UN/CEFACT announces the Public Review of its Supply Chain Reference Data Model (SCRDM)

> *The UN/CEFACT Reference Data Model: a new way to facilitate e-Business communications.*
>
> *A breakthrough in how electronic communication will be carried out in the future.*

The Reference Data Models of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) are an evolution of the way standard Business documents are created. More and more domains in the world, such as customs and transport, have developed reference data models including a master document structure, from which standard business document subsets can be derived. These document subsets, although separated along the supply chain process by their individual functionality, have a similar structure, which helps to ensure that all documents are aligned, as well as to reduce implementation costs.

There are two ways of setting up information systems. In the current approach, information artefacts are built to suit a particular business document. In the Supply Chain Reference Data Model, on the contrary, information artefacts are aligned to and suit processes. The information requirements for particular information artefacts defining subsets of the 'Master' depend on, and reflect, the specific process context. This is comparable to the documentation included in message implementation guidelines.

The Supply Chain Reference Data Model (SCRDM) is therefore a rich collection of business information artefacts which are reusable. In addition, it has a 'Master' document structure from which new standard Business documents, such as a purchase order or an invoice, can be derived.

The Cross Industry Invoice is the first, published, SCRDM-based, standard business document subset. This illustrates the evolution of creating standard business documents from so called 'Masters' (by applying the UN/CEFACT CCBDA Methodology).

The UN/CEFACT Supply Chain Reference Data Model complements the UN/CEFACT Multi Modal Transport Reference Data Model to cover the data exchange requirements across international, cross-border, trading processes.

Business documents derived from a UN/CEFACT Reference Data Model coherently refer to the "aligned document family" concepts described in UNECE Recommendation 1. This ensures that trading partners can choose the type of document technology that best meets their business requirements and technology capabilities and also provides a migration path for the adoption of new technologies.

Benefits of SCRDM across the public and private sectors include:

- Reduction of administrative burden by more **efficient reuse of data**;
- Based on an **internationally accepted and trusted Standards Library**;
- Enhanced **interoperability of data across supply chain business processes**;

- **Standardized business document structures** based on a common 'Master' structure;
- **Facilitation of information flows** between trade and government (Single Window);
- **Integrated international code lists** (e.g. UN/EDIFACT code lists); and
- Use of a **syntax neutral semantic model for defining business data exchanges.**

A significant benefit of Reference Data Models is that they provide business process analysts, modellers, software designers and builders with a base upon which "To-Be" architectures can be defined.

Work by the International Network of Customs Universities describes the concept of "*seamless integrated Data pipelines*": *Information travels from origin to destination and is able to be accessed by appropriately authorised private and public sector parties to the specific trade transaction.*

Integrated data pipelines establish a collaborative, real-time, "cloud-based", service where all actors engaged in an international trade are able to share and collaborate on information exchanges between Business-To-Business (B2B), Business-To-Government-To-Business (B2G2B): the result is a build-up of related trade data whose input is only made once by the data originator, while ensuring the progressive capture of all trade data required to promote/execute trades.

The concept of Reference Data Models supports the architecture required for building integrated seamless data pipelines and Single Window environments, which rely upon internationally-harmonized data for interoperability reasons. Exchanges between national Single Windows rely on common structures, as well as internationally harmonized data and business documents. Streamlined business processes are therefore essential to reduce duplication and potentially inconsistent reporting of trade information. Web services require documents structures that send only the information needed to execute updates between processes: these are sometimes known as "snippets". As the UN/CEFACT Core Component Document Assembly methodology can be applied to restrict standard document structures (such as the Cross Industry Invoice), the creation of both traditional and snippet documents is supported.

On 30 August 2016, the SCRDM package was published for Public Review for a period of 60 days. The Supply Chain Reference Data Model will be presented at the 28th UN/CEFACT Forum in Bangkok, Thailand, on 26-30 September 2016.

Additional information can be found on www.unece.org/cefact.html