UN/EDIFACT Enhancing Freight Forwarder Performance

by David Roff, Warrant Group Ltd

During the UN/CEFACT 30th Forum in Rome which celebrated 30 years of UN/EDIFACT, a number of presentations underlined the pertinence of this standard. Warrant Group, a UK-based Freight Forwarder demonstrated how moving from XML to UN/EDIFACT simplified their process and produced considerable gains.

As a freight forwarder it is important to communicate with multiple parties to facilitate the end-to-end process of moving freight. Customers, Haulier's, Load Sites, Shipping Lines and Ports all send and receive electronic data into the supply chain at various points. When moving to a new platform for data exchange Warrant Group evaluated the links and the purpose of each. There was a lot of overlap with many using their own private standards. A lot of these used XML (eXtensible Mark-up Language), some used iDoc formats and others UN/EDIFACT.

The Freight Forwarder, being an intermediary, usually needs to accommodate its clients and respond to the requirements of large shipping lines. This resulted in a growing overhead where software developers were writing bespoke links to accommodate each party.

When considering the complexity of the links in place and planning for future connection requirements, Warrant Group chose to consolidate and reference directly the international standard of UN/EDIFACT. This choice was in part based on the neutrality and stability of the standard, but also on its free availability.

30 years of UN/EDIFACT

"The setup we had in place had grown organically, it was not an optimal use of a developer's time to write code for several data formats essentially covering the same outcome. Using an internationally recognized standard for data exchange was important to us. It allowed us to focus on the content and structure of the messages when dealing with parties located in different countries where English wasn't the first language. By doing this we had a common language that was understood and familiar to all parties, simplifying the integration and removing the need to travel unnecessarily. Education and promotion of the use of an open free standard was key to the success of the project," David Roff of Warrant Group explained.

Through the introduction of UN/EDIFACT as the main data exchange standard, Warrant Group was able to simplify the workflows and keep the number of staff dedicated to this activity down to 1.5 people and drastically reduce the number of managed data connections by switching mappings to use standardized message types.

In a snapshot of six months of data from their system, Warrant Group exchanged 4,000 IFTMIN (Shipping Instructions), 15,000 IFTMBF (Booking), as well as processing annually around 4.5 million IFTSTA (Status) messages. This reduction in work and management of data connections has covered its return on investment.

Who is Warrant Group?
Warrant Group are one of the largest independently owned supply chain management companies in the UK who put technology at the heart of their supply chain solutions. For more information visit http://www.warrant-group.com

Recommendations & Standards - Beginning with the end in mind

by Ian Watt, Vice Chair UN/CEFACT Harmonization Program Development Area

Although standards for B2B e-Commerce exist, business partners still need additional bilateral agreement and coding partner-specific adaptations of their applications. Most research is conducted in the area of IT-solutions to interconnect the systems. Less activities are directed towards a shared business logic that allows business servers to collaborate. UN/CEFACT's business collaboration framework addresses this point. Instead of connecting two independent systems, it considers a B2B relationship to be a single system with interface on each partner's end.

Starting-off with database structures or paper-based documents in order to define the business logic is not an appropriate approach. It is more appropriate to design a collaboration as a well-defined choreography of business state changes. The information needed to change from one business state to the other will be communicated in the interchange

UN/CEFACT's Vision is to develop and promote simple, transparent, effective processes for global commerce. Its aim is to help business, trade and administrative organizations from developed, developing and transition economies to exchange products and services effectively. To this end, it focusses on simplifying national and international transactions by harmonizing processes, procedures and information flows related to these transactions, rendering these more efficient and streamlined, with the ultimate goal of contributing to growth of global commerce.

Trade Facilitation work started in 1960 and has resulted in over 25 UN Recommendations to governments covering best practice in international trade, the rationalization of global trade procedures, and the development and use of international codes.

The Electronic Business work started in 1975 and has resulted in UN Recommendations to governments and the private sector covering the global EDI standard – UN/EDIFACT – and the legal aspects of e-Commerce and e-Business.

Since 2002, Business Process Information Modelling has been the basis of the Centre's approach to both Trade Facilitation and e-Business.

Therefore, the strategy is to model, analyze and rationalize business processes, develop business semantics (core components) that are technology neutral, and use current and emerging technologies to structure and transfer the business information.

The base tenet is Orchestration – many activities working in harmony to achieve business goals. Related Metaphors: Choreography, 'partners in a dance'; Conversation, 'dialog, give-and-take'; Rules of the game, 'taking turns, playing tennis.'

UN/CEFACT's Modelling Methodology (UMM) and related Core Components Technical Specifications (CCTS) are the two primary technical specifications deployed by the government and private sector experts voluntarily contributing to UN/CEFACT's ability to progressively develop and enrich the UMM compliant International Supply Chain Reference Model (ISCRM), and the Core Components Library (CCL), both future proofed as they are technology agnostic. Related domain specific sub-sets of the ISCRM and CCL are the Supply Chain Reference Data Model (SCRDM) and the Multi-Modal Transport Reference Data Model (MMT RDM) addressing the Buy-Ship-Pay of paperless cross border trade facilitation.

UN/CEFACT's strategy to support the capturing of trade processes choreography and transitions states in the reference models has positioned UN/CEFACT standards as extremely useful in deployment of more recent technology-driven opportunities including Distributed Ledger Technology, or 'Blockchain', the Internet of Things 'IoT' and sensors, and the more recent evolution of collaboration platforms, often referred to as 'pipelines', where data is entered once by the originator as recommended in the UNECE and UN/CEFACT Recommendation No. 33.

Resulting from the now global appreciation of the benefits to be gained from the digitization of trade information and with increased private sector interest in benefitting from Distributed Ledger Technology, Trade Collaboration Platforms and the Physical Track & Trace possibility with IoT technology, UN/CEFACT has recently accelerated its work to support paper free cross border trade facilitation drawing heavily on the original technical specifications UMM & CCTS.

UN/CEFACT is the United Nations Centre for Trade Facilitation and Electronic Business. It was established as an intergovernmental body of the United Nations Economic Commission for Europe (UNECE) in 1996 and evolved from UNECE's long tradition of work in trade facilitation which began in 1957

Trade Facilitation and the Persistent Implementation Gaps - Evidence from UNECE studies by Hana Daoudi

Trade facilitation has been at the center of the shifting discussions on trade and economic development, with advocates of the New Institutional Economics arguing that market liberalization alone does not lead to the structural transformation towards products with high value added, a precondition that developing and least developed countries desperately need to achieve sustained income growth with equity. Needed, they argued, is a conducive institutional framework, geared, among others, to reduce transaction costs.

UN/CEFACT was among the leading international (organizations) to bring this argument closer to the daily lives of enterprises and traders. It not only gave meaning to the concept of conducive institutional frameworks in the area of trade, but also advanced a number of recommendations and standards for supporting the reduction of trade-related transaction costs. UN/CEFACT has demonstrated that when it comes to trade, the institutional framework is made up of distinct laws and structures, which create a coherent system that address regulatory and procedural trade barriers throughout the international supply chain. For developing and landlocked countries, UN/CEFACT recommendations are made all the more pertinent, as trade is significantly undermined by high transport costs. The challenge is, therefore, how best to assist countries to implement these recommendations.

These are the main concerns that form the focus of UNECE's demand-driven national studies on regulatory and procedural barriers to trade, which were launched in 2010 to inform member States of efforts to construct a conducive institutional framework for supporting export and import activities. The studies use a comprehensive evaluation methodology, designed to trace how trade facilitation conditions combine with other weaknesses throughout the international supply chain to impede the smooth flow of trade and the much-needed efficiency gains for keeping transaction costs at a minimum. The methodology covers 10 of the total 16 Multi-Agency Support Team (MAST) chapters on non-tariff measures: Sanitary and phytosanitary measures (Chapter A); Technical barriers to trade (Chapter B);Pre-shipment inspection and other formalities (Chapter C); Price control measures, including additional taxes and charges (Chapter F); Finance measures (Chapter G); Measures affecting competition (Chapter H); Distribution restrictions (Chapter J); Government procurement restrictions (Chapter M);Rules of Origin (Chapter O); and, Export-related measures (Chapter P).

The methodology is evidence-based involving actor oriented questionnaires targeting traders (at least 30 traders from strategic sectors are interviewed) and public sector stakeholders as well as providers of auxiliary services involved in: (i) trade facilitation; (ii) quality control systems (in standardization policies, technical regulations, conformity assessment and metrology); and, (iii) transport and logistical services providers. Actors are assessed in terms of their contribution to increasing the efficiency, transparency and predictability of trade, as opposed to their functional performance (See UN/CEFACT Recommendation 18, 2001)

Attention is also given to trade documents and procedures, which are measured against UNECE key principles on trade facilitation, including transparency, communications, consultations and cooperation; simplification, practicability and efficiency; non-discrimination, consistency, predictability and due process; harmonization, standardization and recognition; and the use of modern information and communication technology (ICT) systems.

The insights emerging from the actor-oriented questionnaires are complemented by a sector-focused assessment of regulatory and procedural barriers to trade, using the UNECE/ESCAP Business Process Analysis (BPA) methodology. The studies also provide action-oriented recommendations, born out of broad based consultations with national public and private sector stakeholders during validation workshops.

The studies are then presented to member States during the annual sessions of the UNECE inter-governmental body (Steering Committee on Trade Capacity and Standards, previously the Committee on Trade). The sessions carry partnerships to the international level, since they are attended by representatives from State agencies responsible for horizontal coordination of economic reforms as well as those involved in vertical (sectoral) coordination and implementation (e.g., Customs authorities and conformity assessment bodies), private sector stakeholders, development partners and donor agencies.

Since launching the studies in 2010, UNECE has carried out six national studies in Albania, Belarus, Kazakhstan, Kyrgyzstan, Moldova (Republic of) and Tajikistan, and is in the process of finalizing two studies in Armenia and Georgia. A common theme running throughout the studies is the need for intermediate recommendations to assist countries in implementing UN/CEFACT and other international recommendations and best practices. The recommendations require years to implement as the countries lack the expertise knowledge, infrastructure and funds.

While training is essential, it remains insufficient for supporting implementation, since at issue is also the lack of the much-needed initial conditions that the countries do not have. The commercial and production networks are underpinned by adverse dynamics, so that the recommendations appear as too ambitious and are sometimes seen as following "one-size-fits-all solutions" when in fact they are not. Rather, they advance practical tools for understanding the complex trade realities and depict a detailed end result scenarios. At issue is not the recommendations per se, but the need to design additional recommendations that would help countries acquire the necessary initial conditions. For example, what intermediary system(s) could a country use as it forges ahead to establish a Single Window facility or a Trade and Transport Facilitation Monitoring Mechanism? Is it possible to conceive of building blocks that could be sequenced over several years? Moreover, what can be done with those systems which actually function? Is there a way for scaling up such systems? These are just examples which demonstrate new areas for complementing UN/CEFACT recommendations.

Where are they now? Mats Wicktor

My initial contacts with UN/CEFACT were at different conferences and other activities regarding Single Window and international trade procedures on several occasions during the 2000's.

The first actual task within UN/CEFACT was in the role of responsible for the Customs group, at the time named TBG 4. The reason was the connection between the World Customs Organization's Data Model and the work on alignment with UNTDED and UN/CCL.

When the TBGs were discontinued, I continued as responsible for the Customs domain and later became a member of the UN/CEFACT Bureau as vice chair with responsibility for two PDAs: International Trade and Transport Procedures PDA and the Regulatory PDA.

Due to an assignment to join the WCO in 2012, I needed to leave my responsibilities within UN/CEFACT.

Since I left UN/CEFACT and also the WCO I work as senior advisor at the Swedish Customs Head Office, primarily engaged in the ongoing digitalization of full Customs procedure based on the revised Customs legislation of the European Union.

International standards are extensively used in my current work and it is very nice to see that deliverables from UN/CEFACT and its experts are used on different occasions in the digitalization process of the Customs administrations of the European Union.

Upcoming events

For more information on any of these events, please contact UNECE secretariat: lance.thompson@un.org

Team of Specialists on Sustainable Fisheries
- 29-30 January, Geneva, Switzerland

UN/CEFACT Ship PDA meeting
- 30-31 January, Paris, France

UN/CEFACT Forum
- 23-27 April, Geneva, Switzerland

UN/CEFACT Plenary
- April 30- May 1, Geneva, Switzerland

UN/CEFACT Forum
- October/November, tbc

UNECE Single Window Conference
- 22,23 November, tbc

ebMoU/MG meeting
- 5 December, Geneva, Switzerland

Word from the acting Chair, Sue Probert

It is with great pleasure that we see a revival of a UN/CEFACT newsletter. This is an excellent opportunity to share experiences and find out more of what is going on in other parts of our committee and even within the UN.

This newsletter, like all of the work of UN/CEFACT relies heavily on all of you, the UN/CEFACT experts. Over the years and very recently, we have been able to produce some high quality standards and recommendations. Thank you all for your hard work and dedication. Your efforts do not go unnoticed and they are greatly appreciated.

I would like to add my personal congratulations on the success and continued strength of the use of UN/EDIFACT. And of course the hard work of the library and syntax teams.

My term as acting Chair is only through January. It is the start of a very exciting new year with many meetings to come and many projects underway. The Bureau is dedicated to supporting the work of the committee and looks forward to seeing you all at the Forum in April.

Recent project activities

In Public Review

T+L – eCMR technical artefacts (ends 20 January)

Recently launched

ITPD – Integrated Services for MSMEs project
SWD – revision of Recommendation 33
SWD – Single Submission Portal
Proc – Sustainable Procurement project
T+L – Smart Containers project
T+L – Buy-Ship-Pay Reference Data Model project
T+T – Experience Program Green Paper project

Soon to be launched

ITPD – revision of Recommendation 16
T+L – mobile devises project
ENV – Waste Management Analysis

Recently approved and finished

ITPD – Whitepaper on Paperless Trade
eGOV – Trusted Transboundary Environment White Paper