E-COMMERCE PROMOTING THE URBAN INFORMIZATION
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BRIEF: Establishing the E-commerce platform and developing the cooperative networks between Government and Business units in Xiamen.
Providing the “Government to Government (G to G)” and “Government to Business (G to B)” E-commerce services.
Implementing the modern electronic management of the government, promoting urban informization and improving the investment environment of Xiamen.

Keyword: Xiamen  E-commerce  G to G  B to B  cooperative networks

Generally, every technology innovation will more or less bring the new possibility for economic activities and management, enhancing the working efficiency and improving the economic development. The invention of Telephone and Facsimile machine greatly speeds up the information transfer speed, on the basis of which, with the computer application in business, a systematic, formative and automatic business data processing practically becomes possible. Finally, the employment of network technology connects the computer terminates from different units and areas, the sharing of information coming into reality.

1. Analyzing the role of E-commerce

The participants of commercial activities include Business, Government and Consumer. Electronic commerce not only is an economic activity with Business, Government and Consumer involved, but also plays a managing role inside Business units or Government. For example, advertisement, negotiation, contract, payment, transportation and after-sale services are B to B activities; while the license application, customs clearance, duties declaration, industrial and commercial register, annual authentication, and numerical statement are B to G ones. The G to G behavior involves the confirmation of Import and Export license by the Customs, or the check-up of Business License by the Tax Bureau, while the B to C activity engages in consuming, purchasing, advertising or marketing survey. The program of E-commerce will contribute to the electronic operation on the above fields and its development relies on the efforts by the above participants, that is, the refreshment and improvement on idea, technology and management.

Government is not only the direct participant in the E-commerce projects, but also a director, so its role is particularly important. On one hand, each department of Government must establish appropriate policies, and bring its computerization and informization process up to speed with the demand of modern commercial activities. Otherwise, it will turn to be one of the obstacles to the demand of high efficiency and invalid in its function when E-commerce ages coming. On the other hand, it is Government’s responsibility to provide a well-support environment, with full system of basic network facilities, policies, laws and standards, to the E-commerce development.
2. Pilot Projects of E-commerce in Xiamen

In the recent years, leaders of Xiamen have paid great attention to the city E-commerce project, repeatedly emphasizing on the paperless trade being put into effect. In 1999, Xiamen E-commerce system, as a newly developing program, was listed as a key project of infrastructures. Permitted by the National Information Office, Xiamen became a pilot city of E-commerce program.

The first phase of Xiamen E-commerce System, as one of the key projects of Xiamen Information Port, is centered on the construction plan approved by National Information Office, with the Import and Export business as a backbone. Accompanied by the construction of National Financial and Tax Network—Golden Trade Net, it has accomplished the intra- and inter- network among related government branches, which realize the sharing of information, enhance the working efficiency, improve the investment environment and promote the city’s comprehensive competitive ability. During this period, developing the “G to G” and “G to B” E-commerce is the major purpose.

The second phase will focus on the software supported, such as the related laws and policies. It will foster more enterprises to carry on B to B E-commerce and call the public initiatives to online-shopping, putting the E-commerce into a sound and well development.

The Goal and Content of Xiamen as an E-commerce Pilot City

**Goal:** Seeking the managing system and operating system for a central city in developing Electronic Commerce.

**Content:**
1) Based on the EDI technology and cooperation mode with the business processing systems of the related economic departments, to implement the electronic data-processing system in the fields of Customs Clearance, Industrial and Business Administration, Financial and Tax Administration, Foreign Exchange Administration and Statistic Information Management. And to set up the network between Golden Trade Net and local financial and tax branches to enhance the working efficiency.

2) To set up a uniform user agency to avoid repeated construction. To make it possible for enterprises to join, as a group user, the E-commerce webs indoors and abroad, so as to help small and medium business to develop their E-commerce activities with a lower starting cost.

3) Adapt to the marketing economy, to set up the Xiamen E-commerce Center by fund raising from the market.

**Starting plan:**
Firstly, regional E-commerce Centers will be set up to connect the different managing departments of trade, port, finance, industry, tax, treasury, statistic, and so on, thus, enhancing the working efficiency and managing level by their mutual electronic-data transfer.

Secondly, standardize the procedure and policies of integrated and cross-operation. With the EDI technology and through the E-commerce Center, the data from different EDP systems of different units can be updated synchronously to guarantee their identity and realize the mutual audit and united supervision among the units.

Thirdly, with the Government leading, planning, organizing, standardizing, and funding on its early stage, the E-commerce Center will practically operate to the demand of market and be, in the long term, a profitable project by the income of services.

**Features:**
1) Integration
Since most of the present application systems are individual network among government branches or
business, which lack standardization and communication, so cause much repeated construction and waste of resources. Now, the E-commerce Center is a uniform system to connect all the present Government and Business networks and achieves what several systems originally did. In this way, it makes full use of resources and brings about great convenience to the Business.

2) Cooperation

The original platforms, set up respectively by different units, are so various that make it difficult to realize the sharing of information and effective co-operation. Now, with integration and optimization of each unit, both can be achieved. That means, without affecting the functions of original systems, by standardizing and developing the interface units, with the EDI mode, data from different platforms of different systems can be freely transferred through the E-commerce Center. In this way, not only the original systems can be normally run without being abandoned, but also the sharing of information can be realized. Cooperation comes to its meaning.

For example, the business register information will be stored in the database of Industrial and Commercial Bureau, which can be used, at the same time, by the Customs, statistic or tax departments. Every time, when the information is updated by the Industrial and Commercial Bureau, such as business changing the name, the information transferred by other departments can be updated synchronously. With the application, there is no need for the business to go over all the trivial procedure from one department to another. It can assure that the data of one business recorded by different departments are identical and prevent the use of fake business license as well.

3) Security and Efficiency

The E-commerce Center connects with related government and business networks to form an E-commerce platform, that is, a value-added network (VAN), which is connected to Internet through the protection of multi-level firewalls. With some up-to-date security measures and the data storage, a security architecture is developed to support the E-commerce initiatives and data access. The users, with a membership, can login only after strict status identification, while the government participants can only consult the database according to their different managerial roles and privileges.

Under the present circumstance that Internet security technique is still immature, the application of VAN will contribute to a more safe, reliable and efficient co-operation.

4) Marketing Mode

Unlike the previous information projects, which were running with government leading and financing, the E-commerce Center devotes to the informization of government services, providing value-added services, such as transmission of information, to earn a profit from investment. In this way, it can be built with fund raising from market and release the government financial burden.

1. Idea of Xiamen E-commerce Center

The construction plan of Xiamen E-commerce Center based on the following understanding:

1) Xiamen is a city with import and export business in the leading position. Import and Export business consist of several components and the lag of each one will definitely restrain its efficiency. So, base on the full consideration, the construction of Xiamen E-commerce Center will commit itself to the promotion of working efficiency and the improvement of investment environment.

2) The informization of both Government and Business is essential since it is the prerequisite of further development of E-commerce. First to seek the solutions of the data interchange between Government and Business will greatly improve the informization of both Government and Business.

3) After a decade long development, the domestic EDI technology has taken shape and there is also much successful experience in foreign countries ready for our reference. During the first-stage of setting up the Xiamen E-commerce Center, EDI technology is employed for data interchange between local government and
business, since their partners are basically fixed and data flow is always of large quantity; both are especially suitable for EDI application.

4) Under the condition that the security system and quality of services of Internet have not been well guaranteed, the temporary employment of VAN and membership system not only will benefit the future solution of both above problems, but also will not charge the users too much communication fee; since it is local available. However, how to perfectly connect the VAN with Internet in future must be fully considered when design.

5) When developing E-commerce program, neither the Government’s function nor the public initiatives can be neglected. On one hand, Government should emphasize on developing G to G and G to B E-commerce and establishing appropriate policies, guidelines, standards, notarization, and arbitration to support a sound development of E-commerce. On the other hand, the B to B and B to C E-commerce should be more dependent on market and public initiatives.

6) To develop B to B and B to C E-commerce program, many factors, such as the maturity of market and the local environment, must be comprehensively considered. Some large-scale projects, like CA authentication Center, not only require large amount of investment, but also need a unified planning and unified standard published by the Nation. So, they ought to be determined after a further demonstration.

7) Before an ideal supporting environment and electronic payment can be achieved, it is good to launch some pilot services such as on-line advertisement, information access, after-sale service, online information service and petty payment.

8) The goal of real paperless operation can be reached only after the buildup of a law system, the overall application of computers, the guarantee of security techniques and operation standards and the standardization of related documents. However, in the present time, with multi-parts agreement taken place of law system, certain pilot services can be carried out.
商务活动的参与者可分为企业(Business)、政府(Government)、消费者(Consumer)。电子商务包括了企业、政府、消费者相互之间的活动，也应该包括企业、政府内部的管理活动。企业和企业间（B to B）的活动如广告、洽谈、合同、支付、运输、售后服务等；企业和政府部门间（B to G）的活动如申请许可证、报关、报税、工商登记、年检、统计报表等；政府部门和政府部门（G to G）间的活动如海关需要查验贸发委给企业发放的进出口许可证、税务局要查验企业的工商营业执照等；企业与消费者间（B to C）的活动指消费购物、广告、市场调查等等。电子商务的开展将在上述方面实现电子化，电子商务的发展有赖于上述参与方的共同努力，包括企业、政府、消费者在自身观念、技术、管理方式等方面的更新提高。

政府既是商务活动的直接参与者，又是管理者，其作用尤其值得重视。一方面政府各部门应尽快加强其自身的信息化、电子化建设，并改进管理规程，使之适应现代商务活动的需要。否则将成为制约现代商务活动效率提高的因素之一，在电子商务来临的时候，也无法很好地履行其管理职能。另一方面，政府有责任为电子商务的发展营造良好的支撑环境，包括网络基础设施、政策、法律、标准等。

二、厦门市电子商务试点内容

多年来，厦门市领导非常重视我市电子商务的建设发展，反复强调要加快无纸化贸易的推进工作。厦门电子商务系统还被列入1999年厦门市基础设施重点建设新开工项目。国家信息化办公室已批准厦门市作为电子商务试点城市。

作为我市信息港建设近期重点工程之一，厦门市电子商务系统一期工程的建设首先以国家信息化办公室批准的电子商务试点城市建设方案为核心，以货物进出口业务为主线，配合国家财税金贸网的建设，完成相关政府部门的互联，实现信息共享，提高商务活动效率，改善投资环境，增强我市综合竞争能力。这期间以发展政府部门间及其和企业间的电子商务为主。二期工程将全面建设电子商务所需的法律、规范等支撑环境，发挥社会力量大力发展企业对企业的电子商务及企业对消费者的网上购物，促进电子商务全面健康发展。

厦门市作为电子商务试点城市的试点目标和内容

试点目标：探索中心城市发展电子商务的管理体制和运营机制。

试点内容：
[1] 以电子数据交换(EDI)技术和协同作业模式，配合相关经济管理部门的业务处理系统，实现通关、工商管理、财税管理、外汇管理、统计信息管理等业务的电子化处理，实现地方财税金贸联网，提高工作效率；
[2] 建设地方政府各部门统一的企业用户代理中心，避免各自重复建设。并使企业能以集团用户方式加入国内外各电子商务网络，降低企业入网成本，帮助中小企业发展电子商务。
[3] 以市场经济的运营方式，多渠道筹集资金建设厦门电子商务中心。

实施措施：
[1] 建设区域性电子商务中心，构建厦门电子商务运行环境，联接贸易管理部门、口岸部门、财政、工商、税务、金融、统计、港务等经济管理部门和企业，实现相互间的电子数据交换，提高工作效率和管理水平，实现统一对外(对企业)，方便企业；
[2] 规范整合交叉业务的作业流程和规范，进行协同作业。各部门的计算机业务处理系统(EDP)通过电子商务中心，以电子数据交换(EDI)技术实现跨系统、跨平台的电子信息联动，保证数据的一致性和同步更新，并实现各部门交叉稽核统一监管；
[3] 电子商务系统的建设以政府为主导，进行规划、规范、牵头，电子商务中心采用市场方式组建运营，政府初期给予补贴，在中长期通过收取服务费实现自我良性运行。


[1] 一体多用
现在陆续所建的条条块块的许多应用系统，所联结的都是政府部门和企业。但由于是各自进行规
划建设，各系统间缺乏联系，并在企业接入服务方面造成多头重复建设，资源浪费。而我们统一
建一个系统将政府各部门和各企业联结在一起，可完成原来多个系统才能完成的业务，提高资源
利用率，也大大方便企业。

[2] 协同作业
原来各部门各自进行规划建设，系统平台不尽相同，使各部门间数据共享有一定困难，业务上也
不能进行有效的协同工作。今后可通过对各部门的业务进行整合及优化流程，使相互间业务有机衔接，高效工
作。技术上则可在不影响各部门应用系统功能的同时，通过对信息接口进行规范和开发，以EDI的方式，
通过电子商务中心将可以实现不同平台不同系统的数据交换，真正实现跨部门的电子数据联动，实现协同
作业。是既保证了现有业务系统正常运行、保护了现有投资又实现了数据共享的有效方式。

比如，今后企业的注册信息以工商局的数据库为准，海关、统计、税务等部门都定期从工商局调
数据进行更新。以后当企业要进行企业更名时，只要在工商办理完手续，则海关、统计、税务等
其他部门的数据也能得到更新，实现无纸化作业。而企业也就不用去一个部门一个部门重复办理
更名手续，方便了企业，也保证了各部门对同一个企业的数据的一致性，并杜绝了假营业执照的
使用可能。

[3] 安全高效
电子商务中心与政府相关经济管理部门、企业联结，组成电子商务平台，即一个专用的增值网络
(VAN)，与因特网相连但以多级火墙保护。用户（政府部门和企业）以会员制方式加入，实行
严格的身份认证。政府各部门按照各自管理职能和数据使用权限向数据提供方查询数据。系统采
用先进的安全产品，并进行数据存储备查，以保证运行的安全性，也便于存证举证。

专用增值网 (VAN) 在当前因特网相关安全技术尚不成熟的情况下，有利于安全、可靠、高效的
协同作业的建立。

[4] 市场方式运营
以往的信息化示范工程大多采用政府主导、财政投入的方式。本系统采取推动政府部门业务处理
的信息化，提供部门与企业间的数据交换等服务的方式，达到提高工作效率，方便企业的目的。
通过提供信息传送等增值服务来实现良好的投资回报。因而可采取市场方式筹集资金进行建设，
减轻财政负担。

三、厦门市电子商务试点的思路
厦门市电子商务系统的建设方案是基于以下的认识和思路：

[1] 商务活动尤其是贸易活动是由众多的环节组成的，每一个环节的发展滞后都将制约商务活动效率。考
虑到厦门市外向型经济的明显特点，进出口贸易在厦门所占的特殊地位，由政府主导的厦门市电子商
务系统的建设应该充分考虑提高进出口活动的工作效率。因此希望通过实现政府相关部门的联网作业
来提高工作效率，方便企业，改善投资环境。

[2] 在业务类型上，选择以政府部门间、政府部门和企业间的数据交换业务作为突破口，有利于推动政府
部门自身的信息化建设，也有利于拉动企业的自身信息化建设。而政府部门及企业自身的信息化建设
是电子商务进一步开展的前提条件。

[3] EDI
t技术已经发展多年，比较成熟，在国外也有许多成功的经验可借鉴。在厦门电子商务系统一期工
[4] 在当前因特网的安全机制、服务质量（QOS）等没有很好解决的时候，暂时使用专用增值网络（VAN）和会员制的方式，既有利于解决安全问题和服务质量，又不会增加用户的通讯费用负担（因为在本地使用网络）。当然系统总体设计时应充分考虑今后将向因特网进行无缝转移的问题。

[5] 在发展电子商务的时候应充分考虑同时发挥政府和社会力量（企业、信息服务提供商）各自的作用。政府应该着重建设政府部门间及政府部门与企业间的电子商务，而企业与企业间、企业与消费者间的电子商务应更多地依靠社会力量来建设，政府则应负责为其提供法律、规范、标准、公证、仲裁等支撑环境，以保证电子商务的健康发展。

[6] 发展企业与企业间、企业与消费者间电子商务，应充分考虑到市场成熟程度、各地的具体环境情况等因素，不宜赶时髦仓促上马。尤其是CA认证中心等大型项目，不仅投资额大要求高，更主要是涉及国家统一规划及统一标准，应进行进一步的论证后再做决定。

[7] 电子商务涉及面很广，在当前支撑环境、电子支付手段等没有基本解决的情况下，考虑了风险因素后，选择某些内容采取一些过度办法进行一些试点是适合的，尤其是企业的网上广告宣传、信息查询、售后服务、网上信息服务及其小额支付等。

[8] 真正的无纸化作业有待于法律环境、使用单位的计算机应用成熟程度、安全控制技术及操作规范、单证规范化等工作的进展，现在全面搞无纸化，条件不成熟。但是可以在个别业务、单证等上面开展试点。法律认同的问题暂时可以用多方协议等办法解决。

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