Single Window Development and Implementation

The Experience of Singapore

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WORKSHOP ON TRADE FACILITATION IN EAST ASIA
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Making Waves Since the 1980s (Singapore Roadmap)

First Wave: National IT Plan
- Early 80s

Second Wave: National Computerisation Plan
- Mid 80s

Third Wave: IT2000
- Early 90s

Fourth Wave: Infocomm21
- Late 90s

Fifth Wave: Connected Singapore 2003 -
- Conceptualized in 1986 as part of National IT Plan
- Implemented in 1st Jan 1989 by Singapore Customs
The Objectives of TradeNet®

- To facilitate the submission and exchange of structured trade documents electronically for government, public and private sectors
- To reduce turnaround time and manpower costs
- Enforce controls laid down by domestic policies and international agreements
- Collection of Customs Duties and GST (GST was introduced in 1994)
- Collection of Trade Statistics
The Path of TradeNet®

Background

Version 1.0
- Implemented Electronic Submission
- Declarations were batched up
- Turnaround time in few days

Version 1.8
- Declarations were batched up
- Turnaround time in half-an-hours

Version 2.0
- Interactive TradeNet
- Approval within 2 - 5 minutes

Version 3.1
- Major business processing upgrade
TradeNet® Business Processes

- Forming of TradeNet Working Committee Chaired by NCB and CED
- Studying of Trade document business processes (e.g. declaration submission, approving parties, payment, movement of cargoes, etc)
- Review all Manual processes involved
- Review all the different type of trade documents (e.g. Import, Export, Transhipment)
- Study and Review Goods Classification
- Introduction of Electronic Transaction Act (late 90’s)
Design and Development Process

- To evaluate Technology
- Consolidate Data Element to form TradeNet specifications
- Contingency Plan (e.g. DR Site) and SOP
- Benchmark performance of electronic declaration (from days to minutes)
- Payment of Duty and GST via Electronic means (GIRO)
Design and Development Process

Current Structure of TradeNet®

- Front-end Traders
- VAN operator
- Controlling Agencies
- Trade Community
- Singapore Customs
Structure and Services

- Submission of TradeNet® applications
  - # Import
  - # Export
  - # Transshipment
  - # Removal
  - # Container
  - # Controlled/Non-controlled/Strategic goods
  - # Payment/Non-payment
  - # Cert of origin and other applications

- Amendment of TradeNet® applications
- Cancellation of TradeNet® applications
- Auto Process of TradeNet® applications (more than 1000 validation rules)
- Enquiry on application status via 24-hours IVR (Interactive Voice Response System)
- Auto deduction of duty/GST via GIRO
- Paperless clearance for TradeNet® permits (CCS)
Technology

- Single Integrated on Web-based or Client-based software (Front-end)
- IBM Mainframe (OS/390) for the backend processing
- UN/EDIFACT
- Centralised Database
- Auto-routing and approval in Interactive Mode
- Leased Line between VAN and Customs
- Dial-up between traders and VAN (56K or broadband)
- MQSeries to provide near Real-time Message Routing
Participants

Government Agencies

- Singapore Customs (System Owner)
- Controlled Agencies (e.g. AVA, A&E, etc)
- IRAS (Accounting of GST collection)
- RCB (Registration of Company and Business)
- IE Singapore (Statistics department)
## Participants

### Private Sectors
- Importers
- Exporters
- Shipping Agents
- Freight Forwarders
- 3rd or 4th Party Logistic Companies (3PL/4PL)
- Terminal Operators
Participants

Service Providers

- **CrimsonLogic** *(Previously known as SNS)*
  Provides mailboxes and routing services between government and traders

- **IPAC**
  Provides integration services to trader’s in-house system and data entry software

- **PSA**
  Provides Shipping lines, Shipping agents needs for submission of trade declarations.

- **CCN**
  Provides Air-Freight, courier agents needs for submission of trade declarations.
Frequency of use for TradeNet®

- Total of 3,000+ declaring agents who are the key users in submitting electronic declarations.

- Customs - 1,000+ staff strength on operations

- The volume of TradeNet is around 30,000/day. On the average, declaration is being processed and approved within 5 minutes.
Business Model

- **Front-end Software - VAN Funded**
  - ASP model for front-end with transaction charges

- **Backend System is funded by Singapore Government (MOF)**
  - White paper was being prepared to justify the development and upgrade costs
  - Outsourcing to vendor(s) in development and maintenance
Results

- Faster turnaround time (within 5 minutes of approval)
- Improve Convenience and efficiency
  - 24x7 at the trader’s premises
  - Reduce paper work
- Costs saving: US1b per year
  (E-Government – James Yong)
- Paperless clearance
- Cashless transactions
Key Considerations

- **System availability** - must be 24x7 and achieving 99.98% uptime
- **Conduct BPR to remove redundancy and streamline processes and procedures (for both Manual and System)**
- **Adoption of Standards** (e.g. RosettaNet, UNEDIFACT, ebXML)
- **Standardise practices on trade documents and Goods classification (to achieve cross border trading)**
- **Build and Automate processes to improve turnaround time**
- **Close Collaboration with all parties involved**
Future Plans

- Liberalisation of VAN
- More integration to trade industries, for example: Logistics, Shipping and freight forwarders.
- Objective to reduce data entry, information sharing and further costs saving
- Centralised platform to act as National Hub for all trade activities
- To value add and serve the trade communities better
Future Plans

- **Introduction of E-Logistics Hub**
- **Achieving Cross-border trading and Free Trade Agreement (FTA) between countries**

**Achieving WCO Recommendations:**
- To promote co-operation between Customs administrations;
- To standardize Members' practices regarding duty reliefs, repayment or remission;
- To facilitate the international transport of goods and travel and tourism;
- To promote the harmonized use of information technology;
- To facilitate and expedite the implementation of certain international Conventions;
- To simplify and harmonize Customs documents;
- To ensure that adequate legal remedies are available to the taxpayer.
Introduce Integrated Single Window e-Logistics

A Single Window System which applies IT in innovative and productive ways to **maximize the business value** of IT within cargo and logistics operations. It integrates the enterprise systems of the trade community and government agencies and supports the delivery of **key strategic business objectives** by increasing information velocity, visibility and accuracy.
Future of TradeNet®

Integration is the Key to Success for e-Commerce

Financial Service Provider
- Bank
- Insurance

Government Agencies
- Customs
- Control Agencies
- Chamber of Commerce

Customer Service Center

Payment

Trade Documentation

Workflow
Event Messaging
Business Rules
Process Knowledge
Integration of Application
Visibility

Order Fulfillment

Freight Management System

Transport Management System

Transportation Operator

Market Place
- Manufacturers
- Suppliers

Financial Service Provider

Future of TradeNet®
Illustration of Current Typical Trade Transaction
Future of TradeNet

Illustration of Integrated e-Logistics

1. Sends Shipping Instruction
2. Receive Shipping Instruction
3. Send Draft BL
4. Receive Draft BL
5. Send BL
6. Use BL info for port booking
7. Cargo Status
8. Permit Application
9. Approval Status

Single Window e-Logistics

Permit
BL
House BL
Shipping Instruction
Challenges of Integrated Single Window e-Logistics Hub

- Customers unwilling to pay for or trust such services/transactions.

- Some doubts on the return on investment for integration technology (which can be expensive).

- Policy issues – Data Protection, Pricing, Service Standards, enforcement, etc.

- Getting the agreement of all stakeholders including Governments, Suppliers, Customers, 3PL Parties, Banks and Insurance Companies

- Lack of a globally accepted suite of integration technologies and standards.
• Key Benefits of Integrated Single Window e-Logistics
  - increased trade revenue
  - streamlined procedures
  - seamless experience for traders
  - reduced business cost
  - increased productivity
  - fast turnaround (cost and process)
  - empowered customers

• Example of Benefits
  - Realized Lower Freight Costs
  - Improved Order Cycle Times
  - Reduced Inventory
  - Enhanced Customer Service
  - Focus on Core Competencies
Let Us Be a VALUE-CREATOR
For Your Organisation
Reference


Useful Links
www.tradenet.gov.sg
www.customs.gov.sg