UNECE
UN / CEFACT

Executive Guide

Smart Connectivity

Introduction

Recent decades have seen impressive growth in all types of data exchanges between entities: governments, organizations, businesses, people, and things (via the Internet of Things). Technology, and the accompanying digitalization of information, has been the main driver behind this growth. At the same time, more than just technology is required for connectivity to be "smart". It also requires the simplifying, streamlining, and standardizing of connections along three dimensions: infrastructure, knowledge management and collaboration.

The highest levels of smart connectivity are possible when processes are optimized in consultation with all relevant stakeholders and when electronic systems allow data automation based on clear semantic standards.

Meanwhile, there are factors which prevent connectivity from becoming smarter, such as pre-existing legacy systems which may be costly to update; ignorance or lack of use of available semantic and syntax standards; processes not viewed from a facilitation perspective; or legislation and regulatory frameworks that do not always encourage cross-border cooperation.

Applications

Over the past three decades, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) has developed a complete set of semantic standards which can help countries and companies achieve smart connectivity on three different levels.

On one level, UN/CEFACT has developed guidance documents and recommendations in order to encourage a harmonized and streamlined approach to trade and promote the use of same or similar procedures across borders around the world. These include clear technical specifications on how to approach e-business exchanges.

On another level, UN/CEFACT has been developing clear business process analyses of most trade- and regulatory-related operations. These allow all parties to understand processes in similar ways and enable easier application of e-business standards.

On a final level, UN/CEFACT has developed a comprehensive library of data which can be used for any business exchange. Each data element has been harmonized between processes in order to optimize its reuse. These have been further

organized into Reference Data Models allowing stakeholders to quickly and easily identify the information related to their processes (e.g. Supply Chain Management, Multi-Modal Transport, Cross-Border Management, etc.).

Finally, these processes and their data are accompanied by standard electronic messages (syntax) which are available and ready to use.

These standards are developed through an overarching public-private partnership of volunteer experts from all corners of the globe, thus ensuring the robustness of the standards proposed. When further requirements are identified, the standards can be enhanced but always remain backwards compatible. These standards are also made available free of charge on the UN/CEFACT website.

Benefits

Smart connectivity is greatly enhanced when all parties use the same standards, ensuring a seamless exchange and a common comprehension of the information. The UN/CEFACT comprehensive approach to electronic exchanges for trade and regulatory procedures allows all its messages to interact and connect all stakeholders along the supply, logistics and regulatory chains. Being open to any participants, and making all results available free of charge, ensures that everyone has a potential say in the development and everyone can benefit from the results.

More information
- http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/2020_Plenary/ECE_TRADE_C_CEFACT_2020_INF.1_UNECE-Nexus.pdf
- https://www.unece.org/index.php?id=52165

Smart Connectivity supports:

- SDG 8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"
- SDG 9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"
- SDG 12 "Ensure sustainable consumption and production patterns" and
- SDG 17 "Strengthen the means of implementation and revitalize the global partnership for sustainable development"

What is UN/CEFACT?

UN/CEFACT, the United Nations Centre for Trade Facilitation and Electronic Business, supports activities dedicated to improving the ability of business, trade and administrative organizations, from developed, developing and transition economies, to **exchange products and relevant services effectively**. Its principal focus is on facilitating national and international transactions, through **the simplification and harmonization of processes, procedures and information flows**, and so contributing to the growth of global commerce.

UN/CEFACT has a global mandate. Participation in the UN/CEFACT Forum is open to all. There are 1000 experts from every region in the world.

Within the framework of the United Nations Economic and Social Council, the United Nations Economic Commission for Europe (UNECE) serves as the focal point for **trade facilitation recommendations and electronic business standards**, covering both commercial and government business processes that can foster growth in international trade and related services. In this context UN/CEFACT was established, as a subsidiary, intergovernmental body of the UNECE.

Participation in the development of UN/CEFACT standards and recommendations is free of charge.

If you are interested in joining us, you should register at https://uncefact.unece.org/display/uncefactpublic/UNCEFACT+Expert+Registration

All resulting deliverables are available online free of charge at http://www.unece.org/cefact

For more information:
http://www.unece.org/cefact
See also: http://tfig.unece.org/

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