China Customs Information Processing System and E-Port

— WU Jiang, Shanghai Customs College
History of Informatization of China Customs

Status of Informatization of China Customs - Current Scale

China E-Port

China Customs Information Processing System
  E-Customs   E-General Administration

Roles of Informatization of China Customs

H2010 Project
Development Process of Informatization of China Customs

1978: use of computers in duty collection for luggage of passengers.

1988: Customs clearance management system (H883 System)

1998: clearance reform and rolling out of H883 5.0

1999: Forex declaration sheet networked verification system

2001: Customs enforcement evaluation system
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H2010 Project
Current Scale of Informatization of China Customs

After 30 years of explorations in informatization, China Customs has made phase-by-phase achievements in infrastructure construction for the networks, the scientific and technological equipment, project R&D and application. Basically, we have realized networked clearance operations, smart cargo flow monitoring and digitalized function management.
I. Network Infrastructure Construction

Mainly based on the telecom sector’s public broadband communications network (ATM Network), supported by the DDN Leased Lines, frame relays, X.25, etc. with the telephone dial-up lines as the back-up. China Customs has built a large network of systems covering all the operational sites with more than 800 nodes.
I. Scientific and Technological Equipment

By the end 2010

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Current Scale of Informatization of China Customs

II. Overview of Projects Development and Application

“E-Customs” Projects: over 120

“E-General Administration” Projects: over 40

“E-Port” Projects: over 42

Local projects developed by regional Customs themselves: over 280
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China Customs Information Processing System
  ⚫ E-Customs
  ⚫ E-General Administration

Roles of Informatization of China Customs

H2010 Project
China E-Port is a public data center and data exchange platform based on telecom companies’ PSTN, which networks the authorities in charge of industry and commerce, Customs matters, forex management, foreign trade, quality supervision, inspection and quarantine, as well as banks, importers, exporters, companies engaging in processing trade, foreign trade intermediaries, and owners of goods, making one-card for all and one-stop services possible.

To establish a new management model featured by “E-ledger, networked verification and online services”, we built an integrated data center, i.e. single database, single switch center and single window. This has helped with the realization of “standardized and transparent enforcement, extended time and space for Customs control, holistic solution, risk management, and rule of law”.
Establishment of E-database (Cargo flow)

- Rail consignment note
- Air waybills
- B/Ls
- Manifests for road transport

Public Data Center

Port Customs

Customs Intranet

Competent Customs
Cross-cutting Networked Verification

- Port authorities & tally dept.
- Transportation authorities
- Border control authorities
- Banks & forex authorities
- Public Data Center
- GACC
- Insurance companies
- Authorities in charge of industry and commerce, foreign trade, environment and agriculture
- Inspection and quarantine authorities
- Tax authorities
- Authorities in charge of industry and commerce, foreign trade, environment and agriculture
A total of 61 application projects already put into use. Interoperability and information sharing is now available among the National Development and Reform Commission (NDRC), GACC, State Administration of Foreign Exchange (SAFE), State Administration of Taxation (SAT), General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), State Administration of Industry and Commerce (SAIC), Ministry of Commerce (MOFCOM), Ministry of Railway, Ministry of Environmental Protection (MEP), China Council for the Promotion of International Trade (CCPIT), Trade and Industry Department of Hong Kong SAR, Macao SAR’s Economic Service, as well as the Bank of China (BOC), the Industrial and Commercial Bank of China (ICBC), the Agricultural Bank of China (ABC), the Bank of Communications (BOC), China Merchant’s Bank, totally 13 commercial banks. 470,000 companies have jointed this platform. Everyday, it processes around 1.2 million e-documents. China E-Port’s portal daily hits have reached 4.8 million person times. The systems are operating smoothly.
Major Functions of China E-Port

(1) data exchange
(2) transaction processing
(3) evidence storage and production
(4) standards switch
(5) enquiries and statistics
(6) network isolation
(7) online payment
Importance of China E-Port

- Enhanced port enforcement and administration, elevated administrative enforcement capacity for government agencies
- Raised clearance efficiency, and reduced costs for businesses
- Improved non-physical environment for investment, and promoted development of logistics industry
- Advanced e-governance, and improved government services
E-Port Network Structure

Relevant authorities’ intranet

Civil aviation
Quality inspection
Customs
Police
Railway
Transportation

Industry and commerce
Tax
Banks
Commerce
Forex
Civil aviation
MIIT (Ministry of Industries and Information Technology)

China E-Port
Import/export payment and collection of foreign exchange
Export rebate networked declaration
E-database ……
Networked Applications for Express Consignments

- 0-second clearance
- Inspection of goods
- Risk management
- Customs

Diagram:
- Express consignment center
- Internet
- Pre-declaration
- Instructions for targeted control
- UPS, TNT, DHL, FEDEX, EMS
Networked CO Verification System among Laos, Cambodia and Myanmar

Overseas certificate issuance authority

1. Data declaration, inquiry and statistics request
2. Transmit data to Customs firewall
3. Customs examines and decides
4. Return receipt, and feedback on inquiry and statistics request
欢迎您访问 www.chinaport.gov.cn 中国电子口岸。

中国电子口岸是国务院有关部委将分别掌管的进出口贸易信息流、资金流、货物流等电子底帐数据集中存放到口岸公共数据中心，为各行政管理部门提供跨部门、跨行业的行政执法数据联网核查，并为企业及中介服务机构提供网上办理进出口业务服务的数据交换平台。

请输入IC卡密码：
常见问题解答
【确认】

请您按照以下步骤进行：
1、请先插入IC卡。
2、在输入框中输入IC卡密码。
3、请点击系统主页【退出系统】退出，取回您的IC卡。

热线服务电话：010-65195656  热线服务邮箱：rexian@chinaport.gov.cn
热线服务传真：010-65194704

One-click declaration
China E-Port

Please choose the sub-system you want to access.
Customs declaration form
History of Informatization of China Customs

Status of Informatization of China Customs – Current Scale

China E-Port

China Customs Information Processing System

E-Customs  E-General Administration

Roles of Informatization of China Customs

H2010 Project
E-Customs

It is a Customs management information system covering all the business functions of nationwide Customs which connects GACC departments with regional Customs and connects different regional Customs, characterized by networked clearance operations and smart cargo flow control. In 1998, starting from clearance reform, we began the first step of building a modern Customs regime and rolled out the application of clearance management system (H883 version 5.0). E-Customs basically came to its shape. In 2003, focusing on risk management, we began the second step of building a modern Customs regime through some pilot projects and the rolling out of the H2000 clearance management system. E-Customs grew to a mature stage.
Core of E-Customs
--H2000 Clearance System

H2000 Clearance System Architecture

GACC Databases

MOFCOM
Forex authority
State tax authority

Network of Regional Customs

Single window

Customs intranet

China E-Port

Network of Regional Customs

Shenzhen Customs

Manchuria Customs

Beijing Customs

Capital International Airport Customs

Sashaia Customs

MOFCOM
Forex authority
State tax authority
Characteristics of H2000 System — Centralized Databank

- Data recorded are shared across China Customs
  - bonded contracts
  - means of transport
  - import/export manifests
  - importers/exporters
  - permits, licenses, certificate
  - companies engaging in processing trade
  - table of duty reliefs
  - risk information

- Raised clearance efficiency, and reduced data transmission requirements

- Raised the accuracy of data, and reduced data redundancies

- GACC can have real-time access to data on import,exports across the country
Highly Reliable — Data Center and Disaster-Recovery Back-up Center

GACC Data Center

Guangdong Sub-Administration Sub-Center (Disaster-Recovery Back-up Center)
Benefits of H2000 System

- **Economic**
  - Good for raising clearance efficiency
  - Good for reducing trading costs
  - Good for increasing national fiscal revenue
  - Good for improving the economic order at ports

- **Social**
  - H2000’s rolling out is a milestone in China Customs’ informatization drive
  - H2000’s rolling out is a creative move in China’s informatization drive
  - H2000’s rolling out will promote reforms of Customs operations and management
  - H2000’s rolling out will make Customs operations more unified and standardized
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收货单位：杭州三和食品有限公司  进口日期：2008/10/29
采购地：中国香港  数量：100

[其他信息和数据]
2. “E-Customs Realized Smart Cargo Flow Monitoring”

Cargo Flow Monitoring System is based on the clearance management system. It has adopted state-of-the-art monitoring and inspection technologies and computer network technologies to integrate container inspection equipment, GPS, electronic weigh bridges, electronic entry/exit gates, electronic vehicle plates, video surveillance and other relevant technologies and equipment into one single complex, which can consolidate the cargo flow information received from the risk management platform, E-Port and EDI centers to establish electronic database and conduct networked matching and automated processing of cargo flow information collected on site.

Import containers monitored by the Cargo Flow Monitoring System account for over 90% of all the import containers of China.
Guangzhou Sanshan Customs detected a case of Buddha figure smuggling.
E-General Administration

This is a virtual information system built in light of the vertical management structure of China Customs. Based on E-Customs, it helps realize digitized operational monitoring & analysis and auxiliary decision making. It enables GACC and the regional Customs houses to have more scientific functional management and day-to-day administration. It comprises a confidential intranet (OA), an operational extranet, and the Internet as well as the different applications at the three levels of network.
Development work started in 2001. Now, a total of 5 key applications: risk management platform, sub-system on import/export statistics analysis & early warning, sub-system on enforcement evaluation, sub-system on tariff monitoring & analysis, and the confidential office automation (OA) sub-system.

Applications of E-General Administration have provided scientific and effective means for GACC (China Customs headquarters) and regional customs houses for operational monitoring & analysis and auxiliary decision making. Very helpful.
E-General Administration: Risk Management Platform

Data Applications
The risk platform collects various data, which are then presented in forms of reporting, enquiries, multi-dimensional demonstration. Through simulating human experience, it provides users with tools for knowledge and analysis of operations and risks.

Information Management
Through Customs intranet, it integrates the functions of risk analysis coordination, risk disposal coordination and information exchange into a single platform for unified and shared risk management nationwide across different Customs districts.

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E-General Administration: Tariff Analysis & Monitoring Sub-System

It performs the following tasks:

- Timely compilation of statistics on tariff, processing trade and bonded operations
- Timely knowledge of trade mix and commodity mix for multi-dimensional analysis of tariff collection situations; monitoring the operations and enforcement at various links of duty collection
- Overall evaluation of duty collection by Customs for improvement of enforcement; provide risk information on clearance, examination & approval, and management;
- Promote standardization of various operations, and provide primary-line information on import/export duties/taxes, commodity mix, pricing level, trade volume, etc. for economic policy-making of the State.
E-General Administration: Customs Enforcement Evaluation Sub-System

This system has adopted advanced statistics analysis and data exploration technologies. It can help with decision making through monitoring & supervising Customs enforcement effectiveness & efficiency and the overall risk indicators. It conducts overall analysis of Customs clearance data and data fed by other agencies and international partners. It conducts dynamic analysis & monitoring of the implementation of trade measures, duty collection quality, cargo flow control, processing trade control, etc. at different customs houses, and makes a quantitative assessment of their administrative enforcement, operations and management, to identify problems and signal an early warning.

Specific functions of the system: evaluation of duty collection situations, price levels, risks, processing trade management, reasonableness of cargo flow directions; analysis & early warning concerning smuggling situations and trends; release and management of evaluation reports, etc.. Rolled out in 2001. By Aug. 2008, through tips given by this system, China Customs collected an additional amount of 970 million CNY duties and taxes, and detected 62 million CNY of evaded duties/taxes. The total amount involved in problems detected by the system reached 1.22 billion CNY.
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H2010 Project
Cargo Flow Control System

Early warning, monitoring, customs statistics, risk management, enforcement evaluation

Dynamic Data Warehouse

Clearance, duty collection, processing trade, policies and legal affairs, audit-based control, enterprise management, anti-smuggling, statistics compilation

Analysis & Monitoring System

Customs control, processing trade, means of transport, Customs control premises, manifests, entry/exit gates…

H2010 Project