Building a new National Trade Platform
A Vision for the Future of Singapore Trade

Past, Present & Future

Sharing At Seminar on Intelligent Integration:
The Future of Chile's Trade Facilitation Agenda
26 Sept 2018
THE HISTORY OF TRADERNET
A LOOK INTO THE PAST

- Manual Application Forms
- Many forms for a single shipment
- Different government offices at different locations
- Time-consuming
- Labour intensive
- Uncertainty and lengthy time of approval
HOW TRADENET BEGAN

• Part of National IT Plan
• Enjoyed high-level Government commitment
• Involved private sector
• Involved intensive trials & tests
• Implemented in phases

Mr Lee, then Minister (Trade & Industry), noted “What’s important is not just the cost of labour. The key is total productivity. There’s the labour cost, inventiveness of the leading edge technology, and the quality of the production process...

We have an appreciation of how fragile we are. There is nothing special about this island. It is just one of 18,000 islands in the region. The only thing that makes it special is that the place is revved up to 99% of what it is capable of. Unless you can run at that efficiency, you’ll just sink...There is no reason to be here...But if we want to continue to be here we have to be special”.

In 1985, Singapore’s real GDP declined 1.7%, the first contraction in 20 years, a severe downturn in external demand exposed serious structural problems..... IT was believed to be able to offer this sector the potential to improve productivity and enhance its competitiveness. It was all part and parcel of the National Computerisation Plan (1980 – 1985) and National IT Plan (1986 – 1991) to improve trade competitiveness.
TRADENET – SINGAPORE NATIONAL SINGLE WINDOW

• Launched on 1 Jan 1989

• Provides a single platform for Singapore’s trade and logistics community to fulfill all import, export and transhipment related regulatory requirements

• A single point of entry for the submission on a single electronic declaration to multiple regulatory agencies

• A streamlined and integrated declaration form incorporating the requirements of various agencies
TradeNet® Processing flow and cargo clearance process

1. TRADER submits permit application.
2. Approval/Rejection process.
3. Pre-Clearance decisions made.
4. Approved permit & pre-clearance decision.
5. Auto-deduction of fees and taxes.
6. IMMIGRATION & CHECKPOINTS AUTHORITY.
7. BANK.
8. CARGO RELEASE.
KEY SUCCESS FACTORS

Clear Mandate

From Government

Key Drivers

Appointed Agency Lead

Dedicated Working Committees and Working Group

Implementation Plan

User Education

Pilot Test

Participation from Private Sector
EVOLUTION OF TRADENET

- More than 3,000 subscribers
- 9 MILLION annual declarations
- $900 BILLION worth of trade value annually
- 100 per cent of duties and taxes collected electronically
- 99 per cent of TradeNet permits processed within 10 minutes

TRADENET®

1989
TradeNet version 1.0 went live

1994
TradeNet version 1.7 Implementation of Goods and Services Tax (GST)

0101.21.0000

1996
TradeNet version 1.8 Implementation and of the World Customs Organisation’s (WCO’s) amendments for the Harmonised System codes

1999
TradeNet version 2.0 Y2K compliance, UN/EDIFACT messaging standard; Internet access to TradeNet

2003
TradeNet version 3.1 Implementation of strategic goods control, ASEAN Harmonised Tariff Nomenclature, revised GST rates, Free Trade Agreement commitments

2007
TradeNet version 4.0 “The New TradeNet for You”,— improved permit application procedure with more user friendly permit structure

2012
TradeNet version 4.1 Align to WCO’s data model

2012
National Trade Platform
Enabling businesses to share and re-use secure data and documents among their business partners and the Government
GOING BEYOND TRADENET
For one consignment...

- Involves up to 25 different parties
- Generates up to 30-40 trade documents
- Re-keying of 60-70% of data at least once
- Digital Islands: Multiple systems and data entry steps
- Lack of information and supply chain visibility

- **Fragmented Landscape**
  - Up to 25 different parties for 1 shipment
  - > 99% of all Transport & Logistics Companies are SMEs

- **Inefficient Data Flow**
  - Up to 30-40 documents
  - Multiple Disparate Systems
  - 60-70% of data re-keyed in at least once

- **Silo Operations**
  - Costly point-to-point integrations accessible to “big boys” only, e.g. HP, Cisco, Unisys
  - Partial view of supply chain
How reducing supply chain barriers is more effective than removing tariffs

<table>
<thead>
<tr>
<th></th>
<th>Reducing supply chain barriers</th>
<th>Removing all tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP gains</td>
<td>4.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Trade gains</td>
<td>14.5%</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Enabling Trade: Valuing Growth Opportunities

Increasing trade creates efficient and competitive markets and can boost the global economy, potentially adding millions of jobs to the global workforce. The Enabling Trade - Valuing Growth Opportunities report examines supply chain barriers to international trade and concludes that they are far more significant for trade and GDP than tariffs.

Why is lowering barriers so effective? The reason is that it eliminates resource waste, whereas abolishing tariffs mainly reallocates resources. Moreover, the gains from reducing barriers are more evenly distributed among nations than the gains from eliminating tariffs.

Read more
[watch/enablingtrade](#)

About the data

The report’s insights are built on 18 company case examples. The effect on GDP and trade were estimated through macroeconomic analysis under different conditions. Firstly, the model removes all tariffs worldwide and calculates the effects on global GDP and trade. In order to model gains from the reduction of supply chain barriers, the report assumes the border administration and transport and communications infrastructure scores in countries’ Enabling Trade Index (ETI) change halfway to global best practice and measure the effect this has on GDP.

Maersk found that a shipment of avocado and roses from Kenya to Rotterdam in 2014 entailed more than **200 communications** involving **30 parties**.

The shipment took about **34 days** from farm to retailers, including **10 days** waiting for documents to be processed.

Size Of Southeast Asia's E-Commerce Market

In Billions, USD

Source: Google, Temasek Holdings, 2016
Businesses had to make multiple trips to different Agencies and Permits took 2 to 7 days to approve.

A Single Trade Permit application with 99% approved within 10 minutes.

An Integrated Platform to transform the trade and logistics IT systems, processes and data for air, land, sea and Government.

Expand Singapore’s NSW to support B2B services.


TRADENET®

TRADEXCHANGE®

Manual
NTP
SINGAPORE HAS ALWAYS BEEN ADAPTING TO THE CHANGING BUSINESS AND TECHNOLOGICAL LANDSCAPE IN ORDER TO RETAIN OUR COMPETITIVE EDGE

**AS-IS:** TradeNet and TradeXchange are bundled under the same Public-Private Partnership (PPP) contract

**TO-BE:** The NTP as a one-stop national trade info-ecosystem fully owned by Customs

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**BUSINESS TO GOVERNMENT**

- **B2G declarations**
  - (9 million permits annually, 95% within 3 minutes)
- **12 Competent Authorities, 36 Controlling Units**

**TRADENET (TN)**

**1989:** Singapore’s National Single Window, containing WOG regulatory trade declaration processing requirements

**TRADEXCHANGE (TX)**

**2007:** National Integrated IT Platform to integrate trade and logistics IT systems for sea, air, land and government

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**BUSINESS TO BUSINESS**

- **Supply Chain community**
  - (corporates, logistics providers)
- **Developers / Value-Added Service (VAS) Providers**

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*Partners & Networks and Developer Zone are new features*
**Vision** - A national trade info-ecosystem that provides the foundation for Singapore to be the world’s leading trade, supply chain and trade financing hub

### Improving Productivity
- Facilitating digitisation – data capture from source
- Connecting Digital Islands, Reducing manual info exchange, re-entry – enabling data reuse, accuracy, transparency

### Boosting Competitiveness
- Supports Smart Nation initiative
- Faster transactions, including financials
- Improved supply chain visibility

### Creating Opportunities
- Innovation supported by convergence of B and G trade data
- New businesses, driven by data, insights, intelligence opportunities
- Value-adding to adjacent sectors

**Anchoring Singapore’s Leadership Position as a Trading Hub**
- Anchoring MNC control tower functions
- Unique platform that unifies B and G communities, creating increased transparency and efficiencies
- Aggregating demand to bridge individual economies scale to ease industry’s adoption of IT solutions
- Cross-border connectivity to both B and G communities/platforms
NTP CONNECTS ALL STAKEHOLDERS TO ENABLE DIGITAL TRADE

Minimise cost and effort required for multiple integrations with various partners and services.

Connect locally and overseas with both existing and new partners.

Transact with the government directly using government services on the platform.
NTP AS KEY SG GATEWAY FOR DIGITAL TRADE CONNECTIVITY TO REST OF WORLD

Legend:
- Blockchain Shared Ledger
- P2P connectivity
- Bank
- Shipping Line
- Customs
- Buyer/Seller

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WE COLLABORATE WITH STAKEHOLDERS TO ENSURE THAT THE NTP IS BUILT FOR THE INDUSTRY, BY THE INDUSTRY

So far, we have had face-to-face engagements with…

409 individuals representing

202 organisations

End Users 59%
VAS Providers / Developers 21%
Agencies / Trade Associations 20%

Over 40 interviews to understand industry challenges and opportunities

5 Ideation Workshops to identify common challenges and brainstorm conceptual solutions, followed by…

2 Applied Innovation Workshops to prioritise and assess viability of potential solutions

Over 20 Usability Feedback Sessions to gather feedback on our initial web portal design

2 Focus Group Discussions to validate key preliminary platform capabilities

7 Eye Tracking Sessions to validate user behavior and expectations of the web portal
THE NATIONAL TRADE PLATFORM IS RECOGNISED INTERNATIONALLY

In August 2016, the NTP was awarded the Smart City Asia/Pacific Award in the Economic Development category.

The Smart City Asia/Pacific Awards are based on research firm IDC’s Smart City Development Index, a benchmarking framework to help smart city planners analyse the current state of their Smart City Initiatives.

In June 2017, the NTP won the e-business category of the World Summit on the Information Society (WSIS) Prizes 2017.

Since 2012, the WSIS Prizes recognise outstanding digital projects worldwide which foster socio-economic development across various categories such as e-government and e-environment. The NTP’s win is the first time a digital initiative from Singapore has won.

1 “IDC Announces 2016 Top Smart City Projects in Asia/Pacific – Singapore and New Zealand as Big Winners”, published 17 August 2016, https://www.idc.com/getdoc.jsp?containerId=prAP41679316

WHOLE-OF-GOVERNMENT (WOG) SUPPORT IS GIVEN TO THE NTP TO ENSURE ITS SUCCESS
NTP FEATURES & SERVICES
NTP Features & Services: Functionalities

INTRODUCING THE NATIONAL TRADE PLATFORM

**NTP Homepage (pre-login)**

- **Data Tools & VAS**
  - Sign in now to discover data tools to manage your documents. To start exploring value-added services (VAS) for your business today, click here.

- **Partners & Networks**
  - Stay tuned for networking features to engage the industry, expand your connections, and discover new business opportunities. Sign in and search for partners now.

- **Government Services**
  - Watch this space for future developments. Access current Customs forms, and Tradefill® Services here.

**Discover Our Features**

- **Discover Business Partners On NTP**
- **Explore Value-Added Services**

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**NTP Dashboard (post-login)**

- **Welcome**
  - Nathan Peters
  - Dallas Trade

- **Dashboard**
  - Explore VAS
  - Search Business Partners Registered On NTP
  - Manage Data Repository
  - View Online Guides
  - Browse FAQs
  - Submit Feedback

- **Outstanding Tasks**
  - 82

- **Notifications**
  - 0
NTP Features & Services: Value-Added Services

CONVENIENTLY BROWSE AND SUBSCRIBE TO VALUE-ADDED SERVICES THROUGH THE NTP VAS LISTING
THE NTP WILL PROVIDE ENHANCED EXISTING FUNCTIONS AND INTRODUCE NEW ONES ON A SINGLE INTEGRATED PLATFORM

<table>
<thead>
<tr>
<th>DATA TOOLS &amp; VAS¹</th>
<th>GOVERNMENT SERVICES²</th>
<th>PARTNERS &amp; NETWORKS</th>
<th>DEVELOPER ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions to digitise and automate business processes and to promote connectivity to business partners and VAS Providers</td>
<td>Government applications, declaration submissions, management of trade permits, schemes and licenses</td>
<td>Blogs, Forums and Communities to enable trade-based discussions on trends, industry best practices and opportunities</td>
<td>Innovation infrastructure and tools to assist developers to design and build VASes to be offered on the NTP</td>
</tr>
</tbody>
</table>

¹ Houses existing TradeXchange value-added services and new value-added services as well
² Houses existing TradeNet functionalities and new Government-related functionalities as well
THE NTP WILL PROVIDE ENHANCED EXISTING FUNCTIONS AND INTRODUCE NEW ONES ON A SINGLE INTEGRATED PLATFORM

### DATA TOOLS & VAS
- Company Dashboard
- Data Repository
- Digital Trade Connectivity
- Document Data Conversion
- Value-Added Services
- Messages
- Tasks & Notifications
- Trade Documents Digitisation
- Document Tagging

### GOVERNMENT SERVICES
- Advanced HS Code Search
- Customs Advice Applications
- Declaration and Permit Management
- Inventory Management
- Schemes and Licences Management

### PARTNERS & NETWORKS
- Forums
- Communities
- Blogs
- Search Business Partner
- Opportunities

### DEVELOPER ZONE
- APIs
- Developer Services Catalogue
- PaaS
- Schemes and Licences Management
- Trade Registration and Management

Note: Functionalities will be available in Releases

ENHANCED!

NEW!

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SUITE OF VALUE-ADDED SERVICES WHICH ARE PRIORITISED FOR PROGRESSIVE REALISATION AND ONBOARDING TO THE NTP

**UNDERSTAND MARKET**
- Trade News
- Company / Credit Risk Information
- Workflow Digitisation & Automation
- Blockchain
- Doc Standards Translation

**PREPARE DOCUMENTS**
- Cloud ERP
- International Connectivity
- TF E-application Portal

**FINANCE TRADE**
- Invoice / Supply Chain Financing
- Trade Finance Compliance
- Marine Cargo Insurance
- Container Booking
- eFreight

**PURCHASE INSURANCE**
- Insurance Marketplace
- Cloud FMS
- eCO Preparation
- Permit Report
- Trade Permit Preparation

**ARRANGE SHIPMENT**
- Track & Trace
- ACCESS Return
- FTA Optimiser
- Permit Return

**DECLARE CUSTOMS**
- Fleet Optimisation
- Freight Invoice Reconciliation
- Integrated B2B Payment
- GST Reporting / Reconciliation

**TRACK SHIPMENT**
- Doc Message / Exchange Platform

**REPORT & PAYMENT**
- Initial release VASes
- VASes to be onboarded subsequently

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## NTP Features & Services: Value-Added Services

### PIONEER VALUE-ADDED SERVICES AND THEIR PROVIDERS (1/2)

#### UNDERSTAND MARKET

**Trade Research and Insights**
Curates relevant trade research and insights that are relevant to user’s operations

**Cloud-based Workflow Digitisation and Automation**
Automatically digitising and automating payables and receivables processing workflows to greatly improve workflow efficiency, reduce operational costs and provide better cash flow visibility

#### FINANCE TRADE

**Invoice / PO Financing & Factoring**
Services to finance account receivables which have long payment terms

**Invoice interchange**

#### PREPARE DOCUMENTS

**Cloud-based Enterprise Resource Planning (ERP)**
Low-cost solution that minimally includes financial, purchasing, sales and inventory management functionalities that can generate electronic structured data for trade

**Cloud-based Workflow Digitisation and Automation**

#### ARRANGE SHIPMENT

**Container Marketplace & Booking**
Marketplace aggregator allowing for consolidated view of carrier offerings; larger market for carriers to sell container space to SMEs and LSPs

**Freight Management Service**
Services for freight forwarders in the areas of air and ocean freight operations subsystems, warehouse management subsystems and multi-currency accounting subsystem

#### ARRANGE INSURANCE

**Marine Cargo Insurance**
Apply for marine cargo insurance and generate the certificates by re-using information that was entered
PIONEER VALUE-ADDED SERVICES AND THEIR PROVIDERS (2/2)

REGULATORY

Electronic Certificate of Origin (eCO) Preparation
Re-use data from approved permits to apply for non-preferential COs electronically

Trade Permit Preparation
Auto-populate TNFE Vendor’s application for trade permit declaration purposes

Trade Permit Report
Combines key shipment details declared through TradeNet® and ACCESS (Advance Clearance for Courier and Express Shipment System) into a single report

Trade Permit Return
Receive a copy of your permits upon their approval by Singapore Customs; you will be able to verify your permit information and/or re-use it for trade and compliance purposes

TRACK SHIPMENT

Fleet Route Optimisation
Optimisation of fleet route planning & sending e-Proof of Delivery (POD)

REPORTS & PAYMENTS

Freight Invoice Reconciliation
Automate freight reconciliation and settlements in an accurate and timely manner
Onboarding the NTP

THERE ARE THREE WAYS TO CONNECT TO AND ACCESS THE NTP: SFTP, API, AND THROUGH THE WEB

**WEB PORTAL**
Hassle-free onboarding
Manual document/file management

Examples of usage:
- Onboarding onto NTP
- Access Notifications & Messages
- Upload / Download documents
- Share documents
- Manage document sharing rules
- Digitise & tag documents
- Get metering details of usage
- Browse & participate in social and community
- Browse & subscribe to apps and solutions
- Etc.

**API**
Flexible, scalable and future-proof
Automated document/file management

Examples of APIs:
- Get – View Document List
- Post – Share Document
- Get – Download Document
- Post – Upload Document

**SFTP**
Secure and stable
Automated document/file transfer

Examples of usage:
- Upload documents
- Share documents

* All users will minimally need to access the NTP via the web portal.
NTP INTERNATIONAL CONNECTIVITY
NTP IS COLLABORATING WITH VARIOUS CROSS-BORDER DLT NETWORKS

Global Trade Connectivity Network (GTCN)

Singapore and Hong Kong launch a joint project on cross-border trade and trade finance platform


MUFG, NTT DATA and NTP Collaboration

MUFG and NTT DATA lay foundation for digital trade between Singapore and Japan using blockchain

Both companies are collaborating on the digitalisation of cross-border trade finance and data exchange for entities between the two countries.

“The NTP is an open platform and this PoC with NTT DATA is an important building block of our overall strategy to enable the flow of digital trade data with our trade partners globally.”

Mr Ho Chee Pang, Director-General, Singapore Customs


Maersk, IBM & Singapore Customs

Maersk, IBM to launch blockchain-based platform for global trade

G-TO-G INITIATIVES LEVERAGING ON NTP’S PLATFORM-PLATFORM CONNECTIVITY

Comprehensive Customs-to-Customs Collaboration Facilitates Flow of Good

- ASEAN Single Window (ASW) to expedite cargo clearance and promote ASEAN economic integration through cross-border electronic exchange of information among ASEAN Member States (AMS). All five exchange-ready AMS (i.e. Indonesia, Malaysia, Singapore, Thailand and Viet Nam) had since transited to live operation of the ASW for the electronic exchange of the ASEAN Trade in Goods Agreement (ATIGA) Certificate of Origin Form Ds (e-ATIGA Form D) on 1 Jan 2018.
- Singapore has signed Authorised Economic Operator-Mutual Recognition Agreements (AEO-MRAs) with nine customs administrations: Canada, Republic of Korea, Japan, People’s Republic of China, Taiwan, Hong Kong, Australia, Thailand and the United States.

Ongoing G-to-G Initiatives

- China – joint working group on linkage of single window between China and Singapore to explore possible exchange of Certificate of Origins, permits etc.
- Mutual exchange of electronic certificates for agri-related products
- Netherlands – exploring trade connectivity through NTP

Ongoing G-to-B-to-B-to-G Services

- Commercial value-added service providers providing suite of services to meet cross border regulatory requirements
FIND OUT MORE
Visit us at www.ntp.gov.sg

REACH OUT TO US
Email us at Enquiry_NTP@customs.gov.sg