**2.17 Intermodal Freight Management**

Intermodal transport implies the use of a combination of transport modes. Any support for the management of such chains has to support the modal change of cargo flows from one mode to another in combination in order to create seamless sequences of transportation legs. Quite often the end legs are carried by road, but there are instances of short sea shipping, inland waterways, and rail being used as end legs.

The Intermodal Freight Management process differs from conventional freight management in that it is dependent different transport mode. The focus is the multimodal transport chain as seen from the Transport User’s point of view. The Transport User needs information about all the possible transport services that can be used to build a complete transport chain. If the choices to be made by the Transport User or his agent are based upon the qualities of the transport services themselves, and not by which transport mode is used, the description of the transport services, and the exchanges of information about the roles and services must be simple and common.

The roles of the various Parties are defined as follows:

* The *Transport User* is the role representing anyone that needs to have cargo transported. The

Transport User provides the Transport Service Provider with instructions and detailed information about the cargo to be transported.

* The *Transport Service Provider* is the role that ensures the transport of the cargo from the origin to the destination. This includes the management of the transport services and the operation of the transport means and handling equipment. A Transport Service Provider may also provide administrative services required for moving the cargo, such as cargo inspection.
* The *Transportation Network Manager* is the role that extracts all information available regarding the infrastructure related to planning and executing transport and makes this information available to the Transport Service Provider.
* The *Transport Regulator* is the role that receives all mandatory reporting (and checks if reporting has been carried out) in order to ensure that all transport services are completed according to existing rules and regulations.

It should be noted that a person or organization may take on different roles. For example, a freight forwarder is, on the one hand, a Transport Service Provider when its client is a Transport User. On the other hand, the freight forwarder is a Transport User when it acquires services from subcontractors to ensure that a transport service is carried out between origin and a destination. In so doing the freight forwarder can operate as agent, thus arranging a contractual relationship between the carrier and the shipper, or as principal, thus organizing the transportation chain by concluding contracts in its own name on behalf of the shipper(s).

The Intermodal Freight Management process takes place in three main stages:

* *Planning*: In this stage the Transport Users express their transport demand in a standard format (Transport Service Description Request). Transport Service Providers plan their transport services and announce them to Transport Users (using the Transport Service Description). This stage also covers the arrangement of transport services between Transport Users and Transport Service Providers (establishing Transport Execution Plans).
* *Execution*: In this stage Transport Service Providers perform the physical transport of the cargo and they exchange information related to the status of the transported cargo with the Transport Users (using the Transportation Status document). Furthermore, in this stage Transport Service Providers exchange regulatory information with Transport Regulators as well as receive status regarding the transport infrastructure from Transportation Network Managers (using the Transport Progress Status).
* *Completion*: This stage facilitates the issuing of proof of delivery, claims and invoices that takes place between Transport Service Providers and Transport Users.

*Figure 57. The Generalized (?) Freight Management Process*



These three stages are detailed in the following diagram.

*Figure 58. The Intermodal Freight Management Process*



[2.17.1 Transportation Status Request is removed from this section]

**2.17.1 Announcing intermodal transport services**

The Transport Service Description is used to publish information about a transport service. The Transport Service Description Request is used to request for such information. A transport service can be the physical transport of cargo between an origin and a destination, and it can also refer to other transport related services such as terminal services, warehousing services, handling services, or document handling services.

*Figure 59. Transport Service Description*



**2.17.3 Establishing a Transport Execution Plan**

The Transport Execution Plan is a plan established between a Transport User and a Transport Service Provider. Depending on the nature of the transport service and the business relationship between the Transport User and the Transport Service Provider, the process of establishing a Transport Execution Plan can be carried out by means of many interactions between the two roles, from the initial request from the Transport User up to the final agreement of the Transport Execution Plan.

The following diagram shows the message exchange involved in a basic scenario. The Transport Execution Plan Request is sent from the Transport User in order to request for a transport service. If the Transport Service Provider accepts the transport service request he responds with a Transport Execution Plan.

*Figure 60. Transport Execution Plan*



Updates on the Transport Execution Plan may occur from both the Transport User and the Transport Service Provider. If the Transport User wants to update an existing Transport Execution Plan, a new instance of a Transport Execution Plan must be issued with reference to the original Transport Execution Plan. Similarly, if the Transport Service Provider wants to update an existing Transport Execution Plan, a new Transport Execution Plan replaces the original Transport Execution Plan with a reference to the original one. A document status code 'Updated' signals that an update of the Transport Execution Plan is issued.

A Transport Execution Plan may be cancelled by both parties. In such situations the Transport Execution Plan is sent with a document status code 'Cancelled'.

Once the transport service is completed, the Transport Execution Plan is sent from the Transport Service Provider to the Transport User with a document status code 'Completed'.

**2.17.4 Providing an itinerary for a transport service**

The Goods Item Itinerary specifies the route and time schedule for a transport item and is issued from the Transport Service Provider to the Transport User. It may contain one or more transport segments with different Transport Execution Plans with different Transport Service Providers. One transport service (one Transport Execution Plan) may cover more than one segment (leg).

In addition to providing an overview of the initial route and time schedule, the Goods Item Itinerary is used to record the actual progress in the form of new estimated times for departure and/or arrival and the actual departure and arrival times. The Goods Item Itinerary therefore contains information that may be used for analyzing the performance (in time) of transport services and for tracing the progress of cargo, if such analysis is required.

*Figure 61. Goods Item Itinerary*



[2.17.5 is removed]

**2.17.6 Reporting transport means progress status**

The Transport Progress Status collects and reports information about the status of the transport means. The Transport Service Provider issues a Transport Progress Status Request in order to ask the Transportation Network Manager to provide status information related to a specific transport vehicle, using the vehicle identification number.

The Transportation Network Manager then provides information about the location and time schedule status to the Transport Service Provider. The most typical use of Transport Progress Status is to ask assistance from the Transportation Network Manager when estimated times of arrival are established.

Reporting on the status of the goods themselves is covered by the Freight Status Reporting process (Section 2.15, “Freight Status Reporting”).

*Figure 62. Transport Progress Status*



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Chapter 2.18 Party Roles

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|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Actor | Role | Desc | Example | Synonyms | Sends | Receives |
| Transport User |  |  |  |  |  |  |
| Transport Service Provider |  |  |  |  |  |  |
| Transportation Network Provider |  |  |  |  |  |  |
| Transport Regulator |  |  |  |  |  |  |

[Chapter 3]

**3.1.56 Transport Execution Plan Request**

Description: A document which initiates the negotiation of a transport service between a Transport User and a Transport Service Provider.

**3.1.57 Transport Execution Plan**

Description: A document which is used to confirm and describe the details related to an agreed upon transport service between a Transport User and a Transport Service Provider.

**3.1.58 Transport Progress Status Request**

Description: A document being sent from a Transport Service Provider to a Transport Network Manager requesting for a status on a particular transport means.

**3.1.59 Transport Progress Status**

Description: A document being sent from Transportation Network Manager to Transport Service Provider giving a status on the transport means.

**3.1.59 Transport Service Description Request**

Description: A document being sent from a Transport User to a Transport Service Provider in order to request for relevant transport services announced by the Transport Service Provider.

**3.1.59 Transport Service Description**

Description: A document being sent from the Transport Service Provider to the Transport User in order to announce a transport service.

**3.1.60 Transportation Status Request**

Description: A message to request for a transport status and/or change in the transport status (i.e. event) between agreed parties.

**3.1.61 Transportation Status**

Description: A message to report the transport status and/or change in the transport status (i.e. event)

between agreed parties.