier issues Shipment Status document SS20131125-001 to report that the delivery is present at the place of measuring and information about the transport.

In the ShipmentEventInformation there is a ShipmentEventReference to DeliveryMessage DM20131125-ERR, which never has been sent by the carrier to SDC. This is a mistake made by the SenderParty, but is intentional in this example. Hence the ShipmentStatus will not be successfully acknowledged by SDC. The key for the ShipmentEventInformation is different than in any previous ShipmentStatus and hence the ShipmentEventStatusType is Original.

Sample file: `SDCUseCaseA2-ShipmentStatus-1-yyyymmdd.xml`

5.2.6 Business Acknowledgement of initial Shipment Status

SDC responds with a BusinessAcknowledgement to inform the sender of the Shipment Status e-document that it was read by SDC and the check of the content was NOT successful. Hence the Status=Failure and tag `<Error>` must be included. The Error tag provides data for error resolution. The Business Acknowledgement refers to ShipmentStatus SS20131125-001 without any TransactionHistoryNumber.

Sample file: `SDCUseCaseA2-BusinessAcknowledgement-3-yyyymmdd.xml`

5.2.7 Second issue of a Shipment Status

Second issue of a Shipment Status referring to the Delivery Message.

Scope: After an initial incorrect ShipmentStatus, this ShipmentStatus is sent by the carrier when the truck arrives with one delivery to the place of measuring. The ShipmentEventInformation that has a corrected ShipmentEventReference with the proper DeliveryMessageNumber also has an intentional new error. It has a future ShipmentStatusIssueDate, which is impossible and will cause SDC to respond with a BusinessAcknowledgement having Status=Failure. A business document may not be created with a future issue date.

In this document the ShipmentEventInformation refers to Delivery Message DM20131125-001, but in the previous ShipmentStatus document, the ShipmentEventInformation referred to Delivery Message DM20131125-ERR. The key for the ShipmentEventInformation {ShipmentEventReference, ShipmentEventIdentifier} is obviously different than in previous ShipmentStatus and hence the ShipmentEventStatusType must be Original, which is in accordance with FWS&B Business Rule FWS_SS_002. The shipment event identifier TransportDataComplete referring to the DeliveryMessage has ShipmentEventQualifierType = CostBasisCompleted.

Sample file: `SDCUseCaseA2-ShipmentStatus-2-yyyymmdd.xml`

5.2.8 Business Acknowledgement of 2nd Shipment Status

SDC responds with a BusinessAcknowledgement to inform the sender of the Shipment Status e-document that it was read by SDC and the check of the content was NOT successful. Document sent as FAILURE response to SenderParty of an incorrect ShipmentStatus. The ShipmentStatusIssueDate is a future date, which is not allowed.

Hence the Status=Failure and tag `<Error>` must be included. The Error tag provides data for error resolution. The Business Acknowledgement refers to ShipmentStatus SS20131125-002 without any TransactionHistoryNumber.

Sample file: `SDCUseCaseA2-BusinessAcknowledgement-4-yyyymmdd.xml`

5.2.9 Third issue of a Shipment Status

Third issue of a Shipment Status referring to the Delivery Message.

Scope: After an incorrect ShipmentStatus, this ShipmentStatus is sent by the carrier when the truck arrives with one delivery to the place of measuring. In this example the data is correct without intentional errors.

The ShipmentEventInformation has the same ShipmentEventReference (Delivery Message DM20131125-001 and VehicleTourNumber) and the same ShipmentEventIdentifier as in a previous Shipment Status document.

Since the key for the ShipmentEventInformation {ShipmentEventReference, ShipmentEventIdentifier} is exactly as in a previous ShipmentStatus the ShipmentEventStatusType is Amended, which is in accordance with FWS&B Business Rule FWS_SS_002, it may NOT be Original. The shipment event identifier TransportDataComplete referring to the DeliveryMessage has ShipmentEventQualifierType = CostBasisCompleted.

Sample file: `SDCUseCaseA2-ShipmentStatus-3-yyyymmdd.xml`

5.2.10 Business Acknowledgement of 3rd Shipment Status

SDC responds with a BusinessAcknowledgement to inform the sender of the Shipment Status e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA2-BusinessAcknowledgement-5-yyyymmdd.xml`

5.3   SDC Use Case ID A: Variant A3

Cancellation of a delivery message previously sent. The variant is used if a sender needs to cancel a DeliveryMessage. The sender party must not use this DeliveryMessageNumber again after the cancellation has been sent.

XML sample files provided in variant A3 and document issue sequence:

SEQUENTIAL ORDER	SAMPLE FILE
1	SDCUseCaseA3-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml
2	SDCUseCaseA3-BusinessAcknowledgement-1-yyyymmdd.xml
3	SDCUseCaseA3-DeliveryMessage-(DeliveryMessage)-2-yyyymmdd.xml
4	SDCUseCaseA3-BusinessAcknowledgement-2-yyyymmdd.xml

5.3.1   First issue of Delivery Message

DeliveryMessageStatusType is Original meaning that it is the first issue of the delivery message e-document. At this point of time it is unknown to the carrier that the delivery will be cancelled.

Scope: Carrier Timbertrans reports that a truck with license plate ABC123 on vehicle tour number 12345 will start to move the two transport units ABC123 (a rigid lorry) and DEF456 (the first trailer after the truck) from roadside landing 1 of Logging Area 112233 to supply point Avlastningsplats 3 of Furustadssågen. The delivery is going to be measured at Mätplatsen Furustad (MST999) on its way to the destination.

The delivery has been loaded onto the transport units by loading operator Lasse Lastare. The total log pile volume is visually estimated to 25 m^3. One product is placed as two log piles of different sizes in two different stacks. The second product is also placed in two stacks. Stack number 1 of the trailer has one log pile of each product.

Sample file: `SDCUseCaseA3-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml`

5.3.2   Business Acknowledgement of Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA3-BusinessAcknowledgement-1-yyyymmdd.xml`

5.3.3   Cancellation of Delivery Message

This is the second issue of the delivery message e-document.

DeliveryMessageStatusType is Cancelled, which means the receiver must be aware that the delivery that has been communicated in a previously sent Delivery Message will not be done. Hence the receiver should update his business system(s) accordingly and ignore the information in the previous delivery message.

Scope: Carrier Timbertrans reports that its DeliveryMessage DM20131125-001 is cancelled. The truck with license plate ABC123 on vehicle tour number 12345 will NOT move the two transport units ABC123 (a rigid lorry) and DEF456 (the first trailer after the truck) from roadside landing 1 of Logging Area 112233 to supply point Avlastningsplats 3 of Furustadssågen.

The sender party must not use this DeliveryMessageNumber again after the cancellation has been sent, i.e. the Delivery cannot be reopened using the same DeliveryMessageNumber.

Sample file: `SDCUseCaseA3-DeliveryMessage-(DeliveryMessage)-2-yyyymmdd.xml`

5.3.4 Business Acknowledgement of the cancelling Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA3-BusinessAcknowledgement-2-yyyymmdd.xml`

5.4   SDC Use Case ID A: Variant A4

This variant is provided to show how to describe a transport consisting of a truck without products towing two trailers with products. It also details the two trailers with different number of stacks with the layout below. The two products are symbolically shown as blue and green. The package id T_X.Y means that the package is located in stack X and level Y of the transport unit with license plate number T.

Truck   FirstTrailer   SecondTrailer
AAA111   DEF456   JKL789

XML sample files provided in variant A4 and document issue sequence:

SEQUENTIAL ORDER	SAMPLE FILE
1	SDCUseCaseA4-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml
2	SDCUseCaseA4-BusinessAcknowledgement-1-yyyymmdd.xml
3	SDCUseCaseA4-ShipmentStatus-1-yyyymmdd.xml
4	SDCUseCaseA4-BusinessAcknowledgement-2-yyyymmdd.xml

5.4.1   First issue of Delivery Message

DeliveryMessageStatusType is Original meaning that it is the first issue of the delivery message e-document.

Scope: DeliveryMessage sent by the carrier as two trailers have been loaded with two roundwood products at one terminal and their pulling truck AAA111 is ready for departure to a place of measuring. The first trailer DEF456 carries three packages in two stacks. The second trailer JKL789 carries three packages in three stacks. The truck itself carries no product.

One product is placed as two log piles of different sizes in two different stacks. The second product is similarly placed in four stacks. Stack number 1 of the trailer DEF456 has one log pile of each product.

Sample file: `SDCUseCaseA4-DeliveryMessage-(DeliveryMessage)-1-yyyymmdd.xml`

5.4.2   Business Acknowledgement of Delivery Message

SDC responds with a BusinessAcknowledgement to inform the sender of the DeliveryMessage e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

SDC Use Case ID
A

Date
4 March 2016

Version
3.0

Page
19(21)

Sample file: `SDCUseCaseA4-BusinessAcknowledgement-1-yyyymmdd.xml`

5.4.3 First issue of Shipment Status

First issue of a Shipment Status referring to the Delivery Message.

Scope: ShipmentStatus sent by the carrier to SDC when the truck arrives with one delivery carried on two trailers to the place of measuring and is available to measure. The truck itself carries no product. The delivery is in the example available to measure a few seconds earlier than the Estimated Time of Arrival that was communicated in the Delivery Message.

The shipment event TransportDataComplete referring to the DeliveryMessage has ShipmentEventQualifierType = CostBasisCompleted and ShipmentEventStatusType = Original. The Shipment Event Information includes details on Place of Measuring and Transport Information. The distance with load is reported as 54 km by the carrier.

The Vehicle Tour started at the DeliveryOrigin of the DeliveryMessage with only one route leg to the Place of Measuring. Hence there is only one route leg with length 54 km in the route named 12345.

In this Shipment Event, a lot of codes are provided in Transport Information as AdditionalItemInfo. They are BefraktarKoder, FRAANTYP, FRAAN (which is required since FRAANTYP is included), FSEDEL2, LastningOchLossning, Omlastning, RETUR with code value 12 kilometer, Slutkort, SnowRemoval and Stickvag.

Sample file: `SDCUseCaseA4-ShipmentStatus-1-yyyymmdd.xml`

5.4.4 Business Acknowledgement of Shipment Status

SDC responds with a BusinessAcknowledgement to inform the sender of the Shipment Status e-document that it was read by SDC and the check of the content was successful. Hence the Status=Success and tag Error is not included.

Sample file: `SDCUseCaseA4-BusinessAcknowledgement-2-yyyymmdd.xml`

6. Required validation of Business Content

In addition to a successful schema validation of an e-document, the issuer of an e-document also has to verify that the business content is correct and valid. Some particularly important business data to verify are indicated below. The listing is not exhausitive. The sender must not assume that the receiver verifies all business content, e.g. SDC cannot be expected to acknowledge that a ProductID of an Order is valid to measure at the PlaceOfMeasuring.

The Issuer must follow the papiNet FWS&B Business Rules, which can be downloaded at the papiNet web site http://www.papinet.org/

6.1 papiNetEnvelope

TimeStamp must not be a future date and time.

6.2 Delivery Message

An already used DeliveryMessageNumber must not be reused in a DeliveryMessage e-document with DeliveryMessageStatus=Original.

DeliveryMessageDate must not be a future point of time.

EstimatedTimeOfArrival must be a relevant time.

OrderNumber is valid.

PlaceOfMeasuring must be valid.

The ProductIdentifiers with Agency=SDC must be valid.

The referenced OrderNumber must in SDCs system have a valid line with the unique combination of ProductIdentifier and PlaceOfMeasuring. This line is called "virkesorderrad" in the Viol2 system.

PartyIdentifiers must be valid.

VehicleTourNumber must be correct and a VTN may not be reused if VehicleTourComplete has been sent for this VehicleTourNumber.

The TransportUnitIdentifier must be provided for each TransportUnit.Verify that there are different identifier values for different transport units.

Check that there is a TransportUnitCode for each TransportUnit with TransportUnitType=Trailer. There may only be one TransportUnit with TransportUnitCode=FirstTrailer and one TransportUnit with TransportUnitCode=SecondTrailer.

Verify that for each Package, there is a PackageReference with PackageReferenceType=TransportUnitIdentifier and also check that this TransportUnitIdentifier is included in element TransportUnitCharacteristics.

6.3 Shipment Status

An already used ShipmentStatusNumber must not be used in a new e-document.

The referenced Delivery Messages must already have been sent and been successfully acknowledged by SDC.

ShipmentStatusIssueDate must not be a future point of time.

SDC Use Case ID
A

Date
4 March 2016

Version
3.0

Page
21(21)

6.4 Business Acknowledgement

An already used BusinessAcknowledgementNumber must not be used in a new e-document.