International Standards and Guidelines Implementation Framework

(Draft as of February 2017)

The draft International Standards and Guidelines Implementation Framework (ISGIF) is prepared to support implementation of Article 9 of the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (FA). Article 9 of the FA recommends application of international standards and guidelines for the purpose of ensuring regional and global interoperability in paperless trade and supporting development of safe, secure and reliable communications protocols for the exchange of trade-related data and documents in electronic form. It also recommends participation in the development of international standards and best practices related to cross-border paperless trade.

The annexes to this framework include 1) list of relevant international standards and guidelines to be considered for adoption or utilization by the Parties to the FA in the process of its implementation, 2) list of relevant international standard bodies for the Parties to the FA may consider participation individually or collectively through institutional arrangement of the FA, when they deem beneficial, and 3) list of relevant regional and global alliance/initiatives as well as their relevant products. The annexes serve purely for the purpose of reference, and do not have any binding nature.

(1) International Standards and Guidelines

An international standard is a standard developed by an international standard body. Taking part in developing a standard is open at least to its members. There are different layers covered by international standards, such as “Political layer”, “Organizational layer”, “Semantic layer” and “Technical layer”.

“Political layer” and “Organizational layer” are referred at the business process analysis phase. Standards for “Semantic layer” are used at the data harmonization and modeling phase. Standards for “Technical layer” are used at the system implementation design phase.

For example;

- Some of UN/ECE Recommendations are guidelines for “Political layer”, such as;
  Recommendation 14: Authentication of Trade Documents
  Recommendation 31: Electronic Commerce Agreement
  Recommendation 33: Single Window Recommendation
  Recommendation 34: Data Simplification and Standardization for International Trade
  Recommendation 35: Establishing a legal framework for international trade Single Window
- Business Requirement Specifications (BRS) of UN/CEFACT standard are “Organizational layer”, such as:
  Cargo tracing and tracking

Cross Industry Invoice
Export specification (eCert)
Transfrontier movement of waste

- Core Component Technical Specification and it's deliverables Core Component Library of UN/CEFACT, UN/EDIFACT Messages and Directory, and Trade Data Element Directory (TDED ISO7372) are "Semantic layer".
- UN/CEFACT XML Naming and Design Rules, and ebXML Messaging Service (ISO/TS 15000-2) are "Technical layer".

International standards and guidelines for trade facilitation can be found in relevant tools and guides such as UNNExT tools, including Business Process Analysis (BPA) Guide or Data Harmonization and Modelling Guide.

(2) Conformance

It is recommended that implementation of international standards follows conformance statements of those standards wherever such statements are provided. However, it should be noted that it is usually difficult to have full implementation conformance to certain standard; in such cases, it is recommended to implement some parts of a standard (Compliant) with indication of conformance level.

There are 4 levels of conformance to be considered while adapting the standards.

- Consistent: The implementation has some features in common with the standard specification i.e. it has restrictions. However it also has added features i.e. it is also extended. The common features are implemented in accordance with the specification. However, some features in the specification are not implemented, and these features are not covered by the standard specification.
- Compliant: Some features in the standard specification are not implemented, but all features implemented are covered by the specification, and in accordance with it. This would be the most typical scenario, which are a subset of the standard.
- Conformant: All the features in the architecture specification are implemented in accordance with the specification, but some more features are implemented that are not in accordance with it.
- Fully Conformant: There is full correspondence between standard specification and implementation. All specified features are implemented in accordance with the specification, and there are no features implemented that are not covered by the specification.

As "Fully Conformant" is difficult to implement adapting the local political and organizational environment, "Compliant" or "Conformant" is recommended. For the interoperability view, it should be specified that which parts of the standard are not implemented for "Compliant", or which parts of implementation are out of the standard specifications for "Conformant".

(3) International Standard Body

There are several international bodies developing standards and guidelines for paperless trade, such as UN organizations (UNESCAP, UNECE, UNCITRAL, UN/CEFACT, ITU), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), World Customs Organization (WCO), Internet Engineering Task Force (IETF), etc.

It should be also noted that there are several industrial bodies[1] whose standards are worthwhile to refer in trade facilitation such as:

- Organization for the Advanced Structured Information Standards (OASIS)
- Pan-Asian E-Commerce Alliance (PAA)
- Global Standard One (GS1)
- International Air Transport Association (IATA)

When specifications published by industrial bodies are implemented for exchanging information among interested parties, bilateral or multilateral agreement to use them should be arranged.

[1] Due attention should be given to standards developed by organizations whose membership is open; if membership of such organization is limited only to particular circle, technical specifications developed by it may potentially become barriers. In case such organization pursues a proprietary standard, this may pose a barrier.

Annex 1: List of Relevant International Standards and Guidelines for consideration (See separate Annex)

Annex 2: List of Relevant international standard bodies to consider for participation

Name of standard body	Brief description	Standardization Area	Major standards Produced	Website URL
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) "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."	Electronic business and trade facilitation	• UN/EDIFACT • UNTDED • UN Layout Key • Core Component Technical Specification • UN/CEFACT Modeling Methodology	http://www.unece.org/cefact.html
ISO/IEC JTC1	JTC 1 is a Joint Technical Committee of the ISO and IEC on Information Technology	Information and Communication Technology		http://www.iso.org/iso/jtc1_home.html
ISO TC 154		Processes, data elements and documents in commerce, industry and administration		http://www.isotc154.org/
IETF	Internet Engineering Task Force (IETF). The mission of the IETF is to make the Internet			https://www.ietf.org/

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Electrical ics EEE)			https://www.ieee.org/index.html
Web (W3C)			http://www.w3.org/
n for the nt of nformation	Information technology	ebXML	https://www.oasis-open.org/
l nication Jnited cialized	Information and Communication Technology		www.itu.int