Enhancing Single Windows for Trade Facilitation

HOW TO BETTER INTERFACE/INTEGRATE TRANSPORT/LOGISTICS RELATED PROCESSES TO SINGLE WINDOW

Study on Integration of Transport Requirements in Single Window Environment

CHAPTER 1  BACKGROU N D
CHAPTER 2  REVIEW OF SW DEFINITIONS, CONCEPTS AND MODELS
CHAPTER 3  KEY INTERNATIONAL TRANSPORT REQUIREMENTS IN SINGLE WINDOW ENVIRONMENT
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Review of Single Window Definitions, Concepts and Models

“...a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once.”

UN/CEFACT

- UN CEFACT definition
- WCO understanding
- UNNEXT stages of evolution
- in practice limited SW / B2B extended
- IMO / UNECE
  - Ship single window
    / Transport operations-related SW
  - Cargo and trade single window
    / Trade-related SW

Types of SW

- national / international
  - Regulatory
  - Port-related
  - Extended with B2B trade/transpor t/logistics components

Main characteristics of the SW concept

- Trade and transport facilitation oriented
- Single entry point for information exchanges (regulatory / B2B extended)
- Electronic exchanges + additional services/ICT solutions
- Redesigned / streamlined business processes
- Variety in scope and modalities incremental and project driven development
- Integration of various SW and IT systems
International instruments on Single Window

- UN/CEFACT Recommendations (No.33;34;35;14)
- UNNExT SW implementation tool kit:
  - SW Planning and Implementation Guide (2012);
  - Electronic SW Legal Issues: A Capacity-Building Guide (2012);
  - BPA Guide to Simplify Trade Procedures (updated Sept 2012);
  - Data Harmonization and Modeling Guide for SW Environment (2012);
- WCO Compendium, How to Build SW Environment (2011);
- WCO Data Model (version 3.0 – 2009)
- WTO Trade Facilitation Agreement (Article 10.4) (2014)

Concepts and methodologies applicable for transport/logistics oriented single windows

IMO Guidelines for setting up SW system in maritime transport (2011)

Objectives:
- Simplified clearance of ships
- standardized logistics activities/ information
- improved maritime logistics efficiency / competitiveness

Step-by-step approach:
- determination of scope and stakeholders;
- analysis of relevant policy issues;
- consideration to use legacy systems;
- information security, business model, methodology/tools;
- design process;
- data elements (FAL forms and data elements);
- the role of different user groups;
- non-functional requirements.
### International transport requirements in single window environment

- **Transport-related stakeholders**
  - Transport service providers: shipping lines; NVOCC; airlines; road transport enterprises; railway transport operators; inland waterway transport enterprises
  - Shipping and forwarding service providers: shipping agents; forwarders; forwarding agents; customs brokers
  - Logistics / cargo handling service providers: warehouse depositor; warehouse keeper; logistics centre operator; inland container depot operator, border crossing operator, shed operator; berth operator; terminal operator; cargo handling company

### Transport-related processes in SW environment

<table>
<thead>
<tr>
<th>B2B Transport/Logistics</th>
<th>Port related</th>
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</thead>
<tbody>
<tr>
<td><strong>Booking</strong></td>
<td></td>
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<tr>
<td>- request/availability; pre-booking; pre-carriage; main booking</td>
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<tr>
<td><strong>Prepare documentation</strong></td>
<td></td>
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<tr>
<td>- transport instruction; packing list; HAZMAT; invoice; transport doc (B/L)</td>
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<tr>
<td><strong>Cargo Insurance</strong></td>
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<tr>
<td><strong>Transport</strong></td>
<td></td>
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<tr>
<td>- collect, transport, status info, arrival, on-carriage, release, close transaction</td>
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<tr>
<td>- arrange port services</td>
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<tr>
<td>- deliver / collect / load container</td>
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<tr>
<td>- clearance to carry in to the sea port / pre-carriage</td>
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<tr>
<td>- warehousing, tally services, fumigation services</td>
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<tr>
<td>- maritime authorities / customs clearance</td>
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<tr>
<td>- load container onto ship / stevedore services</td>
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<tr>
<td>- issue and sign B/L &amp; charge for transport services</td>
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<tr>
<td>- charge for outbound port handling services</td>
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<tr>
<td>- advice departure to the port authorities</td>
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<tr>
<td>- pilotage, tugboat operation &amp; mooring services</td>
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<tr>
<td>- despatch departure from the port</td>
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<tr>
<td>- main transport of the goods</td>
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<tr>
<td>- despatch arrival at the port</td>
<td></td>
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<tr>
<td>- maritime authorities / entry customs clearance</td>
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<tr>
<td>- berthing, pilotage, tugboat operation &amp; mooring services</td>
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<tr>
<td>- unload the containers from the ship / stevedore services</td>
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<tr>
<td>- warehousing, handling for transhipment, tally services</td>
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<tr>
<td>- import (transit) customs clearance</td>
<td></td>
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<tr>
<td>- charge for port handling services</td>
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<tr>
<td>- clearance to carry out from the sea port / on-carriage</td>
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<tr>
<td>- unload container &amp; manage the empty container</td>
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</tbody>
</table>
### Transport-related processes in SW environment

<table>
<thead>
<tr>
<th>Regulatory</th>
<th>Fundamental transport elements</th>
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<tbody>
<tr>
<td>• conveyance reporting (e.g. vessel entry)</td>
<td>• registration of transport means</td>
</tr>
<tr>
<td>• advanced cargo manifest to Customs;</td>
<td>• worthiness certification</td>
</tr>
<tr>
<td>• cargo declaration on exit/entry/transit/transshipment</td>
<td>• insurance of transport means</td>
</tr>
<tr>
<td>• cargo permits for specific types of goods (e.g. waste; dangerous goods etc.)</td>
<td>• licencing professionals to operate transport means</td>
</tr>
<tr>
<td>• security screening</td>
<td>• certification for carrying dangerous goods;</td>
</tr>
<tr>
<td>• immigration control</td>
<td>• visas for professional transport means operators and crew</td>
</tr>
<tr>
<td>• releasing the cargo</td>
<td>• transport/transit permits to operate on specific routes</td>
</tr>
</tbody>
</table>

### “Request for vessel berthing” - import of raw materials into Thailand

[Flowchart image showing the process of request for vessel berthing]

Source: Asia-Pacific Research and Training Network on Trade (ARTNeT), 2011, (authors Somnuk Keretho and Saisamorn Naklada, Analysis of Export and Import Processes of Selected Products in Thailand (Fig 7 – A3-7)
### Transport-related documents

**Background in international conventions, recommendations**

- IMO FAL Convention (FAL Forms 1-7; Certificates)
- International Chamber of Shipping (B/L; SWB; cargo & freight manifests)
- FIATA (FBI; FWB)
- CIM Convention/SMGS Agreement (CIM/SMGS)
- CMR Convention (CMR)
- IATA (AWB)
- Revised Kyoto Convention (Customs Transit)

### Transport and Related Services

#### Forwarding and Cargo Handling

- Instructions from customers to forwarders: Forwarding instructions;
- Goods receipt: Forwarder’s certificate of receipt; Forwarder’s warehouse receipt; Dock receipt; Warehouse (shed) receipt;
- Advice documents: Forwarder’s advice to import agent; Forwarder’s advice to exporter;
- Authorization and instructions: Delivery order; Handling order; Gate pass;
- Administrative documents: Forwarder’s invoice; Port charges documents.

#### Transport

- Contract documents: constituting or evidencing a contract of carriage, such as Universal (multipurpose) transport documents, Sea waybills (Liner waybills, Ocean waybills, River waybills), Bills of lading; Rail and Road consignment notes; Air waybills; Dispatch notes for post parcels; Multimodal (combined) transport documents. Through bills of lading;
- Receipt document: acknowledging receipt of goods for carriage; Mate’s receipt; Acceptance certificates (waterways); Duplicate rail and road consignment notes; Certificate of transport;
- Contents documents: listing goods in transport units or means of transport; Cargo and Freight manifests, Bordered, Container manifest (Unit packing list);
- Administrative and legal documents: Road list; Discharge report, Freight invoice; Lessee of indemnity;
- Notification documents: Booking confirmation, Calling forward notice, Arrival notice, Notices of circumstances preventing delivery or transport, Delivery notice.

#### Insurance

- Insurance agreements: Insurance contract; Insurance policy; Insurance certificate;
- Notification documents: Insurance notice; Cover note; and
- Administrative documents: Premium notice; Insurer’s invoice.

Source: UNECE, 2006, UN Layout Key for Trade Documents - Guidelines for application – Informative Annex to Recommendation No.1

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### Transport-related documents

- **Frequency and scope of participation in transport-related document exchanges**

### Electronic alternatives to paper-based transport-related documents

- e-Air Waybill (e-AWB)
- e-Bill of Lading (e-B/L) and e-Sea Waybill (e-SWB)
- e-CIM/SMGS consignment note
- e-CMR
- e-multimodal transport document (e.g. EU e-Freight project initiative)
SINGLE WINDOW CASE STUDIES

NATIONAL SINGLE WINDOWS

- NATIONAL SINGLE WINDOW FACILITIES IN REPUBLIC OF KOREA
- SINGAPORE’S NATIONAL SINGLE WINDOW
- THAILAND’S NATIONAL SINGLE WINDOW
- JAPAN’S NATIONAL SINGLE WINDOW (NACCS)

National Single Window facilities in Republic of Korea

- Yes U-Port / port community SW of Korea Logistics Network Corporation (KL-NET Corp.);
- national trade single window – uTradeHub of the Korea Trade Network Corporation (KTNET); and
- single window module of UNI-PASS - Korean Customs e-clearance system

YES U-Port platform – Korean Government & private sector (e.g. KL Net) collaboration:
- information management (Port-MIS, port SW, SP-IDC)
- cargo and vessel management (VMS; GICOMS, GCTS)
- disaster recovery/security & safety management (PSS)

2 Single Window

* Single Window service charge about ₩55,000, compared to conventional reporting system.
Figure: KL Net PLISM service processes

1. VSL schedule
2. BKG ctm
3. Gate log
4. BKG ctm
5. BKG info (Pickup place)
6. MT Door delivery
7. MT Door Order
8. MT Door Order
9. Book MO
10. CNTR Order

Source: KL-Net, July 2015 presentation

Shipping and Port Internet Data Centre (SP-IDC)

Source: Ministry of Oceans and Fisheries, 2014, Yes! uPort Brochure
Korean national trade single window - uTradeHub (KTNET)

Integrated Korean Single Window Model

Source: KTNET Presentation, May 2015, Korean Experience with paperless trade system
Singapore’s National Single Window

- TradeNet SW Integrated in TradeXchange platform
- PPP /Operated by Crimson Logic
- Led by Singapore Customs/EDB/IDA
- Single access to all 35 relevant controlling agencies
- Other critical systems (MARINET, PORTNET, CCN) connected

Source: Jonathan Koh, 2010, UNNExT, Brief No. 02, March 2010, Towards a Single Window Trading Environment: Best Practice in Single Window Implementation; Case of Singapore’s TRADENET. Available at: http://unnext.unescap.org/pub/brief2.pdf

TradeXchange Permit Preparation/Submission

- TradeXchange information exchange B2G (TradeNet) and extended B2B
- Front-end VAS providers/TradeNet/Back End (e-Customs & other CA systems)

TradeXchange services
- Trade Permit Preparation/Submission
- Permit Return
- ACCESS Return
- Title Registry (e-B/L)
- eFreight
- DataSource
- Marine Cargo Insurance
- eCO Preparation
- Trade Finance

Ornamental Fish Exporters

- Register fish
- e-Data
- Logs A 错误日志
- Title Registry
- eFreight

TradeXchange eFreight example

Source: Edwin Wuu, CrimsonLogics, 27 August 2015 TradeXchange Presentation

Singapore’s TradeXchange platform

Source: Eileen Wuu, CrimsonLogic, 27 August 2015, TradeXchange Presentation
Thailand’s National Single Window

- operated by Thailand Customs Department
- 36 gov. agencies and trading communities

SW services:
- e-Import
- e-Export;
- e-Manifest,
- e-Payment,
- e-Warehouse

Source: Thai Customs Department, 20 August 2015, Presentation on Thailand NSW and ASEAN SW
Thailand’s National Single Window

Specific transport related services:
- single entry form for restricted goods,
- single submission of import manifest
- submission of container list
- RFID e-seal tracking

Source: Thai Customs Department, 20 August 2015, Presentation on Thailand NSW and ASEAN SW

Japan’s National Single Window (NACCS)

- PPP/independent agency/privatized
- Evolution with integration and centralized approach

Comprehensive Logistics Information Platform
- B2B; B2G
- all import/export/port related procedures
- all modes of transport
- national/cross-border

SINGLE WINDOW CASE STUDIES

TRANSPORT ORIENTED SINGLE WINDOWS

- EU MARITIME NATIONAL SINGLE WINDOWS
- IATA’S e-FREIGHT

TRANSIT SYSTEMS IN E-CUSTOMS AND SW ENVIRONMENT

- UNCTAD ASYCUDA
- EUROPEAN NEW COMPUTERIZED TRANSIT SYSTEM (NCTS)
- INTERNATIONAL TRANSIT OF GOODS (TIM) SYSTEM IN MESOAMERICAN COUNTRIES

SINGLE WINDOW CONCEPT AND CROSS-BORDER CONNECTIVITY

- PAN ASIAN e-COMMERCE ALLIANCE (PAA)
- ASEAN SINGLE WINDOW AND ASEAN CUSTOMS TRANSIT SYSTEM
- Data Pipeline Concept and integration in Single Window environment
Transport-related SW systems

Transport not necessarily dominant / Transport related services included

Regulatory transport-related SW services
- conveying transportation, regulations regarding transportation means
- declaring cargo on entry/exit/transit; reporting specific types of goods and related permits (e.g. for dangerous goods, trans-frontier movement of waste, live animals etc.)
- providing information on professionals that operate transport means / crew and compliance with immigration and professional standards required.

Port-related SW services:
- customs and other regulatory clearance;
- port management and operations;
- B2B interactions among port community members.

B2B transport/logistics SW services:
- B2B transport/logistics/port operations;
- B2B supply chain portals/networks
- Integration with supply chain management
- ICT systems (ERP, SCMS, TMS & WMS)
- Other ICT solutions RFID/GPS tracking

Key issues for development of transport-related SW systems

A. Paper-based counterparts of electronically submitted data - not to be required
B. Electronic data exchange is not a simple translation of paper-based transport documents in digital form

Data harmonization proof of concept (vessel entering to the port area)

C. Business processes to be re-examined considering facilitation opportunities
D. ICT solutions to support realization of facilitation objectives
Integration of transport-related single window systems in single window environment

**Linking Port Community Systems and Regulatory SW**

**Inter-Organization Information System (IOS)**

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**CHALLENGES TO INTEGRATE TRANSPORT REQUIREMENTS IN SINGLE WINDOW ENVIRONMENT**

- **Legal and technical requirements on electronic transport documentation**
- **Fragmentation of single windows and stakeholders systems**
- **Data harmonization, standardization and technological requirements**
- **Coordination behind and across the borders**
- **Enabling legal framework**
- **Interoperability and interconnectivity among the systems**

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ROLE OF GOVERNMENTS & INTERNATIONAL ORGANIZATIONS IN PROMOTING INTEGRATION OF TRANSPORT REQUIREMENTS IN SW

- Political will
- Interagency coordination and private sector involvement
- Enabling legislative framework
- Laying standards for exchange of information
- Provide platform cross-border harmonization and sharing experience in integration
- Provide forum for forging agreements/MOUs required

How to Better Integrate Transport Requirements in SW Environment

<table>
<thead>
<tr>
<th>Conclusions and recommendations</th>
<th>Way Forward</th>
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<tbody>
<tr>
<td>• Scope and overall environment</td>
<td>• Policies/Strategies/Coordination</td>
</tr>
<tr>
<td>• Role of private and public sector</td>
<td>• Incremental steps</td>
</tr>
<tr>
<td>• Management of the process of integration</td>
<td>• Specific Projects</td>
</tr>
<tr>
<td>• Necessity of interoperability</td>
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</tbody>
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