UN/CEFACT
International Trade Procedures PDA

Single Window Interoperability Project
• Ms. Princess Estelle IGWE
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<table>
<thead>
<tr>
<th>Monday 27 Oct</th>
<th>Tuesday 28 Oct</th>
<th>Wednesday 29 Oct</th>
<th>Thursday 30 Oct</th>
<th>Friday 31 Oct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forum meeting: Open Plenary Meeting</td>
<td>Project on promoting CEFACFT technical deliverables</td>
<td>Forum meeting: Authentication / Security projects</td>
<td>Project on promoting CEFACFT technical deliverables</td>
<td>Forum meeting: Closing Plenary Meeting</td>
</tr>
</tbody>
</table>

**Lunch Break**
- ITPD work items
  - Welcome information
  - Perspective projects
- Update of active projects:
  - Consultation Approaches
  - Rec-4 revision
  - Multimodal Trade Corridors proposed
  - PPP-TF project
- Single Window mini-conference:
  - Indian Port Community
  - French/EU interoperability projects
  - Japan NACCS system
  - WCO
- Update of active projects:
  - Single Window Interoperability projects
- Forum meeting: Authentication / Security projects
- Trade Facilitation Task Force meeting

(no afternoon sessions)
• UNECE Recommendations on Single Window
  – Ms. Princess Estelle Igwe, UN/CEFACT Vice Chair
  – Dr. Lance Thompson, UN/CEFACT Vice Chair

• Indian Port Community System & Interoperability
  – Mr. Rajeev Puri, Sr. Dy. Director, Indian Ports Association

• French Single Window & Interoperability in EU
  – Mr. Roger Veillard, Director in charge of National SW implementation

• Japan Single Window & Interoperability
  – Mr. Mitsuru Ishigaki, UN/CEFACT Rapporteur for Asia/Pacific Region

• UNECE Interorganizational Operating Systems
  – Mr. Tom Butterly, UNECE Secretariat
• Rec 33 Recommendation and Guidelines on establishing a Single Window
• Draft Rec 34 Data Simplification and Standardization for International Trade
• Draft Rec 35 Establishing a legal framework for international trade Single Window
• Project Proposal Draft Rec 36 Single Window Interoperability
Recommendation 33

Definition of Single Window

• …to lodge standardised information and documents with a single entry point to fulfil all export, import and transit related regulatory requirements;

• if the information is electronic, then individual data elements should only be submitted once.
Recommendation 33

- Several models for Single Window:
  - Single authority,
  - Single Automated System,
  - Automated information transaction system
- Single Window is a Process not a Machine!
Recommendation 33

Some key factors to success

• Full support of
  – Government
    • The political will
  – All pertinent government agencies
    • Strong lead agency
  – Trade
    • Trade should be very involved in the concept, feasibility and implementation
  – Establishing clear boundaries and objectives
  – Using international standards and recommendations
Recommendation 34 recommends data simplification and standardization by:

- **Capturing** existing requirements into a national trade data inventory
- **Defining** the individual data elements
- **Analyzing** the need for, and context of the data requirements
- **Reconciling** the national trade data inventory with international standards

**TO PRODUCE A SIMPLIFIED, STANDARDIZED NATIONAL DATA SET FOR THE EXCHANGE OF INFORMATION WITH A SINGLE WINDOW FACILITY**

**PROVIDES A PROPOSED ASPECTS TO BE CONSIDERED IN DATA COMPARISON**
Recommendation 34

Some key aspects of

• The implementation of a Single Window for International Trade is critically dependent on simplified and standardized data sets.
• A national data set cannot be undertaken in isolation from other trade and economic development policy decisions.
• Government should involve the trading community and other relevant stakeholders from the earliest possible moment.

Key benefits

• Reduce redundancy and duplication of requested data
• Stability, consistency and predictability provided by a standard data set
• The outcome of the process should be a more efficient and effective exchange of information between Trade and Government
Recommendation 35:

- Essential to all Single Window operations is the transparency and security of trade data information exchange. A sound legal regime, which enables data collection, access and distribution and clarifies confidentiality, privacy and liability regimes, makes it possible to create a solid basis for the operation of the facility, and build a relationship of trust between all stakeholders.
UN/CEFACT work supporting SW

Other recommendations that support Single Window initiatives

• Code lists
  – Rec 3 (Country), Rec 5 (IncoTerms), Rec 9 (Currency), Rec 16 (UN/Locode), Rec 19 (Modes of Transport), Rec 20 (Units of Measure), Rec 21 (Multiple), Rec 23 (Freight cost code), Rec 24 (Trade/transport status), Rec 28 (Types of means of transport)...

• Other procedures
  – Rec 1 (Document Layout Key), Rec 6 (Aligned Invoice Layout Key), Rec 7 (Date/Time representation), Rec 8 (UNIC), Rec 12 (Sea Waybill), Rec 14 (Authentication), Rec 18 (Facilitation), Rec 25 (EDIFACT)...
UN/CEFACT work supporting SW

Other CEFACT Standards that support Single Window initiatives

• **Accounting** (Entry Message, Journal List Message, Bundle Collection Message...)

• **Agriculture** (Crop Data Sheet, Livestock Message, Electronic Animal Passport, ...)

• **Supply Chain** (Cross-Industry Invoice, Order, Quotation, Remittance, ...)

• **Government** (Request for Tender, Tender Guarantee, Waste Receipt Message, Waste Recovery Disposal Message...)

• **Core Component Library**
• Indian Port Community System & Interoperability
  – Mr. Rajeev Puri, Sr. Dy. Director, Indian Ports Association
  – rajeevpuri@gmail.com
Indian Port Community System (IPCS) and Interoperability

28th October, 2014, New Delhi

by

Indian Ports Association
OUTLINE OF THE PRESENTATION

- Port Sector
- EC / EDI Initiatives
- Port Community System (PCS) Initiatives
- PCS Implementation … A journey towards paperless trade
- PCS Features and Technology Used
- PCS Implementation Status
- Measurable Business & Commercial Benefits
- Major Goals and Way Head
- Vision for Future
PORT SECTOR

- An Overview
POTENTIAL AND RESILIENCE

- Around 95% of India’s Foreign Trade by volume and around 70% by value move through Sea Ports.

- There are 12 Major Ports and 200 notified non-Major Ports on the country’s coastline of about 7517 Kms.
PORT SECTOR – An Overview

MAJOR PORTS

- Major Ports are governed by Federal Government (Government of India)
- 6 ports each on East and West Coast
- Handle about 72% of total seaborne traffic
- All Major Ports are International Ship and Port Facility Security Code (ISPS) compliant
- Capacity as on 31-03-2014 : 800.52 MT
- Throughput during 2013-14 : 555.50 MT
- Total No. of Berths : 239 + 9 Single Bouy Mooring(SBM) + 2 Barge Jetty(BJ) + 3 Trans _ Anchorage
PORT SECTOR – An Overview

NON-MAJOR PORTS

- Governed by the respective Maritime State Governments
- During 2013-14, around 417.12 MT traffic was handled with a percentage share of around 42.9% of total seaborne trade.
- Capacity as on 31-03-2014 : 599.47 MT
- No of Notified Ports : 200
- No of Operational Ports : 65
- 35 Ports are International Ship and Port Facility Security Code (ISPS) compliant
EC / EDI INITIATIVES...
EDI INITIATIVES

EDI has been accepted as a national e-trade initiative by the Government of India (GOI).

The project eTRADE aims to facilitate Export and Import led clearances on 24X7 basis integrating international standards and best practices.
The eTRADE Project Community Partners

- Airlines / Shipping Lines
- Agents
- DGFT
- Customs/Central Excise
- Sea Ports
- CONCOR
- Importers/Exporters (Income Tax, ECGC, EXIM Bank, EIC, APEDA, MPEDA, State/local authorities)
- CHAs
- DGCIS
- Indian Railways
- ICD/CFS
- Banks
- Airports
- RBI
- Export Promotion Organisations
As a part of EC/EDI implementation, Centralized Web based - Port Community System (PCS) at all Major Ports was envisaged to reap the maximum benefits of EC/EDI and to move towards a paperless regime.

At the instance of Ministry of Shipping, IPA, being the nodal agency for all Indian Major Ports, has taken the initiative to establish a Centralized / uniform Port Community System (PCS) covering all its Major Ports, for the benefit of all the members of the Indian Port Community. Later, Ministry has taken the initiative to bring non-major ports also into the ambit of PCS.
What is PCS?

Port Community System (PCS) is a

- Centralised
- Web Based
- On-line & Real time
- Message Exchange System/Application
- SINGLE WINDOW among Port Community Partners/ Stakeholders

PCS is Mission Mode Project (MMPs) of GOI initiative and come under eTrade project of India. Financially supported by Planning Commission through Ministry of Shipping.
**PCS Objectives & Advantages**

- **Avoids Cumbersome manual procedures/documents**

- **Reduce Transaction Time & Cost in Port Business**

- **To achieve paperless regime in Port Sector**
PCS IMPLEMENTATION...

A Journey towards paperless trade
PORT SCENARIO BEFORE PCS
### IMPLEMENTATION MECHANISM

- **Three-tier mechanism for implementation**
  - Steering committee headed by Chairman, IPA
  - Technical Working Group (TWG) committee at National Level
  - Port Level Working Group (PLG) at each Port (including pvt/terminal) under the chairmanship of Chairman/Dy Chairman
  - National Informatics Center (NIC) as technical consultant
PCS- FRAMEWORK

CONNECTING THE TRADE COMMUNITY
Indian Port Community System (IPCS)

Benefits of a IPCS

Efficiency  |  Security  |  Modernization

Competitiveness

Reduction in Transaction time & Cost in Port Business

Moving toward paperless regime
PCS FEATURES

- Single Window System for the Stakeholders
- On-line Stakeholder registration
- Flexible submission of information in multiple formats like XML, UN/EDIFACT and Propriety
- **Message Translation**... Translating one format to another format like XML ➔ TXT, TXT ➔ XML, XML ➔ UN/EDIFACT, UN/EDIFACT ➔ XML, etc
- **Message HUB** ... Viewing the messages ONLINE using Web User interface(MHUB)
- Role based menu for the Stakeholder
PCS FEATURES

- Security Services
- Transaction Tracking
- Multiple Transmission Protocols (HTTP, HTTPS, SFTP, AS2)
- Flexible and Open architecture
- Reporting Services
- Web Services
- Payment Services (e-payment with multiple Banks)
TECHNOLOGIES USED

- The industry standard Java Platform, Enterprise Edition (Java EE) is used to develop the PCS application. J2EE is the industry standard for implementing enterprise-class service-oriented architecture (SOA) and next-generation web applications.

- Used most industry popular & widely used open source frameworks like Struts, Spring and logging utility like log4J and reporting tools like Jasper reports

- Used one of the most important technologies for the development of highly interactive web application.. AJAX.
TECHNOLOGIES USED

- PCS built on component-based, server centric, multi-tier application architecture to support rigorous requirements of modern, extended e-business oriented enterprise application systems.

- The core components of the PCS:
  - **PCS Message Hub (M-Hub)** is an Internet-based messaging platform, which allows stakeholders to carry out B2B transactions in a highly secure manner. M-Hub supports protocols like HTTP, HTTPS, FTP and SMTP. Messaging protocols like Web Services based on SOAP and XML are integrated into M-Hub.
  - **Transwork** is the one of key components of the Port Community System. It accepts incoming standard formats, like XML, TXT, UN/EDIFACT, etc and translates into other formats such as XML, TXT and UN/EDIFACT etc. Transwork Engine performs the actual translation from one message format to another.
STANDARDS USED FOR INTEROPERABILITY

- PCS file formats like XML and EDI (TXT) message structures are designed by adopting various international standards like UNeDOCS, UN/CEFACT and UN/EDIFACT.

- Some of the Vessel and Container messages are compliant to UN/EDIFACT standards.

- Some of the UN standard codes followed in PCS are:
  
  - UN / LOCODE, Container Type Classification Code(8169), Transport Means Description (8179), Party Function Code(3035), Message Type Function Code(1225), Equipment Status Code (8240), Cargo Type Classification (7085), etc
 PCS IMPLEMENTATION

Following messages have been envisaged in Implementation of PCS:

- Vessel related messages [19]
- Container related messages [14]
- Cargo related messages [4]
- Transport related messages [4]
- Finance related messages [10]
- E-payment module
- Customs [20] and regulatory [Port Health Organization [PHO-4], Mercantile Marine Department [MMD-3]] messages
## Existing Application Landscape

### Existing Port Operating System (POS) at Indian Port

- **Marine Operations**
- **Cargo Documentation & Operations**
- **DTR Operations**
- **Rail Operations**
- **Labor Management**
- **Billing**
- **MIS Reports**
- **Procurement/Inventory**
- **Financial Accounting System**
- **EDI Application**

### Existing Indian Port Community System (IPCS)

- Access to IPCS application provided to registered users
- Information shared from both port side as well as port user side through secured message exchange protocol
- Messages replied thru secure FTP in XML format

### Existing Application Landscape

- **Vessel**
- **Cargo**
- **Mercantile Marine Department (MMD)**
- **Container**
- **Finance**
- **Customs**
- **Transport**
- **Port Health Organization (PHO)**
- **ePayment**
PCS IMPLEMENTATION … Present Status

Vessel, Container, Transport, Cargo, MMD, PHO, Finance related messages and e-payment module have been made ONLINE.

Eleven Customs related messages (2 Port to Customs, 9 Customs to Ports) has been made LIVE. Messages are VESPRO, Vessel Sailing report, IGM, BE, out of charge, Transhipment Permit, Shipping Bill, LEO, Cargo Movement Approval, VESPRO Ack & Rotation Number).

Stakeholders: Ports (12 Major Ports, six Non-Major Ports), Shipping Agents, Shipping/Containers Lines, CFS, CHA, CONCOR/Pvt Rail Operator, Railways(CRIS), Stevedores, MMD, PHO, Coast Guard and Banks
PCS IMPLEMENTATION : Status
- Non-Major Ports

- Mundra, Dahej, Pipavav, Cuddalore at Chennai, Krishnapatnam and Kakinada Ports have been migrated under the ambit of PCS.

- Integration with four ports of GMB(Jamnager, Sikka, Bedi, Magdala) is in progress

- With the above non-major Ports, around 22 Ports will be ONLINE with PCS that cover around 92% of total EXIM trade in volume

- Efforts are being made to bring other Non-Major Ports
e-payment module has been implemented in respect of the following Ports and Banks (14):

<table>
<thead>
<tr>
<th>SI No</th>
<th>Ports</th>
<th>Banks (EDI Collection account)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kolkata(KDS)</td>
<td>IDBI, AXIS, HDFC, ICICI and Union Bank</td>
</tr>
<tr>
<td></td>
<td>Kolkata (HDC)</td>
<td>AXIS, ICICI</td>
</tr>
<tr>
<td>2</td>
<td>Paradip</td>
<td>Union Bank, Allahabad Bank and AXIS</td>
</tr>
<tr>
<td>3</td>
<td>Visakhapatnam</td>
<td>AXIS, HDFC, Union, IDBI, ICICI, IOB Banks and Andhra Bank</td>
</tr>
<tr>
<td>4</td>
<td>Chennai</td>
<td>PNB, AXIS, IOB, IDBI Bank, ICICI Bank and Union Bank</td>
</tr>
<tr>
<td>5</td>
<td>EPL</td>
<td>Andhra Bank, AXIS Bank, ICICI, Bank of Borada</td>
</tr>
<tr>
<td>6</td>
<td>VOCPT</td>
<td>AXIS, ICICI, IDBI, Syndicate Bank, HDFC, IOB and SBI</td>
</tr>
<tr>
<td>7</td>
<td>Cochin</td>
<td>AXIS, ICICI, IOB, Indian Banks, IDBI, Union Bank &amp; SBI</td>
</tr>
<tr>
<td>8</td>
<td>New Mangalore</td>
<td>AXIS, HDFC Bank, Corporation Bank, IDBI, ICICI Syndicate Bank and Union Bank</td>
</tr>
<tr>
<td>9</td>
<td>Mormugoa</td>
<td>HDFC, AXIS, Corporation Bank and Canara Bank</td>
</tr>
<tr>
<td>10</td>
<td>Mumbai</td>
<td>ICICI, IDBI, AXIS, HDFC Bank, Union Bank, SBI and PNB</td>
</tr>
<tr>
<td>11</td>
<td>Jawaharlal Nehru</td>
<td>IDBI, ICICI, HDFC, Union Bank &amp; AXIS Bank</td>
</tr>
<tr>
<td>12</td>
<td>Kandla</td>
<td>ICICI, AXIS, IDBI, IOB, Corporation Bank, HDFC, Union Bank and Bank of Baroda</td>
</tr>
</tbody>
</table>
PCS IMPLEMENTATION … Status

Data Center at New Delhi and DR at Hyderabad

URL :
- [https://www.indianpcs.gov.in](https://www.indianpcs.gov.in)

Help Desk Services (24x7) for PCS has been made operational from 3rd September 2007. Help Desk Details are as follows:

- E-mail : support.ipcs@nic.in
- Toll Free Number : 1800 11 5055
### MEASURABLE BUSINESS & COMMERCIAL BENEFITS

- Around 8-9 lakhs messages are being exchanged every month.
- Ports: 19 (HDC separately. Inc Mundra, Dahej, Pipavav, Cuddalore at Chennai, Krishnapatnam and Kakinada)
- Private Terminal Operator: 14
- Shipping Agents registered: around 2,069
- Container Agents: 40
- Customs House Agents (CHA): around 218
- Container Freight Station: around 70
- Railways (CRIS)/CONCOR: 1/1
- Banks: 14

<table>
<thead>
<tr>
<th>Messages</th>
<th>Time taken before PCS implementation</th>
<th>Take taken after PCS implementation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel Profile(submission and Approval)</td>
<td>2 days (48 Hrs)</td>
<td>Average 1-2 Hrs</td>
<td>In many cases it is immediate</td>
</tr>
<tr>
<td>Voyage Registration and VCN Allocation</td>
<td>2 days (48 Hrs)</td>
<td>Average 1-2 Hrs</td>
<td></td>
</tr>
<tr>
<td>Berth Request and Berth Allocation</td>
<td>Next day in the Berthing meeting</td>
<td>Immediate without any manual intervention</td>
<td></td>
</tr>
<tr>
<td>Container Related Messages</td>
<td>Physical Submission</td>
<td></td>
<td>All the documents are submitted by the Users from their office and these are uploaded in the system within very less time</td>
</tr>
<tr>
<td>Cargo Related Messages - Delivery Orders</td>
<td>5-6 Hrs</td>
<td>ONLINE within 1 Hrs of submission</td>
<td></td>
</tr>
</tbody>
</table>
Contribution of PCS to Indian trade, though not quantifiable in exact terms, will definitely herald new chapter in India by way of e-trade.

However, it is expected to reduce a transaction cost at ports at least by 15% and empowered Indian Ports to join the premiere league of international technology advanced e-ports.
MAJOR GOALS...

- Achieve Paperless regime & Increase in transparency in submission of trade document electronically
- Reduction in Transaction Cost and Time
- Faster Turn Round Time & Less Dwell Time
- Common Information to Multiple Agencies
- Standardization of Information exchanged
- Convenience 24x7 submission
- Timely Alert during exceptions on e-mail, SMS, etc.
- On line accessibility of MIS Reports to Higher Governing bodies
Indian Port Community System (PCS) has been awarded Silver Prize by International Association of Ports and Harbors (IAPH) at ‘IAPH World Port Conference, Genoa, Italy held on May 28, 2009.

PCS is also a winner of the 2009 eASIA Awards for the Trade facilitation Category.
An article ‘Piece together a PCS’ was published in the October 2011 issue of Ports & Harbour, wherein IAPH committee has shown keen interest to visit INDIA & China as part of its wider benchmarking survey.

In M/s ERNST & Young and FICCI report on ‘Transforming Indian Port into world class facilities’ state that “With notable steps such as implementation of the PCS and development of SEZ in port vicinity, Indian Ports are taking strides in the right direction for providing VAS and facilitate trade”.
INTERFACE REQUEST FROM OTHER AGENCIES

- Implementation with Ministry of Defence (Already part of National Maritime Domain Awareness Project)

- Implementation with Delhi-Mumbai Industrial Corridor (DMICDC) [Testing with JNPT has already been done]

- Implementation with Special Economic Zone (SEZ) [M/s NSDL Database Management Ltd has approached IPA for integration]
WAY AHEAD ...

- Bringing others Non-Major Ports under the ambit of PCS [Gangavaram Port Ltd, Captive open Oil jetty at Nagapattinam (TamilNadu), Kattupalli Port, GMB and AP Government have shown interest in integrating with PCS]

- Integration with Dashboard/Indian Port Business Intelligence System(IPBIS)

- Implementation of next version of PCS
VISION FOR FUTURE...

- Integration of Non-Major Ports with PCS
- Constant Improvement in PCS on Life Cycle basis
- Indian Ports … World Class ePorts
- Maritime Trade in India … a Paperless Trade
THANK YOU
• French Single Window & Interoperability in EU
  – Prepared by Mr. Roger Veillard, Director in charge of National SW implementation
    • roger.veillard@douane.finances.gouv.fr
  – Presented by
    • Lance Thompson, UN/CEFACT Vice Chair
    • Tom Butterly, UNECE Secretariat
Customs single window

Presentation of the French experience

24th UN/CEFACT Forum
27 to 31 October 2014
**French situation before 2007**

End 2004: the closed customs clearance system (SOFI) could not meet the expectations of the international trade and the requirements of the EU e-customs program.

2005/2006: development of a new system founded on Internet technology;

2007: deployment of DELT@
With DELT@, the French customs completely dematerialized its customs clearance;

Most of the joined documents are no longer requested during the customs clearance (Invoices, shipment documents, certificates of origin). The goods are cleared within 5 minutes;

But, this possibility cannot be granted to the goods which present a risk for the health, the safety / security and the environment.

For these documents, the customs has to check manually the authorizations of import and export issued by competent authorities (for example: the Ministry of Agriculture for the sanitary certificates);

The importer/exporter has to present its paper document with its electronic declaration;
The customs clearance's SW
Current situation

IMPORTER/EXPORTER

COMPETENT AUTHORITY

Paper authorization
Presents his paper authorization
Sends his electronic declaration

CUSTOMS OFFICE

Paper authorization
Compare the data of the authorization with those of the declaration

NG

Stop means of transport

electronic declaration
Future process
The customs clearance's SW

IMPORTER/EXPORTER

On-line authorization

Competent authority DATABASE

Sends his electronic declaration

CUSTOMS CLEARANCE SYSTEM

The goods are free immediately
Which documents?
<table>
<thead>
<tr>
<th>Forms</th>
<th>Administrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import quality certificates for fruits and vegetables</td>
<td>General directorate of consumption</td>
</tr>
<tr>
<td>Export quality certificates for fruits and vegetables</td>
<td>General directorate of consumption</td>
</tr>
<tr>
<td>Common Entry Document (Products of not animal origin)</td>
<td>General directorate of consumption</td>
</tr>
<tr>
<td>Sanitary certificates (Common Veterinary Entry Document)</td>
<td>General directorate of food</td>
</tr>
<tr>
<td>Phytosanitary document</td>
<td>General directorate of food</td>
</tr>
<tr>
<td>Common Entry Document (Products of animal origin)</td>
<td>General directorate of food</td>
</tr>
<tr>
<td>Import authorization of animal food</td>
<td>General directorate of food</td>
</tr>
<tr>
<td>Catch certificates (fish)</td>
<td>Directorate general of the sea</td>
</tr>
<tr>
<td>Agricultural export certificates</td>
<td>France AgriMer - Agence from Ministry of agriculture</td>
</tr>
<tr>
<td>Agricultural import certificates</td>
<td>France AgriMer - Agence from Ministry of agriculture</td>
</tr>
<tr>
<td>Agricultural certificates for french overseas territories and department</td>
<td>ODEADOM - Agence from Ministry of agriculture</td>
</tr>
<tr>
<td>Import CITES licences (protected species)</td>
<td>Nature's general directorate</td>
</tr>
<tr>
<td>Export CITES licences (protected species)</td>
<td>Nature's general directorate</td>
</tr>
<tr>
<td>Organic farming certificates</td>
<td>General directorate of agriculture</td>
</tr>
<tr>
<td>Import authorization of wood</td>
<td>General directorate of agriculture</td>
</tr>
<tr>
<td>Import authorizations of seeds</td>
<td>GNIS – Agence from the Ministry of agriculture</td>
</tr>
<tr>
<td>Waste import licences</td>
<td>General directorate of risks</td>
</tr>
<tr>
<td>Waste export licences</td>
<td>General directorate of risks</td>
</tr>
<tr>
<td>Forms</td>
<td>Administrations</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Ozone depleting substances</td>
<td>General directorate of risks</td>
</tr>
<tr>
<td>Export authorizations of chemical products (EDEXIM)</td>
<td>General directorate of risks</td>
</tr>
<tr>
<td>Export licenses of war materials</td>
<td>General direction of armament</td>
</tr>
<tr>
<td>Import licenses of war materials</td>
<td>General direction of armament</td>
</tr>
<tr>
<td>Import authorizations of explosive materials (military use)</td>
<td>General direction of armament</td>
</tr>
<tr>
<td>Export authorizations of explosive materials (military use)</td>
<td>General direction of armament</td>
</tr>
<tr>
<td>Export licenses of double use goods</td>
<td>General directorate of industry</td>
</tr>
<tr>
<td>Import authorizations of explosive materials (civil use)</td>
<td>General directorate of industry</td>
</tr>
<tr>
<td>Export authorizations of explosive materials (civil use)</td>
<td>General directorate of industry</td>
</tr>
<tr>
<td>Export permits of vehicles</td>
<td>General directorate of the national police force</td>
</tr>
<tr>
<td>Import authorizations for radioactive sources</td>
<td>Institute of the nuclear safety</td>
</tr>
<tr>
<td>Export authorizations for radioactive sources</td>
<td>Institute of the nuclear safety</td>
</tr>
<tr>
<td>Authorizations of import of medicine</td>
<td>General directorate of health</td>
</tr>
<tr>
<td>Import authorizations of psychotropic drugs</td>
<td>General directorate of health</td>
</tr>
<tr>
<td>Export authorizations of psychotropic drugs</td>
<td>General directorate of health</td>
</tr>
<tr>
<td>Export licenses for cultural goods</td>
<td>General directorate of culture</td>
</tr>
</tbody>
</table>
An interministerial project

The French customs needed legitimacy to lead the project
An interministerial project

15 administrations are involved ➔ the French customs needed legitimacy to lead the project

- 2010 : interministerial mandate (leadership and project management by customs)

- End 2012 : the project was included among the 7 government priorities for economic growth

- July 2014 : the French customs general director is designed as chief of the project by the Prime Minister

➔ The project is followed by the Prime minister's office. In case of difficulties with another administration, the customs can obtain the support of the government.
A big variety of documents and regulations

Need of a generic architecture
A big variety of documents and regulations

More than thirty documents founded on national, EU or international regulations need of a generic functional and technical architecture.

The French customs has set up an architecture which can be used for all the documents.

- A “pull” webservice allows to require data from the partner for the electronic customs checks
- A “push” webservice allows to transmit the customs declaration data to the partner's database which manage the quantities

These webservises are activated at the main phases of the customs declaration life cycle (creation, validation and release of the SAD)
Functional architecture

- SAD creation
  - Automated checks
- SAD validation
  - Automated checks
  - Quantity reservation
- SAD modified
- SAD realized
  - Used quantity
- SAD invalidation
  - Annulation of the reservation
Technical architecture

Push service

- Partner’s database N°1
- Partner’s database N°2
- Partner’s database N°3

Quantities management

Electronic platform GUN

1. Sends the customs declarations
2. On the basis of the code document, sends the declarations towards the concerned database

Customs clearance system DENT@

- The data will be transmitted when the customs declaration will be validated and freed;
- It will allow the quantities management;
- It will provide statistics to the partner administration.
Pull service

- It allows automated checks
The EU customs single window
Most regulations are EU. IT connections between the national customs clearance systems and EU databases must allow automated checks on documents issued in another MS.

That is the reason why the Commission launched the first CSW project at EU level called "CSW – CVED".

**Phase 1** (conformance testing with MS in end 2014) = automated checks.

**Phase 2** : probably in 2017 (TRACES New Technology) = quantities management.

**Prospects** : TRACES will be used for organic farming documents and FLEGT. Maybe for catch certificates (current discussions between DG SANCO and DG MARE).
An EU project team works on different architectural options
Interoperability between customs single window

For regulations requiring customs validation of licences on two sides of the border, the interconnexion between both CSW will allow the end to end dematerialization of the process.

France and Switzerland are setting up an IT link between their CSW in the CITES field.
Planning of the NCSW project in France
June 2010: implementation of the project team

Second half of 2010: first contacts with de 15 administrations

2011/2012: identification of the business need with bilateral with the Ministry of agriculture (AGREX certificates), of environment (CITES) and Defense (war materials)

2013/half 2014: IT developments

Now and till end 2014: end to end tests for CITES and AGREX certificates

January 2015: experimentations
Thank you for your attention

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• Japan Single Window & Interoperability
  – Mr. Mitsuru Ishigaki, UN/CEFACT Rapporteur for Asia/Pacific Region
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Nippon Automated Cargo and Port Consolidated System (NACCS) as National Single Window in JAPAN

Slides are quoted from the documents for presentation by Mr. Tokio Yamaoka (NACCS Inc.) at ASIA PACIFIC Trade Facilitation Forum (APTFF) 2014

For ITPD session on 24th UN/CEFACT Forum in October 2014
- Established in May 1977 as an authorized corporation to administer Air-NACCS
- Transformed into an incorporated administrative agency in Oct. 2003
- Privatized by the new NACCS act* in October 2008 for improved corporate management and provisions of better services to users by enlarging its business scope

- Stockholder: 100% owned by Japan Government
- Supervisory Ministries: Minister of Finance (Main) with other relevant Ministers (Justice, Transport, Agriculture, Health and Trade)

*Law for partial revision of the Act on Processing etc. of Business Related to Import and Export by Means of Electronic Data Processing System
I.1. Features of NACCS

- The core system in Japanese import/export providing comprehensive logistics information platform to the public and private operations

- Indispensable infrastructure for Japanese economy providing standardized and unified procedures
I. 1 Features of NACCS

➢ Reliable Service:
- 24h-365days
- Operating ratio of more than 99.99%
- Duplex Server System
- Backup Center for Natural Disaster
- Customer Service: 24h 365 days Help Desk

➢ Excellent Services:
- Fast Response: Less than one second
- Cargo Tracking
- Utilization of input data from other users
- Automatic calculation of exchange rates and duties
- Real Time Tax Payment System from Bank Account
- Immediate release upon arrival
- Single Window System
I.1 Features of NACCS

Air-cargo
- Airline companies
- Air cargo agents
- Flight caterers & suppliers
- Consolidators
- Warehouse operators
- Customhouse brokers
- Importers/Exporters
- Banks
- MOF(Customs), MAFF, MHLW, MLIT, MOJ, METI, etc.

Sea-cargo
- Ocean Carriers
- Shipping agents
- NVOCC
- Shipping brokers
- Container yard operators
- Warehouse operators
- Customhouse brokers
- Importers/Exporters
- Banks

NACCS
- Declaration/Reporting
- CI
- CI and Notice of permission
- Import/Export Declaration and Notice of permission
- Information related business
- Settlement
1. Features of NACCS
II. Development of the SW in Japan

[Problems]
- Necessary to submit similar but different documents for various government agencies
- Users had to manage multiple IDs, PWs

Political impetus, political leadership
- Cabinet decision to enhance paperless environment regarding import/export and port procedures (July 2001)
- International logistics Reform Plan (Shiokawa Initiative) presented by Finance Minister to Cabinet members (August 2001)

Coordination mechanism across agencies
In Oct.2013, ALL OGA system had been integrated in NACCS.

NACCS
(CUSTOMS PROCEDURES MOF)
(PORT PROCEDURES MLIT)
(QUARANTINE MHLW)
(IMMIGRATION MOJ)
(TRADE CONTROL METI)
FOOD QUARANTINE
(FAINS)
(MHLW)
ANIMAL QUARANTINE
(ANIPAS)
(MAFF)
PLANT QUARANTINE
(PQ-NETWORK)
(MAFF)

MOJ MINISTRY OF JUSTICE
MOF MINISTRY OF FINANCE
MHLW MINISTRY OF HEALTH, LABOUR AND WELFARE
MAFF MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES
METI MINISTRY OF ECONOMY, TRADE AND INDUSTRY
MLIT MINISTRY OF LAND, INFRASTRUCTURE, TRANSPORT
TOURISM
### III. 1 Development of SW at a Glance

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- **Upgraded Sea-NACCS** (since Oct. 2008)
- **5th generation NACCS** (since Feb. 2010)
- **ANIPAS** (since Oct. 2008)
- **PQ-NETWORK** (since Oct. 2008)
- **FAINS** (since Feb. 2010)
- **Common Portal** (since Oct. 2008)

- **6th generation NACCS** (since Oct. 2017)
1. Gateway connection using filers’ own systems

2. Connection via Service Provider (SP)

Based on Customs Law, from this March 2014, a vessel operator or a non vessel operating common carrier (NVOCC) have to electronically submit information on maritime container cargoes to be loaded on a vessel intended to entry into a port in Japan, to Japan Customs (in principle) no later than 24 hours before departure of the vessel from a port of loading.
I.2 Paperless Certification - eCert Collaboration

Paperless “Quarantine Certificate” issued by Australian Government to Japanese Government through NACCS
I.2 Global Initiative - VNACCS -

From 1 April 2014, VNACCS (Viet Nam Automated Cargo and Port Consolidated System) was launched together with VCIS (Viet Nam Customs Information System) assisted by Japan Customs and JICA (Japan International Cooperation Agency).

*March 2012: Conclusion of E/N (Exchange of Note) between Japan and Viet Nam Government
: Conclusion of G/A (Grant Agreement) between JICA and Viet Nam Government

➢ Facilitation of flow of goods in Viet Nam
- With high stability and quick response

➢ Promotion of Paperless Clearance
- Adoption of electronic signature
I.2 Global Initiative - VNACCS, MACCS -

- Introduction of declaration preparation assistance function
  - Auto calculation of Customs duties by inputting HS number etc.
  - Auto calculation of Customs value

- Facilitation of duty payment method
  - Auto debit function from banks

- Realization of Single Window
  - Provide function of connecting with other government agencies

Myanmar Automated Cargo Clearance System (MACCS)

April 2014: Conclusion of E/N between Japan and Viet Nam Government

: Conclusion of G/A between JICA and Viet Nam Government
Thank You

Presentation by Mitsuru Ishigaki
(JASTPRO)
Please contact with m-ishigaki@jastpro.or.jp

For ITPD session on 24th UN/CEFACT Forum in October 2014
• Interorganizational Operating Systems (IOS)
  – Mr. Tom Butterly, UNECE Secretariat
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Trends and Developments in Single Window

UNECE
Emergence of Multiple “Single” Windows

- Buyers/Importers
- Importer’s Banks
- Freight Forwarders
- Haulers
- Vessels
- Air lines
- Customs Department
- Quarantine & SPS Agency

- Sellers/Exporters
- Exporter’s Banks
- Traders
- Customs Brokers
- Other government agencies

- e-Trade
- Port Community System (PCS)
- Warehouses
- Terminal Operators
- Marine Department
- Hauler Operators
- Port-equipment Operators
- Regulatory Agents

- e-Freight
- Health Department

- Trade SW
- Ship Agents
- Ship Piloting
- Vessel Traffic Safety
- Vessel Operator
- Terminal Operator
- Port Authority

- Maritime SW
- Other government agencies
Looking ahead:
A Network of IOS for efficient cross-border trade

Network of IOS in cross border trade

- Buyers/Importers
- Sellers/Exporters
- Importer’s Banks
- Sellers/Exporters
- Exporter’s Banks
- Freight Forwarders
- Hauler Operators
- Warehouses
- Terminal Operators
- Maritime SW
- Port Community System (PCS)
- Port-equipment Operators
- Regulatory Agents
- Marine Department
- Ship Agents
- Ship Piloting
- Vessel Traffic Safety
- Vessels
- Air lines
- e-Freight
- e-Trade
- Health Department
- Customs Brokers
- Port Authority
- Other government agencies
- Terminal Operator
- Traders
- Haulers
- Vessel Operators
- Freight Forwarders
- Quarantine & SPS Agency
- Customs Department
- Traders
- Terminal Operator
- Other government agencies
- Port Authority
Inter Organizational Information Systems (IOSs)

**IOS: A system for collaboration and information exchange among independent stakeholders in international trade**

IOS Characteristic: focussed, limited number of stakeholders, fast implementation, dynamic, supra-national,..
• **Business Needs**
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  – Section Editor: Jari Salo, jari.salo@tieke.fi

• **Semantic Interoperability**
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  – Section Editor: SP Sahu, sahu.sp@gmail.com

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About SWI-Business Needs Discussion Paper

• This Discussion Paper outlined the basic requirements that needs to be fulfilled in order to justify the implementation of SWI projects, including the needs of traders and Government

• Scope covers the mechanism required for the interconnectivity of two or more SW facilities which requires the B2G and G2G exchange of regulatory data/information beyond the domain of national Single Window
Outline of BN Discussion Paper

• Why interoperability?
• Pre-requisite for establishing SWI
• Limitation/Constraints/Challenges of SWI
• Different model of SWI
• General business/sustainability analysis
• Analysis of SWI parties/stakeholder’s business needs
• Semantic Interoperability

— Section Lead:
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— Section Editor:
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Semantics

Semantics is the study of meaning. It focuses on the relation between signifiers, like words, phrases, signs, and symbols, and what they stand for, their denotation.

The semantic work in UNCEFACT consists in verifying that a precise denotation is associated with a unique signifier.

Different words can have the same meaning: they are synonyms.

One word (character string) can have different meanings in their instanciations: they are homonyms.
Semantic interoperability: generalities

Semantic can be defined without reference to any syntax (this is what UNCEFACT recommends) but at the implementation level syntactic interoperability is necessary to wrap objects semantically defined and exchange them between automated processes (application).

Syntactic interoperability, provided by for instance XML or EDIFACT, is a pre-requisite to semantic. It involves a common data format and common protocol to structure any data so that the manner of processing the information will be interpretable from the structure.

The practical significance of semantic interoperability has been measured by several studies that estimate the cost (in lost efficiency) due to lack of semantic interoperability.
Ontologies

Over the past decade more than ten foundation ontologies have been developed, but none have as yet been adopted by a wide user base. **Ontologies ambition to solve the semantic issue.**

Upper Ontology

In information science, an upper ontology (also known as a top-level ontology or foundation ontology) is an ontology which describes very general concepts that are the same across all knowledge domains. **An important function of an upper ontology is to support very broad semantic interoperability between a large number of ontologies which are accessible ranking "under" this upper ontology. The Basic Semantic Register (MoU) was seen as an upper ontology**

Upper ontologies are also commercially valuable: this leads to "semantic and ontological warfare" due to competing standards and accordingly **any standard foundation ontology is likely to be contested among commercial or political parties.**
Semantic interoperability for Single Window

• Interoperability at the data level
• e-Documents level
• Business process level

With reference to:

• TDED / EDED
• CCTS 2.01
• CCTS and CCL
• Shared common data set
• Shared business processes (UML, UMM)
Domain or scope of SW interoperability

- Regulatory only

- Bilateral
  - Korea Philippines
  - US Canada
  - Omar Malaysia

- Regional
  - PAA
  - ASW
  - AAEC (Africa)
  - SELA

- Multiregional: APEC (Certificate of Origin; e-Bill of Lading)

Lessons learned? Comparison of experiences?
Semantic interoperability: Issues

- **UNTDED - ISO7372 Maintenance Agency**
  Work in progress to establish correspondence between Core Components of the CC Library and [TDED and EDED] data element tags

- **ISO/IEC/ITU/UNCEFACT MoU:**
  Relaunch of the Basic Semantic Repository approach with new tools (Semantic Web). Is this the solution? Time scales for delivery of exploitable results?

- **What means “Reference to world standards”?**
  Often stated without precisions

- **What means “Reference to WCO Data model”?** And reference to UNCEFACT for WCO Data model
• Governance Environment

— Section Lead:
  • Andrea Fehr Hampton, andreafehr@gmail.com

— Section Editor:
  • Rachid Benjelloun, rbenjelloun@nathaninc.com

— Section Editor:
  • Valentina Mintah, valentina@westblueconsulting.com
SWI – Governance:

• “...the exercise of economic, political and administrative authority [...]. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.”

SWI – Governance:

• « The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives.”

SWI – Governance:

- Processes
- Actions
- Verification
- Powers
SWI - Governance

• Centralized governance model

• Network governance model
• Legal Environment
  – Section Lead:
    • Lauri Railas
    • lauri@railas.fi
  – Section Editor:
    • Bill Luddy
    • bill.luddy@mac.com
SWI – Legal: Background

• Recommendation 33 establishing S.W.
• Recommendation 35 Legal aspects

• Single Window Interoperability:
  – Two more states
  – Legal and regulatory requirements may be in conflict
SWI – Legal: current path chosen

• Customs administrations and other import & export regulatory bodies
• Should not address business-to-government (B2G) interoperability requirements
• Relationship with Recommendation 35
  – Using a similar format
  – Criminal law
  – EEC contributed ‘main principles of Single Window Interoperability’
  – Authentication