Development of Shanghai e-Port and Realization of Trade Facilitation

Submitted by: China
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1. General Condition of Shanghai Logistics

Both the total throughput and container throughput of Shanghai sea transportation rank first globally for the consecutive four years, and the total tonnage of cargo throughput in Shanghai Pudong Airport ranks third in the world.

2. Constituent Units of Shanghai E-port

Joint Session of Shanghai E-port construction

18 members

- China E-port
- Shanghai Municipal Development and Reform Commission
- Shanghai Municipal Commission of Economy with Informationalization
- Shanghai Port Office
- Shanghai Municipal Business Commission
- Shanghai Municipal Finance Bureau
- Shanghai Municipal Transportation and Port Authority
- Shanghai Customs
- Shanghai Inspection and Quarantine Bureau
- The People’s Bank of China Shanghai Branch
- Shanghai Maritime Bureau
- Shanghai Municipal National Tax Bureau
- Shanghai Railways Bureau
- Shanghai Frontier General Station
- Shanghai Airport Group
- Shanghai Port Group
- Shanghai Trust Company
- The people’s Bank of China, Shanghai Headquarter
3. Development History of Shanghai E-port

2009
According to the requirements for a new round construction of international shipping center, Shanghai Government, by taking advantage of integrating information resources such as E-port and port shipping etc., plans to accelerate the establishment of a “comprehensive platform of Shanghai International shipping center for sharing information”, thus writing a new page in building a “smart port”.

2004
According to the construction deployment of national E-port, Shanghai Municipal Government, General Administration of Customs, and other Central Ministries & Agencies were joined up to build a unified Shanghai E-port based on the “big clearance” platform, which became the first local E-port which listed and operated at that time. At the same period, Shanghai Municipal Government and General Administration of Customs jointly issued a document, to establish a joint session and its office of Shanghai E-port, which will be responsible for the leading and coordination of Shanghai E-port construction. Shanghai branch center of China E-port data center, and Eton Company are the operating units.

2001
Driven by Shanghai Municipal Party Committee and Municipal Government, three information service entities are integrated according to the development model of “government promotion, market operation, commercialized management” to establish Eton Company. In the same year, according to the requirements of Shanghai “big clearance” project, Eton initiates a mating information project—Shanghai “big clearance” platform. After four years of construction, an information network connecting main ports and a centralized central data processing center are built basically.

1999
The Electronic Data Exchange Network of International Economic and Trade is listed as one of the five key projects in Shanghai information port. Three port information service entities—Shanghai EDI center, Shanghai harbor EDI center and Economic and Trade network are gradually established at Shanghai port.

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1. Overview of Platform Service for Shanghai E-port

- Shanghai E-port portal
- Electronic customs and bonded supervision of processing trade
- Electronic declaration of China Inspection and Quarantine
- Supervision of marine ships and dangerous goods
- ... ...

- Cross-border e-commerce platform
- One-stop order information platform of foreign trade
- Leftover material transaction platform of processing trade
- ... ...

- EDI platform of sea and air transportation
- E-booking and equipment control platform
- TMS and WMS, GPS
- ... ...

- e-payment of customs duties & taxes
- Shipping finance
- Shipping insurance
- Supply-chain finance

2. Connection Condition of Shanghai E-port Platform

Transportation enterprises:
- Shipping company
- Aircraft
- Railway
- Highway
- Wharf
- Container yard
- Storage warehouse
- Agent

E-port platform:
- Customs
- Inspection and quarantine
- Marine department
- Other supervision departments
- Bank, insurance company
- Other international information platforms
- Regional information platform

Other international information platforms:
- Other supervision departments

Regions:
- E-port platform

Key stakeholders:
- Shipper enterprise
- Manufacturing enterprise
- Trading enterprise
- Supervision department
### 3. Electronic Data Exchange Platform

![Diagram of Electronic Data Exchange Platform]

<table>
<thead>
<tr>
<th>No.</th>
<th>Document name</th>
<th>Sender</th>
<th>Receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Map of import ship</td>
<td>Shipping agency</td>
<td>Wharf/cargo handling</td>
</tr>
<tr>
<td>2</td>
<td>Import manifest</td>
<td>Shipping agency</td>
<td>Wharf/cargo handling</td>
</tr>
<tr>
<td>3</td>
<td>Map of export ship</td>
<td>Cargo handling</td>
<td>Shipping agency/shipping company</td>
</tr>
<tr>
<td>4</td>
<td>Preplan export manifest</td>
<td>Shipping agency</td>
<td>Wharf/cargo handling</td>
</tr>
<tr>
<td>5</td>
<td>Import and export message</td>
<td>Wharf</td>
<td>Shipping agency/shipping company</td>
</tr>
<tr>
<td>6</td>
<td>Docklog message</td>
<td>Wharf</td>
<td>Shipping agency/shipping company</td>
</tr>
<tr>
<td>7</td>
<td>List of port evacuation</td>
<td>Wharf</td>
<td>Port evacuation yard</td>
</tr>
<tr>
<td>8</td>
<td>Picking list</td>
<td>Freight forwarding/ship</td>
<td>Wharf/cargo handling</td>
</tr>
<tr>
<td>9</td>
<td>Inward packing list</td>
<td>Wharf</td>
<td>Shipping agency/Cargo handling</td>
</tr>
<tr>
<td>10</td>
<td>Shipping and discharging record</td>
<td>Cargo handling</td>
<td>Shipping agency/shipping company</td>
</tr>
<tr>
<td>11</td>
<td>Short-term and long-term record</td>
<td>Cargo handling</td>
<td>Shipping agency/Cargo handling</td>
</tr>
<tr>
<td>12</td>
<td>Export strange information</td>
<td>Wharf</td>
<td>Wharf/Cargo handling</td>
</tr>
</tbody>
</table>

### 4. Electronic Tariff Payment Platform

- The first batch of the third-party payment license all over the economy
- B2G and B2B payment
- Unique payment platform in the field of E-port
- Interconnected with 22 banks at home and abroad
- Payment of customs taxes and duties covers 42 custom districts all over the economy
- Annual payment transaction exceeds RMB 1.1 trillion
- E-payment ratio of tariff exceeds 80%
5. Platform Infrastructure - data Center

- 1100m² master data center (Lujiazui)
- 600m² remote disaster recovery backup center in the same city (Zhangjiang)
- A data center of marine ship dynamic center all over the economy is built in 2011 (Zhangjiang)
- A data backup center of China E-port is under construction (Qingpu)

- 7X24 hours continuous service is provided
- Availability ratio is up to 99.9%
- Over 190 million messages is handled annually

6. Value-added Service of E-port Platform

- Innovative cloud platform of shipping service application
- Integration application such as trade management, manifest, booking space, container management, and customs affairs collaboration etc. has been provided
- Open platform and integrated shipping information service
- Basic services of cloud application such as unified user management, application publishing, monitoring, billing, payment etc. is provided
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1. Transport Solution for Shanghai

- Booking Space
  1. Shipping Instruction
  2. Invoice
  3. Packing list

- Forward / TWN
  - Pre-alert
    - INV/P/L
    - MAWB/HAWB
    - Cargo Manifest

- FTZ Customs
  - Pre-Alert
  - INBOUND / OUTBOUND

- Songjiang Customs
  - Declare Bonded Transfer to Songjiang
  - Agree Bonded Transfer

- CNEE / SHA
  - Bonded Transfer & Delivery by Bonded Truck
  - 4hrs Express Transfer (See Additional Flow Chart)

- Vendor / TWN
  - Payment In USD

- Airline Original
  - By air
    - Booking Space
    - Booking Info
  - Airline Destination

- CNEE/Songjiang
  - Payment In USD

- DTD & WH charges

- P.O.D

- T-Join Hub in SHA FTZ WH

- Delivery by No-Bonded Truck

- Payment In USD

- Financial Flow
VMI Hub for Quanta Shanghai (Tech-Front)
4 Hrs Pull Out Delivery Flow Chart

FTZ (bonded zone)
1. Confirm D/O & Pick Up (40 minutes)
2. Issue Inv & P/L of Quanta (30 minutes)
3. Issue B/L of Bonded WH (30 minutes)
4. Declaration in FTZ (Sum up to now: 80 minutes)
5. Release cargo from Gate point in FTZ (60 minutes)
6. Bonded truck to Songjiang EPZ (60 minutes)
7. Enseal the Bonded truck
8. Inspection & Release goods to TFC WH (20 minutes)
9. Bonded truck to Songjiang EPZ

EPZ (export processing zone)
Pull out Request
Tech-Front Plant

1. Case: Network Supervision System of Special Area

H2000 system
Customs declaration
Automatic matching
Centralized customs declaration
30 natural days

Special supervision area
Domestic cargo entrance and exit area
External manufacturer
Delivering goods in batches
Cargo allocation between areas
Temporary cargo entrance and exit area
Internal enterprise
Centralized customs declaration
30 natural days
1. Case: Network Supervision System of Special Area

The joint and centralized management of supervision information, logistics information within special areas and among different special areas is achieved, which covers 13 special areas in Shanghai.

• Improvement of clearance efficiency: books filing time is reduced from several days to tens of minutes, customs clearance time is reduced from several hours to tens of minutes, cargo can pass customs checkpoint within 24 hours.

• Strict government regulation: electronic book write-off combines data computation and physical inventory, thus achieving the real-time supervision of logistics.

2. Case: Logistics, Clearance, Payment, Release Linkage

Shanghai E-port has achieved a complete information service from logistics, clearance, payment to release, and a fully-connected and systematical integration with logistics operation enterprises, supervision departments etc. All releases adopt paperless operation, while 50% declaration achieves paperless, thus significantly improving the logistics efficiency.

<table>
<thead>
<tr>
<th>Logistics collaboration</th>
<th>Customs declaration</th>
<th>Taxes and duties payment</th>
<th>Electronic release</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Booking space (export)</td>
<td>• Transportation declaration</td>
<td>• Tax bill synchronization</td>
<td>• Inspection and quarantine release</td>
</tr>
<tr>
<td>• Container pick up (export)</td>
<td>• Manifest declaration</td>
<td>• e-payment</td>
<td>• Customs release</td>
</tr>
<tr>
<td>• Packing (export)</td>
<td>• Inspection and quarantine declaration</td>
<td>• List reconciliation</td>
<td>• Cargo handling declaration</td>
</tr>
<tr>
<td>• Inward</td>
<td>• Arrival declaration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loading and unloading</td>
<td>• Customs cargo declaration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tracking</td>
<td>• Tracking and cargo control</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Case: Logistics, Clearance, Payment, Release Linkage

Electronic information linkage of sea transportation import

3. Case: Supervision of Electronic Logistics Linkage

Shanghai E-port provides whole-course solution based on technologies like GPS, RFID and has realized electronic linkage supervision of bonded vehicles and blocks. At present, this platform has covered about 20,000 vehicles and ships.
• In 2010, Shanghai E-port integrated data service of logistics, clearance data and established a RFID-based safety traceability system for Shanghai World Expo.
5. Case: Cross Border Electronic Commerce (Cross Border Pass)

The cross border pass platform establishes a full set of complete, efficient, safe, strict management standard and information platform which is adapted to the development of electronic commerce for Shanghai cross border trade, and guides customers to purchase high-quality foreign goods by direct-purchasing channel, thus achieving transparent tax payment.

The platform was officially issued on November 28, 2013, achieving the whole service from shopping guide, transaction, payment, tariff, clearance to delivery. The platform supports three modes—import direct mail, import from Free Trade Zone and export.

1) DM Corner Mode of Cross Border Pass
5. Case: Cross Border Electronic Commerce (Cross Border Pass)

2) Free Trade Zone Mode of Cross Border Pass

Cross border seller
Shanghai Customs

Cross border logistics enterprise
Shanghai Inspection and Quarantine Bureau

Commodity transaction

Customs declaration and inspection

Commodity entry

Accepting order

Exit application of personal belongings
Logistics information verification

Write-off of commodity exit

Cross border electronic commerce platform (Shanghai E-port)

Shanghai Inspection and Quarantine Bureau
Shanghai Customs

Cross border electronic commerce enterprise

Cross border payment company

Cross border logistics company

Shanghai Inspection and Quarantine Bureau
Shanghai Customs

Cross border electronic commerce platform (Shanghai E-port)

3) General Export Mode of Cross Border Pass

Foreign consumer
Cross border electronic commerce enterprise

Order verification
Payment verification
Logistics information verification
Three-dimensional information collection
Customs declaration and inspection
Cargo inspection and release
Settlement of exchange and tax refund

Cross border electronic commerce platform (Shanghai E-port)

Cross border electronic commerce enterprise

Cross border electronic commerce enterprise

Cross border payment enterprise

Cross border electronic commerce platform (Shanghai E-port)

Shanghai Inspection and Quarantine Bureau
Shanghai Customs

National Tax Bureau

Administration of Exchange Control

Commodity transaction

Declaration of commodity transaction

Supervision of commodity exit
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1. “Free Trade Pass” Platform Planning

Based on the special demands of administrative examination and approval process innovation and entry enterprises in Free Trade Pilot Area, “Free Trade Pass” platform adopts a series of advanced technologies such as cloud computing, big data, and mobile internet etc., thus achieving the combination of efficient operation and strict supervision on the platform.
2. “Free Trade Pass” Platform System

Free Trade Pass platform

“single window” workstation system

<table>
<thead>
<tr>
<th>Investment</th>
<th>Commerce</th>
<th>Tax</th>
<th>Commerce</th>
<th>Traffic</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs</td>
<td>Inspection and quarantine</td>
<td>Maritime</td>
<td>Border inspection</td>
<td>Foreign exchange</td>
<td>…</td>
</tr>
</tbody>
</table>

Data collaboration system

| Subject database | Data bus | Service bus | Interface and channel |

The new generation of host, network, safety cloud infrastructure of Shanghai E-port

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1. Standardization and Paperless of Trade, Logistics Documents and Their Realization

The Chinese and the U.S. governments and enterprises of both economies (US APEC National Center, Commerce Department, China Customs, US Customs, FedEx, UPS, TNT and DHL) realized the pilot project of clearance in Shanghai by adopting PPP mechanism in APEC meeting 2001.

- In 2009, IATA has raised suggestions and corresponding standards of eFlight of paperless air freight.
- At present, related port departments in China are putting vigorous efforts to promote paperless clearance, electronic payment which create favorable conditions to make eFlight possible.
- The overall realization of e-freight also needs a bilateral and multilateral cooperation.

With expectation of building a good paperless trading environment for Shanghai port, Shanghai E-port will make contribution to the realization of Supply Chain Connectivity such as eFlight by adopting bilateral and multi-lateral cooperation under APEC framework.

IATA e-freight: 16 Documents in 2009 Scope

The documents in scope involve a limited number of governmental controlling authorities, as some of them:

- Still require original paper document; or
- Do not accept electronic submission; or
- Have no international standards.
2. Quality Tracing and Fidelity of Bilateral Trade Products

By means of data standard system controlled by products quality according to economy of origin tracing system, we believe that the infrastructure for data exchange of "one-stop" cross border trade business platform can be achieved. End-to-end source tracking of products in PPP mechanism can give complete supply chain information of products to enterprises, government and customers, ensure the quality of final products and customer benefits, promote trade equality, convenience and liberty, thus advancing regional economic integration.