IT Support for TFA Implementation

Speed & Quality: Japanese Way of Trade Facilitation and New Technology for Future

WCO IT Conference & Exhibition
Bahamas, 6-8 May 2015

Presented by:
NACCS Center
NTT DATA Corporation
1. Introduction and Overview
NACCS Center and NTT DATA

2. How we can contribute to global trade facilitation

Section 1. Trade Facilitation in Japan
Section 2. Our Capabilities in other Markets
Section 3. New Technologies for the Future
Today’s Presenters

Toshihiko Miyasaka
President and Chief Executive Officer
Nippon Automated Cargo and port Consolidated System, Inc.

Kenji Nagai
Executive Manager,
Public Sector
NTT DATA Corporation
Introduction of NACCS Center

NACCS Center is a government-funded entity that operates a joint public and private sector system.

NACCS plays a role of a comprehensive logistics information platform in int’l distribution of Japan.

User – Friendliness

Efficiency, Economy

Stability, Reliability

Development In International Logistics

Users
AFR operation with foreign SPs

- Following the WCO SAFE Framework, the Advance Filing Rules (AFR) on Maritime Container Cargo has started since March 2014.

- NACCS Center has managed and operated the data transmission / processing system for the AFR, by connecting with foreign Service Providers.

(Note: Under AFR, Japan Customs requires shipping companies / NVOCCs to file detailed cargo information (Manifest data) electronically 24hrs before departure of a vessel from a loading port.)
NACCS-type customs clearance system abroad

- **Introduced in Vietnam in April 2014**
  Start system development in Myanmar since October 2014
  (Note: These projects are implemented under the grant aids by JICA, Japan International Cooperation Agency.)

- **NACCS Center supports both governments as a consultant**

- **Moreover, NACCS Center offers technical assistances**
The strong partnership since 1978. NACCS, the online system for trade procedures in Japan has been developed and operated by the NACCS Center and NTT DATA.

- Planning & operation of NACCS in Japan
- Consulting services for online trade systems in Vietnam & Myanmar

- Development & maintenance of NACCS in Japan
- Development of online trade system in other countries including Vietnam and Myanmar.

Int’l Projects with GOVs and SPs
Today’s Presenters

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Public Sector
NTT DATA Corporation
NTT Group at a glance

Global IT and telecommunications services company

- $112 billion in total revenue
- 240,000 employees worldwide
- Network coverage in 196 countries and regions
- Direct presence in 79 countries and regions
- Ranked #1 in Data Center
- Ranked #53 in Fortune Global 500

All facts and figures accurate as of March 2015

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76,000+ employees
175 cities
41 countries

<table>
<thead>
<tr>
<th>Region</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMEA</td>
<td>14,000</td>
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<tr>
<td>APAC</td>
<td>11,000</td>
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<tr>
<td>China</td>
<td>4,000</td>
</tr>
<tr>
<td>Japan</td>
<td>33,000</td>
</tr>
<tr>
<td>AMERICAS</td>
<td>14,000</td>
</tr>
</tbody>
</table>

As of Mar. 2015
Global Project: the Vatican Apostolic Library

- NTT DATA was selected by the Vatican Apostolic Library to participate in its project to digitize and archive historic assets of humanity.
- NTT DATA is to digitize manuscripts, build and operate the digital archive systems for the Vatican Apostolic Library.
Global Capability 2

NTT DATA – Global SAP Template AMS Partner for Daimler

Global-Wide IT Business Consolidation Across 4 Global Centers

Germany
Turkey Center
India Center
Mexico Center (Planned)

Central Roll-in Support
NTTD HQ - Governance

Global SAP Operations – Level 2, Level 3; SAP BASIS; SAP Development; Central Roll-in Services.

- 154 FTEs (240 by the end of 2015)
- T&M – 35; Managed Services - 119
- 66 FTEs (120 by the end of 2015)
- 3 FTEs (10 by the end of 2015)
Agenda

1. Introduction and Overview
   NACCS Center and NTT DATA

2. How we can contribute to global trade facilitation

   Section 1. Trade Facilitation in Japan
   Section 2. Our Capabilities in Global Markets
   Section 3. New Technologies for the Future
Section 1.
Trade Facilitation in Japan
Imports/exports keep growing in Japan

Significantly increased in the past 35 years

Fact 1. 
# of Imp/Exp Declaration grew by 557%

But

Fact 2. 
# of Customs staff Nearly the same
1978 : 8,077 staff
2012 : 8,778 staff

NACCS implemented in 1978 has delivered the following benefits:

- Expeditious Customs Procedures
- Secure & Safety Operation

Sources:
"Ensuring Peoples' Annexes" by Japan Customs
"ANNUAL REPORT 2013-2014" by WCO
Strong Points of NACCS

5 Key Features

Expeditious Customs Procedures

1. **Reuse of Data & Full Automation**

2. **Highly Integrated** with OGAs

Secure & Safety Operation

3. **Advanced Screening**

4. **Secure E-Tax payment**

Total support for 1-4 features

5. **High Level of Service** (High Availability, High Performance)
1. Reuse of Data: Users can use information registered by other users

2. Automation: Prompt & accurate processes can be performed

**End-to-End**

- Port clearance
- Registration of Cargo info
- Application for OGAs
- Customs declaration

**Full Automation**

- Automated Screening
- Automated Tax Determination
- E-Tax Payment

Note: Except for cases manual operation required.

NACCS

- Single Input
- Re-Use of Info
- Additional data
- International Standards
2. Highly Integrated with OGAs

Completely integrated Single Window
1. OGAs procedures can be processed inside NACCS
2. Real-time seamless end-to-end transaction from applicants to OGAs
3. Reporting & Analysis modules available for staff in the organizations
2. Highly Integrated with OGAs

Completely integrated Single Window
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2. Real-time seamless end-to-end transaction from applicants to OGAs
3. Reporting & Analysis modules available for staff in the organizations
2. Highly Integrated with OGAs

Approval from 4 Organization is required

Parallel Operation by NACCS

Can Process Concurrently and Asynchronously

Agriculture Quarantine  Food Quarantine  Animal Quarantine  CUSTOMS

Total Status Control in NACCS

Clearance!!

Quick Operation by NACCS
3. Risk Management by Advanced Screening

Speedy & more effective automatic screening
1. Risk analysis based on huge data stored in risk management system
2. Real time screening in one single transaction
   (Transaction time (for declaration up to clearance): only a few seconds at shortest)

<Screening Flow>
4. Secure & Accurate E-Tax payment

Automated tax calculation & E-Tax Payment contribute to
1. Prompt payment operation
2. Accurate tax collection without leakage

<Payment Flow>

Applicant → Declaration → Automated Tax Determination

<Process>
- Determination of Tax rate
- Determination of Total tax amount

Tax info → E-Tax Payment → ¥ → National treasury’s account

Applicant’s Bank account

No Manual Intervention
A high level of service availability and performance supports faster customs procedures & secure tax collection

<NACCS Offers High Level of Service>

| High Availability | - 24/7 operations*  
|                   | - Service Level: 99.99%  
|                   | - Disaster recovery (in case of disaster, business continuity can be supported by the back-up data center)  
| High Performance  | - Average online processing time: Only 0.1 sec order (in NACCS server)  

*(Note: NACCS offers a high level of service with 24/7 operations, a service level of 99.99%, disaster recovery, and an average online processing time of 0.1 seconds in their NACCS server.)
Section 2

Our Capabilities in Global Markets
Global Capabilities in Customs Domain

Project Experience in 15 countries

As of Mar. 2015

- Andorra
- Myanmar
- Vietnam
- Philippines
- Indonesia
- Japan
- US
- Guatemala
- Honduras
- El Salvador
- Nicaragua
- Costa Rica
- Peru
- Columbia
- Chile

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Activities in ASEAN (Vietnam & Myanmar)

Leveraging expertise gained in Japan (NACCS)

1. Vietnam (VNACCS)

<table>
<thead>
<tr>
<th>Project period</th>
<th>Aug, 2012 – Mar, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Implemented across the country</td>
</tr>
<tr>
<td></td>
<td>- Stable operations</td>
</tr>
<tr>
<td></td>
<td>- Highly contributing to Vietnam Trade Facilitation</td>
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</tbody>
</table>

2. Myanmar (MACCS)

<table>
<thead>
<tr>
<th>Project period</th>
<th>Oct, 2014 – ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current status</td>
<td>Making progress smoothly.</td>
</tr>
</tbody>
</table>
## Regional Distributed System (Food & Beverage)

### Purpose
- Automation of sanitary registration procedures
- Sharing ‘certificate of free sales”

### Integration
- Integration of existing customs systems

### Global Standard
- Pre-Defined BUS Architecture by WB
- WCO Data Model v 3.0

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### Data Sharing
- Guatemala
- Honduras
- El Salvador
- Nicaragua
- Costa Rica
DHS Customs and Border Protection Secure Border Initiative

Providing full lifecycle Independent Verification & Validation (IV & V) to optimize US border security technologies

NTT DATA evaluates complex, integrated Secure Border technologies and provides recommendations for improvement.
Section 3

New Technologies for the Future
“Outlook and technology trends of the near future”
Derived by NTT DATA once a year

Targeted 12 Trends in 2015
4 Information Society Trends
8 Technology Trends

2 Key Technology Trends for Customs Domain

- Challenge of Artificial Intelligence
- Cloud Optimization

NTT DATA Technology Foresight 2015
Big Data Analysis & AI for Customs Screening

Issues

Data Volume for screening

"Big Data"  More complexity

Burden on Customs Officers

UP

Deep Learning (Find Unknown Rule)

Rapid $\times 10$

NTT’s offering technology

World’s First Approach

Learning rules from Past Instances & Real-time

<Benefits>

1. Improvement of Screening Criteria
2. Support the Analysis of Customs Officers

Known Rule-Based

Batch

Advanced Analytics

Real-time Analysis

Oracle CEP

IBM Streams
### Cloud Computing Approach for Customs

#### Current approach

<table>
<thead>
<tr>
<th>On Premise</th>
<th>Cloud Computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A country</td>
<td>A country</td>
</tr>
<tr>
<td>B country</td>
<td>B country</td>
</tr>
<tr>
<td>C country</td>
<td>C country</td>
</tr>
</tbody>
</table>

**< Issues >**
1. H/W cost
2. Maintenance cost
3. Flexibility

**< Features >**
1. High Availability
2. Cost Effective
3. Flexible Operation
4. Simple Implementation

#### NTT’s offering technology

**Edge Computing**

- Open/Shared Info
- Batch base
- Real Time Application (High response)
- Secure/Hi response

**Back-End Cloud**

**Edge Computing PF**
Conclusion

Section 1. Trade Facilitation in Japan

High Speed, Quality and Secure SW in Japan

Section 2. Our Capabilities in Global Markets

ASEAN, Latin America

Section 3. New Technologies for the Future

New Value with our new technologies

Our Offering

Contribution to Global Trade Facilitation
NTT DATA Corporation
Sales team
Email: bmot_marketing@kits.nttddata.co.jp

Exhibition booth: #29

Thank you