MMT RDM and Role in Transport Data Exchange

Sue Probert
Chair, UN/CEFACT
suesiprobert@live.com

David Roff
T&L Domain, UN/CEFACT
david@cif-consulting.co.uk
Multi Modal Transport Reference Data Model

• The **MMT** reference data model is based on the UN/CEFACT Core Component Library (CCL) which brings together the data exchange requirements of international multimodal transport processes including related trade, insurance, customs and other regulatory documentary requirements based on the integration of trade facilitation and e-Business best practices.

• The UN/CEFACT MMT Reference Data Model is a subset of the **Buy/Ship/Pay** Reference Data Model and a sister to the Supply Chain Reference Data Model (**SCRDM**) and to the future Cross Border Management Reference Data Model (**CBMRDM**).
UN/CEFACT International Supply Chain Reference Data Model Family

- Buy/Ship/Pay (BSP) RDM
  - SC RDM: Cross Industry Supply Chain View
  - MMT RDM: Multi Modal Transport View
  - CBM RDM: Cross-Border Management View
  - SDCE RDM: Sustainable Development & Circular Economy View

Copyright UNECE
UN/CEFACT International Supply Chain Process Model

**BUY**
- Commercial Procedures
  - Establish Contract
  - Order Goods
  - Advise On Delivery
  - Request Payment
  - Packing
  - Inspection
  - Certification
  - Accreditation
  - Warehousing

**SHIP**
- Transport Procedures
  - Establish Transport Contract
  - Collect, Transport and Deliver Goods
  - Provide Waybills, Goods Receipts, Status reports etc.

**PAY**
- Regulatory Procedures
  - Obtain Import/Export Licences etc
  - Provide Customs Declarations
  - Provide Cargo Declaration
  - Apply Trade Security Procedures
  - Clear Goods for Export/Import

**Prepare for Export**
- Involved in

**Export**
- Involved in

**Transport**
- Involved in

**Prepare for Import**
- Involved in

**Import**
- Involved in

**INVOLVES**

- Buy
- Ship
- Pay
- Prepare for Export
- Export
- Transport
- Prepare for Import
- Import

Financial Procedures
- Provide Credit Rating
- Provide Insurance
- Provide Finance
- Execute Payment
- Issue Statements

Copyright UNECE
Global Trade – Semantic Anchors

Shipment (Trade Delivery)

• A shipment is an identifiable collection of one or more Trade Items (available to be) transported together from the Seller (Original Consignor/Shipper) to the Buyer (Final/Ultimate Consignee):
  • A Shipment can only be destined for one Buyer
  • A Shipment can be made up of some or all Trade Items from one or more Sales Orders
  • A Shipment can have only one Customs UCR
  • A shipment may form part or all of a Consignment or may be transported in different Consignments.

Consignment

• A consignment is a separately identifiable collection of Consignment Items (available to be) transported from one Consignor to one Consignee via one or more modes of transport as specified in one single transport service contractual document:
  • A Consignment can only have one Transport Service Buyer
  • A Consignment can only have one Transport Service Provider
  • A Consignment can only have one Consignor
  • A Consignment can only have one Consignee
  • The Transport Service Buyer can be either the Consignor or the Consignee
  • A Consignment is made up of one or more Consignment Items
  • A Consignment can be made up of some or all Trade Items (aggregated into Consignment Items) from one or more Shipments
Benefits of UN/CEFACT Semantic Models

• Cross-industry and multimodal transport focus to support global supply chains in general

• Support for information sharing, such as enabled by data pipelines, with the timely capture of quality data from original data sources ensuring supply chain visibility

• References individual modal transport conventions

• Identification of regulatory data e.g. Dangerous Goods, Customs reporting requirements

• Standardized data exchange structures, based on common data exchange structure and independent of exchange syntax
### Alignment between Modes of Transport

All modes aligned to the UN/CEFACT Multi Modal Transport (MMT) Reference Data Model

<table>
<thead>
<tr>
<th>Business Name</th>
<th>MMT/ITDG</th>
<th>eCMR</th>
<th>Maritime BOL</th>
<th>CIM-SMGS Consignment Note</th>
<th>CIM-SMGS Consignment Note under URL</th>
<th>Wagon List</th>
<th>Inland Waterway</th>
<th>FIATA BOL</th>
<th>IDM Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMT/C EBIATA Master Message Structure</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Exchanged Document</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ID</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Type Code</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Issue Date Time</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Remark</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Original issued Quantity</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Copy issued Quantity</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Purpose Code</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sender Assigned ID</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Recipient Assigned ID</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Version ID</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Creation Date Time</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Note</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Content Code</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reference Document</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Type Code</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Bruno BLANSCHEL
Transport Example: UN/CEFACT electronic Road Consignment Note (eCMR)

SEMANTIC MODEL

MultiModal Transport (MMT)
(subset of BSP)

MultiModal (MMT)
Master message structure

eCMR message model

Exchange Syntax-neutral data exchange structure

Syntax

XML eCMR schema

BUY SHIP PAY (BSP)
Semantic model
Subset of UN/CCL

BUY SHIP PAY
Master message structure

MMT subset

Copyright UNECE