WCO Data Model
Private Sector Usages – Trader Perspectives

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Many Different Trader Interests

• Declarants
  – Importers and Exporters
  – Carriers
  – NVOCCs (Non-Vessel Owning Common Carrier)

• Agents
  – Freight Forwarders
  – Third and Fourth party logistics providers
  – Customs Interface service providers

• Software System Providers
  – Import/export software systems providers
  – Customs, Cross-Border Agency and Single Windows software providers
  – Web-based cross-border solutions
Increasing Challenges and New Opportunities

• Revised Kyoto Convention and new national and regional legal requirements place ever greater responsibility on importers/exporters and carriers for the provision and accuracy of their declared data
• Similarly cross-border International Conventions are developing electronic equivalents for trader required certificates, Licences etc. and are increasingly encouraging electronic rather than paper submissions
• Direct filing efficiencies
• Ever increasing data collection requirements in quantity and timing
• Agents challenged to adjust to the changes and enter new markets
• Emerging technologies
• Single Windows single submission interfaces requiring more coordinated data management
UN/CEFACT
International Supply Chain Reference Model

**Commercial Procedures**
- Establish sales contract
- Order goods
- Advise on delivery
- Request payment

**Transport Procedures**
- Establish transport contract
- Collect, transport and deliver goods
- Provide waybills, Goods receipts, etc.

**Regulatory Procedures**
- Obtain im/export licenses etc.
- Provide Customs Declarations
- Provide cargo Declarations
- Apply security measures
- Clear goods

**Financial Procedures**
- Provide credit rating
- Insurance
- Execute payment
- Issue statements
The UN/CEFACT International Supply Chain Data Entity Diagram

Supply Chain

Transport

WCO DM

Customs Item Details (Trade)
Customs Item Identification Identifier
1..*

Trade Details
Order Identification Identifier
1

Trade Item Details
Trade Item Identification Identifier
1..*

Shipment Details
Shipment Identification Identifier
1..*

Trade Packaging Details
Trade Packaging Identification Identifier
1..*

Consignment Details
Consignment Identification Identifier
1..*

Consignment Item Details
Consignment Item Identification Identifier
1..*

Import/Export Declaration Details
Declaration Identification Identifier
1

Cargo Report Details
Cargo Report Identification Identifier
1..*

Transport Equipment Details
Transport Equipment Identification Identifier
1..*

Transport Movement Details
Transport Movement Stage Identifier
1..*

Transport Means Details
Transport Means Identification Identifier
1..*

Transport Means Details
Transport Means Identification Identifier
1..*

Customs Item Details (Transport)
Customs Item Identification Identifier
1..*

Cargo Report Details
Cargo Report Identification Identifier
1..*

Transport Means Details
Transport Means Identification Identifier
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The Paper World of Today based on the UN Layout Key

Trade Documents – Quotation, Order, Invoice etc.

Materials Management Documents – Despatch Advice, Pick List, Packing List etc.

Transport Documents – Bill of Lading, Shipping Instructions etc.

Customs Documents – Export, Import, Transit Declarations, Cargo Reports etc.

Other Regulatory Documents – Cert of Origin, DGN etc.
View of a Future Electronic World through Single Windows

- Trade
- Materials Management
- Transport
- Payment
- Insurance
- Other Govt. Agencies

UN/CEFACT CCL

WCO DM

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What does the WCO DM offer Traders

• Global language to talk to Customs and Partner Border Agencies
• Common global approach across cross-border Agencies
• Harmonised procedures
• Harmonised and object modelled data structures
• Hierarchical reusable message structures
• Aligned Information Package methodology
• More common interfaces will be possible globally following increased adoption by multiple agencies
WCO Data Model Applications – Example Trader Use Cases
Example of Increased Private Sector reuse of WCO Data Model

- CONEX is proposing a one-stop shop for security declarations in multiple countries, each with their own technical specifications and their own national data models.
- In order to have a single interface for users, Conex has used the WCO Data Model version 3.3
- The result is a clear, single interface for users instead of different specifications for each country.
- Conex has then brought this experience back to the WCO Data Model by actively participating in the focus group on Advanced Electronic Information which is convened by Lance Thompson of CONEX
Single Window Use Case

e-Standards and their Customization

Standard Developing Organization

- e-Standard
  - National Profiles
    - Sectoral Profiles
    - Industry Profiles
  - Sectoral Profiles
  - Company Profiles

Use Case
National Single Window Project

- WCO Data Model
  - Profiled by National Single Windows Lead Agency
  - Profiled by National Governmental Agency
  - Profiled by e.g. International Carrier

Customization directions

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Canonical Data Model Use Case

**Trader B2B Formats**

- XML
- EDIFACT
- X12

**Central Canonical Data Model**

(data structures, common library, code lists, business term definitions plus value-added language translations, fiscal rules etc.)

**WCO DM**

- Declarations
- Cargo Reports

Mapping