Approach and international solutions for the use of ITS

UN/CEFACT

International solutions for intermodal transport

Dominique VANKEMMEL
Domain Coordinator Transport/Logistics
UN / CEFACT
dvankemmel@wanadoo.fr
Channels of standardization in Transport/Logistics

- **eBUSINESS electronic exchanges : EDI**
  - CEFACT / United Nations: Transport / Logistics Domain
  - CEN / ISSS Information Society Standards Systems / eBES eBusinees European Standards : Transport EEG2
  - Liaison with ISO/TC154 and OASIS / W3C

- **Intelligent Transport Systems**
  - ISO TC 204 (liaison with UN/CEFACT Transport)
  - Other ISO committees: TC 104 Containers, TC 8 Maritime...
  - CEN : TC 278 Road Transport Traffic Telematics (RTTT)

- **Telecommunications:**
  - ETSI European Telecom Standards Institute - User Group and others - exchanges with mobile vehicles, interoperability, human factors...
The phrase refers to international projects ITS « Intelligent Transport Systems and Services » and includes the concept to get benefit from the ICT - Information and Communication Technologies - for the freight management.

The word « Smart » (or Intelligent) which basically means « able to receive, process and forward information » has a much greater extent since the Transport Systems have strong social implications and contribute to the policies for the road safety, energy savings, environmental protection and more generally sustainable development.

Source JFJ / MTI
eBusiness in Transport/Logistics includes:

- Traditional EDI: UN/EDIFACT and other standards (ANSI X12, CargoIMP etc…)
- Internet solutions: ebXML (migration from traditional EDI)
- Automatic identification techniques: barcodes, RFID, etc.
- Mobile communications (on board computers…)
- Geopositioning

- eBusiness is part of ITS which has a much broader technical scope (standards developed by ISO, CEN and ETSI)
Vice Chairs
Mats Wicktor
Viktor Dravitsa

Trade and Transport Facilitation PDA

Domain Coordinators

• International Trade Procedures (Johan Pontén)

• Transport and Logistics (Dominique Vankemmel and Michael Onder)

• Customs (SP Sahu)
Leading direction of T&L UNCEFACT

- Using consistent semantics (data, codes) independent of technical solutions
- Multimodal solutions
- Applying modern modelling techniques
- Building from existing (EDI) user based implementations
- In co-operation and co-ordination with:
  - Other industrial / commercial sectors (GS1…)
  - Governments and regulatory bodies (Customs WCO…)
  - Other ITS standardisation instances: ISO TC204… and consortia: UBL…
  - Projects: EFM US, e-Freight Europe, IATA CargoXML…
- Promotion / dissemination of standards deliverables
UN/CEFACT Transport/Logistics Domain

MISSION / TASKS *(reminder)*

- Standardisation:
  - development of Electronic Business documents for Transport / Logistics - International, intersectorial, intermodal scope
  - basic semantic repository

- Based on UMM / UML modeling

- Application in syntaxes/ technologies: EDIFACT, XML/Internet

- Maintenance of standard directories, code lists...

- Harmonising the international guidelines for UN/EDIFACT and XML transport messages implementation (ITIGG - International Transport Implementation Guideline Group)

- Keep abreast of the other technologies: RFID, Bar Code, Mobile EDI...
The scope and deliverables of the standardization of Electronic Exchanges

- BSP  Buy – Ship – Pay  International Supply Chain
- Data semantic harmonization
- ebXML: Reference Data Model MMT (MultiModal Transport) from the CEFACT basic semantics (Core Components)
- EDIFACT Standard Messages (UNSM) and relevant Directories
- Business Process Modeling
- Interoperability solutions
International Supply Chain Reference Model

BUY

SHIP

PAY

Prepare for Export

Export

Transport

Prepare for Import

Import

Commercial Procedures

Transport Procedures

Regulatory Procedures

Financial Procedures
EDIFACT messages for Multimodal Freight - examples

- Transport Order - Bordereau groupage: IFTMIN – IFCSUM
- Status report: IFTSTA
- Transport Booking: IFTMBP/BF/BC
- Manifest: IFCSUM (EDIMAN)
- Transport contract (CMR, CIM, Bill of Lading, Air Way Bill..): IFTMCS
- Dangerous goods notification: IFTDGN
- Containers movement, maritime and inland: CO....
- Stowage plan (Bayplan): BAPLIE
- Berth management: BERMAN
- Waste disposal: WASDIS
- Logistics, cargo handling: HANMOV
- Invoicing: IFTFCC – INVOIC
- Customs: Manifest, declaration, response: CUSCAR, CUSDEC, CUSRES
UN/CEFACT Transport / Logistics Domain

Domain Coordinator

- Project leader
- Project leader

Standardization Project Teams
Technical/secretarial support provided by BEST (Business Group for eCommerce Standards in Transport/Europe)

THE INTERNATIONAL TRANSPORT IMPLEMENTATION GUIDELINES GROUP
International Consortium:
  • UN / CEFACT
  • OASIS Organisation for Advancement of Structured Information Standards (Internet world W3C)

Launched Sept 1999

Objective: develop specifications for XML exchange architecture

Standardisation roles split between:
  • UN/CEFACT: **semantic contents** data and business models based on the considerable asset of EDIFACT
  • OASIS: technical infrastructure allowing to share registries / dictionaries
Questions addressed within UNECE WP24
Open for discussion

1. How to overcome the gap between ITS research / standardisation and large-scale application?

2. Who are the key drivers of ITS solutions in international transport chains, and why?

3. How to surmount the patchwork of mono-modal and proprietary ITS solutions?

4. What are the incentives to make this happen?
Questions addressed within UNECE WP24

1. How to overcome the gap between ITS research / standardisation and large-scale application?

   • Improve communication on standard deliverables
   • “Marketing” plan and campaign
   • Demonstrate to Users the benefits of standards
   • Joint effort between standardization instances and official / regulatory organizations
   • Put incentive on Governments to refer to standards (which are basically not compulsory) in laws and regulations
2. *Who are the key drivers of ITS solutions in international transport chains, and why?*

- Shippers, customers of Transport/Logistics Operators
- IT Services Providers
- Proactive approach of major Transport/Logistics Operators
- Assist SMEs to implement standardized solutions (funding of projects...)
- Common Semantic model (existing in UN/CEFACT, being further improved for T&L) to ensure interoperability
- Common Governance model to develop open communities of Users
3. How to surmount the patchwork of mono-modal and proprietary ITS solutions?

- Mono-modal and proprietary solutions are difficult to get changed if they are not justified by economic/market reasons
- Provide software tools easily implementable to allow interoperability with standardized solutions, especially for SMEs (new concept of “Intelligent Connector”), pending further migration to full standards
- Promote Web services approaches (common Web interfaces…)}
4. *What are the incentives to make this happen?*

- See above

- *(Proposal:)* put in place a strategic alliance between UN/CEFACT T&L Domain and UN/ECE WP24 to bring our respective organizations closer together for our mutual benefit.

  and possibly also cooperation with UNECE Inland Transport Committee

- ........any new idea is welcome........
Usefull URL Links

- UN/CEFACT Secretariat
  www.unece.org/cefact

- ITIGG International Transport Implementation Guidelines Group
  www.smdg.org/itigg

- Norm@FRET French program on « Fleet Management and Commercial Freight Standardisation »
  www.normafret.org
UN/CEFACT and ISO ITS solutions for intermodal transport

Thanks for your attention

Dominique VANKEMMEL
Domain Coordinator Transport/Logistics
UN / CEFACT
dvankemmel@wanadoo.fr