Project Descriptions

EURO-LOG: A System for IT-based Logistic Integration

The Euro-Log group has developed a unique range of services to specifically meet the needs of the transportation industry and logistics service providers. The services bridge the gaps which still exist in the information chain between shippers, logistics service providers and consignees by means of advanced information processing and communication technology.

Euro-Log is a European company founded in mid-1992 as a joint venture of Digital Equipment Corporation and EU-COM, a subsidiary of Deutsche Telekom

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AG and France Télécom. Currently Euro-Log has national sales and service companies in France, Germany and the Netherlands. The European head office is located in the Netherlands.Furthermore, Euro-Log has an engineering centre and an operation centre in Munich.

Services

Euro-Log is just coming into the market with their services. Initially, the customers are based in France, Germany and the Netherlands. However, rapid expansion in other European countries should be expected in the short term (Switzerland, Austria, UK and Scandinavia). The services of Euro-Log aim at bridging the gaps which still exist in the information chain between shippers, logistics service providers and consignees by means of advanced information processing and communications technology. The total service offering of Euro-Log consists of:

Transpo-Net, the EDI service which enables communication with trading partners being the basis for the control of the physical flows. The Euro-Log datacenter provides the services without depending on the data processing systems used by the participating companies.

Transpo-Link is the service line that heads out to integrate existing cargo community systems (CCS). CCSs are communication hubs within the aircargo industry which span the aircargo transport chain. However, they are not integrated with other transport modes and shippers and may therefore be regarded as islands of automation.

Transpo-Track is the service line for the management and tracking of shipments on the level of consignments and single packages, whatever the mode of transportation. Since the current activities of Euro-Log are focusing on this service it is described below.

Transpo-Track

As a shipment management service, Transpo-Track enables logistics service providers, shippers, consignees as well as carriers to track and trace shipments throughout a complete logistics chain at any checkpoint (collection, transfers, delivery), which should be observed. Timely Information on the whereabouts and condition of shipments are crucial for:

❑ reduction of inventories,

❑ shorter invoicing cycles,

❑ increased cash flow,

❑ increased quality of logistics services.

The service of Transpo-Track is based upon real-time operational information. This is made possible by the so-called shop floor control information, a service that starts out by identifying shipments on the warehouse floor. Once picked up, the truck driver can create status messages about the whereabouts and conditions of the shipments. The logistics chain has four checkpoints:

❑ the collection process at one shipper

❑ both of the transfers within the network of the logistics service provider and,

❑ the final check at the consignees.

At each checkpoint, status messages can be created by scanning the barcodes of the packages and by using manual entry to input incidents. There are three standard status messages: 'proof of collection', 'proof of delivery' and 'proof of transfer' . These three messages indicate that a shipment is damaged, or that some units are missing, the actual time of loading or unloading and the load device identification through which the shipments are loaded (loading hierarchy). After finishing a collection, transfer or delivery, the status messages are then transmitted either via the truck's mobile GSM communication equipment or via a warehouse communication device to the Euro-Log data-center which is home to the central shipment tracking and tracing database. The data-center distributes the status messages to the authorised parties in the logistics chain. The shipment tracking data and the status messages are stored in the local shipment database in the user's office workstation. In this way, a shipment history and a loading hierarchy will be built up during the physical distribution process of the shipment.

With the comparison of actually scanned or entered load/unload information against planned information, misdirected or missing shipments and packages are detected immediately during the warehouse floor check by the warehouse scanner or the truck's on-board computer.

Managing Heterogeneity

Maintaining the interoperability of a variety of computer systems and data sets, an open systems approach is at the heart of Euro-Log's service. Standards are widely used, e.g. X.400 communication, digital GSM phone network, EAN bar-codes, Windows-PC applications, etc.
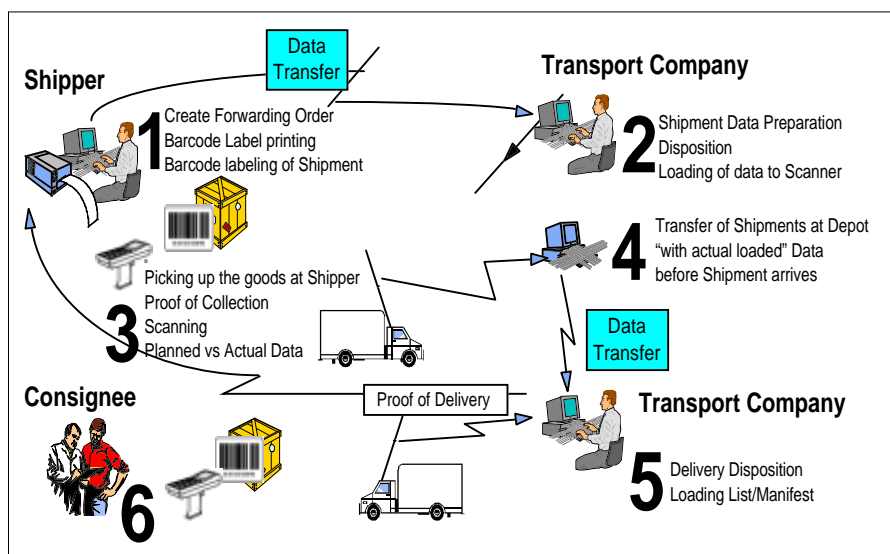
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Figure 1: Transpo-Track example