

THE DEVELOPMENT OF E-COMMERCE IN CHINA

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ABSTRACT

Against the backdrop of accelerated integration and globalization of the world economy, China has maintained a speedy and steady development in its national economy over recent years. In 2003, China ranked the 4th in the world in terms of total import and export volume and became a strong impetus for the economic development in Asia, Northeast Asia in particular. The rapid growth of China's import and export trade is attributable to multiple factors, among which the fast growth of E-Commerce has been playing an important role. By introducing the developing status of E-Commerce in China, practice and experiences of E-Commerce enjoyed by China International Electronic Commerce Center (hereafter called CIECC) in recent years, it is aiming at jointly discussing with all honored guests of the 13th Northeast Asia Economic Forum about the tendency of E-Commerce and cooperation opportunities.

KEYWORDS

Cooperation opportunities, cross-border data exchange, e-Commerce, e-Government, Paperless trade development in China

MAIN TEXT

I. DEVELOPMENT OF E-COMMERCE IN CHINA

1. Construction of Information Infrastructure Related to Trade Flow—The Golden Gate Project

The Chinese government attaches great importance to IT application in the field of international trade. In 1993, it put forward the building and implementation of the Golden Gate Project, which is a systematic informatization project for standardized, normalized,

scientific and network-based management of international trade and relevant areas by utilizing computer and network technology. Through building applied systematic projects covering quota and license administration, electronic customs clearance, import and export statistics, export tax refund, export foreign exchange receiving and clearing of import foreign exchange payment, the Golden Gate project is aimed at realizing network interconnection and information sharing in international trade-related fields, promoting computer network-based transmission of various documents and certificates in various foreign trade business and accomplishing international E-Commerce.

So far, construction of the backbone network platform for communication, platform for data interchange, information platform and network backup projects involved in the Golden Gate Project has been completed; More than 60 application systems including quota and licence administration, import and export statistics, export tax refund, export foreign exchange receiving, clearing of import foreign exchange payment and electronic ports have been developed; and interconnectivity of all these application systems has been achieved.

(1). Construction of the Backbone Network in the Golden Gate Project

At the beginning of 1996, former Ministry of Foreign Trade and Economic Cooperation (the present Ministry of Commerce) launched the backbone network construction. Up to now, a basic technology environment, an application environment and a network framework including a central platform, backbone network nodes, international terminals and backup centers have preliminarily taken shape, by and large forming a network environment covering the whole country (provincial capitals included) and connected to the world. Construction of 97 network nodes has been wrapped up in 31 provinces, municipalities, autonomous regions and large- and medium-sized cities with independent budgetary status (including relatively remote areas such as Guizhou, Xinjiang and Tibet), the network of the Ministry of Commerce (MOFCOM) and those of local trade and economic authorities and the MOFCOM network and those of other ministries and commissions responsible for customs, taxation and foreign exchange administration have been connected and interconnectivity with the rest nine largest networks in China and international internet has been secured.

Under the backbone network, a large-scale uniform platform for shared database has been set up, thus meeting the demand for database environment by various application systems for trade and economy management and providing the business systems of the Golden Gate Project and important information resource pool with a full-fledged, safe, reliable and stable operational environment covering the whole country.

(2). Four Major Application Systems of the Golden Gate Project

As required by the development of international E-Commerce and trade and economy in China and with the constant improvement in building the backbone network of the Golden Gate Project, business developed by relevant departments and commissions has been gradually networked, import and export license issuance and administration, export quota tendering, online examination and approval of processing trade and import and export statistics, just to name a few. As a result, a sound environment has been cultivated for the

e-commerce of enterprises.

- **Quota and License Administration System**

After realizing interconnected verification of textile quota with customs authorities in the US, EU, Canada and Turkey, MOFCOM has now accomplished interconnected computer management and online verification of electronic data with the 62 license issuing agencies all over China and built, in succession, the system for export quota tendering, the system for self-application and usage inquiry of textile quota, online inquiry system for quota used by textile quota bid-winning enterprises, textile quota visa inquiry system for nationwide ports and bid-winning enterprises at the central government level, and negotiated tendering procedures for textile quotas. At present, MOFCOM has realized electronic tender invitation on all goods subject to bidding. In the Mean time, a series of E-Commerce management systems such as the feedback system for national import and export quota as well as the license inquiry system have been successively developed and put into use by MOFCOM, effectively enhancing the level of scientific, standardized and networked management and services.

- **The Import and Export Statistics System**

By utilizing the customs clearance data transmitted by the Customs through interconnected networks, MOFCOM has developed over 80 business statistical sheets, provided services to the Ministry itself and relevant agencies and successively cultivated online statistical functions including the analyzing system for processing trade statistics and the statistics system for China's direct investment in foreign countries. Based on these systems, General Customs Administration of China has energetically developed and applied the port electronic enforcement system to realize electronic customs clearance, supervision and clearing and to pace up the network-based and automated customs clearance.

- **The Export Tax Refund System**

Currently, the State Taxation Administration is making use of the Golden Taxation Project to accelerate special-line network interconnection within the country's overall taxation system and with MOFCOM. Computer-based network connection with General Customs Administration and the State Administration of Foreign Exchange has also been achieved through the Internet.

- **The System for Export Foreign Exchange Receiving System and the System for Clearing of Import Foreign Exchange Payment**

Presently, the State Administration of Foreign Exchange (SAFE) is stepping up network connection with the country's major foreign exchange administrative authorities through dedicated bank networks. By far it has already got its network connected with that of MOFCOM and will conduct joint online examination and approval of tendering and negotiated bidding for foreign contracting projects and joint online examination and approval of technology introduction and equipment importation. Through interconnectivity with the

Customs' electronic port enforcement system via the internet, SAFE is now able to transmit documents for foreign exchange clearing and has preliminarily realized computerized verification of electronic ledger of customs declarations.

(3). The Standard System of the Golden Gate Project

The Chinese government has given enough attention and forceful support to the standard amendment. In a systematic manner and by founding the National Commission of Electronic Business Standardized Technology, the government has formulated and made public more than 80 national and industry standards for EDI, meeting the demand of EDI application in China for standard and promoted the sound development of E-commerce. To date the construction of E-Commerce standard system has been kicked off, which is gradually perfected.

(4). The Security System of the Golden Gate Project

In the Golden Gate Project construction, in 1997, China International Electronic Commerce Center has independently developed the Commercial Electronic Information Security Certification System, the first of its type with complete copyright belonging to China. CIECC has completed research into key technologies in security infrastructure (identification certification, digital signature technology, its application and policy study), created the first CA security certification and backup center with independent intellectual property in China and come up with a complete set of CA center management and operation standards, systems and legal instruments.

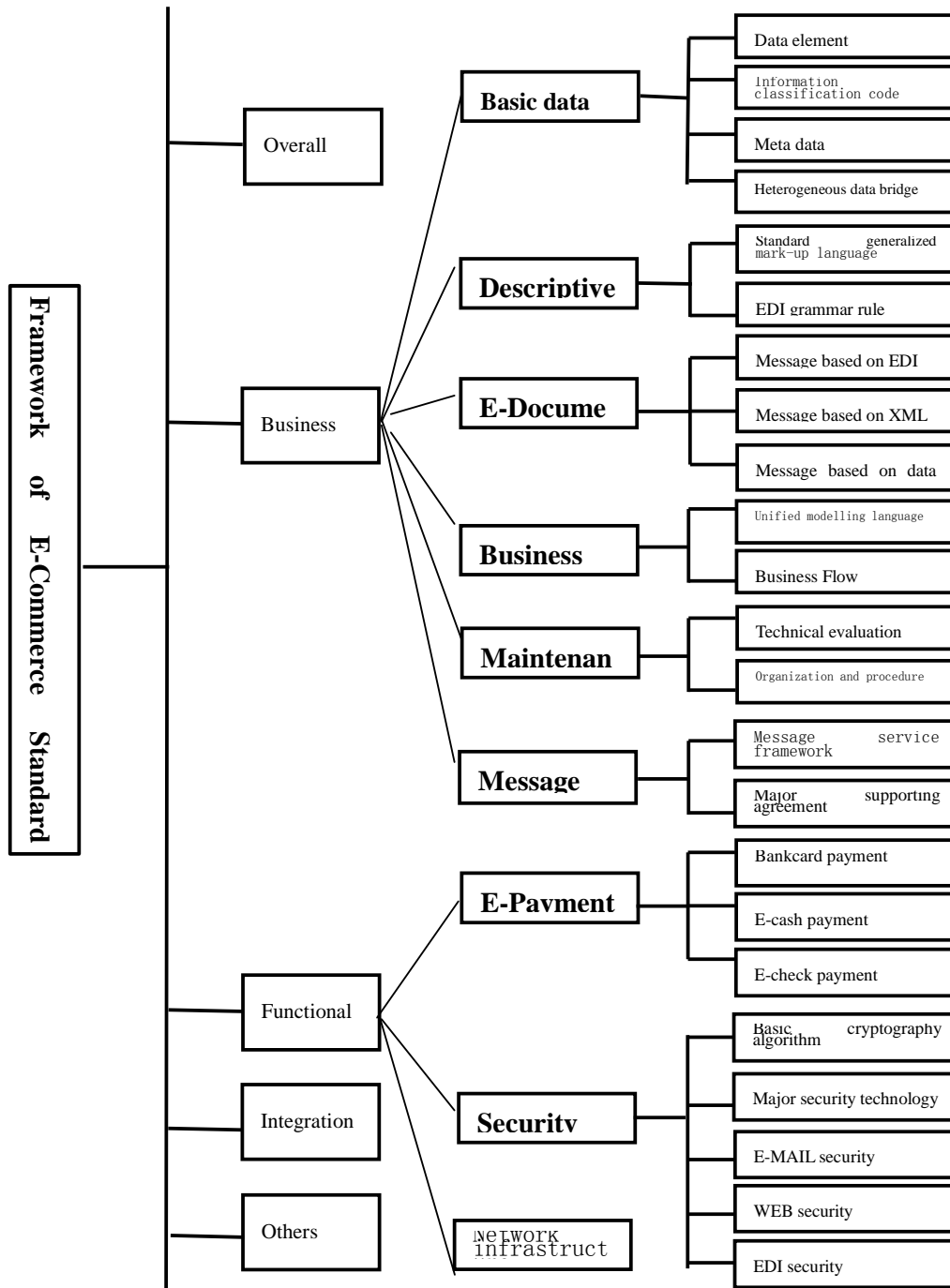
2. Formulation of E-Commerce-related Laws

According to the requirements of E-Commerce development, legislative bodies in China are intensifying their study of electronic bill of lading, jurisdiction and legal responsibilities of transaction platforms, they are modifying such laws as the *Contract Law*, *Negotiable Instrument Law*, *Consumer Rights Protection Law*, *Advertisement Law* and *Auction Law* with a view to standardizing management of E-Commerce institutions or enterprises on security certification and online payment, and to standardizing various E-Commerce transactions. On March 24, 2004, the State Council endorsed in principle the *Electronic Signature Act (Draft)*. Meanwhile, the legislature is deliberating the draft of *Electronic Contract Law* and *Personal Data Protection Law*, the formulation of which is bound to boost E-Commerce development.

3. Formulation and Application of E-Commerce and Logistics Standard

In accordance with the status quo and development trend of international E-Commerce standardization and based on the E-Commerce standardization theory set forth in *ISO/IEC 14662 Information Technology: Reference Model for Opening Electronic Data Interchange* and surrounding the three core issues of data sharing, business synergy and security confidentiality, the Chinese standardization research and formulation organizations have put forward a framework for China's E-Commerce standard system consisting of basic E-Commerce data, information description technology, electronic document format, business

flow, data maintenance and management, message service, security, electronic payment and network communication infrastructure.



With the development of E-Commerce, great changes have taken place in the environment of modern commerce and E-Commerce, where the original EDI standard can not any more meet the standardization requirements by application and development of modern commerce and E-Commerce. Competent standardization authorities in China, the Ministry of Science and

Technology, relevant people working in the standardization field and numerous enterprises are deliberating and formulating the new generation of standard which is XML-based, compatible with the international practice and more catering to modern commerce and E-Commerce users. It includes the standard system, methods and procedures for modification and formulation related standard.

EPC (Electronic Product Code) is the most recently appeared technology applied in the management of logistics and supply chain. It is a new application of RFID (Radio Frequency Identification) in supply chain management in the network environment. RFID technology is closely linked with the electronic supply chain and is promising to replace the bar code scanning technology in the next few years.

The Standardization Administration of China declared in February 2004 to formally found a working group for national standard of “electronic label”, which will be responsible for drafting and formulating the national standard related to “electronic label”, so as to bring the development of “electronic label” in China onto a standardized track . Currently, CIECC is planning to cooperate with China National Institute of Standardization to carry out tryout projects in a bid to jointly advance the application of this standard in mainland China and Hong Kong, among other places.

In general, China has gained certain foundation in such aspects as E-Commerce infrastructure and this results in the quick development of E-Commerce. By the end of 2003, the number of Internet users in China had approached 80 million with over 30 million computers connected with the Internet. A large number of State-owned enterprises, private enterprises and foreign enterprises had established their enterprise informatization system and internal ERP management system as well as actively developed online marketing, online procurement, supply chain management and customer relations management.

According to a survey conducted by the Ministry of Commerce, Chinese enterprises’ investment in enterprise informatization in 2003 had a 120% increase on the previous year. 65% of the enterprises surveyed considered that E-Commerce was quite necessary for the development of the enterprises and 41% of the enterprises had started their E-Commerce operations and 40% of them had developed their E-Commerce through third-party E-Commerce websites.

There are many ways for Chinese enterprises to apply E-Commerce. All kinds of E-Commerce websites like online investment invitation exhibitions, online negotiations in terms of international projects, commodities fair information centers have mushroomed and some E-Commerce business platforms have different features. The enterprises can exploit their market through online exhibitions, negotiations, promotions and transactions. Online purchases and procurement has developed greatly.

II. APPLIED PRACTICES AND INTERNATIONAL COOPERATION OF CHINA INTERNATIONAL ELECTRONIC COMMERCE CENTER (CIECC)

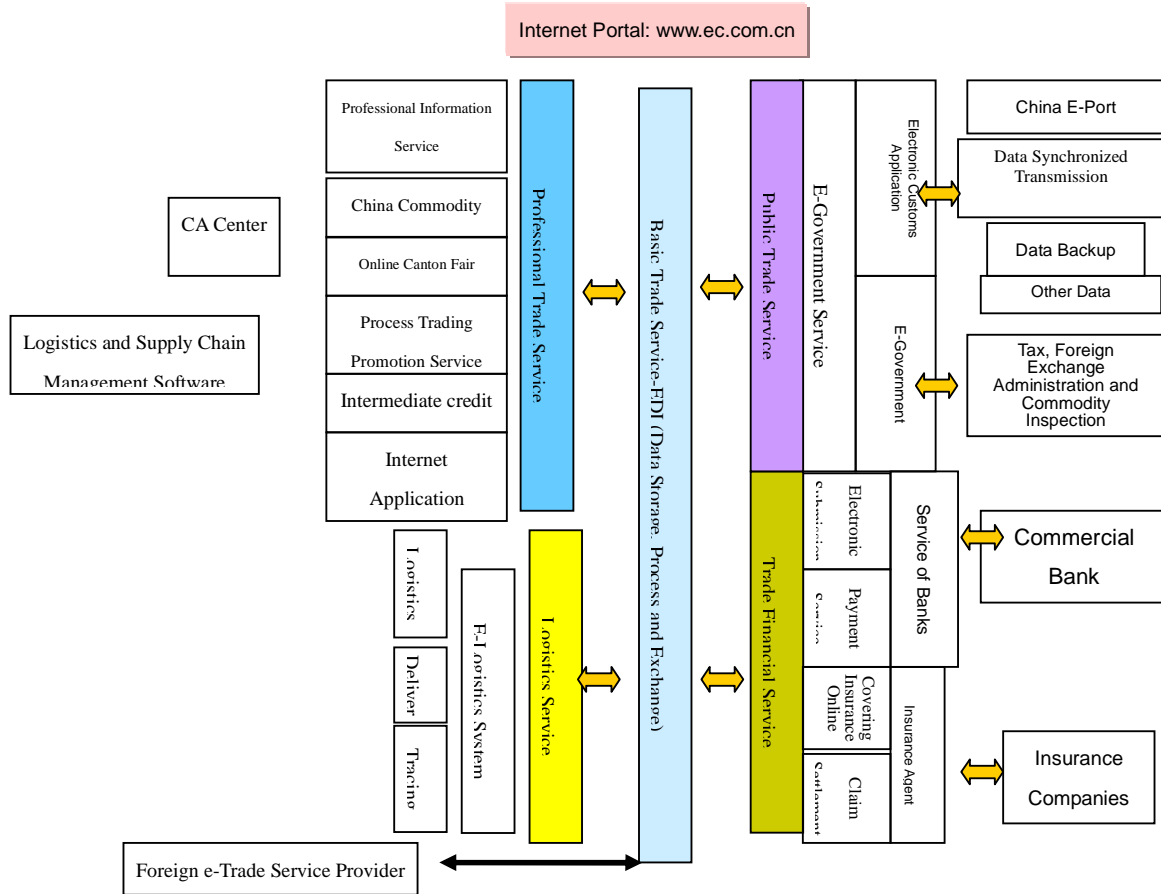
1. The Business Frame System of CIECC

Founded in 1996 as the constructing and implementing body of informatization building of MOFCOM as well as the facilitating unit in the country’s Golden Gate Project, CIECC has been committed to providing one-stop informatization solutions and applied services to

government departments at all levels and the vast number of enterprises. As a E-Commerce service provider, the Center boasts a business system covering basic services, public services, logistics services, financial services and specialized services in all stages of trade.

Business Development Framework
E-Commerce Service System

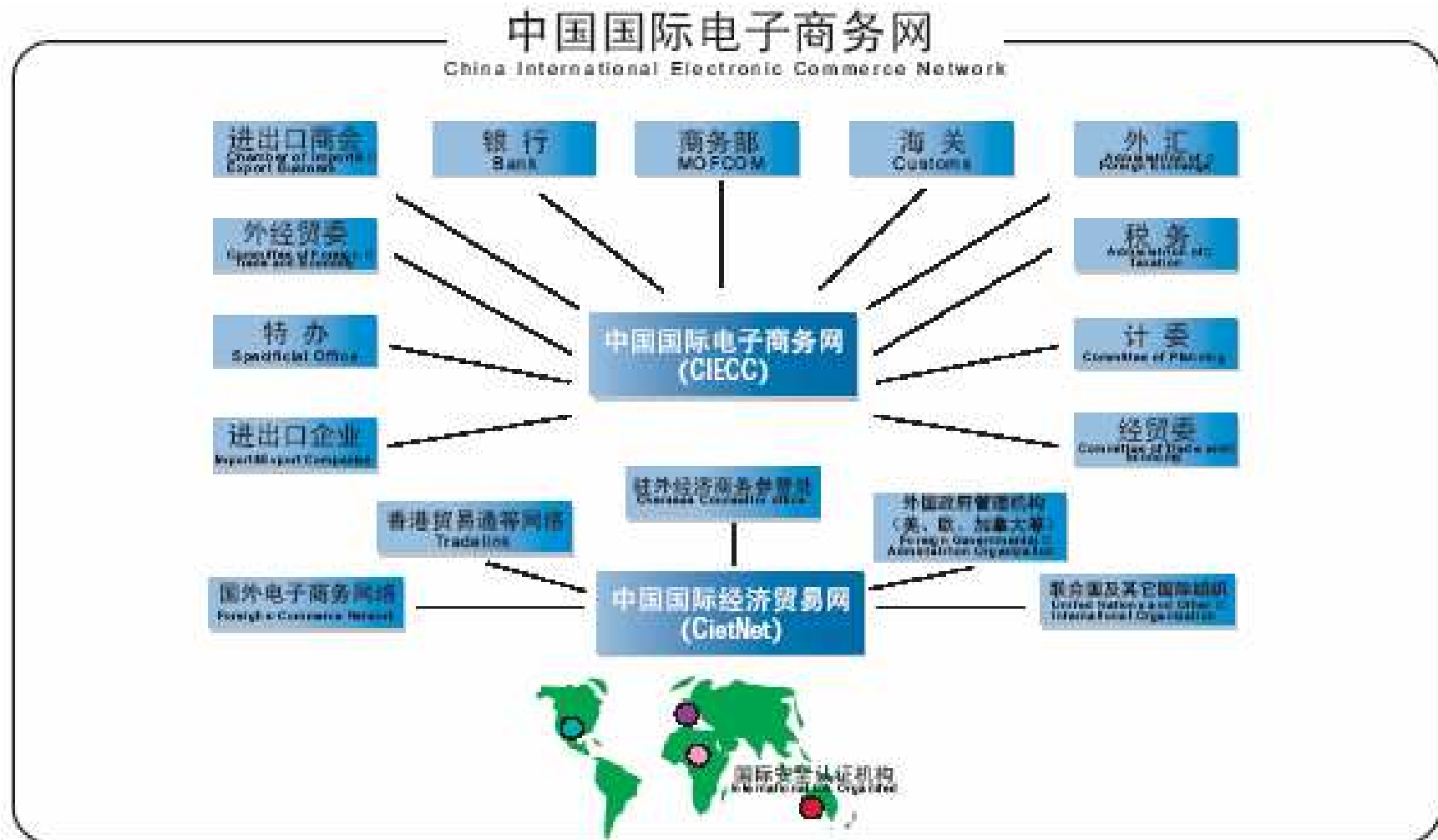
Positioning of the Center:
A Modern Trade Service Group Based on a uniform EC Platform



2. Network Environment of CIECC

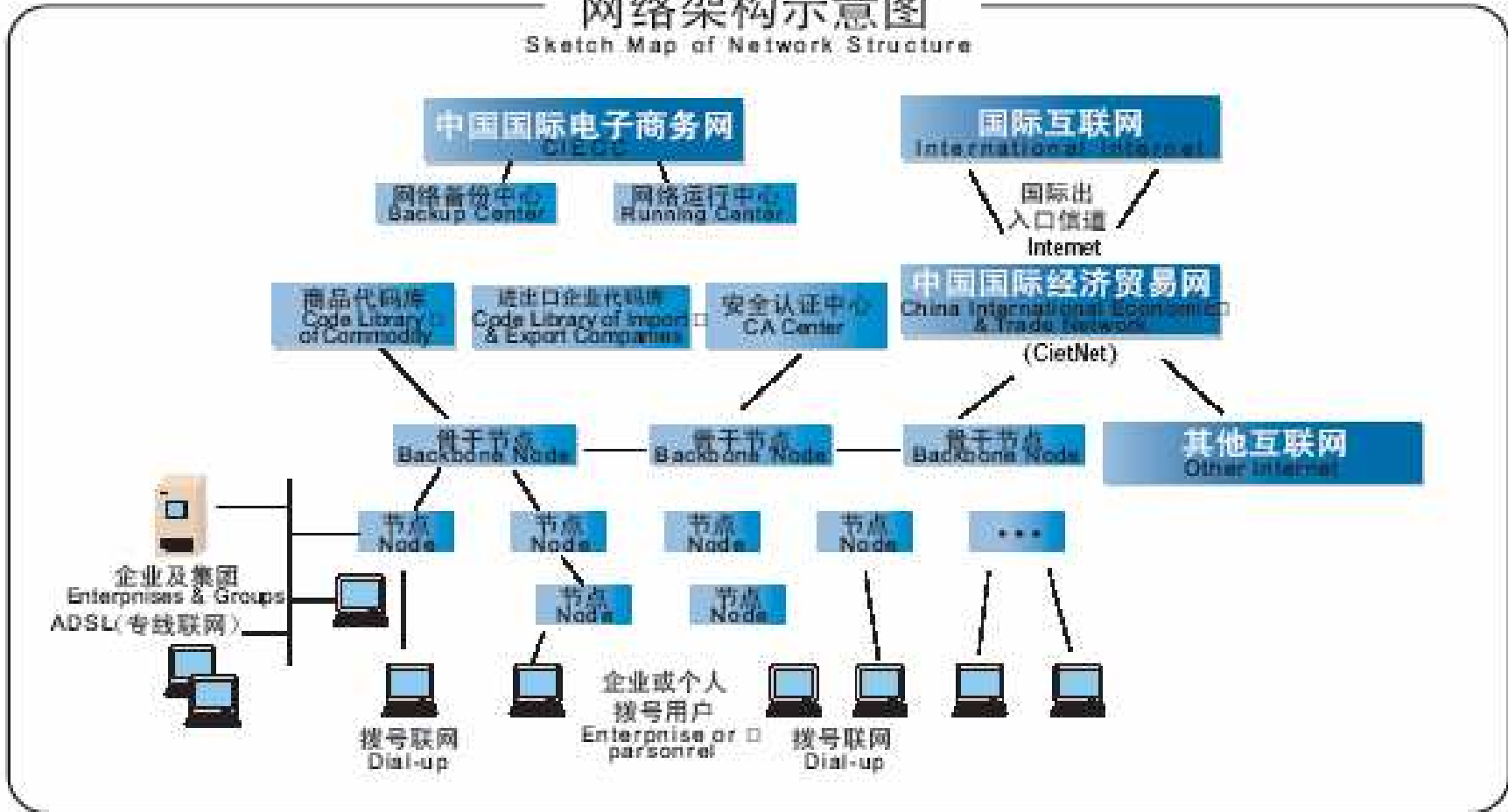
As one of China’s nine largest Internet operators, CIECC has set up China International Electronic Commerce Network, a network platform framed by communication platform, data interchange platform and information platform. Network nodes have been established in 97 cities across China with comprehensive network interconnection and data sharing with relevant ministries and commissions, General Customs Administration, the State

Administration of Foreign Exchange, the State Taxation Administration and the State Administration of Qualification Supervision, Inspection and Quarantine realized.



网络架构示意图

Sketch Map of Network Structure

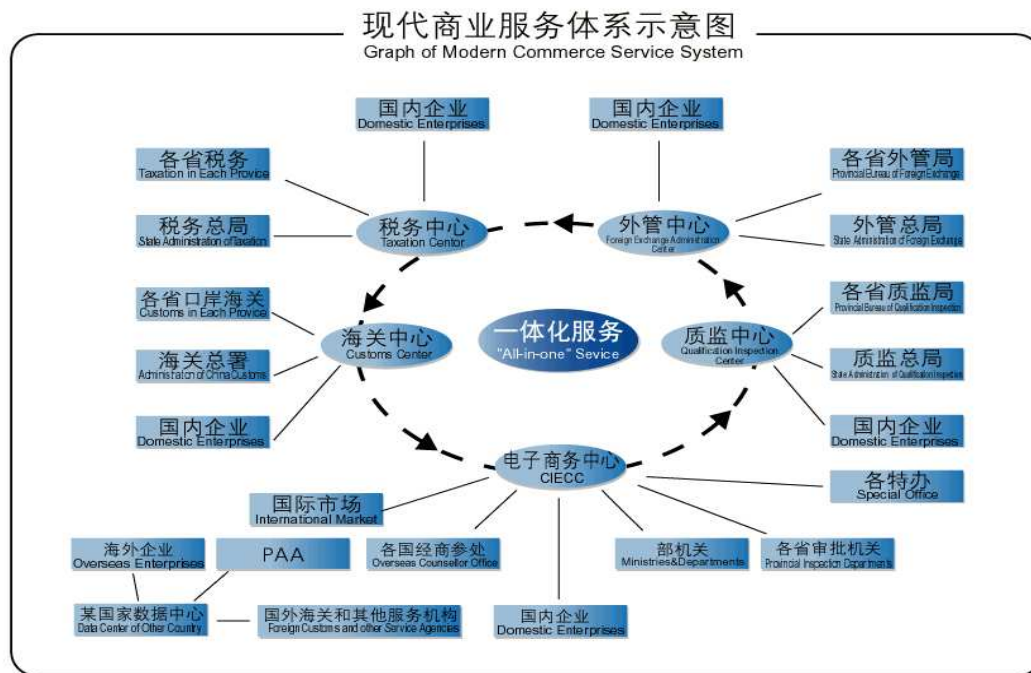


3. CA Security Certification

In 2001, CIECC has taken the lead in China in realizing cross-border PKI cross-certification with major countries and regions in Asia. Mutual recognition of digital certificates and signatures issued by different PKI has been achieved through unified and standardized public key certificate policy. We have formulated *Certificate Policy (CP)* and *CA CPS Certification Procedures*, stipulated in a specific way the function and operational modalities of registration approving organizations, tactics for cross certification, certificate format and format of certificate repealing list. And a ratified legal framework for electronic transaction signatures and certification authorities (CA) has been established upon evaluation, thus getting the certification policies unified.

4. E-Commerce Services

(1) Public Service. As an operational service provider entrusted by MOFCOM, By consolidating the business flow of various examination and approval, supervision, declaration, settlement and logistics as well as data resources into a an “integrated” E-Government public service platform, CIECC offers enterprises with services such as secured online certificate application, examination and approval, putting on records, customs clearance, application for inspection, and helps improving trade document interchanges between public and private sectors and operational efficiency of both.



(2) Data Service

As a result of years' construction and operation, CIECC has kept a rich pool of enterprise information and business information including various business databases, enterprise databases, shared information databases, standard databases, code databases and format databases. With its deposit of a checklist of 400,000 import and export enterprises and 4 million domestic commercial enterprises and their commodity information catalogue comprising an information stock of 40TB, CIECC is in a position to meet all kinds of users' demand under the database environment. Based on advanced intellectualized search technology and combined with content-enlightening information navigation, vague inquiry, dynamic digest generation, digital characteristics collection and full text search, the databases are convenient for the users, making their search for data quick and flexible.

(3) Credit Service.

Presently, CIECC has launched the plan of building "China Enterprise Credit Information Database". Within about five years, the Center plans to preliminarily set up the largest enterprise credit information database in China to provide enterprises with such services as credit grading and credit inquiry.

(4) Transaction Service

CIECC has developed large-scale business and trade platforms such as online Chinese Export Commodities Fair, online Yiwu Fair, China Business Promotion, etc. As the first professional website providing all-around exhibition information, transaction information and online transaction services, Online Chinese Export Commodities Fair (www.cecf.com.cn) has broken down time and space limits and set free from restrictions like exhibition space or fair period, and offers online participating opportunities for enterprises who cannot come to the site fair, being praised as "a never-ending fair". At present, the Online Chinese Export Commodities Fair enjoys the biggest database of overseas buyers in China with a total record of 300, 000 pieces of information. Relying on its enormous overseas business people resources and 206 overseas economic and commercial counsellor offices of MOFCOM, the online Chinese Export Commodities Fair provides Chinese suppliers with a hundred odd pieces of daily updated information on global sourcing. Meanwhile, with foreign trade flow as the core, the online Chinese Export Commodities Fair provides its membership enterprises with a serie of online transaction services including enterprise display, commodity exhibition, powerful search engine (goods, enterprises, purchase information, overseas buyers, news and exposition information), order management, online price inquiry, online quotation, online tendering and bidding, transaction promotion, business message, information subscription, exposition promotion, trade services, consulting services and online audio visual negotiation platforms. With its effective governmental management, authentic enterprise introduction, quality product information, advanced network technology and strong promotion by the government, the online Chinese Export Commodities Fair has turned out to be the first choice of network platform for international merchants in their trade with China.

During the 15 days of exposition at the 95th Chinese Export Commodities Fair held in April this year, visits to online Fair website amounted to over 76 million times, growing by 21.9% year on year, in the breakdown, overseas visits reached 24.12 million times, accounting for 31.73% of the total. Online transaction reached 381 million US dollars in total (including 297 million US dollars for transaction intent and 83.81 million US dollars for confirmed transaction), increased by 3.8% over the previous Fair.

5. International Cooperation

(1) With a view to accelerating the development and widespread application of E-Commerce, CIECC has actively participated in all the activities of Pan Asia E-Commerce Alliance (PAA). By applying secure PAA system framework, CIECC has realized across-border EDI of trade documents, E-Commerce license application and overseas electronic customs clearance among enterprises in pan-Asian countries and regions, thus considerably lifted trade efficiency, reduced commercial flow cost and promoted the development of E-Commerce and logistics services.

(2) In the 2001 APEC Paperless Trading High-level Symposium, CIECC proposed to set up APEC E-Commerce Business Alliance, and upon the approval of the 13th APEC Ministerial Conference, the Alliance was formally founded. The Alliance is aimed at promoting and strengthening mutual dialogues and exchanges between public and private sectors of each APEC economy, seeking practical solutions and make development proposals for the application and development of informatization and paperless trading technology of enterprises in the APEC economies.

The establishment of APEC E-Commerce Business Alliance reflects the positive efforts and practical action taken by China in participating in the E-Commerce development and enhance economic and trade facilitation in the Asia-Pacific region. The establishment of the Alliance has created conditions for APEC members to promote the development of E-Commerce and paperless trading and has also opened a channel for member economies to understand the actual demand and suggestion for E-Commerce development on the part of the business community.

The 1st APEC E-Commerce Business Alliance Forum was held in Yantai, Shandong successfully in June this year, which was highly praised by Deputy Executive Director of the APEC Secretariat, Ambassador. Choi Seok Young and other distinguished participants.

The next-step work plan of the APEC E-Commerce Business Alliance is to introduce and promote E-Commerce application for small- and medium-sized enterprises of APEC economies through activities like various kinds of seminars and trainings, in a bid to upgrade trade efficiency and accelerate the development of trade and economy of all the member economies.

(3) Positive efforts have been made to explore building of Sino-foreign economic and trade cooperation websites through modern information technology and to create new avenues for bilateral and multilateral economic and trade cooperation.

The Sino-Russian Economic and Trade Cooperation Website jointly founded by the Chinese government and Russian federal government will be opened this September. It is the first economic and trade cooperation website jointly set up by the Chinese government with a foreign counterpart. Based on the experiences from this website, the Chinese government will create similar websites with other major trading partners so as to push bilateral economic and trade cooperation another step forward through informatization.

(4) We have actively participated in relevant E-Commerce work in international and regional organizations such as the APEC, ASEM and ASEAN plus 3 to explore the global development of E-Commerce.

(5) Under the system of joint commission of bilateral economy and trade, we have organized E-Commerce working groups with such countries as the US, Japan, Republic of Korea and Canada, and have forged E-Commerce cooperation with Hong Kong and Macao under the framework of CEPA.

(6) We have got actively involved in the E-Commerce legislating activities in such international organizations as the United Nations Commission of International Trade Law and UNCTAD.

CONCLUSIONS AND PERSPECTIVES

As a cutting-edge circulation modality, E-Commerce has become important impetus for the social and economic development in today's world. It's believable that with the continuous development of information technology, cooperation in informatization and E-Commerce between China and Northeast Asian economies will go into further depth and is bound to contribute more to the common economic development of China and Northeast Asia. It's hoped that there could be a joint efforts by the Northeast Asia economies for the economic prosperity and development of the Northeast Asia areas and even the Asia-Pacific Region at large.