Transportation

Outstanding Features:

- Effective transportation planning and processing helps you streamline your transportation activities.
- Managing transportation costs facilitates the calculation of total costs.
- SD functionality helps you optimize forwarding service selection.
- Transportation features ease the process of selecting means and management of transportation.
- The transportation information system is an effective tool for monitoring shipments.
- Close integration with SD sales processing or MM purchase order processes guarantees efficient flow of information.
- Interfaces to other systems give you the flexibility to use the best option for your company.

Transportation is a central element of the logistics chain. Effective transportation is essential to ensure that shipments are dispatched without delay and arrive at the customer location on schedule. Transportation costs play a major role in determining the price of a final product. Efficient transportation planning and processing helps keep these costs down.

R/3 SD provides transportation functionality for both inbound and outbound shipments. The processes are highly automated. You can control and monitor the entire transportation process from the planning stage right through to the dispatch of goods from your shipping point and their arrival at the customer location. In the case of inbound shipments, you can monitor the process from dispatch at the supplier's premises to arrival at your plant.

For Release 3.0D, the SD Transportation module offers functionality in the areas of transportation planning, transportation processing and for monitoring and controlling the transportation process. Functions for cost calculation and forwarding agent selection will be available soon after 3.0D, as well as an interface for transport optimization and tracking shipments using a data capturing system.

Transportation Planning Point

The transportation planning point is the central organizational unit in transportation. It allows you to assign all activities required for the transportation process to the right group of people. You define transportation planning points within your shipping department and assign each shipment to a particular transportation planning point.

Transportation Planning

Transportation planning includes all the activities that must take place before a shipment leaves a shipping point. SD provides you with convenient tools to carry out the following transportation planning activities in the most efficient way:

- combine suitable deliveries/shipping notifications in shipments
- define shipment deadlines
- determine means of transport and transport equipment
- assign service agent
- create transport-relevant text/remarks
- specify and send output
- organize transport
- specify a route and define the shipment stages for covering this route
- monitor shipments

Work Lists

An important step in transportation planning is to determine which deliveries are due for shipment, to combine deliveries in shipments in the most efficient way and to monitor these shipments. To do this, two types of work lists are at your disposal.

Shipment Due List

The shipment due list establishes which deliveries (outgoing) or shipping notifications (incoming) are due for processing. You create a shipment due list on the basis of selection criteria that you define. The deliveries fulfilling the selection criteria can automatically be assigned to shipments, or you can assign them manually.

Transportation Planning Lists

Transportation planning lists contain the shipment documents fulfilling your selection criteria, for which planning activities are not yet complete. You use these lists as the basis for performing transportation planning activities such as organizing transportation, scheduling loading activities, or acquiring forwarding agent services. Among these lists, the utilization list is especially useful for finding shipments that are not completely full to avoid inefficiency. The free capacity list is available to help you find room in an existing shipment for a load that still needs to be shipped.

These lists give you a fast overview to monitor all the shipments created, to keep track of all the transportation planning activities to be carried out for the shipments, and to complete the transportation planning phase. They

help you keep an efficient time schedule and streamline your transportation processes.

Transportation Processing

In SD transportation processing a work list is at your disposal to select and process shipments for which transportation planning has been completed and tasks such as weighing, loading and goods issue still have to be performed. Information on the means of transport such as weight of the truck or the time it arrives at your premises can be recorded and printed out on the transportation papers. (This function is only partially available in Release 3.0D).

Shipments

The shipment is the central object in SD transportation processing. It is created in the transportation planning phase and contains all the information necessary for planning, keeping track of and carrying out transportation activities until their completion at goods receipt. Shipment functions in R/3 SD include:

- combining deliveries or shipping notifications in one shipment
- specifying shipment stages such as legs, border crossing points and load transfer points
- packing goods or shipping units
- assigning goods to shipping units/means of transport
- assigning service agents
- specifying and recording transportation deadlines
- providing information on the status of transportation activities
- specifying communications output for transportation, such as transportation papers or EDI messages such as broker letters or carrier notifications (partially available in Release 3.0D)
- defining transport texts

Shipment Stages

Shipment stages include information on the geographical factors for transportation. Stages can be:

- legs of a shipment

- load transfer points, where a shipment is unloaded and moved from one mode of transport to another
- border crossing points, where a shipment crosses a border

Processing Types

The various ways that goods can be transported are represented in the system by shipment types. This includes data such as types of different starting points and destination points, as well as the number of different means of transport.

Individual Shipment

An individual shipment involves one or more deliveries, one point of departure, one destination, and one mode of transport.

Example: A truck transports two deliveries from Chicago to Boston.

Stop-off Shipment

A stop-off shipment involves one or more deliveries, several points of departure or several destinations, and one mode of transport.

Example: A truck leaves Chicago with two deliveries. It stops in Washington DC to drop off one delivery and continues on to Boston, where the second delivery is unloaded.

Transportation Chain

A transportation chain involves multiple modes of transport, such as truck, ship and train, to reach its destinations.

If various modes of transport are used for the different legs of a shipment you can create a separate shipment for each mode of transport (that is, create a transportation chain). This means that you can maintain separate output, texts, and status messages for each mode of transport and generate them as necessary (for example, first for the main leg, then for preliminary and subsequent legs).

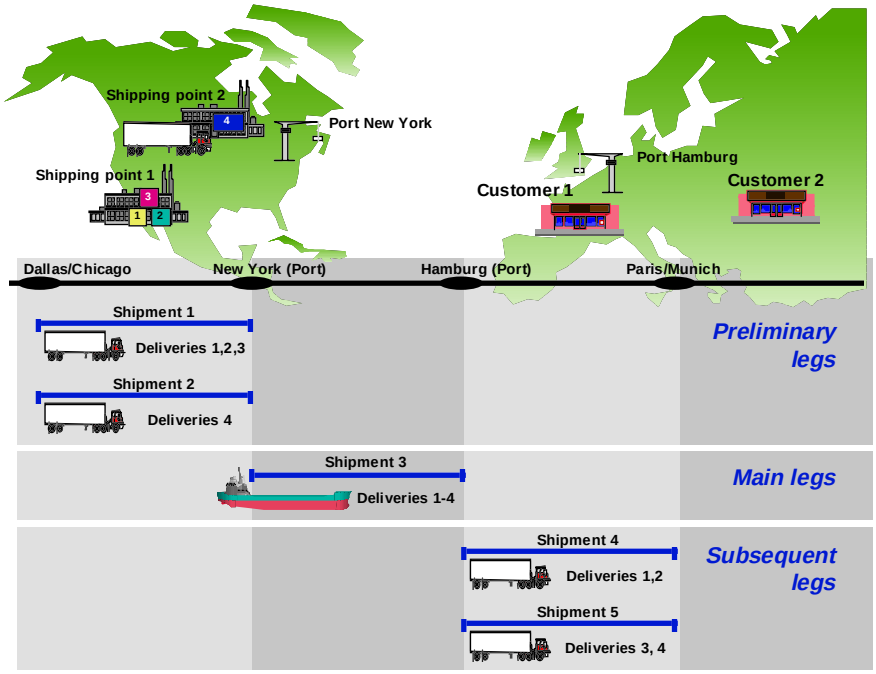

Fig. 7-1: Transportation Chain

For the transportation chain shown in the diagram, shipment 1 includes deliveries 1,2 and 3 and originates in Dallas. Shipment 2 includes delivery 4 and originates in Chicago. Both shipments move by truck to a load transfer point in New York, and then by ship to Hamburg, a second load transfer point. In the final legs of the transportation chain, shipment 4 takes deliveries 1 and 2 to a customer in Paris, while shipment 5 takes deliveries 3 and 4 to a customer in Munich.

Using SD transportation, any transportation scenario you might use can be represented in the system and processed efficiently. Transportation papers can be printed for each shipment.

Transportation Information System

To get a better overview of the shipments, down to detailed information about the individual packages in a delivery, you can use the transportation information system in either graphical or list form. You can access the information system not only from within the transportation module but also from the sales order or delivery. It provides information on the itinerary, the transportation network, on how many shipments or deliveries are shipped from one transportation connection point to the next, weights, volumes and number of packages in a shipment or delivery, shipping types for a shipment, timing data, and other information.

Because the objective of satisfying the customer remains after the goods have left the warehouse, transportation processing tracks the shipment

from the warehouse to the customer site. It keeps you up-to-date about where the shipments are at a particular time. Deadline monitoring can bring shipments to your attention if they become overdue.

The transportation information system is easy to use and gives you fast access to the information you need to adapt to specific situations and make quick decisions. It helps you provide good customer service in the most efficient way.