APEC Data Harmonization towards Single Window Paperless Environment

APEC-endorsed Project

Co-sponsored by APEC Member Economies
(Thailand, China, and Chinese Taipei)

Thayanan Phuaphanthong
Project Manager
APEC-funded Project on Data Harmonization

Research Associate
Institute for Information Technology Innovation
Kasetsart University
thayanan@ku-inova.org
Project Background

- Report to APEC Leaders [ABAC: 2003] recommends APEC to “implement paperless trading through the development of a single-window system”

- APEC’s Strategies and Actions toward a Cross-Border Paperless Trading Environment [ECSG: 2004] endorsed at the 16th APEC Ministerial Meeting suggests implementation timelines as follow:
  
  **2006:** Interested member economies implement ECO and e-SPS Pathfinders for the cross-border transmission of electronic certificates of origin as well as electronic sanitary and phyto-sanitary certificates.

  **2010:** Most member economies establish a domestic paperless trading environment and implement pilots for the cross-border electronic transmission of customs clearance data.

  **2020:** APEC establishes a comprehensive paperless trading environment that enables the electronic transmission of trade related information across the region.
UN/CEFACT Step-by-Step Path to Paperless Trading

Step 1: Process Analysis (UMM)

Step 2: Process Simplification and Harmonization (Rec. 4 & 18)

Step 3: National Data Harmonization (Rec. 34, UNTDED and WCO Data Set)

Step 4: Document Simplification and Standardization (UNLK, TF Toolkit and Form Repository)

Step 5: Information Framework for Data Exchange (UNeDocs)

APEC Data Harmonization towards Single Window Paperless Environment (Jan - Dec 2008)
Objectives

- To build information framework that enables the creation of semantic interoperability among Single Windows based on:
  - WCO Data Model (customs data requirements)
  - UNeDocs (trade and transport data requirements)
  - Data requirements from the Asia-Pacific region

- To facilitate APEC member economies and enhance their capacity in the following areas:
  - Documents simplification
  - Data harmonization
  - Standardized data set development at both individual and regional level

- To reinforce the adaptation of internationally accepted standards essential for the development of interoperable Single Windows

- To formulate the network of practitioners with expertise in message assembly using UNeDocs
**Principle Activities**

- Integration of WCO Data Model (version 3) and UNeDocs (Mexico version) with the incorporation of *data requirements from the Asia-Pacific region*.

- Development of holistic data model for cross border data exchange using UN/CEFACT Core Components (CCL07A) according to ISO 15000-5: ebXML Core Components Technical Specification (version 2.01).

![Diagram of data model integration](image)
Principle Activities

- Proof-of-concept demonstration
  - Develop a set of electronic messages used in international trade transaction based on the integrated data model in XML format
  - Develop a set of digital paper documents using the United Nations Trade Documents Toolkit
Principle Activities

- Development of application guideline to suggest necessary steps towards data harmonization and single window development

- Organization of a back-to-back two-day high level conference for policy-makers and three-day technical capacity building workshop

- Establishment of internet portal to assist APEC member economies through the process of data harmonization:
  - Relevant resources
  - Newsgroup for an exchange of experiences and ideas
  - Virtual working environment for regional expert group
Outputs

- Improved UNeDocs [UNeDocs (Mexico version) + WCO Data Model (version 3.0)]

- UNeDocs application guideline

- A set of digital papers and electronic messages

- Awareness raising and capacity workshop

- Virtual working environment for a network of experts
Outcome

- Increased capacity of APEC member economies in harmonizing data requirements and developing electronic messages for cross border data exchange using UNeDocs

- Increased UNLK aligned paper and electronic forms resulting from the use of United Nations Trade Documents Toolkit

- Increased harmonization of trade and transport related data requirements among APEC member economies and development of electronic messages based on UNeDocs

- Increased number of experts that are willing to make contribution for others in this area
Proposed Timelines

- Jan 2008 – Detailed Scope & Plan Developed
- Feb 2008 – Approved Project Plan by APEC ECSG/SWWG (SOM I), Lima, Peru
- April 2008 – UN/CEFACT Forum – [UNeDocs Mexico Version]
- 30 April 2008 – Expert Meeting in Jeju, Korea [Draft UNeDocs Application Guide reviewing]
- 8-12 December 2008 – Capacity Building Workshop, Bangkok
- Feb 2009 – Final Report to APEC ECSG/SWWG (SOM I)
Thank you

Thayanan Phuaphanthong
thayanan@ku-inova.org