Ten Years of Single Window Implementation: Lessons Learned For The Future

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The views and the opinions expressed in this presentation and the accompanying discussion paper are those of the author, and do not necessarily reflect the views of the United Nations, CrimsonLogic, or other organizations that have contributed to this document.
1. Overview of Single Window (SW) development in the last 10 years - Has this initial Single Window idea undergone any changes

2. Evolution of Single Window Development

3. Trends in the use of ICT for Single Windows

4. Regional Trends & Developments in Single Window

5. Lessons Learned

6. Recommendations for way forward
A **Single Window** is 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**.
Since the initial idea, three important developments have evolved that are critical to the evolution and development of the Single Window.

1. For practical purposes, the establishment of “Single Window” today are all done through the use of ICT and the Internet.

2. “Single Window” implies involving all governmental authorities and agencies = Customs + Other Government Agencies

3. “Single Window” implies a national or countrywide facility for all trade transactions
Evolution of Single Window Development
Staged Development of Single Window

1st Stage: Paperless Customs + e-Payment for Customs Duty + Container Loading List + Simple e-Documents Exchange with Port Authority and/or Terminal Operators

2nd Stage: Connecting Other Government Back-end IT systems, and e-Permit Exchange with Paperless Customs System

3rd Stage: e-Documents Exchange stakeholders within the (air, sea, dry) port community

4th Stage: An integrated national logistics platform with also traders and logistics service providers information exchange

5th Stage: A regional information-exchange system

Note that in many countries, the 3rd Stage was being developed before the 2nd Stage

Source: “Single Window Implementation Framework”
Evolution of Single Window

Business value chain

- Customs System
- TradePoint Portals
- Trade EDI / VAN
- Customs Single Window
- National SW with all OGAs
- Regional / Global SW

Integration scope

- Customs Automation Era
- Start of Trade Information
- Start of Trade Information Exchanges
- Limited B2G (B to Customs)
- Nation-wide Single Window B2G / G2G
- N2N
Evolution of SW - Customs Automation Era

**Customs Automation**
- The pre-Single Window circa 1960s and 1970s
- Customs first begin to automate their functions using systems such as ASYCUDA

**Business value chain**

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**Integration scope**

**Customs System**

- National SW with all OGAs
- Regional / Global SW

**TradePoint Portals**

**EDI / VAN**
Trade Points

- These serve as an information source for trade-related information, providing traders with data about business and market opportunities.
- Originally conceptualized to serve as gateways to global electronic networks, with all national Trade Points interconnected in a worldwide electronic network.

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EDI / Value Added Network

- Use of EDI for Trade exchanges
- Operated by Value added network (VAN) provider.

Examples:

- Singapore TradeNet – 1989
- Mauritius TradeNet - 1994
- Japan “Trade and Settlement EDI System” (TEDI) - 1998
 Customs / Port Single Window and Port Community Systems
  - Variation of limited “Single Window”
  - A single interface between the trading community and the Customs / Port Authority.
  - Usually don't fully cover the permits and licensing of all of the OGAs
National Single Windows
- a *nation-wide facility* that provides for *all parties* (regulatory agencies and the trading community) to submit standardized information only once, at a *single entry point*, to fulfill *all import, export and transit-related regulatory requirements*.

Extended Single Window
- Extending to include B2B transactions

49 economies provides a Single Window
20 have SW that links all OGAs
29 have SW that does not

<table>
<thead>
<tr>
<th>Practice</th>
<th>Economies</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using electronic data interchange</td>
<td>130&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Belize; Chile; Estonia; Pakistan; Turkey</td>
</tr>
<tr>
<td>Using risk-based inspections</td>
<td>97</td>
<td>Morocco; Nigeria; Palau; Suriname; Vietnam</td>
</tr>
<tr>
<td>Providing a single window</td>
<td>49&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Colombia; Ghana; Republic of Korea; Singapore</td>
</tr>
</tbody>
</table>

a. Among 159 economies surveyed for electronic data interchange, 152 for risk-based inspections and 150 for single window.
b. Twenty-six have a full electronic data interchange system, 104 a partial one.
c. Twenty have a single-window system that links all relevant government agencies, 29 a system that does not.

Source: Doing Business database.
Common Goals and Objectives

Consensus on the goals and objectives of the Single Window in the RFPs:

• “one stop” integrated services through multiple channels
• electronically linked government agencies involved in the trade process
• tangible cost savings, benefits and simplified treatment for business and the government
• expedite cargo release and clearance via simplification of processes and procedures among controlling agencies
• enable transparent and predictable border environment while ensuring safety and security through a high performing risk management
• eliminate corruption by improving methods to counter dishonest practices, reduce discretion.
Evolution of SW – Customs Single Window

Regional / Global Single Windows
- Supra-national Nation-to-Nation (N2N) exchange of trade information between National Single Windows.
- Example:
  - ASEAN Single Window
  - Trans-Kalahari Single Window (Botswana, Namibia and South Africa)

Integration scope

Business value chain

Customs System

TradePoint Portals

EDI / VAN

N2N

Limited B2G (B to Customs)

Nation-wide Single Window B2G / G2G

Trade EDI Exchanges

Start of Trade Information

Customs Automation Era
Trends in the use of ICT for Single Windows
Challenges of Message Exchanges on National Scale

Protocol

- Private VAN Services
- Shipping Lines
- Trader
- Customs Broker
- ebXML
- SMTP
- FTP / SFTP

Messages

- EDIFACT
- Ports
- Proprietary
- X12
- Customs
- Excel
- RosettaNet
- EDI Experts
- OGAs

Different software
Scalability
Maintainability
Mapping Effort
Multiple Platform

EDI Experts
Messaging and Translation Technologies

- Protocol
- Messages
- National Single Window
- Traders Registration
- Central Message Switch
  - Central Translation for any formats
  - Payment & Billing

Private VAN Services
- Shipping Lines
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- Customs Broker

Private VAN Services
- ebXML
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Protocol
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Messages
- EDIFACT
- XML

National Single Window
- Ports
- Custom
- OGAs
Business Process Driven Service Oriented Architecture Implementation

Supported Standards:
- BPEL, XMI, BPML
- XML, AML, WSDL
- API, HTML,
- OLE / VBasic
- Java Script
- Office, PDF, RTF, Notes

EA Repository

Business oriented processes

Common Object Model

Business Rules

WS Repository

UML Diagrams

BPEL processes

BPM Suite

BPA Suite

Enterprise Modeling

Software Engineering

JDeveloper

Application Development

Process Execution

ORCHESTRATION

BPEL Process Manager

Native BPEL

Business Rules

Human Workflow

Rules Engine

Business Rules
The promise of cloud computing

Public vs Private Cloud?

Issues to be resolve....
data quality,
data privacy and security,
misuse of information,
reliability,
liability,
lawful authority for data access
etc.
Mobile computing & RFID technology

Information management at the speed of thought would be the new operating envelope.
Regional Trends & Developments in National “Single Window”
Survey of 24 SW tenders / RFPs

Africa
Kenya, Tanzania, Libya, Togo, Benin, Morocco, Ivory Coast, Rwanda, Congo Brazzaville, Mozambique, Madagascar

Middle East
Qatar, Bahrain, Oman, Iran

Americas & Caribbean
Mexico, Chile, Perú, Trinidad & Tobago

Asia / Oceania
Thailand, Brunei, New Zealand, Pakistan, Philippines
<table>
<thead>
<tr>
<th>Country</th>
<th>Name of Single Window Project</th>
<th>Date of Issue of RFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Chile</td>
<td>Ventanilla Única de Comercio Exterior (VUCE)</td>
<td>Sep-11</td>
</tr>
<tr>
<td>2 Tanzania</td>
<td>Electronic Single Window System</td>
<td>Aug-11</td>
</tr>
<tr>
<td>3 Oman</td>
<td>Integrated Customs Management System and a Single Electronic Window</td>
<td>Jul-11</td>
</tr>
<tr>
<td>4 Brunei Darussalam</td>
<td>National Single Window For Trade Facilitation System (BDNSW)</td>
<td>Jul-11</td>
</tr>
<tr>
<td>5 Morocco</td>
<td>Guichet Unique De Formalites Du Commerce Exterieur (GUCE)</td>
<td>Jun-11</td>
</tr>
<tr>
<td>6 Mexico</td>
<td>Ventanilla Única de Comercio Exterior de México (VUCEM)</td>
<td>Jul-10</td>
</tr>
<tr>
<td>7 Benin</td>
<td>Single Window for Foreign Trade of Benin for the Port of Cotonou</td>
<td>May-10</td>
</tr>
<tr>
<td>8 New Zealand</td>
<td>Trade Single Window</td>
<td>May-10</td>
</tr>
<tr>
<td>9 Rwanda</td>
<td>Rwanda Single Electronic Window</td>
<td>Feb-10</td>
</tr>
<tr>
<td>10 Mozambique</td>
<td>Single Electronic Window System for the Customs Clearance of Traded Goods</td>
<td>Sep-09</td>
</tr>
<tr>
<td>11 Bahrain</td>
<td>Integrated Trade Facilitation System</td>
<td>Aug-09</td>
</tr>
<tr>
<td>12 Philippines</td>
<td>National Single Window</td>
<td>Aug-09</td>
</tr>
<tr>
<td>13 Libya</td>
<td>Libyan External Trade Single Window</td>
<td>May-09</td>
</tr>
<tr>
<td>14 Togo</td>
<td>Single Window of Foreign Trade (GUCE) for the Port of Lomé</td>
<td>May-09</td>
</tr>
<tr>
<td>15 Trinidad &amp; Tobago</td>
<td>Single Economic Window (SEW)</td>
<td>May-09</td>
</tr>
<tr>
<td>16 Iran</td>
<td>Port Community System</td>
<td>Apr-09</td>
</tr>
<tr>
<td>17 Thailand</td>
<td>Thailand National Single Window</td>
<td>Jul-08</td>
</tr>
<tr>
<td>18 Qatar</td>
<td>Qatar Customs Clearance Single Window</td>
<td>Nov-07</td>
</tr>
<tr>
<td>19 Kenya</td>
<td>Kenya Electronic Single Window System</td>
<td>Nov-07</td>
</tr>
<tr>
<td>20 Congo Brazzaville</td>
<td>Maritime Single Window (GUMAR)</td>
<td>Aug-07</td>
</tr>
<tr>
<td>21 Pakistan</td>
<td>Pakistan Automated Commercial Community System (PACCS)</td>
<td>May-07</td>
</tr>
<tr>
<td>22 Madagascar</td>
<td>Malagasy Community Network Services</td>
<td>Mar-07</td>
</tr>
<tr>
<td>23 Peru</td>
<td>Ventanilla Única de Comercio Exterior (VUCE)</td>
<td>Jun-06</td>
</tr>
<tr>
<td>24 Ivory Coast</td>
<td>Abidjan Port Community of Côte d'Ivoire (Ivory Coast) - Abidjan Port Synergie</td>
<td>Aug-05</td>
</tr>
</tbody>
</table>
Africa

• East Africa (Mozambique, Madagascar, Kenya, Tanzania, Rwanda)
  – essentially for a national Single Window creating electronic linkages with the government agencies for permits and licensing processing
  – Mozambique calls for SW+CMS

• West & Central Africa (Ivory Coast, Togo, Benin Congo Brazzaville)
  – mainly for a limited, usually port-centric Single Window, termed as “Guichet Unique des Opérations du Commerce Extérieur” (GUCE), or “Single Window of foreign trade”.
  – focused on the port requirements

• North Africa (Libya, Morocco)
  – Both are port centric SW
Middle East

• Saudi Arabia was an early implementer of the Single Window, when they launched their SaudiEDI project way in 2004.

• 3 Gulf Cooperation Council (GCC) countries - Qatar, Bahrain and Oman issued RFPs for Single Window.
  − includes replacement of their Customs management systems,
  − a single seamless “Single Window and Customs Management” system
Asia & Oceania Trends

Asia & Oceania

• Many Asian countries have implemented their Single Windows
  - Singapore – 1989; Hong Kong SAR – 1997; Japan – 2003;
    S Korea – 2003; Indonesia – 2007; Malaysia – 2009
  - Others SW implementation includes:
    - Thailand; Philippines; Brunei; Chinese Taipei,
    - China’s E-Port - a form of sub-national SW

• The ASEAN Single Window is the 1st regional SW initiative,
  - integration of the 10 National Single Window of the ASEAN
    member states
  - 4 ASEAN countries (Indonesia, Thailand, Brunei, and the
    Philippines) called essentially for Single Window requirements to
    be integrated with the existing Customs system

• Increasing trend to include a centralized risk management in SW
  projects, e.g.
  - New Zealand’s Trade Single Window
  - Pakistan Automated Commercial Community System (PACCS)
• The cost of trade in Americas are reportedly higher than countries of Asia Pacific.

• A marked interest in developing Single Window or “Ventanilla Única de Comercio Exterior” (VUCE) in recent years, e.g.
  - Colombia and Perú - ~ 2006
  - Mexico and Chile issued RFPs in 2010 & 2011 respectively.

• VUCEs are essentially country-wide Single Window features


Europe

- Single Window trends in Europe is characterized by a network of existing Port Community Systems and Customs Single Windows, e.g.
  - Germany’s DAKOSY Port Community System - 1982
  - UK’s Felixstowe Port Community System – 1984
  - Finland’s PortNet System – 1993
  - France’s e-Maritime Port Single Window

- The challenge for Europe is to turn long-established existing systems into the nation-wide Single Windows covering all government agencies and fulfil all import, export, and transit-related regulatory requirements.
Lessons Learnt
1. Different Forms of Single Windows
   - Each Country is Unique
   - Depending on their readiness and priorities, countries have implemented very different forms of Single Windows
   - Need not strictly follow the definition as set out in UNECE Recommendation 33.
   - SW are generally conceived as a large interagency collaborative system that facilitate and automate business processes and data exchange for international trade.

2. Evolutionary and Staged Development
   - Due to the complex change management, SW development typically follows an evolutionary and staged pathway

3. Impact of Single Window
   - Particularly in developing countries, SW has been a success story.
   - Many countries have shown marked improvements in their trade facilitation indicators after implementing the SW

4. Cross-border information exchange
   - Imperative and pressing need to find improved way to conduct cross-border trade transactions
   - Requires connecting national Single Windows.

5. Need for increased regional and global cooperation in Single Window development
   - Over the last 10 years, Single Window projects have been mainly at the national level.
   - While these have been useful to governments for supporting the national economic agenda, they have increasingly become a major platform for an integrated world economy
Developing next generation
Single Window -
Recommendations for the Way Forward
Today ....Trading Across Border Report 2012
49 economies provides a Single Window
20 have SW that links all OGAs

In next 5 years ...Possibly ..... 

~ 100 economies provides a Single Window
~ 60 have SW that links all OGAs
~ Handful of Regional SWs
**Recommendations**

**Development of a globally networked Single Window =**

| Common, global framework for SW planning & dev’t that encompasses and interconnects different forms of Single Window models. | Prioritizing regional Single Window collaboration -
  - exchange of best practice,
  - development of sustainable business models pilot projects for data exchange among NSW
  - development of technical and legal frameworks for information exchange and supporting trade agreements and policies | Developing at the global vision to achieve electronic information exchange in global supply chains using the capabilities of Single Window | Ensuring policymakers take into potential of Single Windows when developing bilateral or multilateral trade agreements. |

| X | X | X |
Thank you