Getting Started with UN/CEFACT

Summary

The United Nations/Centre for Trade Facilitation and Electronic Business (UN/CEFACT) is a chartered activity of the UN Economic Commission for Europe (UN/ECE). The mission of UN/CEFACT is to support, enhance, and promote trade facilitation between developed, developing and transitional economies. UN/CEFACT standards consist of EDI Messages, and supporting data elements, technical specifications for the UN/CEFACT EDI syntax (EDIFACT), technical specifications for methodologies, and syntax specific implementation specifications such as XML Naming and Design Rules. SAP is using significant portions of the UN/CEFACT technical specifications in the development of SAP Enterprise Services.

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Author Bio

Mark Crawford joined SAP in October 2005. He is an architect in the Technology Standards Group focusing on industry standards and methodologies. Prior to joining SAP, Mark was a Senior Research Fellow for a Washington D.C. government think tank where he specialized in XML, eBusiness standards, and Semantic Data Modeling. Before that he spent 23 years as a U.S. Naval Officer with extensive experience in Logistics, IT, Supply Chain, Procurement and Finance. Mark has been involved in both cross and vertical industry business standards, and the underlying methodology standards that support them. He is actively involved in UN/CEFACT standards activities as vice chair of Applied Technologies Group and chair of UN/CEFACT XML Syntax Group, editor for UN/CEFACT CCTS, chair of UN/CEFACT Core Components Harmonization Project, as well as Co-Chair of the ISO 15000-5 Core Components Technical Specification in ISO TC154. He previously was involved in the X12 Communications and Controls Subcommittee, vice chair of the X12 XML Working Group, and Chair of the joint X12/CEFACT Core Components initiative.
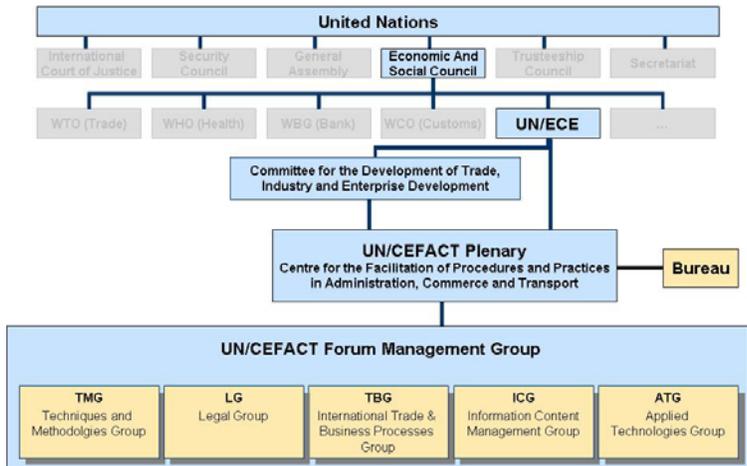
Table of Contents

About UN/CEFACT

The United Nations/Centre for Trade Facilitation and Electronic Business (UN/CEFACT) is a chartered activity of the UN Economic Commission for Europe (UN/ECE). The UN/CEFACT mission is to support, enhance, and promote trade facilitation between developed, developing and transitional economies.

To achieve this mission, UN/CEFACT focuses on simplifying and harmonizing processes, procedures, and information exchanges through development of a comprehensive set of technical specifications and standard business processes. UN/CEFACT standards consist of:

- EDI Messages and supporting data elements,

- Technical specifications for the UN/CEFACT EDI syntax (EDIFACT),

- Technical specifications for methodologies and

- Syntax specific implementation specifications such as XML Naming and Design Rules.

Organization

The UN/CEFACT organization consists of the plenary with representatives from countries around the globe. The plenary oversees the work efforts of a wide variety of permanent groups – Techniques and Methodologies (TMG), Applied Technologies (ATG), International Trade and Business Processes (TBG), and Information Content Management (ICG). The Plenary is supported by the Bureau which functions as an advisory board and oversees the work effort of the permanent groups through the Forum Management Group (FMG). Membership in the plenary is through designation by member nations. Membership in the various work groups is through designation by the member nation Head of Delegation (HOD) to UN/CEFACT. SAP currently has representatives in the German delegation and the US delegation. These representatives work primarily in the permanent groups described below.

Permanent Groups and Their Standards

The permanent groups have a division of work that ensures a consistent and harmonized approach to developing trade facilitation standards.

- The TMG is responsible for developing new technical specifications in support of the work efforts of the other groups. SAP chairs the TMG and is actively involved in the development of their specifications.

  - Core Components Technical Specification – New paradigm in semantic data modeling for desiging, storing, sharing, and using data within and across the firewall. CCTS is a strategic aspect of NetWeaver and Enterprise Services. SAP chairs this effort and functions as editor.

  - Message Assembly (In Draft) – defines anapproach for building syntax neutral business messages from independent constructs in a coordinated fashion with other UN/CEFACT standards. Message Assembly will play a future role in ESA. SAP participates in this effort.

  - UN/CEFACT Modeling Language (UMM) – defines a specific profile of the Unified Modeling Language for creating consistent Business Process Models. SAP is beginning to implement UMM. SAP participates in this effort.

  - XMI Profile (In Draft) – defines XMI 2.0 profile for expressing UN/CEFACT models and Core Components as interchange between applications. The XMI profile will be of significant value in the future for transporting process models. SAP participates in this effort.

- The TBG is responsible for developing business process models and core components that define information exchanges between trading partners.

  - Process Specific BRS and RSMs – The requirements statements, process models, and candidate Core Components (conceptual data model) and Business Information Entities (physical/logical) data model

  - Core Components Library – the master set of harmonized and approved Core Components and Business Information Entities. The core component library will be the lynchpin for future business vocabulary interoperability. SAP customers will be incorporating this library through the levels of adoption set by their vertical industry groups. SAP chairs the development of this library.

- The ICG functions as the UN/CEFACT librarians through creation and maintenance of an electronic registry consisting of technical specifications, business process models, core components, and syntax specific expressions.

  - UN/CEFACT Registry Specifications – a UN/CEFACT profile for an ebXML Registry. SAP participates in this effort.

- The ATG is responsible for developing and maintaining XML, EDI, and other syntax expressions of TBG models. SAP is the Vice Chair of this work group, and Chair of the XML Syntax Work Group.

  - XML Naming and Design Rules – Cohesive set of rules that optimize the expression of UN/CEFACT Core Components in XML. The NDR can also be used for other OO based constructs. SAP is using the CEFACT XML NDR as part of its CCTS conformance approach, and will use this specification to create future SAP owned CCTS constructs and XML messages. SAP chairs the development of this specification and functions as editor.

  - Standard Business Document Header – Defines an approach to including required business information at the header level (either A2A or B2B) in XML messages. SAP is involved in the next version of this specification.

  - UML2 EDIFACT – Defines a consistent approach for converting UN/CEFACT developed UML models into EDIFACT Syntax messages.

UN/CEFACT Advantages

- UN/CEFACT is an internationally recognized and independent standards development organization chartered by the United Nations to establish global e-Business standards

- More than 40 years of experience in faclitating global trade

- UN/CEFACT is building on the lessons learned from UN/EDIFACT – the largest number of implementations for B2B integration today

- Vision for global e-Business through common understandable business semantics and logic

- Provides a generic foundation for all industries and countries

- More than 50 countries and more than 1500 experts from key players in business, trade, and governments create a one-of-a-kind community for standards development

Role of CEFACT Standards at SAP

The majority of SAP's larger customers use the UN/CEFACT EDIFACT standards for their B2B exchanges. Today, UMM, Core Components, and XML NDR specifications are beginning to see similar adoption. SAP is using a number of the CEFACT specifications in NetWeaver as well as Enterprise Services for development of SAP Global Data Types, their underlying Core Data Types, and internal and external XML expressions. SAP is evaluating the adoption of the other CEFACT standards due to their importance in breaking down the interoperability barriers that exist within an organization and across the supply chain.

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