Open Standards Forum: Enabling Transformational Government Through Web Services and SOA

Using ebXML to Implement an Interoperability Platform in a G2B Environment – Customs Department of the Kingdom of Thailand

October 29-30 2007, Ditton Manor
Agenda

- Background, Business Drivers and Trends
- Solution Approach Towards a New Service-driven platform
- Summary and conclusion
- Q&A
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Customs Department of the Kingdom of Thailand

Background, Business Drivers and Trends
The Industry Drive Globally

- Upward spiral of cross-border trade and globalization
- Trend towards “immediate” response to market demand
- Supply chain integrity
- Real-time market visibility
- Increased competitiveness and cost reduction
- Reduction in regulatory and bureaucratic inhibitors to cross-border trade
Inhibitors to Cross Border e-Trade.....

- High cost and complexity in integrating with trading partners locally and worldwide
- Lack of IT sophistication for small and medium enterprise partners
- Government and bank acceptance of electronic documents from overseas (e.g. Certificate of Origin) is limited
- No commonly accepted trust framework for cross-border paperless trade
- Paper documents still dominate for most of the trade, logistics and financial processes
Community Coverage...

Sellers/Exporters
Banks
Inspection Agencies
Government and Agencies

Freight Forwarders
Terminals
Carriers
Insurance Companies

Buyers/Importers
... and Collaboration...

1. Request for Quote
2. Quotation
3. Purchase Order
4. P. O. Confirmation
5. Ship Order / Instr. + Invoice
7a. Manifest
8. Gate-out / gate-in
9. Bay Plan
10. Bay Plan
11. Pre-alert / Arrival Notice
12. Gate-in / gate-out
13. Payment Order
14. Remittance
15. Import documents
16. Proof of Delivery

Bank
Air Express
Air Carrier
Ocean Carrier
Terminal at Origin
Terminal at Destination
Freight Forwarder
Buyer / Importer
Seller / Exporter

Capture gate movement
Capture gate movement (gate-out/in)
Capture gate movement
Competitiveness of A Nation and a Driver for Paperless Trade

- Logistics – Efficient flow of Goods

<table>
<thead>
<tr>
<th>Country</th>
<th>Current Logistics Costs/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>~25-30%</td>
</tr>
<tr>
<td>Japan</td>
<td>~11%</td>
</tr>
<tr>
<td>USA</td>
<td>~10%</td>
</tr>
<tr>
<td>EU</td>
<td>~7%</td>
</tr>
</tbody>
</table>

- Logistics Costs in Thailand is quite high

Source: Prepared by Royal Thai Customs for Capacity Building Workshop on Trade Facilitation Implementation for ASIA and Pacific Region, 17-18 March 2005, Kuala Lumpur, Malaysia
ASEAN Single Window Concept
Using ebXML to Implement an Interoperability Platform in a G2B Environment

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Solution Approach Towards a New Service Driven Platform
Moving from a “Classic” EDI Set-up...

- Why ...
  - To accommodate high volume of messages at Royal Thai Customs – In general, improve efficiency and performance (reduce cost)
  - To implement and offer dedicated services for
    - Trading partners
    - Back-end application services
    - Visibility and documents
  - To have more standardized implementation of services
    - Protocols, events, ...
... towards the SOA B2Bi Gateway

Service Providers*

ebXML

Message Tracking & Monitoring Services

ebXML Gateway

Data Transformation Services

Trading Partner Management Services

Security Services (PKI & Digital Signature)

Advance-Q

Customs Application

*CAT Telecom, NetBAY, TradeSIAM
Example of a Message Flow
Example of an ebXML Message

```xml
<soap-env:Envelope
  xmlns:soap-env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  <soap-env:Header
    <eb:MessageHeader
      soap-env:mustUnderstand="1"
      eb:version="2.0">
      <eb:From>
        <eb:PartyId eb:type="simple">SMART</eb:PartyId>
      </eb:From>
      <eb:To>
        <eb:PartyId eb:type="simple">TCD Develop</eb:PartyId>
      </eb:To>
      <eb:CPAId>TCDDev_SMART</eb:CPAId>
      <eb:ConversationId>SMART</eb:ConversationId>
      <eb:Service>http://dev.ebxmlustoms.co.in/DispatchServices_HTTP</eb:Service>
      <eb:Action>ExportDeclaration_Action</eb:Action>
      <eb:MessageData>
        <eb:MessageId>2006032151739302100623560000025SMART12345678</eb:MessageId>
        <eb:Timestamp>2006-03-21T15:17:48Z</eb:Timestamp>
        <eb:TimeToLive>2006-03-21T15:17:48Z</eb:TimeToLive>
      </eb:MessageData>
      <eb:MessageData>
        <eb:Description xml:lang="en-US">SMART12345678</eb:Description>
        <eb:MessageHeader
          xsi:schemaLocation="http://www.oasis-open.org/committees/ebxml-msg/schema/msg-header-2.0.xsd"
          soap-env:mustUnderstand="1"
          eb:version="2.0"
      </eb:MessageHeader>
        <eb:Reference eb:id="SMART12345678" xlink:type="simple" xlink:href="#SMART12345678"/>
        <eb:Description xml:lang="en-US">SMART12345678</eb:Description>
      </eb:Reference>
    </eb:MessageHeader>
  </soap-env:Header>
</soap-env:Envelope>
```
Cross Border Collaboration

Now launched!

Thailand – Philippines

Issuing Authority of Exporting Country Transmits FORM D to Customs System in Importing Country

Secured FORM D

XML

Customs System in Importing Country

Issuing Authority of Exporting Country Transmits FORM D to Customs System of Importing Country

Secured FORM D
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Summary and Conclusion

The need for business collaboration within and between governments and enterprises, different industries such as customs, banks, transport, logistics, etc.

Promoting electronic transaction with e-document exchange and interoperability between G2G, G2B and B2B, for example
- Define common standard data set
- Improve laws and regulations to enable to adopt of paperless environments.
- Interoperability (common open protocols)

Technology initiatives
- XML (ebXML), Web Services, SOA

Open e-business organizations within the region
- ASEAN, Center for E-Commerce Infrastructure Development (CECID), Pan-Asian e-Commerce Alliance (PAA), ebXML Asia Committee (eAC), ...
Axway and Synchrony for eGov

Offers a complete scalable and interoperable platform that monitors information exchange and public service processes, covering a wide range of services, including:

- Secure and reliable data transfer and mgmt, both for A2A and B2B
- B2B process orchestration and monitoring, technical and business supervision and monitoring (BAM)
- Community enablement and trade partner management services

Global deployment examples include:

- European Commission
- Finance Ministry, Public Accounts Department, CNAF (France)
- Ministry of Justice (Netherlands)
- Treasury of the Kingdom of Morocco
- Norrbotten Province (Sweden), Employment Agency (Germany), Tradelink and DTTN (Hong Kong)
- Customs Department of Royal Thai Customs and Dagangnet (Malaysia)
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Q&A
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