



AFACT

Asia Pacific Council for Trade Facilitation & Electronic Business

2005 AFACT Year Book



ABOUT AFACT

AFACT is the Asia Pacific Council for Trade Facilitation and Electronic Business. It's a non-profit, non-governmental organization that is open to participation from the representatives of member economies and experts from private sectors within the Asia-Pacific region.

The forerunner of AFACT was ASEB (Asia EDIFACT Board) established in 1990 in response to disseminate EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport) policies and activities in the Asia-Pacific region. After 8 years' contribution to facilitate international transaction within the region, through the simplification and harmonization of procedures and information flows, the need for re-engineering was raised in the 16th ASEB meeting to conform to the rapidly changing trend of EDI and EC, and to respond to the successful restructure of UN/CEFACT. As a result of re-engineering, AFACT marked down the era of ASEB in 1998. In 1999, the epoch of AFACT was officially commenced.

AFACT aims to promote the commitment and development of trade facilitation, electronic business policies and activities in the Asia Pacific region, mainly focusing on those promoted by UN/CEFACT (United Nations Center for Trade Facilitation and Electronic Business), to guide, stimulate, improve and promote the ability of business, trade and administrative organizations from members, as well as to exchange products and relevant services effectively within AFACT community.

Currently, there are 17 members from Australia, Cambodia, Chinese Taipei, India, Indonesia, Iran, Japan, Korea, Malaysia, Mongolia, PRC, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Viet Nam. Each of which is represented by a local organization dedicated in promoting the application of standards and recommendations, e.g. UN/EDIFACT, developed by UN/CEFACT. ebXML Asia committee and PAA (Pan-Asian eCommerce Alliance) are the associate members of AFACT, which is dedicated to promote cooperation in implementing trade facilitation and eCommerce in this region.

There are 11 active Working Groups formed under AFACT, each with its own scope of work and responsibilities. The Working Groups are Awareness and Education Working Group (AEG), Financial Working Group (FWG), Transport Working Group (TWG), Customs Working Group (CWG), Security Working Group (SWG), Air Transport Working Group (ATG), Supply Chain Working Group (SCWG), Legal Working Group (LWG), Internetworking Implementation Committee (IIC), XML Working Group (XMLWG), and Business Collaboration Framework Working Group (BCFWG).



The major activities include :

1. Analyzing and understanding the key elements of international transactions and working for the elimination of constraints;
2. Developing methods to facilitate transactions, including the relevant use of information technologies such as UN/EDIFACT and ebXML;
3. Promoting both the use of these methods, and associated best practices, through channels such as government, industry and service associations;
4. Coordinating its work with UN/CEFACT and other relevant international, regional and non-governmental organizations; and
5. Enhancing the cooperation among the AFACT members and promoting the objectives of the mission statement in the Asia Pacific region.



AFACT BYLAWS

Article 1

Name

The name of this organization shall be the Asia Pacific Council for Trade Facilitation and Electronic Business (hereinafter referred to as "AFACT").

Article 2

Mission Statement

AFACT aims to support in the Asia Pacific region policies and activities, especially those promoted by UN/CEFACT (United Nations Center for Trade Facilitation and Electronic Business), dedicates to stimulate, improve and promote the ability of business, trade and administrative organizations, to exchange products and relevant services effectively in a non-political environment.

Its principal focus is to facilitate international transactions, through the simplification and harmonization of procedures and information flows, and so contribute to the growth of global commerce

Article 3

Terms of Reference

The principles of the mission statement are to be achieved by:

- Analyzing and understanding the key elements of international transactions and working for the elimination of constraints;
- Developing methods to facilitate transactions, including the relevant use of information technologies such as UN/EDIFACT and ebXML;
- Promoting both the use of these methods, and associated best practices, through channels such as government, industry and service associations;
- Coordinating its work with UN/CEFACT and other relevant international, regional and non-governmental organizations; and
- Enhancing the cooperation among the AFACT members and promoting the objectives of the mission statement in the Asia Pacific region

Article 4

Structure

AFACT shall be a non-profit, non-political, voluntary and independent organization

Article 5

Membership



Membership shall comprise two categories shown in Appendix 1 hereto:

- Member - The countries and economies in the Asia Pacific region represented by the agency assigned to promote and develop trade facilitation and Electronic Business. Such agency is recognized as the single focal point for UN/EDIFACT or UN/CEFACT related activities.

Agencies of the United Nations can also be members.

All existing members and associate members in the ASEB shall be automatically recognized as members of AFACT.

- Associate member - Any other organization from the Asia Pacific region or relevant international organization located in the region, committed to similar objectives as AFACT.

Any country, economy or organization wishing to join AFACT must submit an application for membership in writing to the AFACT Secretariat who shall circulate it to the Steering Committee members for consideration and approval, as well as to all members and associate members for consultation. If approved, the Steering Committee shall report to the Plenary on the approval of the application.

The Chair for the Plenary may also invite non-member countries, economies and experts as observers or special invitees.

Article 6

Plenary

The Plenary shall include members, associate members and observers, represented by their Heads of Delegations. A simple majority of the members is required for a quorum.

The Plenary Meeting shall be a forum to exchange views on any areas of common interest including the latest developments in each member or associate member under the ambit of the Mission Statement.

The Plenary shall be the highest decision making body of AFACT and shall have the responsibility of ratifying all major decisions and monitoring the execution of the adopted resolutions.

The preferred way of reaching decisions shall be by consensus. However, the Chair shall have the authority to call for a vote if, in his view, consensus cannot be reached on a particular issue. In such cases, a simple majority of all voting members constitutes a decision. In case of a tie, the chair shall cast the deciding vote.

Only members are eligible to vote. The vote shall be cast by the Heads of Delegations or their designated representative.

For dissolution of AFACT, the adoption of the Bylaws or a change to the Bylaws, a two-third majority of all voting members is required.



Absent members can have the option to vote by email or other means, or by proxy entrusted to the Chair or a fellow AFACT member.

The Plenary shall meet at least once a year.

Article 7

Officers and Secretariats

Annually AFACT shall identify a member to host the organization (hosting member).

The officers of AFACT shall be the Chair, two Vice-Chairs and the Secretary. The term of office for each post shall be one year.

The hosting member shall nominate the Chair, with one Vice-Chair being nominated by the next hosting member (Chair elect) and the immediate former Chair acting as the other.

At the start of each Plenary, the identification of next hosting member and the Chair elect shall be approved.

The hosting member shall nominate a person who shall be the Hosting Secretary of AFACT (hereinafter the hosting Secretariat).

Their term shall start immediately after the close of the previous Plenary meeting. In order to ensure a smooth hand-over between the two hosting Secretariats, a Joint hosting Secretariat shall exist for an agreed period, after the previous Plenary meeting.

The AFACT Secretariat shall be nominated by the Steering Committee and ratified by the Plenary for four years term, based on the Terms of Reference described in the Appendix 3, which shall be open for any AFACT member and reviewed every four years

Article 8

Steering Committee

The Steering Committee is responsible for the management and coordination of AFACT between the Plenary meetings. The Steering Committee also supervises the progress status of the decision made by the Plenary meeting.

The composition of the Steering Committee shall be as follows:

- Chair (of AFACT)
- Two Vice-Chairs (of AFACT)
- UN/CEFACT Rapporteur for Asia (Advisor)
- Two Heads of Delegation appointed by the Plenary who will hold office as members of the Steering Committee for a term of two years.
- AFACT Secretariat

The Steering Committee is chaired by the Chair of AFACT.

The hosting Secretariat shall be present in all Steering Committee meetings.



The agenda for the Steering Committee meeting shall be circulated to the Heads of Delegations and Chairs of Working Groups for comments.

The Chair may invite Chairs of Working Groups for specific meetings, as appropriate and all Heads of Delegation shall be entitled to attend meetings of the Steering Committee.

Where required, the Steering Committee shall be empowered to take decisions on behalf of AFACT between Plenary meetings. In such cases, every effort shall be made to consult with the Heads of Delegations.

Steering Committee decisions shall be made by consensus.

The Steering Committee shall meet at least twice a year. This can be either in the form of a physical meeting or a virtual meeting.

Article 9

Working Groups

Working Groups may be established to focus on a specific area of interest, under the ambit of the Mission Statement.

To establish a Working Group, the interested parties shall submit a proposal, including the Terms of Reference, to the Steering Committee for approval and subsequently, to the Plenary for ratification.

Each Working Group shall appoint its own Chair and Secretariat. The term of service for the Chair and the Secretariat shall be for a period of two years.

Each Working Group shall submit its Work Program to the Steering Committee for endorsement.

The Working Group shall meet at least twice a year. This can be either in the form of a physical meeting or a virtual meeting.

The Chair of each Working Group shall report to the Plenary.

All Working Groups under the ASEB shall be automatically recognized as a Working Group under the AFACT. Each Working Group shall review and submit their Terms of Reference to the Steering Committee for approval and subsequently, to the Plenary for ratification.

Article 10

Focal Point

Each AFACT member is required to have a single focal point, dedicated to the promotion, dissemination and implementation of AFACT objectives.

The focal point shall identify the Head of Delegation and a contact person who shall be responsible for communication with the AFACT Secretariat and all related parties.



Article 11

EDICOM

EDICOM is the annual conference and exhibition of AFACT. It features the latest technology and information on Electronic Data Interchange (EDI), Electronic Commerce (EC), UN/EDIFACT and other related activities including trade facilitation.

EDICOM shall be organized by the hosting member, adjacent to the Plenary, in consultation with the Steering Committee.

Article 12

Relationship Between AFACT and UN/CEFACT

As set out in its Mission Statement, AFACT seeks, amongst other objectives, to promote the aims, objectives and activities of UN/CEFACT within the Asia Pacific region. To this end, Asia Pacific delegations to UN/CEFACT provide a strong link between AFACT and UN/CEFACT.

The UN/CEFACT Rapporteur for Asia provides another significant linkage. The Rapporteur shall be appointed by the Plenary of UN/CEFACT on the recommendation of the AFACT Plenary. (The Mandate of the UN/CEFACT Rapporteur for Asia is attached as Appendix 2).

AFACT is also strongly encouraged to identify and nominate potential members to the UN/CEFACT Steering Group. These nominations shall take place after full consultation with AFACT and shall normally be made on behalf of AFACT, to the UN/CEFACT Secretariat, by the delegation holding the Chairmanship of AFACT or by a delegation designated by the Chair.

Close coordination between AFACT Working Groups and UN/CEFACT Working Groups is strongly encouraged and both bodies shall use their best endeavors to ensure this coordination. This is most effectively achieved when there is a formal relationship between the respective groups.

Article 13

Expenses

The hosting member shall cover all expenses involved in organizing the Plenary Meeting, the Steering Committee Meeting and the meetings for the various Working Groups held before the Plenary Meeting.

The hosting member is entitled to charge a participation fee for each delegate. The amount to be charged shall be decided in consultation with the Steering Committee.

The AFACT Secretariat shall cover all the costs incurred in performing the responsibilities as the secretariat and maintaining the AFACT Website

Article 14

Working Language

The working language of AFACT shall be English



Article 15

Effectiveness

These Bylaws enter into effect on October 3, 2001, upon ratification by the AFACT Plenary

Appendix 1

List of Members and Associate Members as of October, 2005

Members – Australia, Cambodia, Chinese Taipei, India, Indonesia, Iran, Japan, Korea, PRC, Malaysia, Mongolia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Viet Nam

Associate Member – ebXML Asia Committee, PAA (Pan-Asian eCommerce Alliance)

Appendix 2

Mandate UN/CEFACT Rapporteur for Asia

Within Asia, the Rapporteur shall:

- Promote and represent CEFACT's interest and activities to governments, inter-governmental organizations, relevant trade associations and business and trade facilitation organizations;
- Encourage the participation of experts in CEFACT's work program and stimulate the implementation of CEFACT's Recommendations;
- Coordinate CEFACT's activities in the area.

Liaison Relationships

This mandate shall be carried out, where appropriate, in liaison with Heads of delegations to CEFACT coming from Asia as well as in liaison with the secretariat of ESCAP and the Chairs of CEFACT's Working Groups.

Reporting Relationships

A report shall be presented by the Rapporteur to each CEFACT Plenary. The Rapporteur also has the right to raise issues directly with the CEFACT Steering Group (CSG) and shall be entitled to attend the CSG as an observer.

Duration of Appointment

Initially for three years, thereafter renewable every two years



Appendix 3

AFACT Secretariat Terms of Reference

1. Background

- When the Asia EDIFACT Board (ASEB) was reformed into the Asia Pacific Council for the Facilitation of Procedures and Practices for Administration, Commerce and Transport (AFACT) in 1998, the Board decided that AFACT did not have a permanent secretariat, and secretariat roles were served by the host secretariat in one year term. The running secretariat shall be provided by the host member, which this new system shall be reviewed after two or three year's experiences.
- In the Taipei AFACT meeting, the HoD of Islamic Republic of Iran suggested to consider for setting up a secretariat to manage AFACT in consistent manners. The AFACT Plenary has decided to establish a secretariat under AFACT in principle. Then, the Chair (Dr. Lin) allowed the Steering Committee to look for a secretariat within AFACT members.

2. Terms of Reference

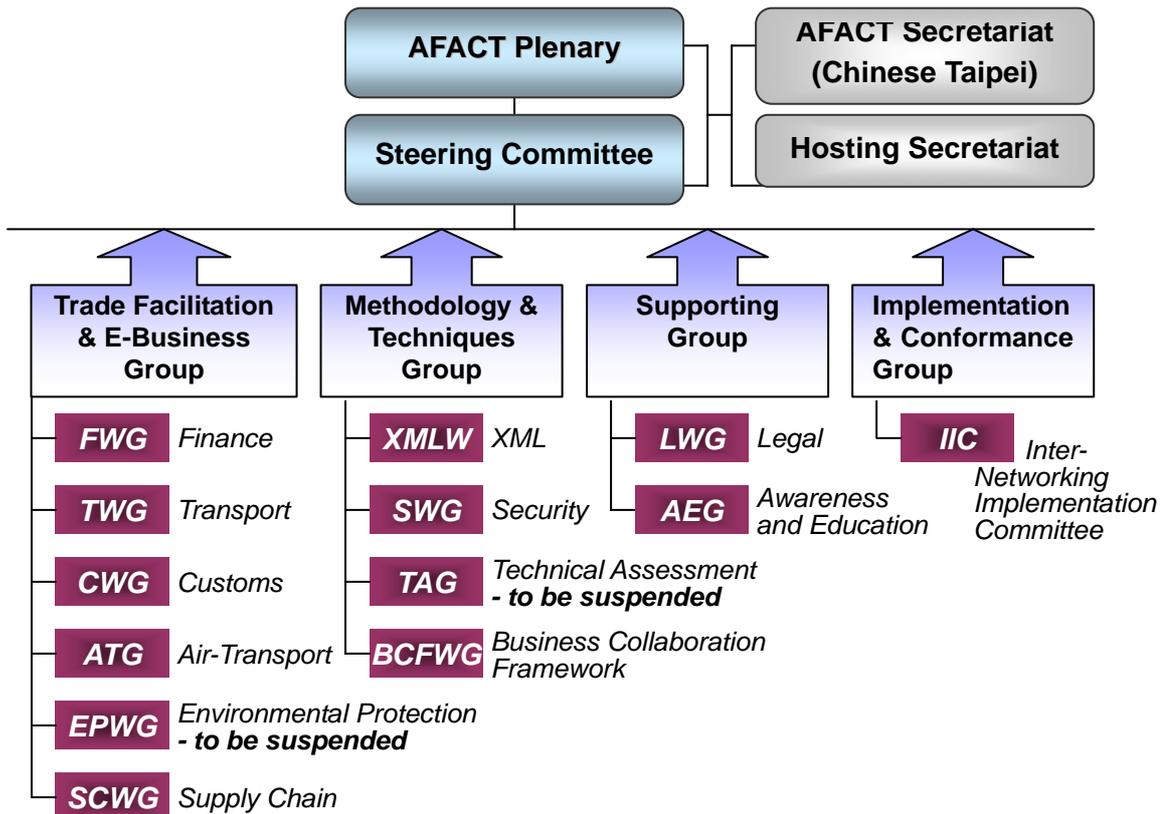
- The purpose of AFACT Secretariat is to explore, review and identify the most practical approach for managing and operating AFACT tasks on Trade Facilitation and Electronic Business in Asia Pacific region.
- The AFACT Secretariat should coordinate with UN/CEFACT Rapporteur for Asia to achieve the responsibility of the AFACT Secretariat.

Taking account of existing AFACT Terms of Reference, these shall include;

- a) To document all AFACT related activities and publish them on the AFACT web site,
- b) To maintain the AFACT web site in cooperation with other members' secretariat,
- c) To support the host secretariat for organizing AFACT Plenary meeting and its joint working groups' meetings, AFACT Steering Committee meeting and EDICOM,
- d) To facilitate the affairs in relation to new membership application,
- e) To attend AFACT related meetings to support the host secretariat,
- f) To attend UN/CEFACT Plenary meeting, if possible, to follow up its decision and discussion made during the meeting and feed back them to AFACT community, and
- g) Any other business.



2005 AFACT Structure



Members

	Chinese Taipei		Singapore		Iran		Pakistan
	Indonesia		Philippines		Korea		India
	Thailand		Australia		Japan		Sri Lanka
	Malaysia		China		Viet nam		
	Mongolia		Cambodia				

Associate Members

❖ **ebXML Asia Committee** ❖ **PAA**



AFACT Organization

2005 AFACT Steering Committee Board Members / Secretariat List

2005 AFACT Heads of Delegations

2005 Working Groups and Chairs

AFACT Member organizations



2005 AFACT Steering Committee Board Members



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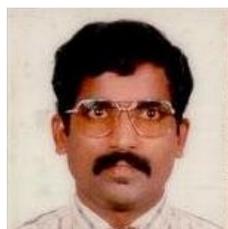
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2005 Country Progress Report : CAMBODIA

1. COUNTRY BACKGROUND

The Kingdom of Cambodia, with an area of 181'035 square kilometers, is bordered by Thailand, Lao and Vietnam. The population is 13 million, 52 percent of which are women. The majority of the population is rural, with only 16 percent residing in urban areas. Cambodia's capital is Phnom Penh and has a population of about three millions.

Cambodia is one of the poorest countries in the world. In 1999 its GNP was US\$ 3.1 billion and its GNP per capita US\$ 260, compared to an average GNP per capita of US\$ 1000 in the East Asia and Pacific Region. Thirty six percent of the population, 90 percent of them in rural areas, live below poverty line. The Cambodian economy is largely based on the primary sector (fishing, farming, and forestry), which employs 80 percent of the workforce. Tourism industry has been intensified and is expected to contribute significantly to the national economy.

Bellow is the Cambodia GDP since 1994 to 2003 that reported by National Institute of Statistics(NIS)

Table : Gross Domestic Product (GDP) and PER CAPITA GDP

	In Current Prices									
	1994 _{r/}	1995 _{r/}	1996 _{r/}	1997 _{r/}	1998 _{r/}	1999 _{r/}	2000 _{r/}	2001 _{r/}	2002 _{r/}	2003 _{p/}
GDP in billion Riels	6,986	8,293	9,022	9,923	11,603	11,168	13,850	14,574	15,696	16,451
Growth Rate in Percent (%)	104.8%	18.7%	8.8%	10.0%	16.9%	13.5%	5.2%	5.2%	7.7%	4.8%
Per Capita GDP in '000 Riels	703	792	818	852	952	1,066	1,102	1,138	1,204	1,238
Growth Rate in Percent (%)	99.7%	12.9%	3.2%	4.3%	11.7%	12.0%	3.3%	3.3%	5.7%	2.9%
GDP in million US \$	2,719	3,361	3,417	3,318	3,075	3,453	3,589	3,714	4,003	4,139
Growth Rate in Percent (%)	112.0%	23.7%	1.7%	-2.9%	-7.3%	12.3%	4.0%	3.5%	7.8%	3.4%
Per Capita GDP in US \$	274	321	310	285	252	280	285	290	307	311
Growth Rate in Percent (%)	106.6%	17.6%	-3.5%	-8.0%	-11.5%	10.8%	2.1%	1.6%	5.8%	1.5%
Household Final Consumption Expenditure (HFCE)	6,571	7,916	8,725	8,952	10,776	11,582	11,729	12,004	12,413	12,773
Per Capita HFCE in '000 Riels	660	756	791	769	884	938	933	938	952	961
Monthly Per Capita HFCE in Riels	55,011	63,001	65,895	64,088	73,689	78,142	77,742	78,137	79,328	80,110



2. TELECOMMUNICATIONS

In 1993 Cambodia was the first country in the world where mobile telephone subscribers passed fixed ones. The reason was because there were not many fixed lines and mobile was opened to private investments.

The Ministry of Posts and Telecommunications of Cambodia (MPTC) is the policy-maker, regulator and also the operator of the fixed network where most of it was provided through bi-lateral assistance from a number of friendly countries including Japan, Germany and France.

2.1 Mobile Phone

Although Cambodia's Telecom density continues to follow Government policies in the form of liberalization of the telecommunication sector, coupled with the advent of private mobile service providers, have led to some dramatic improvements. Between 2003 and 2004, the number of phone booths rose from 470.771 to 698.523 subscribers. Noticeable progress was made in the extension of services to the rural areas. Today, four private mobile service providers- Cambodia Shinawatra Co., Ltd (Camshin: 011 and 099), Cam GSM (Mobitel: 012 and 092), Cambodia Samart Communication Co., Ltd (Hello: 015 and 016) and Camtel (018)- are competing in a rapidly expanding and lucrative market. At the end of 2004, respectively a second, mostly private owned, fixed line international telephone service was introduced alongside the Government-owned and run gateway 001, which had recently been transferred from the Australia based Telstra. Incoming the international calls had increased from 25,319.56 million minutes in 2003 to 14,219,39 million minutes in 2004.

On August 03, 2005 the government awards the CDMA 2000 license to the AZ Communication Co, Ltd. AZ Communications is a 100% of Cambodian owned enterprise. Along with MPTC, under Business Cooperation Contract framework, it already operates the 008 VoIP network and services under 3tel brand name. This company is also expected to launch nationwide commercial service by August 2006.

Telstra of Australia installed the first international gateway in 1990. This was done under a so-called ten-year Business Cooperation Contract (BCC) with the MPTC. The BCC just expired in October 2000 and the gateway is now fully owned and operated by the MPTC.

Millicom launched the country's second international gateway in November 2000 through its Tele2 subsidiary. The international gateways still remain a major source of revenue to the Government of Cambodia.

2.2 Fixed Phone

According to the figure of fixed phone user including the state and joint-venture, at the end of March 2004, there were 37,949 users. There are two fixed phone operator, Camintel (Under



government) and Camshin (private company).

On the other hand, at the end of March, it had 441 payphones along the street in Phnom Penh and others provinces:

- MPTC payphone: 304 sets (184 sets in Phnom Penh and 118 sets in the other provinces and cities).
- Camintel payphones: 137 sets.

3. THE INTERNET SERVICE

Internet was introduced to Cambodia in 1997 with the assistance of IDRC, International Development Research of Canada. It is now run fully by the MPTC under the name Camnet. The current internet penetration is still very low and the prices are high compared to the neighbouring countries (nearly \$1 per hour). The problems being faced include the lack of a vibrant academic community that could help nurture and sustain networking; the non availability of a unicode for Khmer language which hinders local application development and the severe shortage of dial-up telephone lines needed to access the Internet. There are currently 7 ISP's in the country. They are Camnet, Online (a subsidiary of Telstra, Australia), Telesurf, Camshin.net, Samart, Camintel and Citylink. All of them can provide dial up connection, Lease line, wireless broadband, DSL connection. The current estimated numbers of internet subscriber are 30,000 and 100 internet cafés opening in Phnom Penh and some major city. Most of government official, staff from private sector and students living in urban area can access and use internet every day.

Before the advent of internet in Cambodia Open Forum of Cambodia had been providing services since 1994 and is still providing e-mail access. Open Forum now also maintains a number of locally relevant information on its web site including newspapers and newsgroups.

4. DNS

According to report of Ministry of the Post and Telecommunication of Cambodia (MPTC) at the end of 2004, there are 320 subscribers:

- .com.kh = 199
- .org.kh = 55
- .gov.kh = 38
- .edu.kh = 21
- .net.kh = 7

The total website is around 500 sites. The data above is registration under management of



MPTC.

Most of government and private institutions in Cambodia, had their own website, but some of them do not register under MPTC, they register with international companies.

5. E-APPLICATIONS

Cambodia has many barriers to the potential benefits of e-applications including: poor infrastructure, weak institutions, low levels of literacy, ICT awareness, and poverty. Nevertheless the government is paying attention to the e-application by creating a government promotional unit called NIDA (National Information Development Authority). NIDA has managed to organize a seminar where selected government officers were invited to attend on e-awareness. It has also obtained assistance from some friendly organizations for a number of pilot e-schoolings.

The MPTC has partly been working on drafting the electronic transaction act where it uses the act from Singapore as a model. It has sought assistance from the Swiss government through the ITU for the setting up of a Digital Certificate registration agency. We are very pleased that the assistance is forthcoming.

Through the benevolent act of a retired American journalist, Mr Bernard Krisher, and Thaicom an internet link was established in a remote school in Preah Vihear province. Beyond the school they have now got the community involved where they are selling traditional Cambodian silk scarves through the internet. People in Phnom Penh and other areas are now advised to use that as a model to apply e-commerce for their community's benefits.

6. Information and Communication Technology in

Education

6.1. Goals

- Increase access to basic education for all, both formal and non-formal, using ICT as one of the major tools for learning, teaching, searching and sharing information.
- Improve quality of basic education and promote independent and lifelong learning, especially for post-primary education.
- Availability of workforce with the ICT skills needed for employment and use in a knowledge-based society, to ensure that Cambodia can compete and cooperate in an increasingly interconnected world.



6.2. Education Strategic Plan (ESP) 2004-2008

In its ESP and ESSP 2004-2008, MoEYS refers to the role of ICT in improving quality and access to education in Cambodia:

“A cross-cutting strategy for enabling ESP policy implementation will increase the use of Information and Communication Technology (ICT) guided by MoEYS’s new policy approved in 2004.

A priority will be to strengthen ICT-based information management at all levels as part of decentralization measures. Access and quality improvement will be supported by ICT-based distance learning opportunities (e.g. distance Master, teacher development), selective introduction of computer awareness programs into upper-secondary schools and post-secondary institutions. Where it is appropriate, the Ministry will draw on capacity of private sector for multi-media program planning and delivery, including its expanded IEC program and HIV/AIDs awareness raising.”.

Other key as bellow:

- ICT Developments in teacher training
- ICT in higher education
- Non-Formal education and distance learning

6.3. STRATEGY FOR PROMOTING THE USE OF ICT IN EDUCATION

6.3.1. Medium-Term Objectives

Medium-Term objectives for the period 2004-2010 are:

- To build ICT infrastructure and provide hardware for education and training. This will include computer rooms and network (Local, intranet and internet). Computer will be provided in educational institutions, secondary schools, colleges, universities, municipal/provincial education services and precinct/district education offices, community learning centers. MoEYS department, municipal/provincial education services and precinct/district education offices will be linked together providing access to various databases and resources for educational management.
- To develop human resources to meet the needs of the ICT and education sectors.
- To promote innovative thinking, communication, problem solving skills, research and information retrieval and processing skills by using ICT as tools in teaching and learning.
- To increase efficiency in administration by using ICT for educational management through the use of tools such as information management System.



6.3.2. Medium-Term Strategies

- Human resource development
- Developing Hardware and Infrastructure
- Development of local contents, and using open source software.
- Using ICT in schools
- Acknowledgement in management system
- ICT applications for open schools and distance education

7. E-learning

E-learning program have been launched in Cambodia for the first time by International Institute of Cambodia (IIC) in May 2005. IIC is recognized in Cambodia as an innovative leader in providing educational opportunities in the fields of business, and Information and Communication Technologies. As part of its continuing efforts to reach out to all Cambodian learners, it has applied and combined its expertise in both of these areas to establish a distance learning program. IIC's Distance Learning Program has been developed in partnership with two other organizations - Asia Foundation and the "Sustainable Development e-Learning Network" (SDLEARN). This project was made possible with financial support provided by The Asia Foundation and the U.S. Agency for International Development under the terms of Award No. 442-A-00-96-00509-00. The opinions expressed here are those of the author(s) and do not necessarily reflect the views of The Asia Foundation or the U.S. Agency for International Development.

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2005 Country Progress Report : Chinese Taipei

SECTION I - GENERAL CONDITION UPDATE

1.1 Ranking in International Evaluations

In Brown University's study, Chinese Taipei's Online Government ranked 1st in the world. International Institute for Management Development (IMD) and World Economic Forum (WEF) both ranked Chinese Taipei the 4th most competitive or potential economy in the world. Chinese Taipei also ranked 15th in WEF's Networked Readiness, 20th in Economist Intelligence Unit's (EIU) e-Readiness and in IDC's Information Society Index. In summary, Chinese Taipei is top 20 in terms of e-Readiness and competitiveness. (Table 1)

Table 1. Chinese Taipei's Ranking in International Evaluations

Index	Source	Chinese Taipei's Rank
e-Government	Brown University (2004)	1
World Competitiveness	IMD (2004)	4
Growth Competitiveness Index (GCI)	WEF (2004 – 2005)	4
Networked Readiness Index (NRI)	WEF (2004 – 2005)	15
e-Readiness	EIU (2004)	20
Information Society Index (ISI)	IDC (2004)	20

Source: FIND, Advanced eCommerce Institute (ACI), Institute for Information Industry (III), June 2005/sponsored by Department of Industrial Technology (DOIT), MOEA

These rankings strongly indicated the current accomplishment for Chinese Taipei's favorable E-Commerce environment and competitive advantage, which resulted from the governmental promotion policies and consistent strength as well as the efforts from both public and private sectors.

1.2 eCommerce Regulation update

To keep in line with international standards and the expanding application of e-commerce, the government of Chinese Taipei started the review of current "Electronic Signature Act" in 2004. In the same year, the "Regulations on Required Information for Certification Practice Statements" was adopted to replace the old one.

Other regulations concerning e-commerce application that has been adopted or being amended, in 2004, include the promulgation of "Communications Basic Act" and the amendment of "Copyright Act." In the same year, the Executive Yuan proposed the draft amendment of "Computer-Processed Personal Data Protection Act" (the title of which will be changed to "Personal Data Protection Act"), and the draft has been sent to Legislative Yuan for



approval. In early 2005, a draft bill governing sending of massive commercial electronic mail was proposed by the Executive Yuan and tabled in the legislative sessions.

1.3 Status of E-Commerce

Over 90% of Chinese Taipei companies have corporate networks and a network infrastructure, while approximately 80% of all Chinese Taipei companies have established a company website.

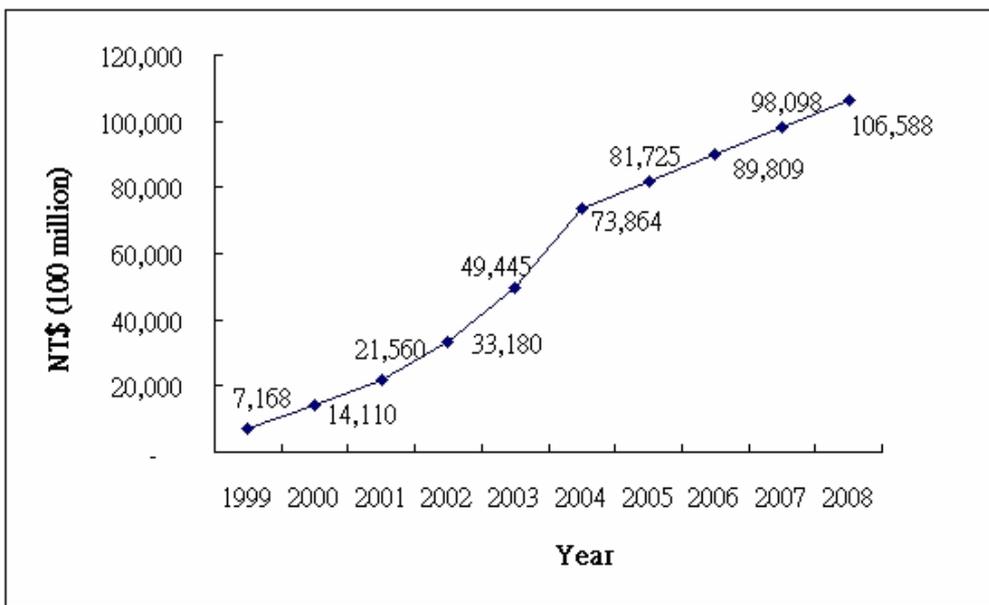


Figure 1. Projected Size of B2B E-Commerce Markets Through Year 2008

Source: Department of Commerce, Ministry of Economic Affairs: “E-Commerce Environment Readiness and B2C E-Commerce Promotion Project”, ACI, III, 2004

According to a recent research by the Department of Commerce under the Ministry of Economic Affairs entitled “E-Commerce Environment Readiness and B2C E-Commerce Promotion Plan,” the size of Chinese Taipei’s B2B e-commerce market was NT\$716.8 billion in 1999. By 2003, the total market size reached NT\$4.9445 trillion; in five years’ time, the market had grown by NT\$4.2277 trillion, with an annual average growth rate of 63.1%. These figures indicate that the government’s promotion of information communications technology projects and hardware installation in recent years are clearly related to these results. From 2004 to 2008, the domestic B2B market is expected to grow by an average of 17.6% annually. By 2008, the market is expected to reach NT\$10.6588 trillion (Figure 1).

According to the data from ACI, III, 2004 online shopping reached NT\$34.72 billion, a 57.2% increase over 2003, and is expected to grow by another 40% in 2005, reaching NT\$49.31 billion. By 2008, online shopping will reach NT\$95.22 billion, with a compounded annual growth rate of 28.7% between 2004 and 2008. (Figure 2)



Units: NT\$100 million

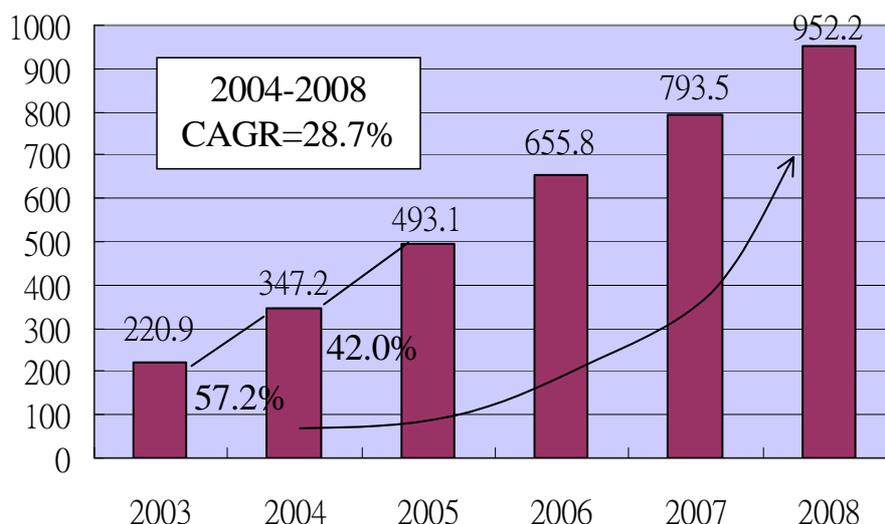


Figure 2. 2004-2008 Chinese Taipei Online Shopping Market Size

Source: Department of Commerce, Ministry of Economic Affairs: "E-Commerce Environment Readiness and B2C E-Commerce Promotion Plan", ACI, III, 2004

In the C2C (consumer to consumer) segment, there are currently three main online auction sites operating in Chinese Taipei: YAHOO! Kimo, eBay and Roodo.com. After YAHOO! Kimo formally launched a user fee system for online auctioneers in April 2004, it has managed to maintain impressive growth, with a daily transaction growth rate of approximately 300%, a total of 2 million products up for auction and average daily turnover exceeding NT\$40 million. The total online transactions in 2004 reached almost NT\$15 billion. After eBay's purchase of Ubid.com.tw and www.bid.com.tw in June 2000, an all-new eBay Chinese Taipei website was launched and eBay formally reentered the Chinese Taipei market. Roodo.com announced a total of 150 thousand products online as of May 2004.

1.4 e-Usage

1.4.1 Internet Users

According to the 2004 survey conducted by FIND, 54% of all population (Chinese Taipei) had used Internet. The number of general Internet users was about 12.2 million as of December 2004. Compared to December 2003, there was an increase of 500,000 users, with a growth rate of 4%. Figure 3 shows the number of Internet users and penetration rate in Chinese Taipei in 2003 and 2004.

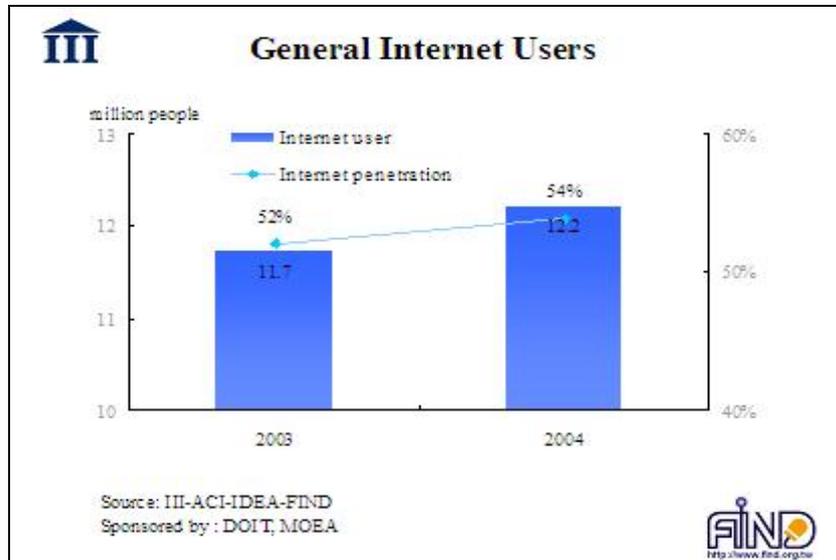


Figure 3. General Internet users and Internet Penetration Rate, June 2005
Source: FIND, ACI, III /sponsored by DOIT, MOEA

1.4.2 Internet Subscribers

According to the research conducted by ACI, III, there were 11.2 millions Internet subscribers in Chinese Taipei as of December 2004. Compared to 10.4 millions in December 2003, there is an increase of 8% growth. (Figure 4)

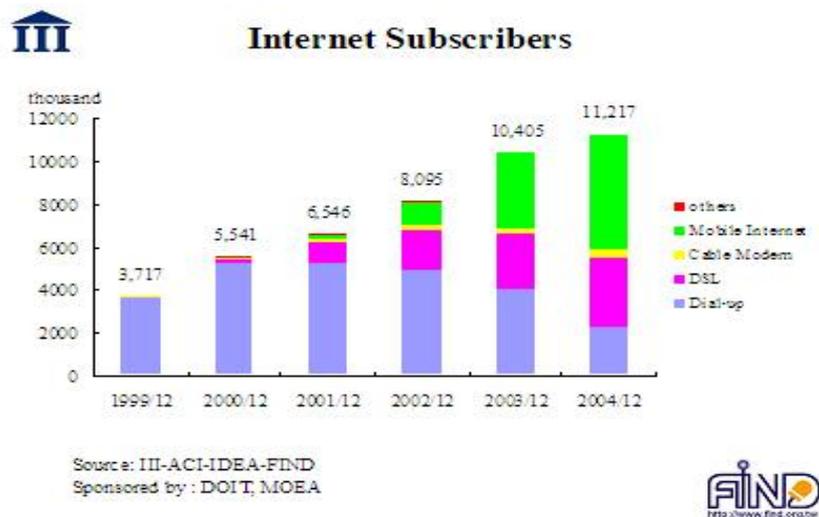


Figure 4. Internet subscribers
Source: FIND, ACI, III /sponsored by DOIT, MOEA, June 2005



1.4.3 Mobile Internet Subscribers

According to the data from Directorate General of Telecommunications (DGT), the number of Mobile Internet (WAP, GPRS, 3G, and PHS) subscribers has amounted to 5.34 million as end of 2004. Among the subscribers, there were 3.99 millions GPRS users, 118 thousand WAP users, 1,23 millions users of 3G and PHS together.

1.4.4 Households Online

According to ACI-FIND's statistics, 61% of households in Chinese Taipei had access to the Internet and 78% of the online households used broadband Internet connections in 2004.

1.4.5 Business Online

According to the 2004 survey conducted by ACI-FIND of III, 81% of businesses were connected to the Internet, up from 79% in 2003. Over 96% of the online business connected to the Internet via broadband access.

1.5 Taipei EC/EDI Committee

1.5.1 Introduction

The Bureau of Standards, Metrology and Inspection under Ministry of Economic Affairs established Taipei EC/EDI Committee (TEC) in 1992 to accelerate the promotion of the eCommerce Standards and Trade Facilitation as well as set up respective working group under the TEC to take charge in specific area of concerns.

1.5.2 Constitution

The General Director of the Bureau of Standards, Metrology and Inspection chairs the Taipei EC/EDI Committee. Figure 5 shows the current structure of TEC.

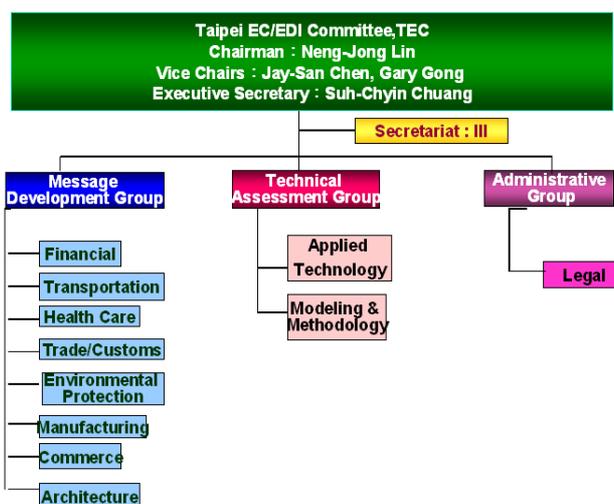


Figure 5: Current Structure of TEC

Source: TEC Secretariat, July 2005



SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

2.1 The Registry-Augmented Collaboration Platform for E-Standards (RACE) Plan

In order to speed up the evolution of e-Business standards, improve the methods whereby standards are formulated, and facilitate the development of the relevant applications, the Ministry of Economic Affairs (MOEA) launched the National Information Infrastructure Enterprise Promotion Association's Registry-Augmented Collaboration Platform for E-Standards (RACE). The main objectives of RACE are as follows:

1. To speed up the development of XML-based de facto e-Business standards in Chinese Taipei.
2. To increase the level of standard development knowledge-intensity and overall standard development capability.
3. To expand the scope of application of de facto standards, and ensure that these standards are utilized effectively.
4. To enhance the ability of small and medium enterprises to use registry mechanisms to undertake collaborative e-Business activities.

In the future, the development of the RACE platform will cover a wide range of different applications, and will involve the formulation of necessary measures for technology transfer, so as to expand both the overall scope of application of the plan and the benefits achieved through its implementation.

2.2 Vitamin Plan – Projects A, B, C, D and E

In 1999, the MOEA implemented two pilot projects for promoting e-Business in the IT sector – Projects A and B. The main focus of Project A and B was on e-Procurement. Project A involved helping IBM, Compaq and HP and Chinese Taipei's leading IT manufacturers to establish an e-Business supply chain covering every stage from design through procurement. In Project B, assistance was given to 15 leading Chinese Taipei's IT manufacturers and more than 1,800 of their component suppliers to establish e-Business supply chains covering the stages from procurement to manufacturing.

After the completion of Projects A and B in 2001, the MOEA began to implement Projects C, D, and E as a continuation of Projects A and B. The aim of these new projects was to ensure the provision of e-Business services covering payment, accounts receivable management, on-line financing, global inventory management, delivery tracking and collaborative design services. Project C was build on the e-Business supply chain foundations established in Project B. The main goal for Project C was to help banks solve problems that "center" manufacturers and "satellite" suppliers faced in the area of payment and collection. Project C was to provide real-time online financing service, and to establish mechanisms for achieving e-Business integration in the area of information exchange and cash flow between banks, "center" manufacturers, and suppliers. Project D focused on providing guidance for the adoption of e-Business delivery services by Chinese Taipei's IT hardware and semiconductor manufacturers and logistic service providers (LSPs), and to encourage other IT service



providers to participate in the development of e-Business services that integrate delivery and information in line with industry's needs. The focus of Project E is to help companies establish an interactive model of e-Business for collaborative design with customers, suppliers and technology design partners at the new product development stage.

SECTION III – Trade Facilitation / eBusiness / eCommerce Related PROJECT UPDATES

This section depicts the current state and future development trend of various standard related projects that are carried out by respective working groups under the Taipei EC/EDI Committee.

3.1 Manufacturing

The e-Business standards in seven manufacturing industries were developed and implemented in 2002 with budget from Industrial Development Bureau (IDB), Ministry of Economic Affairs. The seven primary industries are the textiles, pulp & paper, automobile, heavy electronics, iron & steel, petrochemicals, and machinery industries. During the project period, 14 business process standards, 30 document standards, 2 vocabulary standards, and 4 classification standards were accumulatively developed, and about 143 companies implemented and applied document standards in business process of ordering, purchasing and shipping in a total of 20 systems. (Table 2)

Table 2. Summary of e-Business Standards Implemented and Applied by industries by 2002

Industry	Process Applied	Standards implemented	Standards Developed
Textiles (RN-like)	Fabric dying, finishing process operations	Dying/finishing notice, shipping notice	<ul style="list-style-type: none"> ▪ Process standard: packing specification notice ▪ Document standard: dying/finishing notice, muslin finishing, shipping notice, packing specification notice
Petrochemicals (CIDX)	Order operation client-end	Ordering, response, modification, cancellation, response, tracking, and response	<ul style="list-style-type: none"> ▪ Process standards: Client registration process, demand forecasting process, supply planning/demand planning process ▪ Document standards: Qualification application, qualification response (customer management operation),



Industry	Process Applied	Standards implemented	Standards Developed
	e-Catalog operation	Product catalogue update, particular client catalogue update	demand forecasting, demand forecasting response, demand planning, demand planning response (supply management operation)
Machinery (RosettaNet)	Purchasing operation on supplier's end	Enquiry, quote, purchasing order, tracking, modification, and cancellation	<ul style="list-style-type: none"> ▪ Process standards: Enquiry, quote, purchasing order, tracking, modify, cancellation ▪ Document standards: Enquiry, quote, purchasing order, tracking, modification, cancellation
Pulp & Paper (PapiNet)	Order management operation from client end	Ordering, order confirm	<ul style="list-style-type: none"> ▪ Document standards: Shipping indication, shipping notice
Automobile (OAGIS)	Manufacturing management operation from supplier end	LT component demand plan, ST component demand plan, shipping indication, receipt QC	<ul style="list-style-type: none"> ▪ Process standards: Ordering, payment specification ▪ Document standards: Order, payment specification <p>Note: LT = Long term ST = short term QC = Quality Control</p>
		Shipping indication, Receipt QC	
		Shipping indicator, ST component demand plan	
		Shipping indication, receipt QC	
		Shipping indication, receipt QC, return notice	
Heavy Electronics (OAGIS)	Purchasing operation from supplier end	Enquiry, quote, order form, order confirmation	<ul style="list-style-type: none"> ▪ Process standards: order process ▪ Document standards: order cancel, order modify
Iron & Steel (isXML)	Order operation from client end	Order form	<ul style="list-style-type: none"> ▪ Process standards: Order process ▪ Document standards: enquiry, quote, order confirm, order form/ dispatch



Industry	Process Applied	Standards implemented	Standards Developed
	Distribution operation from client end	Shipping notice, quality certification, non-radiant certification	notice <ul style="list-style-type: none">Classification standards: stainless steel plates/hot-rolled stainless steel/cold-rolled stainless steel, stainless steel rod/ steel wire, galvanized & painted steel wire, concrete reinforcement barsVocabulary standards: particular terminology for iron & steel industry, business related terminology
Total		Document standards: 36	Process standards: 14 Document standards: 30 Classification standards: 4 Vocabulary standards: 2

In 2003, the budget support from Industrial Development Bureau (IDB), Ministry of Economic Affairs assisted two benchmark industries, heavy electronics and machinery, to develop e-Business standards application. Moreover, seven major domestic manufacturers of benchmark industries were in cooperation with their upstream and downstream, to implement the e-Business standards. The application of e-Business standards included enquiry, quote, order, shipping, quality control and payment of e-Business standard items.

In 2003, five user-groups were supported by the IDB to develop the plan of e-Business standard application, including the industries of heavy electronics, machinery, filament weaving, iron & steel and pulp & paper. There were five primary industrial associations carrying out this plan, including Taiwan Machinery Association, Taiwan Electronic/Electrics Association, Taiwan Filament Weaving Association, Taiwan Pulp & Paper Association and Taiwan Iron & Steel Association.

The professional training courses and discussion for the industries in the fields of e-Business standards application were provided as well, the courses focusing on XML, UML and ebXML, etc. By 2003, there were sixteen courses held in Taipei, Taichung and Kaohsiung, and more than 180 participants attending.

By 2004, Industrial Development Bureau, Ministry of Economic Affairs learned that the environment for e-Business standards application was getting more and more mature, and expanding standards users in any manufacturing industry was a key factor to success for the development of e-business in the future. The IDB was willing to support industrial users who can commit themselves to implement e-Business standards. Machinery and filament weaving industries have been applied and got sponsorship to implement e-Business standards they have developed these years and keep maintaining standards as well.

"e-Business standards implementation project for machinery industry" was organized by Precision Machinery Research & Development Center (PMC). User group members are Falcon Machine Tools, Anderson, Fu Sheng Industrial, Fu Chun Shin Machinery Manufacture, VICTOR Taichung Machinery Works, and Tung Pei Industrial. They set up 8 and renewed 20 machinery industry e-Business standards. PMC helped these 6 companies to invite 68 suppliers to use TAMIVas turnkey solutions.

Taiwan Silk & Filament Weaving Industrial Association and Taiwan Textile Federation organized “e-Business standards set-up pilot project for filament industry”, and user group members are Wisner Industrial, Sumagh High Tech, Tai Yuen Textile, Far Eastern Apparel, Everest Textile, Li Peng Enterprise, Formosa Taffeta, and Taiwan Taffeta Fabric. They have setup 6 filament industry e-Business standards, such as order request/response and order change request/response. 2 supply chains had implemented the standards and passed the pilot test. In 2005, filament industry user group members will come out 10 e-Business standards and have another 2 supply chains implement the standards.

3.2 Commerce

3.2.1 The Achievement of e-Business Consulting in B2B for Chinese

Taipei Distribution Services Industry in 2004

In order to create high additional value and efficiency for Chinese Taipei distribution services industry, the Department of Commerce, Ministry of Economic Affairs, launched a “The Sectors of Electronic Commercial Promotion Plan” to integrate upstream and downstream enterprises in the distribution services industry, introducing e-business solution in inventory, shipping and selling. This plan resulted in forming e-business solution and led the industry towards the application of the most appropriate e-Business Model in its operation.

42 enterprises in distribution services industry obtained consultation and 5,781 enterprises applied B2B e-business solution in 2004. The “Sectors of Electronic Commercial Promotion Plan” drove the integration and collaboration between supply end and demand end. The benefits include integrating diverse resources, enhancing the operating efficiency of value chain, and consolidating customer relationship. Table 3 depicts the e-business development among different businesses in 2004:

Table 3. The achievement of e-business consultation for distribution services in 2004

Business	The number of counseled enterprises	The number of co-operative enterprises	Major e-Business application list
3C Distribution Services	4	524	1.Logistics Information Management 2.Customer Relationship Management 3.Inventory Management
Food and Commodity Services	12	1,622	1.e-Accounting Management 2.Workflow Management 3.Enterprise Resource Planning
Cosmetics and Medicine Services	3	290	1.e-Accounting Management 2.Workflow Management 3.Enterprise Resource Planning
Publishing Audio and Visual Services	3	718	1.e-Procurement Management 2.Inventory Management 3.Enterprise Resource Planning



Business	The number of counseled enterprises	The number of co-operative enterprises	Major e-Business application list
Tourism Services	1	221	1.e-Accounting Management 2.Portal 3.Customer Relationship Management
Tailoring	1	151	1.Customer Relationship Management 2.Logistics Information Management 3.Inventory Management
Logistics	12	1,269	1.Dispatching Management 2.Warehouse Management 3.Order Management
Other Distribution Services	6	986	1.e-Procurement Management 2.e-Accounting Management 3.Inventory Management
Total	42	5,781	

3.2.2 Achievement of "Taiwan e-Logistics Initiative" in 2004

To promote and support Logistics Service Provider (LSP) to enlarge business scale and service coverage, the Ministry of Economic Affairs led and sponsored the "Taiwan e-Logistics Initiative". The Ministry encourages the logistics industry to create effective supply chain integration by forming strategic alliance and strengthen relationship among members of the industry, so as to establish a globalized, integrated and large-sized innovative business model and successful best practice.

In 2004, Department of Commerce had supported 19 e-logistics projects, including 5 third-party e-logistics hubs (public hubs) and 14 private e-logistics hubs. 779 LSPs have joined these e-logistics hubs to perform freight document exchange, rate request & quotation, real-time cargo tracking, and billing process electronically. The government's e-logistics initiative has significantly attributed to enable LSP to exchange freight information efficiently, and be able to provide timely shipment and inventory visibility to shippers and consignees. It essentially helps to upgrade the level of service as well as the competitive edge of Chinese Taipei LSPs. The e-service functions that e-Logistics Hubs provide are illustrated in Table 4.



Table 4. The e-service functions of e-Logistics Hubs in 2004

e-service functions	Type of e-logistics Hubs	No. of Hubs supported	Company Name	No. of LSP Participates
1. Data Exchange 2. Cargo Booking 3. Vendor Management 4. Rate Request and Quotation	Public Hub	5	1. Tatung.Co. Ltd. 2. Topsoft.Co.,Ltd. 3. Prolink.Solution.Co.,Ltd. 4. Universal.Ec.Inc. 5. Toplgis Co., Ltd.	454
5. CSI 6. Documentation System 7. Co-load system 8. e-Billing system 9. Cargo tracking and tracing	Private hub	14	1. Dimerco.Express.Corp. 2. Conquest.Express.Co.,Ltd. 3. Dart.Express Co., Ltd. 4. PasanhongInt.Container. Co.,Ltd. 5. Taiwan Express Co., Ltd. 6. Yes logistics Co., Ltd. 7. Leadyoung Logistics Intl. Ltd. 8. Rical Logistics Co.,Ltd. 9. China.Transportation Service Co., Ltd. 10. Ctslhead Co., Ltd. 11. Yongfang.Consolidation Co.,Ltd. 12. Startlink.Freight.System Co.,Ltd. 13. Chevalier Ec.Inc. 14. Tanda.Intl.Transportation Co.,Ltd.	325

In addition, to facilitate the e-logistics adaptation islandwide, Department of Commerce has developed 42 XML standard documents for logistics operations (Table 5), which fully complying with United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) ebXML specifications. Until 2004, 24 standard documents have been adopted by 255 LSPs. This infrastructure will not only expedite the deployment of e-logistics service among Chinese Taipei LSP, but also ensure the interoperability with global logistics community in the near future.



Table 5. ebXML Standard Documents for Logistics in 2004

Standard Document For Sea Freight	No. of LSP In Use	Standard Document For Air Freight	No. of LSP In Use	Standard Document For Air & Ocean	No. of LSP In Use
Shipping Order	6	Warehouse Information	4	Invoice	10
Shipping Order Ack	5	Pick Up Instruction	2	Insurance Policy	-
CSI Information	4	Export arrival notice	3		
CSI Response	4	Co-Load Debit Note	5		
Cargo Stuffing Request	4	Fare Table Co-Load	31		
CY Stuffing Report	4	Arrival Notice	4		
Cargo Stuffing Order	14	Air Cargo Way Bill	1		
Cargo Stuffing Report	4	Air Cargo Booking Request	1		
CFS Stuffing Report	4	Packing List Invoice	1		
Sea Cargo Booking Request	1	Air Cargo Agent Shipping Notice	2		
Sea Cargo Terminal CFS Debit Note	3	Cargo Status Request	159		
Sea Cargo Booking Confirmation	-	Cargo Status Response	32		
Bill Lading Draft	-	Air Cargo Request For Quotation	-		
Sea Cargo Request For Quotation	-	Air Cargo Quotation	-		
Sea Cargo Quotation	-	Air Cargo Booking Confirmation	-		
Sea Cargo Packing Invoice	-	Air Cargo Agent Shipping Notice	-		
Sea Cargo Shipping Schedule	-	Air Cargo House Way Bill List	-		
Sea Cargo Status Request	-	PP Debit Note	-		
Sea Cargo Status Response	-	Inland Transport Quotation	-		
Sea Cargo PP Debit Note	-	Inland Transport Quotation Confirmation	-		



3.3 Environmental Protection

Environmental Protection Administration (EPA) has been developing environmental-related data standards. The preliminary results can be shown in three ways:

1. Establishing unity codes for domestic rivers, creeks, administrative areas, and industrial areas, etc.
2. Standardizing the use of environmental geographic layer formats and coordinates.
3. Promoting standard information exchange between various emission reporting systems and the EPA's Environmental Database. Three systems will be completed by the end of this year.

In order to give unanimous definition to basic environmental vocabulary, EPA starts an effort to translate the General Multilingual Environmental Thesaurus, GEMET, which is published by Europe environmental headquarters. This includes of giving more than 5,000 environmental vocabularies their standard Chinese definitions. 2,500 records had been translated and released last year. The entire task should be completed by the end of this year. Upon finishing this fundamental translation work, future environmental information communication and exchange with precision will be possible.

Another newly established information exchange web service using XML protocol provides users with the latest environmental air monitoring information. This application facilitates authorized scholars and researchers to obtain reliable first hand air monitoring data from 76 air monitoring stations around the island.

The Information Classification Act promoted by Executive Yuan this year has led to the completion of the structure for environmental information, also known as "Environmental Knowledge Classification Tree" (EKCT). Most of EPA's environmental relevant files will be stored and classified according to the EKCT structure. The goal to employ the knowledge tree structure is hoping to facilitate efficiency in managing, sharing and exchanging the environmental information among organizations and institutes.

3.4 Transportation

3.4.1 The Ministry of Transportation & Communications (MOTC) launched the "Maritime Transportation Net (MTNet)" since 2002, which acts as the integration architecture to be a key channel for business parties' information exchange of marine transport and seaport stevedoring. Figure 6 shows the current structure of MTNet.

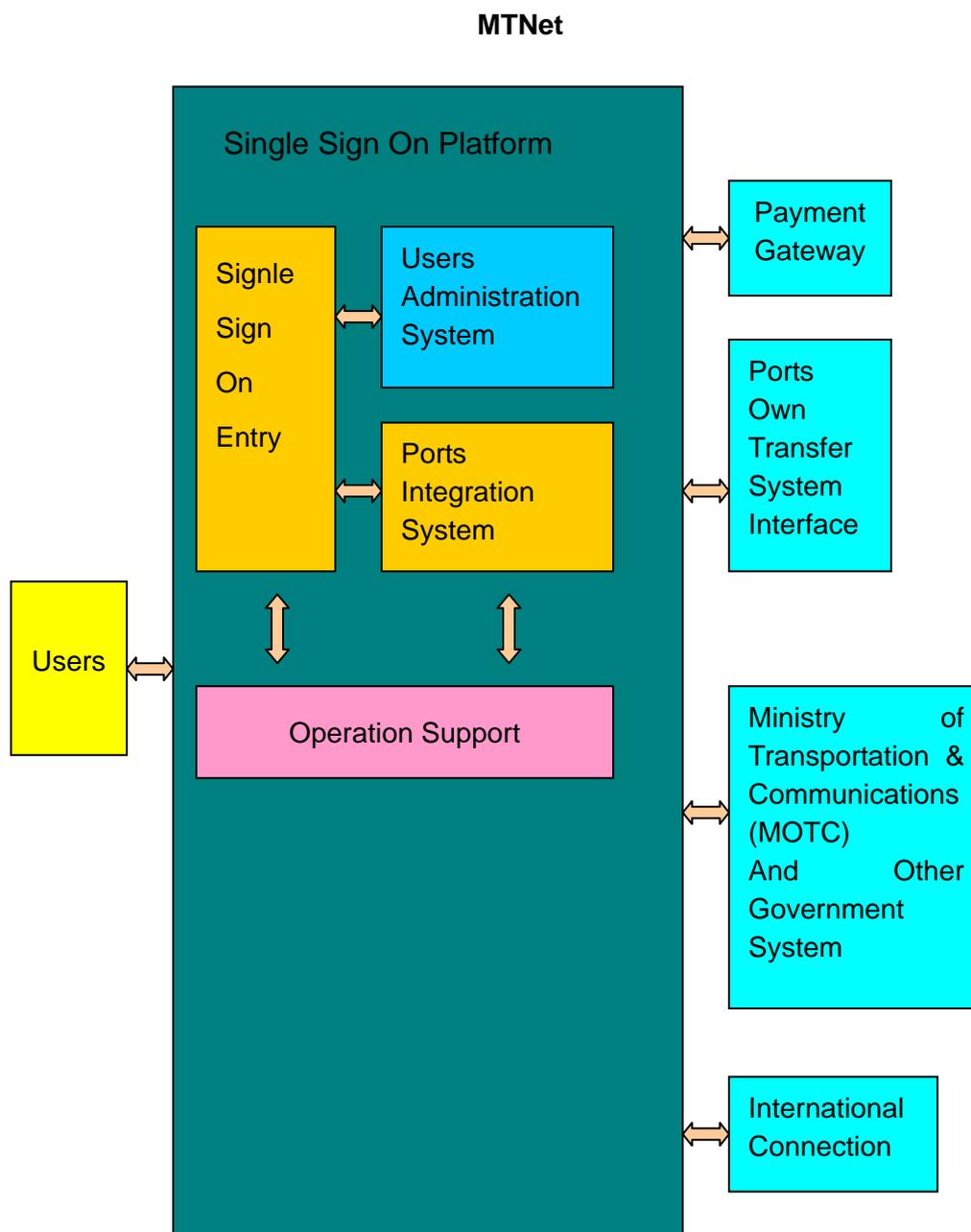


Figure 6: Structure of MTNet

3.4.2 The "Single Sign On System" is carried out under the MTNet, and produced for users such as Vessel Operating Carriers and Shipping Agencies for the convenience of sign on once and uses in the whole process. Users do not need to sign on again when they are still in use. We expect this system to have over 1000 users.

3.4.3 The "e-Payment and e-Invoice system" is implemented under the MTNet for



developing a network service application which users are able to complete payment operation in a single application entry point. This year, Kaohsiung port, Hualien port and Keelung port on line will adopt this system.

3.4.4 The "Free Trade Zone (FTZ) Container Trace System" of MTNet will offer users to trace and query the status of their containers. Currently, Kaohsiung port, Keelung port, Taichung port, Taipei port and CKS International Airport have been permitted as FTZ.

3.4.5 The "Port Area Container Entrance/Exit Control System" of MTNet will complete the following goals by the end of 2005.

- Auto control cars that check in or check out in the port area.
- Administrative records of cars and people that go in or go out the port area.
- Build an auto check system for container drivers to go in or go out the port area.
- Reach the goal of auto operation system.

3.4.6 The "Navigation Administration Control" of MTNet will use Business Process Reengineering (BPR) method to build a "customer orient" administration system to save the time of application process.

3.5 Customs

Since 1994, Taiwan Customs has developed EDI messages for sea cargo and air cargo full-scale automation. With the successful introduction of EDI system accompanied by other important measures to simplify Customs procedures, the Customs stakeholders enjoy facilitative Customs clearance including rapid release time for both sea cargoes and air cargoes. Those cargoes without document review and physical examination, the release time has minimized to 1 minute from the moment the Customs accepts the declarations transmitted from Vans.

Following the preceding projects, this year the Customs undertakes several projects, listed below, which are sub-projects under the master plan named "Challenge 2008: National Development Plans" headed by Executive Yuan.

1. Besides the EDI system, the Customs completed the establishment of sea cargo Internet declaration system for the purpose of providing direct connection between the Customs and the declarants. Customs brokers, traders and individuals are welcome to use this on-line system. But like the air-cargo Internet declaration system set up last year, the declarants have to apply for in advance certificates either from Certificate Authority of the Ministry of Economic Affairs (for Customs brokers and traders) or Certificate Authority of the Ministry of Interior (for individuals only).
2. After two years' planning and construction, the Customs and the licensing authorities completed an ebMS gateway mechanism. Through the gateway, the public may apply for the import/export licenses/certificate to the Bureau of Foreign Trade, Bureau of Animal and Plant Health Inspection and Quarantine under the Council of Agriculture, and Bureau of Standard, Metrology and Inspection, while using the same data making declaration to the Customs. Although the system adopts ebXML, the Customs' old EDI system will still



work until all the customers' systems have transferred to the new platform.

3. The government has approved the set up of free trade port in Keelung Harbor, Taipei Harbor, Taichung Harbor, Kaohsiung Harbor and Taoyuan Airport since September 2004. Within the zone, a wide range of businesses are permitted, including consolidation of cargo, minor assembly, repacking, warehousing, packaging, logistics and other value-added services that are free of customs duty, commodity tax and business tax. To govern the goods moving in the zone, the Customs approved related regulations and completed necessary modification of the information system. The approved firms had begun operation since January of the year.

Two more services will start to be in operation by the end of 2005. One of the services is to exchange data regarding imported cars between government agencies, including the Customs, on a new platform. Thus the procedure for issuing car licenses will be simplified. Another service is to set up a platform for the Customs stakeholders to pay the duties and taxes over the Internet.

By continually modernizing the information system and keeping track of the progress of international standards development, the Customs also makes every effort to offer secure environment for the users of Customs information systems. In March, the Customs was granted with certificate issued by the British Standards Institution on compliance with the criteria of BS 7799:Part 2:2002 specification for Information Security Management Systems regarding Clearance System, EDI System, etc. The Customs aims to create favorable environment and raise competitiveness for the traders in the international trade.

3.6 Finance

3.6.1 Current Status of FEDI Standards Application:

Refer to UN/CEFACT/EWG electronic data exchange standards:

Application System	Related Messages	Indexes
Payment process	PAYEXT, CREEXT, DEBADV, BANSTA, AUTACK	D.95A
Control	CONTRL	D.94W
Cross-bank payment process	FINPAY BANSTA	D.95 Draft D.95A
L/C process	DOCAPP, DOCINF, DOCADV, BANSTA, DOCAMR, DOCAMI, DOCAMA, DOCARE, AUTACK	D.95B
Lump-sum payment process	PAYMUL, DIRDEB, DEBMUL, CREMUL, BANSTA, FINPAY, CREMUL	D.95A
Foreign currency payment process	PAYEXT, CREEXT, DEBADV, BANSTA, AUTACK	D.95A
Notice process	APERAK	D.95A



3.6.2 Current Status of Finance development using EDI:

Subscribers: Financial organizations: 34

Value-added network/banks: 23

Clients: over 8,000

3.6.3 Transaction volumes:

- The amount of 2004 monthly average transaction: 456,634 million NT Dollars
- The number of 2004 monthly average transactions: 363,664
- The amount of 2004 monthly average cross-bank transactions: 184,521 million NT Dollars
(the first half of year 2005 shows a 21.68% increase compared to year 2004)
- The number of 2004 monthly average cross-bank transactions: 186,477
(the first half of year 2005 shows a 22.99% increase compared to year 2004)

3.6.4 Message Development:

Regarding the development of e-Commerce financial messages, the following XML messages are designed for electronic data exchange between clients and banks.

Base services:	Service Account Inquiry Request/Response Service Profile Inquiry Request/Response
Bank services:	Account Inquiry Request/Response Balance Inquiry Request/Response Deposit Account Statement Advise Request/Response Deposit Account Transaction Inquiry Request/Response
Pay services:	Payment Add Request/Response Checksum Add Request/Response Payment Modification Request/Response Payment Cancellation Request/Response Payment Audit Request/Response Payment Synchronization Request/Response Payment Inquiry Request/Response
Account aggregation:	Balance Inquiry Request/Response Deposit Account Statement Advise Request/Response
Financing/Factoring:	Credit Line Add Request/Response Reimbursement Account Add Request/Response Reimbursement Account Modify Request/Response Reimbursement Account Cancel Request/Response Reimbursement Account Inquiry Request/Response Account With Bank Modify Request/Response Account With Bank Inquiry Request/Response Financing Bank Inquiry Request/Response



	Credit Line Inquiry Request/Response
	Financing Document Add Request/Response
	Financing Document Cancel Request/Response
	Financing Document Input Request/Response
	Document Inquiry Request/Response
	Financing Document Verify Request/Response
	Financing Document Inquiry Request/Response
	Draw Down Add Request/Response
	Draw Down Cancel Request/Response
	Due Payment Notice Request/Response
	Reconcile Input Request/Response
	Supplier History Inquiry Request/Response
	Notification: Financing Synchronization Response
	Notification: Payment Synchronization Response
Funds Transfer	Transfer Add Request/Response
	Transfer Synchronization Request/Response
	Transfer Audit Request/Response
Bill Presentment Service	Bill Inquiry Request/Response
	Bill Inquiry Request/Response
	Bill Status Modification Request/Response

3.7 Health Care

The following is the current status report on the Medical Information Standards HL7 (Health Level Seven) and DICOM (Digital Imaging Communications in Medicine) Plan under the health care working group.

1. Assisting the HL7 Taiwan association with implementation of promotion work:
 - a. Revision HL7 v2.4 Translation for Traditional Chinese Edition.
 - b. Revision Electronic Healthcare Records for Referral HL7/XML standard draft.
 - c. Profiling Specification for HL7 Preauthorization Standard in Taiwan.
 - d. Implementation Guide for HL7/XML Food Management Information Standard With Communication Security draft.
 - e. Message Profiling Specification for HL7/XML Food Management Information Standard draft.
 - f. Profiling Specification for HL7 Disease Reporting Standard in Taiwan.
 - g. Message Profiling Specification for HL7/XML Referral Standard in Taiwan.
 - h. Message Profiling Specification for HL7 Long-Term Care Resources Standard in Taiwan.
 - i. Message Profiling Specification for HL7 Long-Term Care Patient Referral Standard in Taiwan.
 - j. From July 21~23, 2005, the 6th HL7 International Affiliates Meeting and the 4th Asia-Pacific HL7 Conference on Healthcare Information Standards Conference were held in Taipei. 225 participants from Chinese Taipei, New Zealand, Japan, Korea, Australia, Britain, China (Hong Kong), Malaysia, Netherlands, Canada, Germany,



Korea and the United States attended the event.

2. Assisting DICOM association with implementation of promotion work:
 - a. To attend routine meetings and conferences of the International DICOM standard association.
 - b. To continue the implementation DICOM Traditional Chinese Code in Taiwan.
 - c. To implement specification and guideline of Health Image Transmission Quality and Information Security Management in healthcare institutes.
 - d. To revise DICOM DIR media storage object formats.
 - e. To hold DICOM related conferences and activities.
3. Implementing the "Healthcare Information HL7/DICOM Standard 2004 to 2005 Task Force Project"
 - a. To Implement conformance statements of national healthcare information standard for local uses.
 - b. To support the execution of community medical group project, long-term healthcare information project, and related projects to implement related messages and transaction standard profiles.
 - c. To research and implement the profile implementation guide for quality, transmission, and security management in hospital medical image information implementation.
 - d. To hold conferences on international healthcare information exchange standards.
 - e. To implement national laboratory item coding standard format knowledgebase and maintain related health insurance codes and knowledgebase.
 - f. To implement HL7 Message Certificate and Index System.
 - g. To plan the deployment and execution of related HL7/DICOM standard drafts to be implemented by HL7 Taiwan and DICOM Taiwan.
 - h. To plan free HL7 technical training courses.

3.8 Construction and Planning

The project, Applying the e-Information Exchange of the Standard in Construction, was started with the "Construct Enterprises e-System Project" under Construction and Planning Agency, Ministry of the Interior since 2001 in order to organize the cross of the boundary, supply chain, and information form in purchase. The system will help train companies and other companies to upgrade their B2B e-application, and will enhance the e-system for enterprises in construction industry.

The "Promote aecXML Information Exchanges the Standard Popularization Plan" has been in operation for three years since 2002, which focuses on promoting the concept of information standards and establishing uniform standards on which information systems throughout the supply chain are built by designing and developing standards for industry information. The plan has established 12 exchange informational standards in construction industry: CompanyInformation, RequestForQuotation, Quotation, PurchaseOrder, Order, DeliveryNotice, Delivery, RejectionNote, AdjustmentDetail, MaterialReceipt, PaymentApplication and PaymentNote. 7 to 8 out of the 12 exchange informational standards have been chosen to be applied on the enterprises in construction, and 20 conferences have been organized for promoting the aforementioned standards.



The highlight of the plan in 2003 includes:

- To establish the manufacture of the standard
- To promote the standards into operation system and the private companies
- To prepare the e-information exchange of the standard for the enterprises in construction
- To apply the e-information exchange in construction manufacturers
- To establish the standard of knowledge activity practice in construction industry

Figure 6 illustrates the content of the “Applying the e-Information Exchange of the Standard in Construction” project. The project includes:

- To apply the self-standard system in construction: to promote the private companies to continue establish or revise relevant standards about the construct information exchange and update the latest information on international standards.
- To establish the e-information operation system to meet to the demand of e-information in construction.
- To assist in establishing the knowledge activity of standard in construction.
- To establish and promote the demonstration of standard in construction

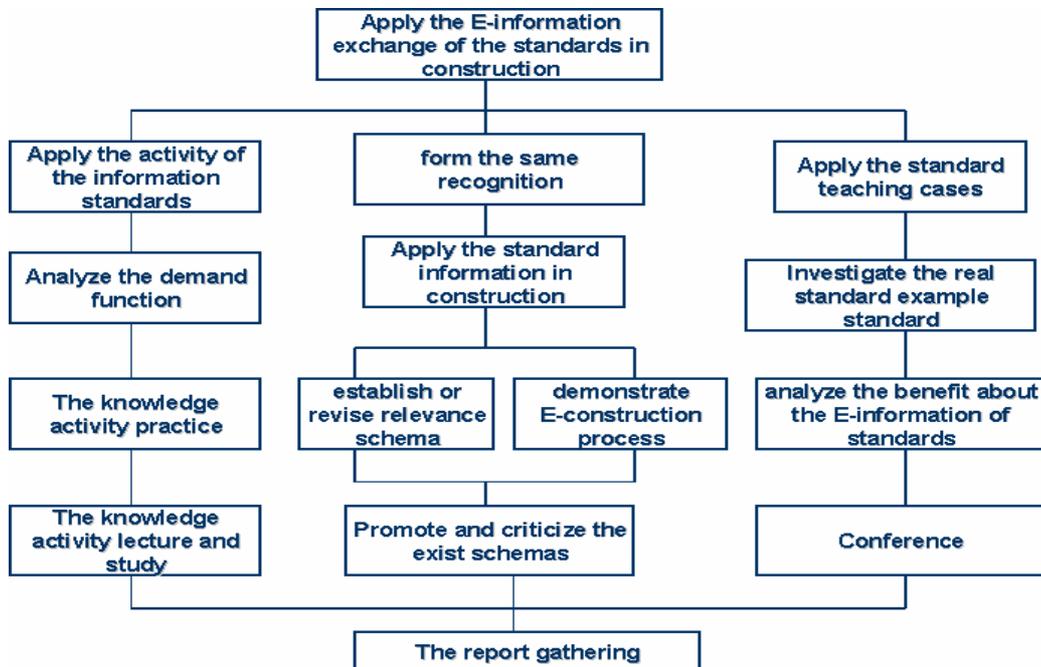


Figure 7: Project content



The project is expected to achieve the following goals:

- To implement the self-exchange information standard organization in construction, and connect with the international process to continue developing the system to make it applicable.

- To establish the demonstration e-construction process.

To demonstrate the application of standards/e-construction operation process.

To discuss the process of the standards by taking into consideration the relevant e-information system steps

- To review the quantity and types of exchange information standards.

According to the environment of information standard in demonstration of e-construction process and the development of e-construction, to draft suitable standards that can be applied.

- To form the information exchange standard steady developing model for information exchange standards.
- To continue revising the construction information exchange standard, and promote it into application and demonstration.
- To continue promoting and educating the construction information exchange standard and XML.



2005 Country Progress Report : INDIA

SECTION I - GENERAL CONDITION UPDATE

1.1 Electronic Commerce(EC) / Electronic Data Interchange (EDI) Users

With the increased level of consumers' comfort with online functions like e-mail, internet etc. a higher level of participation in e-commerce is assured. The escalating growth of Web-based businesses is leading to e-commerce both on the B2B and the B2C sides. The next five years will see large growth in e-commerce that would positively impact small businesses that have established themselves as legitimate, trustworthy merchants. Most companies have recognized that they need to create and execute an e-commerce strategy.

The industry association has indicated that despite a larger base, the Indian software and services industry has been able to maintain its growth momentum and delivered better-than-expected results. Software exports, the mainstay of the industry, grossed US\$ 12 billion in FY 2004-05, up from US\$ 9.2 billion in 2003-04, indicating growth of 30.4 percent for the year."

1.2 EC Market size & Growth

As per a study E-commerce in India is projected to grow 10 times in value over the next five years. E-commerce is expected to surge to US\$ 44.2 billion by 2005.

A recent survey by an Indian research organization finds that more and more Indian Internet users are opening their wallets online. The report finds there are currently more than 4.2 million shoppers online in India.

The emergence of low cost airlines and online ticket booking along with growth in online railway reservation will drive the e-Commerce boom in 2005-06. e-Commerce is expected to clock a growth of over 60% of the US\$ 227 million transactions. In 2004-05, 63% of online revenue was generated between airlines and railway ticketing amounting to over US\$ 79 million.

The telecom sector which was growing in the range of 22 – 25% till 2002-03 has shifted to a higher growth path in the range of 35 – 40%. The total number of phones has reached 92.9 million as on December 31, 2004.

In the broadband policy announced in Oct. 2004 the main emphasis is on the creation of infrastructure through various technologies that can contribute to the growth of broadband services. These technologies include optical fibre, asymmetric digital subscriber lines (ADSL), cable TV network, DTH etc. It is estimated that the number of broadband subscribers would be 3 million by 2005, 9 million by 2007 and 20 million by 2010.



SECTION II – EDIFACT/ebXML/XML BASED STANDARDS DEVELOPMENT

2.1 Message Development Activities

A project has been launched in the Port sector to standardize the message exchange with community partners. A web based uniform system is being implemented for all the major Ports.

2.2 Awareness and Education Programs

The Indian Institute of Foreign Trade (IIFT) organized a Programme on Globalisation "WTO and Developing Countries for ESCAP Countries" from Feb. 14 -18, 2005 in New Delhi. A program on "WTO and new Trade Regime, Colombo Plan" was also conducted by IIFT at New Delhi from Feb. 28 to March 4, 2005

The Department of Information Technology (DIT), Government of India has been supporting the research and development effort in the areas of electronics and information technology at various institutions. To disseminate information on these technologies and products developed through this effort among the users and the industry, the Department has been organizing, an annual event, Electronics and Information Technology Exposition (ELITEX), which is now an eagerly awaited event in the calendar of technology meets. ELITEX-2005 was held during April 25-26, 2005 at India Habitat Centre, New Delhi, India. The theme for ELITEX-2005 was 'Grassroot Applications using ICT'.

AISECT-2004 was organized from 16.12.04 to 18.12.04 in Bhopal. AISECT-2004 provided a forum for sharing success stories and lessons learnt from Information and Communications Technology (ICT) related Regional, National and Internationally funded research and other Govt., NGO based and private initiatives so that use of ICT in education and development could be speeded up.

SECTION III – Trade Facilitation / eBusiness / eCommerce Related PROJECT UPDATES

3.1 Regulatory Sector

3.1.1 Directorate General of Foreign Trade

3.1.1.1 Nature of Project

Directorate General of Foreign Trade (DGFT) is an organisation under Department of Commerce, Ministry of Commerce and Industry engaged in formulation of export-import Policy of the country and its administer. All types of licenses required for export and import within the country are issued by this organisation. The interface with trade and industry is provided by the



33 offices of DGFT scattered through out the country. EC/EDI implementation stipulates day to day electronic interface with trade and industry and related organisation for electronic delivery of services.

3.1.1.2 Status

Computerisation and networking of all the 33 offices of the DGFT has been completed. Software for all export promotion schemes has been operationalised.

DGFT has launched a web based electronic application filing system. The facility of Web Based on-line and off-line submission and processing of application is operational in all the offices. Licenses are now issued in 6 hours compared to 45 days earlier. The web based electronic filing system is integrated with Banks to facilitate electronic payments.

Digital Signature and online receipt of application fee have been integrated into the license application processing. The electronic interface with Customs is also operationalised using digitally signed documents. This would reduces the frauds to minimum and online clearance of goods by Customs also becomes a reality saving months of precious time for trading community.

3.1.2 Indian Customs EDI System (ICES)

3.1.2.1 Nature of Project

ICES is a customs clearance system providing paperless transactions in the Customs House. The system is integrated with users and Bank. Import/export documents, Clearance messages are transmitted over the network to/from the Custom House Agents (CHAs) and trading community.

3.1.2.2 Status

The ICES provides online assessment, duty payment and clearances as well as connectivity with the custom house agents, banks, custodians like the Airports Authority of India, Port Trusts, Container Corporation of India etc, Reserve Bank of India, Export Promotion Councils, Director General of Foreign Trade, Director General of Commercial Intelligence and Statistics besides a host of other Governmental and Non Governmental agencies. It has following important features:

- Electronic filing of Goods Declarations.
- Paperless processing of the electronically filed declaration in a manner that is transparent and accountable.
- Electronic messaging with the banks for the collection of duties and disbursal of duty drawback.
- Designed to handle electronic messaging with all agencies concerned with cargo clearance.
- Single point of interface of trade with Customs.
- Varieties of information access channels are available to the trading



community through

- Enquiry Counters
- Touch Screen Kiosks
- Interactive Voice Response System
- SMS on GSM mobile phones
- Service Centres
- Helpdesks
- Help mails
- Web based Systems

E-filing has been facilitated through the customs e-commerce gateway (ICEGATE), which enables the importer/exporter/agents to file their import and export documents from their offices and receive assessment and duty payment related messages. It has been operationalised for all 33 locations. Online help desk has been created for the users of the system. The Customs has also started functioning as certifying authority for its domain.

3.1.3 Drawback & Duty Payment System

3.1.3.1 Nature of Project

Customs duty payments are done electronically by having debit orders issued against exporters/importers bank accounts and crediting the Customs account automatically in the Bank. Duty notices and advice of payments are integrated with Customs ICES system. The drawback payments to exporters have also been automated through ICES.

3.1.3.2 Status

The bank branches are connected with the Customs EDI system for duty payments and drawback disbursements. Export – Drawback scroll is sent electronically at all locations.

3.2 Port sector

3.2.1 Port EDI system

3.2.1.1 Nature of Project

Eleven Major Ports (Kolkata, Chennai, Cochin, Tuticorin, Mumbai, JNPT, Goa, New Mangalore, Vishapatnam, Kandla and Paradip) are under the ambit of EDI implementation. Out of which the six ports i.e Kolkata, Chennai, Cochin, Tuticorin, Mumbai and JNPT handle substantial volume of containers. These ports are implementing systems for Efficient cargo management and tracking, Port Automation, Uniform procedure/ documentation, Electronic sharing of information with all trading partners (like Customs, Container Corporation of India Ltd. (CONCOR), Banks, Shipping lines, Freight Forwarders, etc), Advance shipment information availability at all ports, etc.,



3.2.1.2 Status

All the 11 major ports are equipped with hardware, software and networking. This covers 75% of sea trade. The electronic interface with Customs, Banks, shipping lines, agents, freight forwarders etc. is operational. A uniform/centralized web based – Port Community System (PCS) is being planned at all the major ports to provide a single window message exchange with community partners.

3.2.2 Container Management System

3.2.2.1 Nature of Project

A system for having interface for Electronic sharing of information with trading partners like Customs, Port Trusts etc., and automation for efficient cargo movement and cargo tracking is under process.

3.2.2.2 Status

CONCOR has VSAT based network at 55 CONCOR locations across India with ISDN backup network. CONCOR has implemented the customized ERP packages based on centralized architecture. The Export/Import Terminal Management System (ETMS) with uniform automation has been implemented at 38 locations on Centralized architecture for the EXIM business. Message interface with Customs is operational at Delhi and Ahmedabad. An online container tracking system is operational, which is integrated with Indian Railways to provide exact location of container on a route. A web based community partner message exchange system has also been made operational with shipping lines.

3.3 Air Sector

3.3.1 Nature of Project

The community partners in Air sector facilitates EC/EDI based processing into the clearance of export and import consignments. The community partners in this case are Airports Authority of India(AAI), Airlines, Customs, Banks, Agents etc. The EDI based cargo handling system and Electronic interface between trading partners is to be established.

3.3.2 Status

The seven international airports at Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bangalore and Trivandrum have established electronic message exchange with Customs. A web based system for AAI's electronic interface with Airlines, Agents, Banks etc. is operational. The system provides interface with airlines, agents, banks etc. The integration of automatic data capturing tools in the automation of AAI is also being done.



3.4 Financial Sector

3.4.1 Nature of Project

The project is for implementation of intra-bank, inter-bank, and bank-user electronic interface establishment for facilitation of electronic receipts/payments.

3.4.2 Status

Banks have established electronic message exchange with major players in international trade like Customs, DGFT, Ports, Airports etc. Real Time Gross Settlement (RTGS) has been made operational by the Reserve Bank of India. The system provides for inter-bank settlement of funds on a real time mode and 5717 bank branches are connected with RTGS.

All export intensive centers (106 centers identified for the purpose) are connected and facilitates electronic transactions. The digital signatures are available through Institute for Development & Research in Banking Technology for banking sector. Electronic interface with major international trade agencies likes Customs, DGFT, Ports, Airports has been established.



2005 Country Progress Report : JAPAN

SECTION I - GENERAL CONDITION UPDATE

1.1 Market Scale of e-Commerce in Japan

According to the Survey recently conducted jointly by METI (Ministry of Economy, Trade and Industry), ECOM (The Next Generation Electronic Commerce Promotion Council of Japan) and NTT Data, the scale of Japanese domestic BtoB e-Commerce market in 2004 exceeded 100 trillion yen. The total amount of 102.7 trillion yen (about US Dollar 0.9 trillion) is an increase by 33% over the previous year. The penetration rate of the overall industrial category is 14.7%. Automobile industry shows most remarkable achievement in BtoB e-commerce in 2004 due to increased business amount and expansion of electronic procurement, particularly in auto parts industry, that made the increase of 22% over the previous year. Automobile and electronic industries are two major driving forces to bring the Japanese BtoB e-Commerce unto the current status. Also notable in this year is that various industries began to tackle with e-Commerce.

Table 1: BtoB e-Commerce Market Scale 2004

Industrial Category	(in million yen)	(in million dollar) (@¥110)	(increase over previous year)	penetration rate)
Food	2,486,000	22,600	177.2%	4.3%
Textile	2,465,000	22,409	119.3%	7.5%
Chemical	6,149,000	55,900	430.0%	11.0%
Steel	6,606,000	60,055	123.1%	16.4%
Machinery	7,407,000	67,336	198.3%	14.0%
Electronic	24,659,000	224,173	101.5%	44.7%
Automobile	34,302,000	311,836	122.3%	65.6%
Construction	4,190,000	38,091	118.1%	4.8%
Paper	1,158,000	10,527	236.3%	6.1%
Utility	2,000	18	-	0.0%
Finance	487,000	4,427	-	1.5%
Insurance	5,937,000	53,973	150.9%	17.2%
Travel, Transport	1,065,000	9,682	138.9%	4.1%
News, Broadcasting	286,000	2,600	2,200.0%	2.4%
IT	3,363,000	30,573	167.4%	33.1%
Others	2,137,000	19,427	657.5%	1.9%
Total	102,699,000	933,627	132.6%	14.7%



1.2 Electronic Government

In 2001, Government announced and compiled “e-Japan Priority policy Program”, an IT policy package, taking the initiative in establishing an environment where the private sector, based on market forces, could exert its full potential and make Japan the world’s most advanced IT nation by 2005.

In July 2003, The IT Strategic Headquarters adopted “e-Japan Strategy II”.

In order to accelerate implementation of this and to achieve the goal of turning Japan into the most advanced IT nation in the world by 2005, the e-Japan Strategy II Acceleration Package was adopted in February 2004 and clarify the priority measures that need to be addressed by the government.

Five areas are picked up where priority is given for achievement:

- (1) International IT Strategies in Asia
- (2) Reinforcement of Security Measures
- (3) Promotion of Content Measures
- (4) Promotion of IT Regulatory Reforms
- (5) Promotion of e-Government and e-Local Government

When implementing this package, emphasis will be placed on the perspective of users and collaboration between government ministries and agencies will be reinforced and promoted.

1.3 Single Window System

The “Single Window” can be described as a system whereby all the trade related information and/or documents need only be submitted once at a single entry point.

This will expedite and simplify the information flows between trade and government and brings meaningful gains to all parties involved in international trade.

Japanese Government introduced in July 2003 the Single Window System by linking three major systems relating to international trade which are, Port EDI System, Nippon Automated Cargo Clearance System (NACCS) and Crew Landing Permission Support System. The system also covers a wide-range of trade related procedures such as animal quarantine, plant quarantine and port clearance.

1.4 Internet Users

According to Information and Communication White Paper 2005, it is reported that internet users in Japan is 79.5 million at the end of 2004. It is an increase by 2.8% over the previous year and penetration rate is 62.3%. The White Paper also reports that, compared to the end of the year preceding the launch of the e-Japan strategy (2000), the number of internet users increased by about 32 million, and the penetration rate by 25.2 points.



SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

2.1 Message Development Activities

2.1.1 Japan Electronics and Information Technology Industries Association (JEITA)

JEITA is a new industry organization established in November 2000 by merging the Japan Electronic Industry Development Association (JEIDA) and Electronic Industries Association of Japan (EIAJ) to enter the 21st century. Its activities cover both the electronics and information technology (IT) fields. Within the JEITA, the EDI Center plays the role of promoting standardization which has been executing activities together with the vendors and buyers, focusing on the EIAJ-EDI Standards in order to exchange business transactions.

JEITA uses EIAJ-EDI Standard based on CII syntax rules, a domestic business protocol standard, developed by the Center for the Informatization of the Japan Information Processing Development Center. The EIAJ-EDI Standard was established for promoting electronic ordering of materials in the electronic manufacturing industry, and has been revised as appropriate every two to three years. The latest version was issued in December 2001.

In December 2003, JEITA released “ECALGA (Electronic Commerce Alliance for Global Business Activities)” as EDI brand for the new era. “ECALGA” is intended to widely offer the solutions to the changing needs of new EDI in the Electronic industry, through newly developed messages which are to reflect the real time exchange of a forecast and stock information. At the same time, “ECALGA” changes EIAJ-EDI Standard to the ebXML base. “ECALGA” seamlessly combines all the business processes among the enterprises in the various fields including, but not limited to, the business segment of planning, designing, development, production, distribution and sales.

2.1.2 The Distribution Systems Research Institute (DSRI)

DSRI, a member of EAN International, facilitates EANCOM (UN/EDIFACT subset) as the industry EDI standards for Japanese retail and distribution industry since 1997. Since 2000, DSRI has been developing XML/EDI Distribution Standard messages for the grocery industry. In 2004, message development and preparation of Reliable Messaging Protocol guideline have been carried out as follows:

- 1) Development by XML schema of returns message.
(12 messages were developed by 2000 – fiscal year 2004)
- 2) Review and classification of necessary data items, based on data items for JEDICOS.
- 3) Preparation of XML tags in Japanese and English languages, taking into consideration international standard specifications.



2.1.3 Japan Shippers' Council (JSC)

JSC has been actively involved in UN/EDIFACT promotion and popularization activities. They have done this as a management body of the Japanese trading industry in response to the industry's expectations. UN/EDIFACT messages have been penetrating in the trading industries. Regarding XML/EDI area, the ebXML has been penetrated into JSC members as an international standard in XML/EDI works.

2.1.4 The TEDI Project

Since TEDI operating companies started commercial service in November 2001, TEDI has worked out not only to conduct various pilot tests but to define rules and practices with PAA (Pan Asian E-commerce Alliance) members to achieve electronic cross-border transactions in Asian region and succeeded to bring some of them into live operation. PAA developed standard messages using XML and adopted ebXML MS V2.0 as communication protocol and is studying to upgrade the standard messages based on ebXML in cooperation of ECOM.

More information regarding TEDI, can be obtained through the following web site.

TEDI Club	http:// www.tediclub.com
PAA	http://www.paa.net

2.1.5 Nippon Automated Cargo Clearance Systems (NACCS)

(1) NACCS

Japan has two automated customs clearance systems named "the Nippon Automated Cargo Clearance Systems for sea-cargo (Sea-NACCS) and for air-cargo (Air-NACCS)". These systems are operated by NACCS Center.

NACCS promptly and accurately handle customs procedures, legal procedures related to non-customs systems (e.g. food, plant quarantine, animal quarantine, trade control, port EDI) and other tasks related to international cargo and shipment handling.

NACCS is an on-line network system, composed of a computer system used in communicating with the center, and a terminal system located in each of the customhouses, customhouse brokers and other related industries connected with telecommunications lines. NACCS structure data exchange with inter-corporate systems on the EDI method. Now NACCS process approximately 95 % of all import and export customs declarations.

(2) Sea-NACCS

Sea-NACCS process customs procedures and private companies related services for import and export cargoes by sea. For imported cargoes, the on-line process begins with the arrival of a vessel in a port and continues through the unloading of sea cargoes from a vessel, import declaration and the approval of import. For exported cargoes, the on-line process is applied to a series of customs procedures and private companies related services including the delivery of sea cargoes to the Customs area(e.g. Customs warehouse), export declaration, the



approval of export, the loading of cargoes to a vessel and departure from a port.

Sea-NACCS adopted UN/EDIFACT in submitting arrival report and list of loaded cargo, application for departure, etc. UN/EDIFACT Messages used in Sea-NACCS are as follows:

CUSRES (Customs response message)
CUSREP (Customs conveyance report message)
CUSCAR (Customs cargo report message)
PAXLST (Passenger list message)
CODECO (Container gate-in/gate-out report message)
COPARN (Container announcement message)
IFTMIN (Instruction message)
APERAK (Application error and acknowledgement message)
CONTRL (Syntax and service report message)

In addition, WCO customs data model is going to be introduced into Sea-NACCS about export declaration (EX1) all over this year.

(3) Air-NACCS

Air-NACCS process customs procedures and private companies related services for import and export cargoes by air.

For imported cargoes, the on-line process begins with the arrival of an aircraft in an airport and continues through the unloading of air cargoes from an aircraft, import declaration and the approval of import. For exported cargoes, the on-line process is applied to a series of customs procedures and private companies related services including the delivery of air cargoes to the Customs area (e.g. Customs warehouse), export declaration, the approval of export, the loading of cargoes to an aircraft and departure from an airport.

2.1.6 EDI in Japanese Financial Sector

Since March 1996, a function for financial EDI has been available in *Zengin* System, an electronic payment system mainly used for domestic credit transfer. Payer firms can attach a twenty-digit matching key, with which beneficiary firms can reconcile commercial and payment date, to payment instructions sent through *Zengin* System.

This function has been succeeded to its fifth-generation system, which start operation in November 2003. In parallel with the development of the new system, a working group of Japanese Bankers Association examined the possibility to introduce a scheme for financial EDI using XML. However, it has decided not to introduce such a scheme for the time being as there are legal and technical issues to be addressed.

MT103 Remit, which is a new message type of SWIFT's FIN for customer payment and has the financial EDI capability, is widely used in Japanese banks. By using MT103 Remit, payers can attach EDI data of up to 9,000 digits and of any type of formats including EDIFACT to a payment instruction. However, Japanese banks use SWIFT messages mainly in cross-border transactions, partly because the protocol and formats for most Japanese payment systems



are incompatible with those for SWIFT.

Turning to C2F area, electronic methods to transfer money between individuals' bank accounts are widely used in Japan. According to a survey conducted in March 2005, funds transfer services are provided through the Internet by 79.2 percent of the 456 respondent banks. In addition, services using mobile terminals (e.g., mobile phones) are provided by 80.3 percent of the respondents.

2.1.7 Port Logistics Information Network System (POLINET)

POLINET, operated by POLISA (Port Logistics Information System Association), formerly called as SHIPNETS, is the first cross-industry EDI network system in Japan and has been in service to exchange shipping documents among the freight forwarders, ocean carriers, tally companies and sworn measurers at major sea ports in Japan since 1993.

POLINET has become to handle UN/EDIFACT and (Japan's local) CII standard and proprietary message formats, in addition to the traditional SHIPNETS standard message formats, and expanded the scope of the application areas to cover the import, terminal and container operations, warehouse, land transport and settlement activities, in addition to the export activities since 1998.

POLINET implemented a new Internet EDI system using the Internet technology in February 2001, and after that it has started operations of an enhanced version of the Internet EDI (Phase II) system as well as an "eForwarder" ASP service since April 2002.

The Internet EDI (Phase II) system comprises Web-POLINET and Cyber-POLINET, both of which interface with the traditional VAN-to-VAN POLINET. The system offers a format conversion capability between the Web, SHIPNETS and UN/EDIFACT formats built in the application server. The Web-POLINET has improved the ability to relieve the input burden as well as the easiness to use. It is an economical EDI system easy to use and is suitable to small sized users who have no in-house system.

Meanwhile, the eForwarder ASP service is an outsourcing system covering a freight forwarders business applications package, which is capable to efficiently process the freight forwarders day-to-day operations, including import, export documentation, warehousing, billing activities. The utilization fee for the service is set low as compared with the cost actually developed individually. The users are free from the system maintenance burden and may keep the investment risk minimum. It is expected the eForwarder ASP service will contribute to expedite the diffusion of EDI in the port logistics community in Japan.

In 2002, POLISA carried out an investigation and study of XML/EDI which will be useful for EDI promotion of a medium and small-sized business. As a result, a port & harbor logistics XML/EDI standard guide (the first edition) was made, and it was published in March, 2003.

Continuously in 2003, POLISA tried a proof experiment of mutual connection and cooperation between different private networks using XML/EDI (between POLINET and TEDI, and between POLINET and BOLERO). Based upon the proof experiment, a guide was devised and announced in April, 2004. This guide aims at improvement in convenience of EDI network



users and shows informative guide for private EDI networks to perform mutual network connection in order to exchange business information seamlessly between different networks.

NACCS Center announced "mutual connection EDI specification" to link Sea-NACCS and a private network in November, 2003. POLISA studied a business plan to connect POLINET and Sea-NACCS on the basis of this specification. Consequently, POLISA plans development of a Sea-NACCS/POLINET connection system, starting network connection service from the beginning of 2006. It is expected that freight forwarders can reduce input burden by using this service. It is also expected that EDI ratio becomes higher through expansion of the range of the EDI business partners.

2.1.8 Port & Harbor EDI System

This year's hi-lighted event is that "New simplified application forms for the ship arrival" are scheduled to be adopted which are full aligned with IMO FAL application forms. The new application will be in service in November 2005. The port & harbor EDI system has been developing the new electronic application system.

The "Port & Harbor EDI System" (Port EDI System in short) has been in service since 12th October 1999. WAVE (Waterfront Vitalization & Environment Research Center - non-profitable organization) has been assigned to develop, operate and manage this system by Harbor Bureau of Ministry of Land, Infrastructure and Transport, Japan. The parties concerned of this EDI system are Port Authorities, Harbor Masters and Shipping Lines or their agents.

Since the launch on 12th Oct. 1999, the numbers of participants in the Port EDI System is increasing. As of end of June 2005, 113 Port Authorities, 99 Harbor Masters, 109 Guard and rescue offices, 83 Quarantine offices, and 1109 shipping lines, their agents or private berths are members of this system.

Shipping lines/agents have two options to transmit data required electronically, by UN/EDIFACT messages or through the web-screen (Web-EDI).

In the 1st stage, two UN/EDIFACT messages, BERMAN (Berth management message - UNSM in D00A) and APERAK have been implemented. Adding these two messages, an application of "dangerous (hazardous) goods handling operations (IFTDGN)" has been implemented in October 2000, thence expand to other major ports within this year. In order to implement IFTDGN, we cooperated with PROTECT Group (a users group to develop a harmonized user guidelines in Europe, and their latest version of user guidelines was endorsed as an international standard by IMO) to develop the harmonized message implementation guideline (MIG). Furthermore, we are modifying/changing BERMAN to cover more functions of pilot/tugboat service requirements in cooperation with TBG3 (Transport Sub-working Group under TBG).

Adding IFTDGN, two applications "vessel's long term schedule and previous called port information (IFTSAL)" and "Passengers' and crews' information (PAXLST)" also have been implemented in October 2000.

With regard to the reducing redundant input data item issue, we are collaborating with the



customs authority, the immigration authority and the quarantine authority to provide an electronic data input environment for users (shipping lines/agents), so-called "Single Window (SW) " methodology. This is in service in July 23rd 2003, and once users transmitted Port-in/out related declaration or application data to the portal system, the data is automatically transferred to the related authorities. In Japanese SW, both the Port EDI system and the Sea-NACCS system play a part of portal system. The Port EDI system provides three input methods which are a web screen input, an application program on user PC and UN/EDIFACT messages, for the SW portal system.

Lastly WAVE has been dispatching their representative to various international meetings, such as TBG3/ITIGG (an official subgroup of TBG3 to develop harmonized MIG's) and other global users' group (SMDG) so as to develop and implement harmonized MIGs to be used in our system.

2.1.9 Travel, Tourism and Leisure (TT & L)

The initial EDI activity in the travel related industry in Japan started in 1992 soon after the establishment of TT&L work group in UN/EDIFACT. In order to internationally sell Japanese travel products, more than 30 travel related companies and associations have kept working to normalize the travel business processes and data using XML/EDI based on the standards and specifications of UN/CEFACT Forum and OTA (Open Travel Alliance) in the name of EC Promotion Organization for Travel Industry. The first working results on the Japanese specific hotels (Ryokan) undertaken by the Organization were submitted this March to the Forum to be facilitated in the Small Scaled Lodging House Information Project and are now in its harmonization process. The second version will be ready to be submitted to the Forum during this year. The TT&L EDI meeting with Taiwan was held in Feb. in Taipei and in Dec, 2004 in Tokyo among the industry members of the two countries, and will be maintained between the two countries this year to be opened to many other Asian countries.

2.2 Education and Awareness Programs

2.2.1 JEDIC (Japan Electronic Data Interchange Council)

JEDIC holds seminars for education and awareness of EDI every year on a quarterly basis. The programs focus on i) the introduction to EDI, ii) the current status of EDI in the leading industries, iii) EDI over the Internet, iv) cross-industry EDI, v) ebXML technical standards, vi) e-Japan strategy of the national government, vii) e-market place in various industries, viii) the IT revolution, ix) an overview of ebXML, x) core component usage, xi) the introduction of UN/CEFACT Modeling methodology, xii) the basis of IC tags(RFID) and traceability, and so on.

2.2.2 ECOM (Electronic Commerce Promotion Council of Japan)

ECOM holds seminars every month. The contents of programs include i) the information technology and management strategy, ii) Electronic Commerce(EC) and IT investment, iii) EC and social economy, iv) EC and legal issues, v) EC and the protection of personal information, vi) alternative dispute resolution, vii) electronic government services in many overseas



countries and Japan, viii) EC and supply chain management, ix) logistics and EC, x) the measure of EC diffusion in small and medium-sized enterprises, xi) the next generation EDI and traceability, and so on.

2.2.3 JASTPRO (Japan Association for Simplification of International Trade Practices)

JASTPRO holds "EDI seminar" every year. The contents of the programs include;

- 1) Current status of Trade Facilitation and EDI
- 2) Characteristics of Japanese EDI in trade area
- 3) Port EDI system under single-window service
- 4) Japanese trade EDI activities with Asian counterparts

2.3 Status of ebXML Development

For implementing the e-Business Collaboration based on ebXML, the Model Sharing among the related business entities is the key. The Next Generation Electronic Commerce Promotion Council of Japan (ECOM, Chairman: Takuya Goto, Chairman of the Board, Kao Corporation) is performing activities which contribute to decision of the technical standard about a "core component" and the "modeling methodology" of ebXML. Furthermore, the activity for spreading use of ebXML technology through the actual business of Japan and Asian countries is also carried out.

In order to promote this, ECOM officially announced the guide of the check method employed in the experiments for checking the interconnection of the software products supporting ebXML, which many companies produce commercially.

2.4 Working Groups and Committees

2.4.1 JEC

Japan EDIFACT Committee (JEC) was established in July 1990 as a supporting organization for UN/ECE/WP.4 (currently UN/CEFACT) and Asia EDIFACT Board (currently AFACT). JEC is composed of committee members representing various field of industry, which includes trade, finance and manufacturing. JEC sends delegates to AFACT meeting every year.

2.4.2 TAG (Technical Assessment Group)

With regard to the development of UN/EDIFACT standard messages, TAG has been playing a key roll in technical support by making technical assessment of DMR(Data Maintenance Request) from UN/EDIFACT users in Japan. TAG members have reviewed the translated MDR (Message Design Rule Rev.5 & Rev.6), main points of EDIFACT Syntax Rules Ver. 4, as well as Ver.1.2 of MACH (Message and Code Handbook) and they had ten meetings in 2004. They also studied about XML/EDI in line with the UN/CEFACT Forum groups work.



2.4.3 Japan Committee for UN/LOCODE

UN/LOCODE has been in use in Sea-NACCS and Port EDI system since 1999. For the purpose of successfully introduce these systems, the committee was established in 1997. Currently the number of the registered UN/LOCODEs for Japan counts 1,616 in comparison with 400 at the beginning. The roll of the committee is to maintain the codes and make a request for new codes in Japan. In the future, it is intended to enhance the roll of the committee to encompass UN codes other than locations.

2.4.4 Special Committees

(1) Trade Procedures Simplification Committee

In the aftermath of the September 11 terrorist attacks in the United States, demand for the measures to assure tighter security is rapidly increased. Under such circumstances, to satisfy the needs of the international trade environment in terms of efficiency and security becomes universal concern among the parties involved. Since Japan fully rely on trade activities with other part of the world, it is an ultimate issue for Japanese trade community to find the solution to obtain adequate security without interfering efficiency in trade.

In the work program of this committee for this year, primal focus is placed on the research of security measures on various aspects of trade procedures. Some of these are already implemented, others are on the process of being implemented, and the rest are possible future plan. Analysis and evaluation is given to the effect of such measures onto the efficient trade flow. Security measures initiated in the private sector is also studied.

By gathering and sorting out all these available information, some directive condition for effective implementation of security measures in the trade procedure will be sought.

(2) Trade Network System Research Committee

The committee member visit an oversea country in order to study and research trade network systems from the viewpoint of trade and procedures facilitation. The outcome is reported to the trade industries and authorities concerned. The committee visited UK in 2003 and Korea in 2004.

(3) Trade Procedures for XML/EDI Implementation Research Committee

XML/EDI using internet is the hottest theme in EDI business. XML/EDI is regarded the next-generation EDI that resolves the problems in legacy EDI and Web-based (Internet) EDI. JASTPRO launched this committee in order to study possibility of introducing XML/EDI concept into trade procedures. This approach is important to re-use resource of UN/EDIFACT and to keep inter-operability between UN/EDIFACT and XML/EDI. The committee continues to extend their efforts to simplify tag name for data element in UN/EDIFACT and explores the area of trade procedures based on object-oriented model.



2005 Country Progress Report : KOREA

SECTION I - GENERAL CONDITION UPDATE

1.1 User Status

1.1.1 PC Penetration in Household

As of June 2005, 78.5% of total Korean household have PCs, which is 1.4% increase compared to June 2004.

1.1.2 Internet Users

As of June 2005, there are 32,570,000 Internet users (71.9% of total Korean population) in Korea. The number includes wireless Internet users as well as communication line Internet users. Compared to the number in June 2004, there is an increase of 1,900,000 Internet users. Analysis of Korean Internet users by gender shows that 77.4% of males and 66.3% of females use the Internet.

1.1.3 Broadband Penetration

As of June 2005, the ways for Korean household to access Internet are xDSL (87%), cable modem (10%), phone modem (2%), and others (1%). More than 97% of household connects to the Internet via broadband (xDSL and cable modem).

1.2 eCommerce Market Status

1.2.1 eCommerce Trade Volume

The eCommerce market in Korea grows continuously year-by-year as shown in Table 1. The total eCommerce trade volume in 2004 was 305,286 million US dollars, which was about 34% increase compared to the total eCommerce trade volume in 2003. B2B remains as the most dominant type of eCommerce with the share of 89% in total trade volume.

Table 1 - 2004 Korea eCommerce Trade Volume

(Unit: Million USD, %)

Year	Total	B2B	B2G	B2C	Other
2002	172,832	151,349	16,166	4,902	415
2003	228,445	201,064	21,028	5,924	429
2004	305,286(100)	271,578(89)	26,583(8.7)	6,262(2.1)	863(0.2)

(Source: Korea National Statistical Office, May 2004, \$1 USD ≈ 1020 KRW)



1.2.2 Korea e-Marketplaces

There are 234 e-marketplaces in Korea as of December 2004. Compared to the number of e-Marketplaces in 2003, there is a decrease of 26 e-Marketplaces (10%) while the trade volume increased 42.8% from 7,254 million US dollars in 2003 to 10,360 million US dollars in 2004. The reason for increase in trade volume despite decrease in number of e-Marketplaces is due to the fact that some e-Marketplaces are closed because they failed to make profits in competition even though there is an increase in eCommerce trade. When e-Marketplaces are analyzed by business area, the most dominant area was international trade (33) followed by machinery & industrial materials (26), electronics (26), MRO (23), etc.

1.2.3 Cyber Shopping Malls

As of December 2004, there are 3,444 cyber shopping malls in Korea. Out of 3,444 cyber shopping malls, 322 are general retailers and 3,122 are specialized retailers. Compared to 2003, 86 more cyber shopping malls were in operation in December 2004

Table 2 - 2004 Number of Cyber Shopping Malls in Korea

	Number	Percentage
General Retailers	322	10.7
Specialized Retailers	3,122	89.3
Total	3,444	100

(Source: Korea National Statistical Office, May 2005)

1.2.4 G2B Market

The total trade volume of G2B eCommerce is 26,583 million US dollars as of December 2004, showing gradual annual growth pattern. Out of total G2B trade volume, 36% was made through purchase of goods & services and 64% was through construction.

Table 3 - 2004 G2B Market Size in Korea

(Unit: Million USD, %)

Year	Total	Purchase of Goods & Services	Construction
2002	16,166	6,602	9,564
2003	21,028	8,175	12,853
2004	26,583(100)	9,541(35.9)	17,043(64.1)

(Source: Korea National Statistical Office, April 2005, \$1 USD ≈ 1020 KRW)



SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

2.1 EDIFACT/XML based Standards Development

In Korea, all type of electronic messages (EDI, XML and XML/EDI) are standardized by KEC (Korea EDIFACT Committee). Since September 2004, KEC held its regular biannual meeting twice (Dec. 2004 and May 2005) and approved 63 new XML messages (51 in public procurement and 12 in stationery) and revised 1 XML message (Electronic VAT Bill). As a result, there are 417 Korea standard messages (263 EDI, 53 XML/EDI and 101 XML).

2.2 ebXML Promotion and Development

In an effort to promote e-Business in Korea, KIEC consistently promotes ebXML as the focal point of UN/CEFACT and a member of OASIS. Regular ebXML promotion activities of KIEC include operation of ebXML Korea Committee, holding of regular e-Business/ebXML workshop, and management of Korea ebXML website. KIEC also contributes to international ebXML standardization by participating in the meetings of annual UN/CEFACT Plenary, biannual UN/CEFACT Forum and ebXML Asia Committee.

In addition, KIEC manages Korea ebXML Central Registry & Repository (REMKO) as a measure to provide e-Business standards contents to Korean market. As a result of regular content registration, REMKO currently maintains KEC approved standard electronic messages, code list of electronic messages (XML & EDI), company profiles, basic semantic registers, ebXML related contents, etc. As a measure to enhance its functionality and user-friendliness, REMKO was linked to Basic Semantic Register in 2004 and started providing English interface in 2005.

KIEC is also committed to promoting ebXML interoperability. To promote interoperability among ebXML messaging service solutions in Asia, KIEC contributed to the successful completion of ebXML Asia Committee interoperability test & certification program as the secretariat of ebXML Asia Committee. In December 2004, KIEC prepared an open forum to discuss interoperability issues by holding the “International Interoperability Conference” in Seoul, Korea.

As a measure to provide guidance on how to use ebXML standards, KIEC has published various guidelines and multimedia material. KIEC upgraded “XML Message Development Guideline,” which is based on ebXML standard, to version 3.0 and published in April 2005. KIEC also prepared “e-Business Standard Implementation Guideline,” a guideline for implementing ebXML in B2B e-Business, and published in early 2005. Both guidelines were approved in the 22nd KEC meeting held in May 2005. For efficient promotion and better understanding of ebXML, KIEC developed ebXML multimedia material based on the result of real ebXML application project.

For ebXML adoption, one Korean solution vendor (Torpedo) developed ebXML messaging service and registry soft wares and started providing those solutions to the Korean market. From the user side, the Korean Ministry of Government Administration & Home Affairs (MOGAHA) started its project to implement ebXML messaging service as a messaging protocol to exchange public/administrative documents with its affiliate organizations.



SECTION III – TRADE FACILITATION / eBUSINESS / eCOMMERCE RELATED PROJECT UPDATES

3.1 eBusiness Programs/Projects

3.1.1 e-Learning Promotion Program

The sales volume of e-Learning market in 2004 was 1,263 million US dollars; according to the research conducted by KIEC, the e-Learning market size is expected to be 6,609 million US dollars in 2010. With the full recognition of rapid growth of e-Learning and importance of e-learning as one of next generation growth dynamics, Korean government is preparing and implementing various e-Learning policies and programs to secure the leadership in e-Learning in global economy.

KIEC, as the e-Learning industry promotion agency designated by the e-Learning Industry Development Act, works on a variety of activities in e-Learning policy, standardization and international cooperation, human resource development and promotion. For e-Learning policy, KIEC conducted a “research on the status of Korean e-Learning industry” as well as two studies (one on “preparing a measure to nurture e-Learning specialists based on demand from businesses” and the other on “case study of SCORM introduction in Korea”) in 2004.

For e-Learning standardization and international cooperation, KIEC participated in contributed to the work of ISO/IEC JTC1 SC36 as well as AEN Conference. For the specific cooperation in ADL (Advanced Distributed Learning), KIEC concluded an MoU with the US Alexandria ADL Co-lab in April 2005. As a first measure for ADL cooperation, KIEC hosted the “1st Korea-US ADL Workshop” in July 2005 in Seoul Korea. The specific future cooperative measures in ADL include joint study on SCORM, translation of ADL document, localization of ADL software, operation of Korean ADL mirror site, exchange of experts and SCORM certification program.

For the promotion of e-Learning, KIEC hosted the “e-Learning Expo 2004” in October 2004. To provide comprehensive information on e-Learning, the e-Learning White Paper was published. Also, the e-Learning Policy Forum is operated by KIEC to cultivate e-Learning policies through open discussion among experts from government, businesses and academic field. In addition, for the promotion of standard-based interoperability among Learning Management Systems (LMS), a 3-year program to support the development of 5 relevant technologies was initiated in 2004.

3.1.2 e-Business Human Resource Development Program

To nurture quality e-Business human resources, KIEC manages such programs as certification program for e-Business training, financial support to colleges with e-Business program, financial support to e-Business graduate school with Industry-Academy joint program and e-Business Human Resource Center.

In 2004, the certification program for e-Business training certified 7 e-Business training institutes and 29 e-Business training courses. In 2004, 6 universities (three universities in eTrade, two universities in ERP and one university in e-Marketplace) were selected in the financial support to colleges with e-Business program and 5 graduate schools were selected for the financial support to e-Business graduate school with Industry-Academy joint program. The e-Business Human Resource Center provided 27 times of training to around 800 people with 20 courses from 2004 to 2005 to nurture e-Business specialists.

In 2005, KIEC supported two programs for the development of overseas human resources.



One was the “PIAP-Vietnam Ministry of Trade Study Mission on the Development of a National eCommerce Strategy” in January 2005. Through the support of this mission, KIEC provided e-Business lectures, arranged visits to eCommerce companies and field trips for the Vietnamese delegation (11 Vietnamese government official). The other was the KOICA-Colombo Plan Joint Training Course on Venture Management and E-commerce Applications from May 29 to June 11 2005. The program provided relevant training to 15 Asian delegates and included lectures on venture management and e-Business, visits to venture & e-Business companies and field trips. Both programs were managed by e-Business Human Resource Center of KIEC.

3.1.3 G4B System

The G4B system is government one-stop service portal for businesses. The system is intended to support the activities of businesses throughout the whole business lifecycle and mainly composed of three services – service for online support of corporate administrative affairs (for example, applying for government license, business registration, etc.), service on industrial information and network linking service & additional service.

The G4B system also provides community support and adopted SSO (Single Sign On) function for the convenience of users. After the 1st stage project to establish the system, the G4B system is open for service as of September 2005. The 2nd stage and consequent projects are to be followed for the enhancement of the G4B system.

3.1.4 Other programs/projects

Other e-Business programs includes such continuous programs as the eTrust certification program for consumer protection in eCommerce, the Electronic Commerce Mediation Committee (ECMC) for alternative dispute resolution of eCommerce dispute, the Electronic Commerce Resource Center (ECRC) for overcoming geographical Digital Divide and the B2B Pilot project to support the installation of B2B infrastructure in industrial sector.

As of August 2005, there are 68 commercial websites certified with eTrust Mark. For the year 2004, the number of disputes received and mediated by the Electronic Commerce Mediation Committee were 1,032. In 2005, there are 26 ECRCs operating in various provinces of Korea. For the B2B Pilot project, there industries (Freezer/Ventilator, Pottery/Tile and Aerospace) were selected for support in 2005. The number of industries supported by the project totaled to 48 as of 2005.

3.2 Trade Facilitation

Korean government is committed to promote eTrade as a measure to increase the competitiveness of Korean business in borderless global trade environment of the 21st century. The eTrade Facilitation Committee, established to prepare an eTrade infrastructure, completed eTrade ISP/BPR in 2004. The 1st year project to establish an eTrade Platform was completed in June 2005 and the 2nd year project is expected to be launched in October 2005 with the goal of opening eTrade Portal in September 2006.

Korea Customs Service (KCS) is currently conducting a project to establish an Internet customs clearance portal for businesses to selectively use EDI Clearance service or Internet Clearance service depending on their business environment. The project is launched according to the “Mid & Long-term Development Plan for Informatization of Customs Administration.” The system will be open for service by the end of 2005.



2005 Country Progress Report : MONGOLIA

SECTION I - GENERAL CONDITION UPDATE

1.1 Status of E-Commerce Development

Today, the role of Information and Communication Technologies (ICT) in development has been recognized by businesses, governments and individuals around the world. It has spawned entirely new industries, transformed existing ones, and become a global cultural phenomenon.

The ability to communicate and exchange information instantaneously and across vast distances has enabled more individuals and businesses to participate in the economy, regardless of their location. The ICT is literally enabling some developing countries to "leapfrog" the industrial revolution and jump straight to the Information Age. ICTs provide Mongolia with the opportunity to develop its economy, reduce poverty and improve the quality of life of the people.

Therein, information and knowledge circulate at unprecedented speed and affect all aspects of life and economic, political and social activity. In this information age, it is the ability to use effectively and efficiently the information and communication technologies that determine a country's competitiveness and relevance in the global economy.

The Information and Communication Technology market in Mongolia is effectively liberalized and the incumbent, Mongolia Telecom Company (MTC), has been partially privatized. Mobile operators currently provide 70% of the total customer connections and account for over 50% of sector revenues and are growing more rapidly than the incumbent.

Years 2003-2004 were special for ICT development in Mongolia. The ICT department established at Ministry of Infrastructure initiated and drafted the series of IT laws, which broadly discussed among representatives of businesses, government and non-governmental organizations as well as among media representatives. Mongolia recognizes ICT as the intensifier for the development of the country in the 21st century. As a result of the Mongolian Parliament Election in 2004, the Democratic and the Mongolian Republic's Revolutionary Party jointly established a Memorandum that states a design, development and implementation of the "e-Mongolia" program as a nation-wide program on ICT sector development in the country. In addition, the action plan of the coalition Government gives a superior significance to ICT sector and puts forward many important respective objectives. In accordance with this, the current document was drafted by the Information and Communications Technology Authority (ICTA) that has been established recently as a government institution responsible for overall policy formulation, planning, implementation and coordination of all ICT related activities throughout the country.



1.2 ICT law & regulation/infrastructure

Mongolia has four laws on ICT, but is still in the drafting stage.

1. IT General Law

Content Summary:

- 1.1 It defines roles and responsibilities of Government entities for IT.
- 1.2 It should be a general or umbrella law of other IT related laws.
- 1.3 Promote IT sector itself. The structure of IT general Law is similar to Mongolian taxation Laws.

2. Transaction Law

Content Summary:

- 2.1 Legal recognition of electronic form of transaction
- 2.2 It enable and promotes on-line business
3. Government Law

Content Summary:

- 3.1 Government is a Content Provider
- 3.2 Government information database its Reliable operation of Government information system its Security
4. E-Signature Criminal Law

Content Summary:

- 4.1 it describes conditions of using e-Signature
- 4.2 It related issues and details about certification
- 4.3 It gives the penalty description of illegal obtain and intrusion

Improvement of networks along ministries/agencies, low-cost informatization tools such as PCs and Internet, introduction of solutions for information security are required.

Current Status

- Although every civil servant is equipped with a PC, the work performance is not successful due to poor capacity of the computers. (Ministry of Roads, Transportation and Tourism, Ministry of Fuel and Energy, and Ministry of Foreign Affairs)
- As investors develop information system according to their specifications, technical problems in compatibility occur.
- The ISP provides the network of 256 kbps with the Government/public. However, the speed is slow because they share the network.
- A lot of internet users organizations are not equipped with LAN.



- A virus of the computer influences on the whole network and decrease the performance of firewalls.
- General Citizens do not have high-capacity PCs due to their high prices.
- Local governments and general citizens do not have Internet accesses because the service is too expensive.

People

Mongolia currently has few people, who can use PC/Internet and poor manpower in ICT education. Therefore, needs of enriching ICT professionals and strengthening people's ICT education are required.

Current status

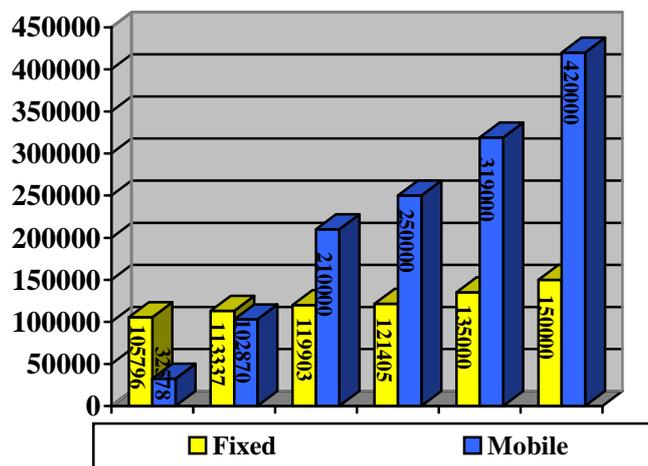
- Although they have education centers, the ICT education is not successfully delivered due to the lack of ICT professionals who can teach ICT. (e.g. Programmers, network experts, system integrators, etc)
- Poor education on ICT makes people cannot access to the information on the Internet. (e.g. People who do not know how to use the Internet)
- ICT related education should be enriched and effort to enhance people's attitude towards informatization should be carried out.
- The resident of Ulaanbaatar city have some knowledge of how to use the Internet, however, people in rural areas have no knowledge of it.
- Working-level officers use PCs practically, but high-level officers do not. Therefore, paper-oriented approvals are currently carried out.
- Most government organizations and private companies do not have organizations in charge of ICT, and they lack of ICT experts.
- Poor development of ICT is led by high-level officers who do not utilize PCs.

1.3 Informatization Status of Mongolia

1.3.1 Telephony Market

Current Telephony Market has lower usage of about early 20%. Fixed telephony market growth is tied up, but cellular market growth is relatively high.

- Telecom Market Growth
 - The adaptation of new technologies in the telephony communication sector is extremely rapid compared with traditional technology.
 - The growth rate of cellular telephony is very while that of fixed telephony is tied up.



- Tele-density
 - As of end of 2004, telephony density per 100 persons was 20.7 nationwide. This is lower portion than that of any other developing country.
 - Today, the density of cellular telephony is triple that of fixed.

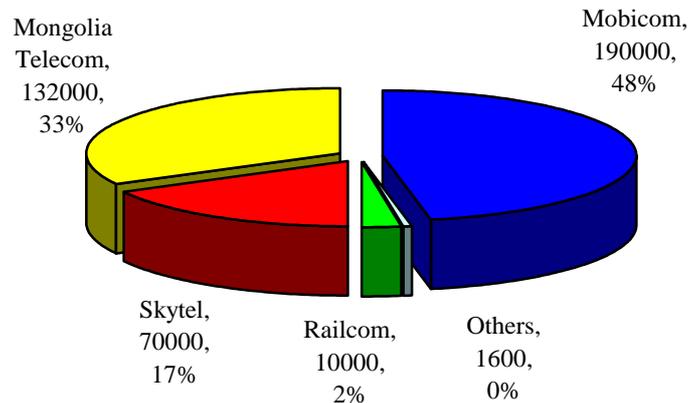
Growth in the number of fixed and cellular subscribers

Type	The # of subscriber	Density per 100	Service company
Fixed	150,000	5.4	Mongolia Telecom, Railcom, Others
Cellular and WLL	420,000	15.3	Mobicom, Skytel, Mo
Total	570,000	20.7	

Mobicom and Skytel are the main providers in the mobile/cellular telephony market. And Mongolia Telecom is the first provider in the fixed telephony market.

1.3.2 Mobile Telephony Market

- Mobicom Co.,Ltd, the first provider of cellular service, began its operations in March of 1996, which was a joint work with Japan`s KDD and Sumitomo Corporation.
- Skytel Co.,Ltd, the second cellular service provider, started its operation in July 1999, which was a joint work with Korea`s SKT Co., and Taihan Electric Wire.



Mobicom`s GSM services are provided all over the Mongolian territory, and Skytel`s CDMA services are provided in Central and Eastern areas.

- GSM Network Coverage (Mobicom)-All province centers and some summons
- CDMA Network Coverage (Skytel) are 9 sites.

Fixed Telephony and International Calling Market

- Mongolia Telecom, the first provider of fixed telephony, is a joint stock company of which 60 % is owned by Mongolia and 40 % by KT, Korea.
- There are six companies which have prefix codes for an international call gateway. Digital transmission of 34Mbps is available through an NEAX61 exchange between Naran station and Intersat and Intersputnik.

International direct dialing codes

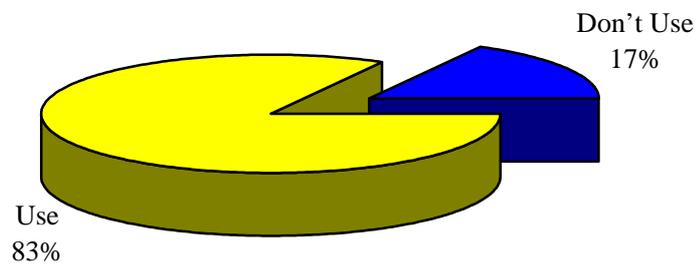
Company	Prefix Codes
Mongolian Telecom	001
Sky C&C	002
Mobicom	003
Micom	004
Incomnet	005
Railway authority	006



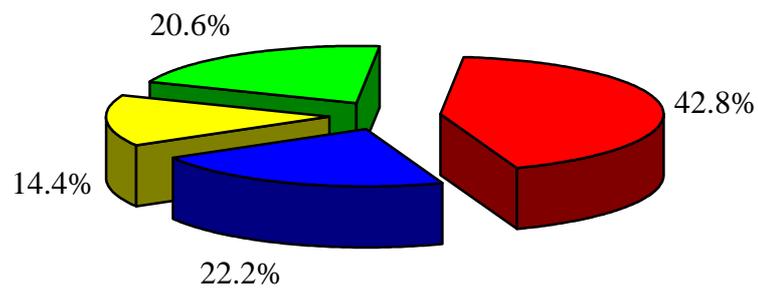
1.3.3 PCs

PC Usage-end of 2002

- Number of PCs: 69 000
- PC Usage by Ulaanbaatar is about 83 %

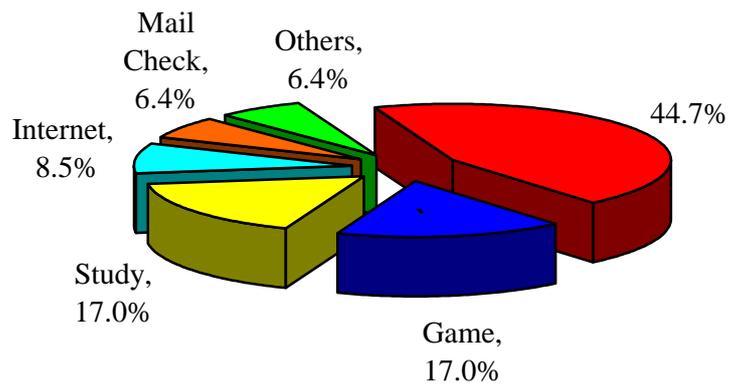
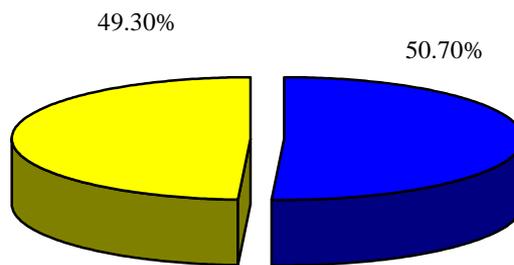


- They use PCs mainly in workplaces



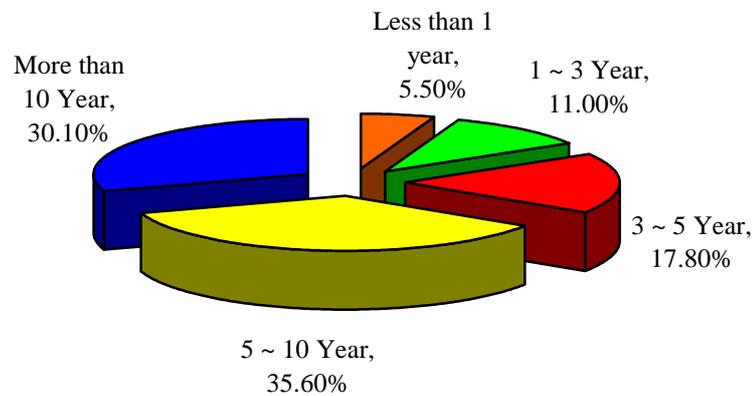
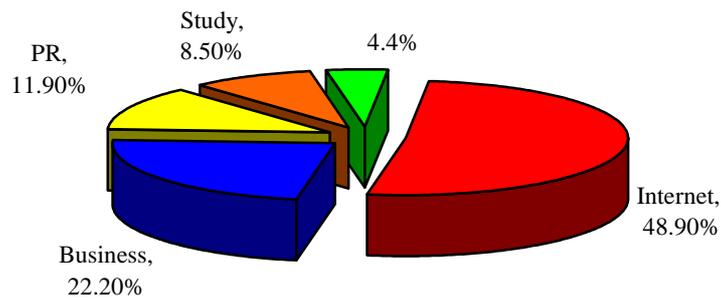


- Citizens: About half of citizens around downtown of Ulaanbaatar have PCs at home and they mainly use PCs for businesses.





- Government: All officials have PCs mainly for Internet/businesses.

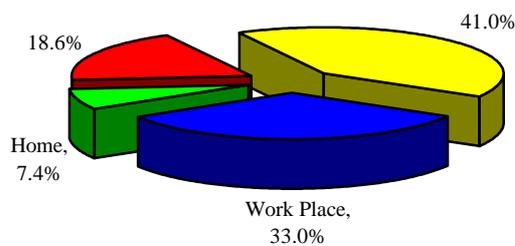


1.3.4 Internet

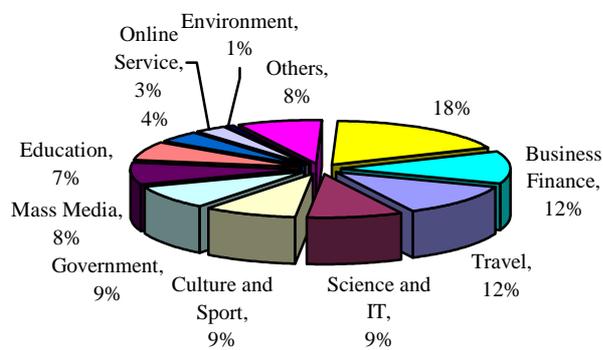
The internet services are in poor conditions due to the connection problems: more than 50% of the users are using modems or they do not have connections, and less than 10% use internet at home.



- Connecting Methods
 - Only a half of citizen accesses to the internet, of which connection is done by modem
 - Companies also mainly use modem to connect the internet, but Government uses LAN.
- Internet Usage
 - Workplaces are main internet accessible places



Contents types of Mongolian Website are various.





1.3.5 Internet service

Mongolia Internet Exchange (MIX) has been operating in order to save traffic congestion in the satellite link by inter-local transactions among the Mongolian ISPs, and also to provide users better latency time of the local transactions and to reduce international leased lines since 2001.

Internet services are provided dial-up, ADSL, high-speed connection but the services level is still beginning stage. And especially the internet users in rural areas are very limited due to high change of long distance communications, low speed connection and less opportunity of PC buying or using

- Internet service provider
 - First internet e-mail service in Mongolia was started in 1994 by Datacom;
 - Full internet services were appeared in early 1996, and at eight (8) ISPs who belong to commercial based private company or academic/government function, are operating. They are MT (Micom), Mobicom (Mobinet), Datacom (Maginet), Bodicom, MCScom, Onet at Erdenet aimag, CSMS (Erdemnet, as education network) and Mongolian Railway Company (RailNet).
 - All Mongolian ISPs except RailNet connect with world networks through gate point of Tier 1 or tier 2 of United States located in US or Hong Kong via satellite.
 - The newly opened ISP RailNet has a link to Trans Telecom in Russia through his own fibre optic cable.
- Internet service
 - Services available at Ulaanbaatar are 56 kbps dial-up connection by all ISPs
 - 8Mbps ADSL connection by Micom
 - High-speed 64 kbps, 128 kbps or 256 kbps connection by railNet.
 - Dial-up connection`s throughput speed in Ulaanbaatar seems to be around 24-48 kbps and 9-14 kbps in Aimag or Sum.
- Rural area`s internet service
 - Internet users in Aimag/Sum are very limited
 - For example, a 10-years junior high school only uses Internet at a Sum. That low penetration rate and less access to Internet from Aimag/Sum are mainly due to high charge of long distance communication (in addition to provider`s fee, 7 Tg local charge and 20 Tg local distance charge per minute are required), low speed connection lack of consumable money of the peoples and less opportunity of PC buying or using.

1.3.6 National Transmission Network System

While nation`s main transmission connections are carried out by digital and analog microwaves, most areas do not have any detour backup connection for network errors.



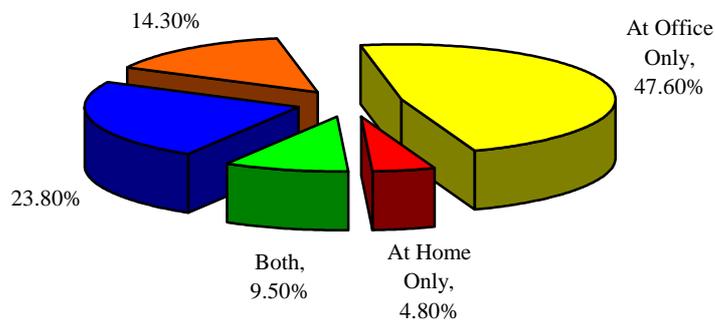
The current network lines need to be improved for providing proper and essential public services and preparing for network failures.

- Network
 - Most of national backbone network is based on Microwave, but some part of the nation use the optical fiber cable.
 - The speed of network is : Digital Microwave (155 Mbps), Analog Microwave (34 Mbps), Optical Fiber (622 Mbps, 155 Mbps)
 - There is no existing back-up line network failure.
 - The service facility of ISP Company is deteriorated.
 - In the back region, VSAT is the common communication tool.
- Telephony
 - GSM network coverage is for the whole nation, but CDMA network coverage in limited to a certain area.

1.3.7 Education

44.7 % of students in rural areas do not have opportunities for informatics education, and 23.8% of informatics teachers do not have computers for themselves.

- Information teacher
 - 23.8% of informatics teachers don't have opportunities to use computers in any places, and 57.1% at office only. It indicates that 42.9% of informatics use computer in their labs.





- According to the survey, 45.2% of informatics teachers use internet. The answers differs in places : 85.7% in Ulaanbaatar, 63.6% in aimag centers, and 25% in soum.
- Student
 - In rural areas, 44.7% don't have informatics education.
 - 77.4% of surveyed students use computer labs.

Current Information Status of Mongolia – ICT Education (Distance Learning Center (DLC))

The establishment of DLC project is to connect and provide ICT training program between capital city, Ulaanbaatar city, and 21 aimags. Therefore two stages are completed so far ; DLC in 14 aimags and 2 centers in Ulaanbaatar city.

Some information

- 128 kbps ISDN bandwidth (leased from MTC)
- DLC and its branches are under control of department of education in each aimag
- The learning center has rooms with 20-30 trainees.
- Online training with live feedback
- Simultaneously access anywhere and anytime
- Transfer training materials between teachers and students in real time
- Server computer in the center for DB Management and monitoring

1.3.8 E-Government

The first stage of Mongolian e-Government Planning is analyzing stage such as current status analysis, benchmarking analysis and technology trend analysis. The Mongolia policy analysis is targeted five documents which are Action Plan, e-Mongolia, Concept of ICT development of Mongolia by year 2010, Medium-term strategy for development of the ICT sector in Mongolia and Action Plan for implementation of the medium-term strategy for development of the ICT.

For sharing essential information among ministries of Mongolia, the integration of systems and database of the government has to be done with defining system standardization.

- Application
 - Various development tools and languages are used without standard architecture.
 - Many application is being developed recently, but many of them are using stand-alones.
 - The database does not have standard architecture, but they adapted mainly MS structured Query language 2000.
- Database
 - The volume of the database is usually small.
 - The free software is commonly used for Database such as MySQL.



- Many free software are used for Operating System. /Linux, free BSD, etc/
- Server
 - Windows based PC servers are usually very weak against viruses and most of ministries do not have the security server.

MICOM is an ISP company to provide services to the government. As the network configuration does not provide a Dual Network System, the network service is not available when an error occurs.

1.3.9 E-commerce and E-literacy

The draft of “e-Mongolia” program for policy on ICT Development highlights the following attitudes:

📌 Establishment of the basic environment of e-commerce

1. Establish a legal environment for e-commerce: applying to the e-commerce, need some amendments in regulations such as Information security; electronic contract, signature, seal; subscriber’s and ISP’s right and responsibility etc;
2. Create citizen’s and legal entity’s credit history

📌 Creation of the database and information management system for e-commerce

1. Create centralized database in order to deliver fast, open service for consumers, businesses and industry.
2. Establish a Business Monitoring Centre, whose duty is to monitor trade movements in key trading countries
3. Establish an environment to make interbank and international transactions electronically

📌 Development of the payment and security system

1. Develop guidelines for systems on payments and money transfer through electronic media in order to support e-commerce
2. Establish a flexible and effective central agency for the maintenance of the security and safety of e-commerce system
3. Implement security and safety measures in the public sector database, along with an emergency unit in each core agency

📌 Development of the supportive infrastructure and its components

1. Develop IT industries, particularly software industry and projects on a national scale, in order to drive e-commerce development
2. Support research and development by focusing on the creation of standards, innovation of prototypes

📌 Establish government e-procurement system to be achieved transparent procurement system



1. Review existing procurement guidelines with a view to reduce the total life cycle of procurement for improved transparency and with provision of a rewarding scheme for the experts involved in the evaluation process.
2. Develop e-Procurement guidelines based on success stories.
3. Launch few selected test projects for procurement based on e-Procurement for evaluation for adoption.
4. Construct e-Procurement models for pilot initiatives.
5. Creation of websites for procurement and tendering giving lead to e-Commerce.

☞ Improve ICT literacy for all

1. Organize touch typing contest
2. Broadcast TV lessons on ICT usage
3. Promote Help desks
4. Develop certification of the ICT knowledge
5. Develop Interactive computer training software

☞ User friendly guides and textbooks will be developed

1. Localize ICT terminology and develop glossary in Mongolian
2. Organize ICT exhibitions and ICT days in Ulaanbaatar and aimags with test demonstrations
3. Develop user friendly and simplified textbooks similar to “Dummies” serials

☞ Up to 10 day-to-day applications will be developed and used by the citizens

☞ e-Rider teams will be established and organized e-riding to all aimags

1. Organize software contest on day-to-day applications
2. Localize some free and open source applications
3. Establish e-Rider teams to support remote and disadvantaged users.

☞ The number of active and dynamic websites will reach 3000

☞ .mn domain names will lower to affordable level

☞ Automatic web translator will develop and used by the users

1. Organize web awards and promote the best web sites
2. Increase template web sites in order to simplify web development by non-IT professionals to maintain web sites
3. Reduce price of .mn Domain names and promote business and government entities to have own domain names and websites
4. Promote automatic English into Mongolian and vis-versa translation systems to make possible translating English websites
5. Support web developments in educational purposes
6. Translate and adapt global well-known and informative web sites

☞ The number of computer users is will increase up to 10 per 100 inhabitants

☞ Internet connection cost will reduce till 10% of average salary



☞ Activities of the CIC will renovate for the citizens' service

1. Extend community information centers (CIC) at aimag centers
2. Reduce Internet connection cost
3. "Computer for families" project
4. Extend broadband network
5. Locate free public Internet points in public places such as airport, railway and auto stations, cinemas and etc.
6. Establish new community information centers in all soums

1.3.10 a) FDI in ICT sector of Mongolia /Appendix No1/

b) Number of foreign invested companies in ICT sector of Mongolia /Appendix No2/

2.1 e-Chamber activities/ Information Technology Council

As the MNCCI perceives and becomes aware of achievements in the IT sector have positive impacts on the country's economy, thus our Chamber attaches of great importance and gives high priority to the future development of this sector. With objective of establishing and expanding information service market by promoting IT sector, transferring foreign trade documentation procedure into e-form, such as e-Chamber, e-custom and developing e-commerce information system in Mongolia, Information Technology Council of MNCCI is operating at the Business Investment Support Center.

In 2005, MNCCI are aiming at

1. Transferring each traditional services of Chamber into on-line form and play as a leading role to develop e-commerce in Mongolia;
2. Improving Information Technology knowledge of chamber staff and to become e-performance of staff as one of main indicators to evaluate their work performance.
3. Raising awareness of e-commerce application to business community.

In order to support the policy to promote export oriented activity and domestic product, the Chamber has conducted study in the first season of 2004 and presented 6 proposals on promotion of products of software companies to Public-Private Consultative Committee. Also on September, 2004 the Chamber has submitted the proposals from the members of IT Council and organizations who deal with IT sector by dividing into 4 groups named as infrastructure, government service-e-government, business, and education to the Guideline of the Government.

In order to simplify business operation by modifying its internal management system and converting Chamber's offline services into online, we have worked out a draft proposal entitled "E-Chamber". Within the framework of this project, we proposed to undertake a number of activities such as the followings:

- Renew Local Area Network of the Chamber and its application;
- Establish technical conditions for transferring some services of the Chamber into on-line form within the framework of the Chamber's purpose to become an E-Chamber;



- Improve the Chamber's and local Chamber's staff knowledge on information technology and assess their e-performance regularly;
- Establish combined information database/Portal core; to give better and timely services to the business community;
- Cooperate with governmental, non-governmental organizations and IT related companies in efficient and active way on development of e-commerce in Mongolia.

2.2 "e-Chamber" project introduction

Mongolian National Chamber of Commerce & Industry, a leading business representative body of Mongolia, aims to be a main voice of the business communities by protecting their common interests and rights. We would like to introduce this project with the following purposes:

1st: To activate and increase the use of information technology and internet based service among Mongolian business communities;

2nd: To become e-Chamber which leads in all sectors of the society by information technology in Mongolia;

3th: To transfer chamber service into online service and improve chamber's internal management;

The results of the project will be basic support to encourage sustainable development of the country, decrease poverty and decide multilateral issues of development by wide usage of information technology, promote social activeness in the countryside, and to strengthen entrepreneurship between business communities.

Therefore, the National and Local Chambers should improve each Local Area Networks, establish combined information base - PORTAL CORE, organize training for target group and advertise the usage of IT among business communities. These basic objectives are best solution for the project to be implemented successfully in the current situation of IT in Mongolia and its legal environment.

Within the framework of the main purposes of the project, we put forward the following objectives:

1. To renew Local Area Network of the National and the Local Chambers;
2. To establish combined information base of the National Chamber
3. To organize trainings for target groups
4. To advertise project implementation process to social and business communities;
5. To submit proposals of the Information Technology Council at the MNCCI to the Public & Private Sector Consultative Committee;

2.3 MONPRO-Trade Facilitation Committee

The government of Mongolia recently implemented policies to establish a free tariff system and trade liberalization and obtained success to some extent; however, there are still many barriers and problems in foreign trade due to some incorrect foreign trade policies, tariff and



non-tariff matters, and technical and administrative problems. Today, within the framework of activities related to trade facilitation and increasing trade efficiency, smoothening and quickening the service to business communities without bureaucracy and making clear any export and import related information and permission are extremely necessary.

With a view to facilitate foreign trade transaction through streamlining rules and regulations and simplifying and optimizing procedures, the Chamber established the Trade Facilitation Committee, named MONPRO, on May 30, 2005, as a sub-committee of the Public Private Partnership Consultative Committee. The MONPRO sub-committee has equal representation from both the public and private sectors, including key government authorities, non-governmental organizations, sector associations, and individual enterprises.

The MONPRO Committee's target is to bring both the public and private sector together; enhance their collaboration with the objective of facilitating domestic transport and trade and eliminating border crossing obstacles to trade, tariff and non-tariff barriers; and improve procedures for foreign trade documentation. In order to enhance the efficiency of activities of the Committee, we give great importance to working closer with foreign counterpart Committees in the field. During the first session of the MONPRO Committee, members of the committee discussed and approved its rules and plans for 2005.

The main activities of the MONPRO Committee will be as follows:

- Research, analyze, optimize, and coordinate the national rules, procedures, practices, and documents related to foreign trade and international freight forwarding services.
- Submit proposals and recommendations on developing a set of optimal rules and regulations on trade to the Public Private Partnership Consultative Committee.
- Standardize documents, forms and instructions indicated in foreign trade rules and regulations.
- Work actively to introduce e-form in foreign trade documentation.
- Consider laws and regulations related to foreign trade and international transportation before submitting proposals to make additions and changes.
- Start cooperating with the other PRO Committees, gain experience and implement joint projects and programs.
- Organize bilateral meetings on foreign trade rules and regulations with neighbour countries.
- Organize trainings on rules and regulations of customs, export, import, and transportation; make member companies in the foreign trade and freight forwarding service field participate in the trainings; and conduct a questionnaire on training subjects.
- Establish communication with other international organizations with the same goals.
- Divide sectors into several working groups such as e-commerce, transportation, and training.

The Committee has a right to submit its proposal on trade facilitation discussed by the members of the Committee to the Public Private Partnership Consultative Committee.

The Committee has a right to include its proposal on trade facilitation into the Activity Plan of the Chamber.



1.3.10 a) FDI in ICT sector of Mongolia

No	Country name	Total	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005.6
1	Japan	8,638			8,000			60	21	72	21	64			400
2	South Korea	8,606						120	3,037	87	45	108	113	73	5,023
3	Netherlands	4,000											4,000		
4	China	2,509		140	808	373	63		15	5		199	80	436	391
5	Singapore	973				825		6			142				
6	China/ Hong Kong/	600				600									
7	Bahamas	215							15			200			
8	Virginia islands of UK	200													200
9	USA	142		32		8				2	12			10	78
10	Belgium	103							103						
11	Russia	84	45	15			10			10					4
12	India	65												65	
13	Austria	50							50						
14	China/Taiwan/	30						30							
15	Germany	25								25					
16	Great Britain	21						21							
17	France	15									0			5	10
18	Bulgaria	6											6		
19	Canada	5												5	
20	Malaysia	3											3		
21	Sum	26,288	45	187	8,808	1,805	73	237	3,241	201	220	571	4,202	594	6,106



b) FDI in ICT sector of Mongolia

No	Country Eng	Total	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005.6
1	China	20		1	3	4	1		1	1		2	2	3	2
2	South Korea	20			1	1			3	1	3	5	2	3	1
3	Japan	11			1			1	2	3	2	1			1
4	Singapore	7				2		2			3				
5	Russia	5	1	1			1			1					1
6	USA	5		1						1	1			1	1
7	Bahamas	2							2						
8	France	2												1	1
9	Austria	1							1						
10	Belgium	1							1				1		
11	Bulgaria	1													
12	Canada	1				1								1	
13	China / Hong Kong/	1													
14	China /Taiwan/	1						1							
15	Germany	1								1					
16	Great Britain	1						1							
17	India	1												1	
18	Japan, France	1									1				
19	Malaysia	1											1		
20	New Zealand	1					1								
21	Sum	84	1	3	5	8	3	5	10	8	10	8	6	10	7



2005 Country Progress Report : PAKISTAN

SECTION 1 - GENERAL CONDITION UPDATE

1.1 Introduction

Pakistan is the second largest country of South Asia after India with a population of 150 million. It is an important member in the world community for its strategic location, skilled manpower, natural resources, and English-speaking nation. Pakistan is global focus of world community due to current geopolitical circumstances, its moderate policy and is the gateway to Gulf and CIS countries. GDP of Pakistan grew 8.4 % during 2004-05, whereas Purchasing Power Parity (PPP) is US\$2000/per capita.

1.2 ICT Developments in 2004-05

ICT spending was also increased in public and private sector. Most of the spending was on ICT infrastructure, especially in Telecom sector. Investment from overseas telecom has tremendously increased due to transparent deregulation of telecom sector, and about US\$2/billion has been invested in telecom sector during last one year. Independent analysts have predicted promising future for ICT in Pakistan.

Government in Pakistan has laid the foundation of ICT future by changing the basic policy of monopoly on telecom sector and handed over telecom operation to private sector, with open and healthy competition among telecom operators.

Government of Pakistan has declared ICT one of the four pillars of national economy, and playing the role of the facilitator, enabler and promoter of the ICT in the country. Ministry of IT & Telecom has ownership of ICT Development in the country; it is also providing resources for e-Government projects and guiding stakeholders on various projects. All four provinces have Ministry of Information Technology and they are working closely with federal and provincial institutions for development of ICT in their provinces.

Trade and finance sectors have shown tremendous growth in 2004-05. International trade and services has increased by 25% and financial sector has also improved its profitability by over 50%. Capital market has attracted overseas investment with increase of KSE index more than 50% in a year.

As a result of policies adopted by the Government following is progress in ICT:

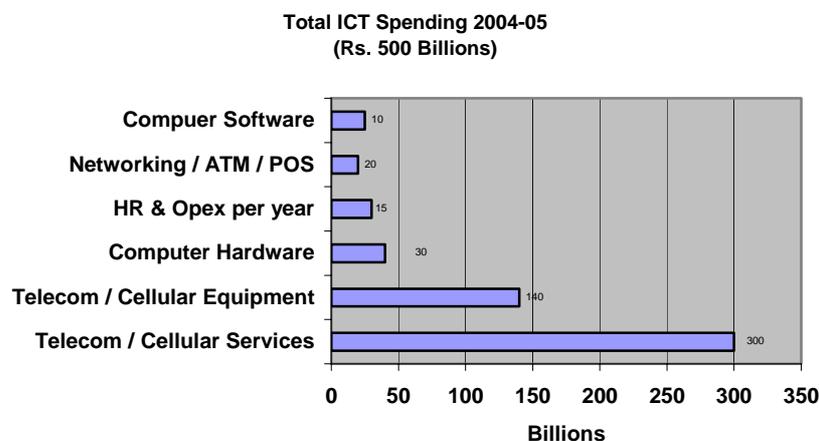
- ICT total investment and spending increased to over *US\$7/Billion*
- Telecom sector has been deregulated. US\$2/B investment received during last two years and US\$10/B investment is expected in next five years
- 150 ISPs / DNOPs licenses have been issued, 70 are in operation



- Internet users are over 5/Million
- Mobile phone users increased to over 14/Million
- 2000 cities and towns are connected to Internet
- 4500 Internet cafés are in operation
- 225,000 Public Call offices are operating in the country
- International and domestic telecom tariff has been drastically reduced
- Personal Computers population is over 4/Million
- 1,000,000 PC units sold in 2004-05
- 35,000 graduates at Masters and Bachelor of computer science / engineering are studying in accredited public and private sector Universities
- Software exports and services are over US\$300/million
- Several call centers for overseas operations are working
- E-Govt. projects under implementation are over US\$200/million

Pakistan - After a slow start following the transition from a regulated state-owned monopoly to a deregulated competitive structure, Pakistan's telecom sector is now moving into a period of what could well be phenomenal growth. Fixed-line penetration stood at a low 3.5% (5.3 million lines) in early 2005 and there is plenty of room for further expansion. The government is continuing to pursue its targeted national teledensity of 7% (around 10 million lines) by 2010. To achieve this target, around 1 million additional lines need to be installed every year. Pakistan's mobile sector, which had started to grow strongly over the last few years, rocketed to 10.5 million subscribers (7% penetration) by April 2005 and was gearing up for further growth. The mobile population has been increasing at a staggering 120% annually.

The government's reform plans are being progressively implemented and this is certainly starting to have some impact on the market. Two new operators - Warid Telecom and Telenor Pakistan - following a decision by the government to issue two additional mobile licences, have joined the country's four mobile operators. (One of the new arrivals, Telenor, attracted over 650,000 customers in the first two months following launch.)





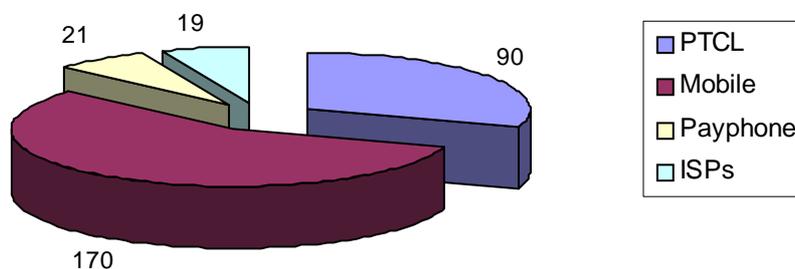
1.3 Telecom Infrastructure:	Dec-2001	June-2004	June-2005
Fixed Telephone lines	4.2 m	4.94 m	5.4/m+
Mobile phones	800 k	5.2 m	14/m+
ISPs / DNOPS	90	130	150
PCOs	98 k	200 k	225/k
Cities connected through Internet	400	1,700	2100
Internet users	700 k	4/m	5/m+
e-Mail users	1.5 m	5/m+	6/m+
Cyber Cafes	500	3,500	4,500
Bandwidth	32 Mb/s	600+Mb/s	800+Mb/s
Bandwidth Tariff Red'n	\$87,000	<\$3,000	\$2000/2Mb/s
Fiber Connectivity	53 Cities	360 cities	400+ cities
% Digitalization	90%	100%	100%
Landline Tele-density	2%	3%	3.6%
NWD locations	1,400	1,750	2000
Domestic BW Tariffs		70% reduction	80% reduction

Rs.300 billion Turnover

Telecom Sector

(July 2004 - July 2005)

Telecom services turnover (in Rs. Billion)

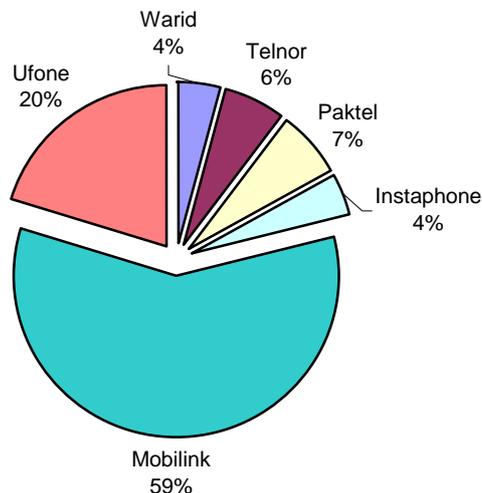




1.4 Deregulation of Telecommunications and its impact

Pakistan telecommunication sector had remained a monopoly for a very long time. Telecommunication sector has been liberalized with the announcement of Deregulation Policy on 13th July 2003 and exclusivity of PTCL in basic telephony has been abolished. So far Pakistan Telecommunication Authority (PTA) has issued 12 LDI and 76 LL licenses in addition to 92 WLL licenses. Similarly, PTA has also issued 2 new mobile service licenses to international companies through open auction. New telecom operators have contributed over Rs. 30 billion in deregulation process. With all this, telecom sector of Pakistan is now open for competition.

Cellular Operators Market Share - August 2005



1.5 Investment in Telecom sector

New telecom companies have promised huge investment in the telecom sector in coming years. PTA has issued two cellular licenses to foreign based companies, Telenor of Norway and Warid Telecom of UAE @ US\$ 291 million each in transparent auction on 14th July 2004.

Mobile operators have announced to invest more than USD 2.4 billion just in infrastructure and Mobilink is investing around USD 831 million in next three years. Similarly Telenor and Warid, the newly licensed operators are investing around USD 495 million and USD 325 million respectively during 2005-07 in addition to the license fees. Telenor in next 5 years is going to invest approximately USD 1 billion in Pakistan. LDI and WLL operators are also planning to invest USD 411.77 million during 2005-2007.

With six mobile companies operating in Pakistan now, tele-density in mobile sector has increased to 9% of the population, most of the users are in urban areas, whereas fixed lined



tele-density is 3.5+% now. There are opportunities for growth in fixed lines as well as mobile sector and telecom

companies are investing in this area aggressively. Several local and international companies have heavily invested in International calling business as the VoIP has been legalized, this sector has increased tremendously during last one year; main reason has been large number of overseas Pakistanis (5/m) living around the globe.

Pakistan Telecommunication Company Limited (PTCL)

State owned telecom operator PTCL has been privatized now, 12% stake in PTCL is in the hands of employees and a limited number of private investors. Authorities have completed the sale of 26% of PTCL controlling stock on the open market. The successful bidder for the stake was Emirates Telecommunications Corporation (ETISALAT) of the United Arab Emirates, which paid US\$2,570 million in partnership with Dubai Islamic Bank. Following are salient features of the largest fixed line operator in Pakistan;

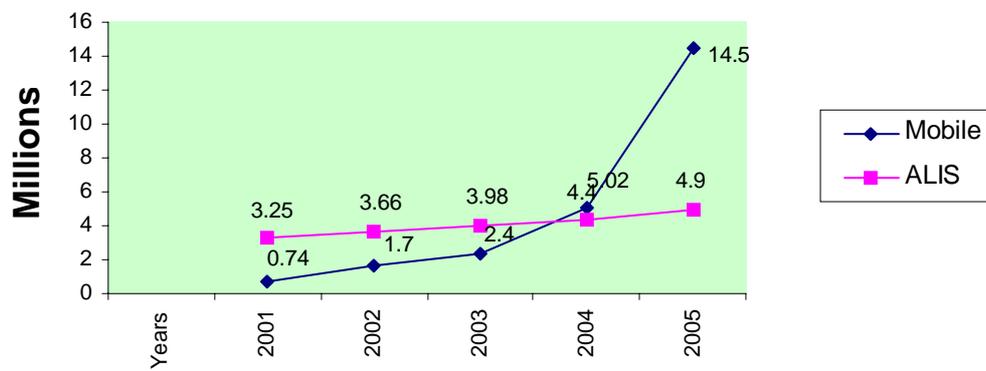
Fixed Line Capacity	5.4 (M)
Telephone Subscribers	4.7 (M)
Exchanges	3020
Countries on ISD	242
Customer Services Centers	155
Long Distance VHF PCO's	3101
Total Length of Main Fiber Optic Link	4591 KM
Optical Fiber Short Haul Links	159.1 KM
Optical Fiber Spur Links	4462.7 KM
Internet Services	2063 Cities
Digitalization	100%

Countrywide Connectivity through Giga Bit Fibre Optic Network

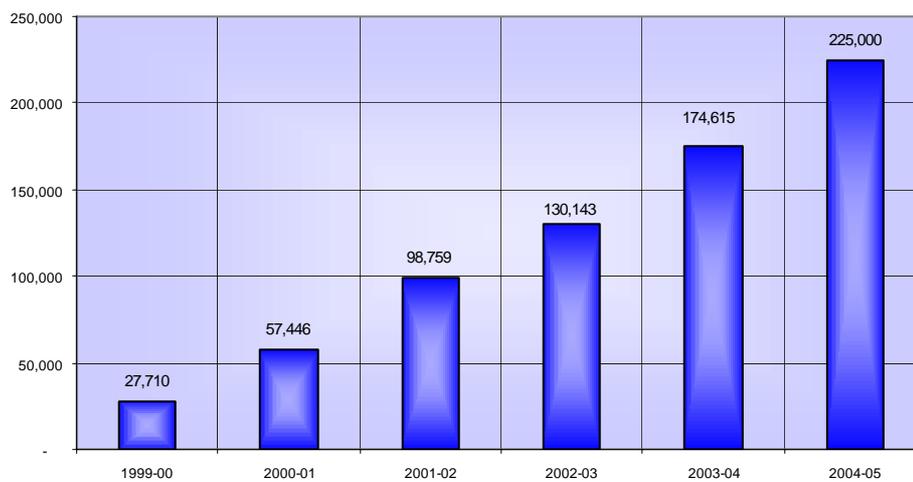
- * PTCL moves with laser beams to Giga Bit Technologies.
- * Illuminates over 10,000 km fibre cable across the country.
- * Global connectivity increased from 5000 to 8000 circuits.
- * International submarine cables, high capacity domestic fiber optic backbone rings.



Mobile Subscribers vs. Fixed Line Subscribers



Growth of PCOs in Pakistan





1.6 IT Sector in Pakistan

With most of the global IT company presence in Pakistan, and with revenues growing by 30-40% year on year, the IT industry is probably the most exciting and dynamic sector in the country today. An industry characterized by about 75,000 professionals, major ongoing IT projects within the government and the private sector to the tune of hundreds of millions of US dollars, and world-class software product and services companies bears testimony to the vibrancy of the IT and IT enabled services sector in Pakistan. The convergence of communications, computing, and entertainment has resulted in the blurring of boundaries between disciplines and IT companies now come in all shapes and sizes. IT has indeed been taken out of the closet and has been mainstreamed into every aspect of industrial and economic activity within the country.

As of now in August – 2005 the size of Pakistan IT industry is estimated to US\$1/billion/year with average growth of 35%/year.

Following are some of the leading global companies operating in Pakistan with healthy growth every year. Over 50 overseas IT companies are operating in Pakistan.

Company	2003	2004	2005
Oracle	30	40	70
IBM	20	20	25
NCR	25	30	35
Microsoft	20	30	30
Intel	30	30	35
Cisco	20	30	50
Revenue Growth (%)			

(Source: Pakistan Software Export Board)



Statistics of the Pakistani IT/IT enabled services

Total Number of IT companies working in Pakistan	500 (Registered PSEB Members)
Number of substantial IT companies	335 (Active PSEB Members)
Number of companies ISO certified	70 with another 30 due to be certified by June 2005
Number of companies CMM Assessed	One CMM Level 5 company, One Level 4. 5 ready for assessment at CMM Level 3 by March 2006
IT and IT Enabled Services Exports during 2004-2005	US\$ 48.50 million, reported State Bank of Pakistan
Percent growth in Exports	45% over Fiscal Year 2002-2003
Export target for the current fiscal year 2005-2006	US\$ 72 million (State Bank transactions)
Annual Software Industry Turnover	Around US\$ 70-80 million
Number of IT graduates produced per year	About 5,500
Number of Universities offering IT / CS programs	45
IT Professionals engaged in software export development	About 6000-8000
Call Center agents working for international clients	About 2,500
Total number of IT professionals employed in the country	About 75,000
Total IT spending in fiscal year 2003-2004	About US\$ 600 million
Total amount of space utilized in STPs	600,000 sq ft
Cost per E-1 connection (2MB)	US\$ 2000 per month

(Source: Pakistan Software Export Board)

1.5 Legislation for e-Laws:

Govt. of Pakistan has promulgated Electronic Transaction Ordinance for legal acceptance of electronic transactions in the country. Cyber Crimes Law, Data Protection Law, and e-Payment



have been drafted and ready for legislation. E-Commerce Resource Centre – Pakistan has played the key role for promulgation of e-Laws and to create awareness among Legal, corporate, Govt. and Banking sector.

1.6 Digital Certificate:

Certification Authority (Verisign) has been established in private sector, by NIFT, to issue the digital certificates to corporate and citizen. The digital certificates are available now in Pakistan.

SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

2.1 Internet Merchant Account

- Internet merchant account facility for Small and Medium Enterprises exporters is available through Citibank. Goods and services are being transacted successfully through payment gateway since last 3 years.

2.2 B2B Exchange for International Trade

The basic purpose of the project is to provide a B2B Electronic Document Exchange for International trade and services. The goals to be achieved are:

1. Enable electronic exchange of commercial documents in domestic and international trade.
2. Design standard forms, redesign reporting and approval procedures for bill of Entry/Exports, I/E forms, registrations etc.
3. Develop consensus among Customs, State Bank of Pakistan, Export Promotion Bureau, Ports, Shipping Lines, Airlines, clearing and forwarding agents, traders, banks, trade and industry associations and other stakeholders on standards.

Status:

- Clearing agents and exporters / importers can submit online data / transactions for export and import transactions to Customs.
- A new Pakistan Customs Computerized System (PACCS) is being run on at Karachi International Container Terminal. PACCS is an implementation of Microclear from



- PWC Logistics, Kuwait.
- The Ministry of Commerce has been executing the Trade and Transport Facilitation Project (TTFP) since 2001, financed by a World Bank loan, with technical assistance from UNCTAD. TTFP introduced the Pakistan Goods Declaration (GD) form to replace old manual shipping bill.
 - SMEDA (Small and Medium Enterprise Authority) has launched Industrial Information Network portal (www.iin.gov.pk) for B2B trade match making. SMEDA is already playing a lead role in facilitating small and medium enterprises for their business needs.
 - Export Promotion Bureau has launched B2B matchmaking portal (www.epb.gov.pk) to facilitate exporters and importers. EPB, an arm of Ministry of Commerce, leads the efforts to facilitate exporters and importers and looks after international trade.

Major developments in Electronic Customs Clearance (PACCS)

One Window

PACCS is a one-window system and that window opens in your own office. You can connect to PACCS over the web and carry out all your activities related to Customs from anywhere in Pakistan. Whether you are importing or exporting all that you require is a User ID, a computer and an Internet connection.

24X7 system

Our motto is “come on in we are open”.

PACCS is a twenty four by seven system. With PACCS you can clear your cargo 365 days a year, day or night.

Paperless environment

PACCS is completely paperless. You do not have to file any documents to Customs, even your declarations (Bills of Entry, Shipping Bills, Refund applications, etc) are all electronic and available online.

Virtual System

PACCS is independent of geography. You can import, export and conduct all other activity with Customs from anywhere in the country. For instance, you can file your declaration over the web from your head office in Islamabad, pay your duties through an [Online Bank](#) from a field office in Lahore and get your goods cleared for a factory in Karachi. Our prime concern is the facilitation of taxpayers and not the turf of Customs offices.

Automation

PACCS is completely automated. All declarations are processed by highly advanced Processing and Risk Management Systems. All information regarding receipt of request, clearance of cargo etc. are delivered online to your inbox. In case any clarifications regarding



your declaration are deemed necessary you are intimated online.

Self Assessment

PACCS places its trust in you. Under PACCS Customs does not interfere in the process of discharge of your legal liabilities of duties and taxes. You compute and discharge your liabilities yourself before submitting your

declaration to Customs. On submission of your declaration you obtain instant online receipt in the shape of Customs Reference Number (CRN) also known as Machine Number.

Processing of Declaration

The moment a CRN is allotted, the Risk Management System commences the processing of your declaration. Our studies indicate that up to 80% of trade is by responsible and legitimate businesses and does not pose a

threat to the country or the exchequer. In all such cases the cargo will be cleared and you will be intimated online. The process takes less than 15 seconds. In case a threat is detected, detailed scrutiny including examination of cargo may be undertaken.

Please appreciate that PACCS places its trust in you and is committed to facilitate legitimate trade, in the interest of legitimate we are equally committed to ensure that illegitimate trade is routed. Our processing systems are highly sophisticated and designed to detect and prevent illicit practices. In order to avoid delays and confusions later it is advisable to file your declarations carefully and to ensure that correct information is declared to Customs. It is always good to have a second look at your declaration before filing it.

Risk Management

PACCS has a highly sophisticated automated Risk Management System. Under PACCS the traffic of containers flowing through our ports is not disturbed. Customs keeps a vigilant eye on the flow and intercepts only those consignments as are perceived to pose a threat to the country or its exchequer. Such instances are verified and in case the threat is not real, cargo is expeditiously returned to its normal flow. Certain consignments may be verified on random basis.

No un-receipted Expense

All processes of PACCS have been designed to ensure that the trade does not incur any un-receipted expense in clearance of the cargo. Every step of Customs clearance is documented and it is ensured that the tax collectors do not come into contact with the taxpayers thus eliminating any chances of foul play. A transparent system gives Customs officials greater confidence in performance of their duties since they are protected against fictitious allegations of wrongdoing.



Instant Duty drawbacks / Rebates

Under PACCS the Goods Declaration (Shipping Bill) is in itself a request for rebate. Form-E's are not required to be presented to Customs instead Form-E number is entered as part of GD. For sanction of rebate claims you

are not required to await Bank Credit Advices (BCA).

In order to obtain rebates all you have to do is file a Goods Declaration to Customs, your due rebate will be computed and sanctioned to you with the sailing of the vessel. Requirements for filing a separate rebate claim and calculation sheet on receipt of BCA are no longer valid.

SECTION III –TRADE FACILITATION/ e-BUSINESS/

e-COMMERCE RELATED PROJECT UPDATES

3.1 National Trade Corridor

The Prime Minister of Pakistan, after receiving a presentation from the World Bank on the Development of a "North-South Corridor" improvement program in August directed established a Task Force under the Deputy Chairman Planning Commission, with representatives of the Ministries of Communications, Railways, Ports & Shipping, Central Board of Revenue, and the World Bank to prepare a report road map, with in a month, on the steps to be taken, phases for improving the transportation logistics chain, on the basis of the inadequacies and weaknesses identified in the presentation. The report will also identify the main drivers of the proposed measures/strategy. Since World Bank has been force behind National Trade and Transportation Facilitation project in Pakistan, it is expected that Transportation and Logistics Facilitation would be part of this mega project. ECRC has submitted its recommendations to the World Bank representative in this regard.

3.2 Progress in Financial Sector

Financial sector has spent over US\$350/Million during 2004-5 in ICT infrastructure, maintenance, human resource development and services.

World Bank funded US \$ 30 million (5 years) project is being implemented at the State Bank of Pakistan to interlink countrywide regional office network of central bank. RTGS project (US\$6/Million) is also underway at State Bank of Pakistan to provide connectivity with the commercial banks.

37 commercial banks have shown robust performance during 2004-5, and average profitability has increased by over 50% during last one year, with a deposit base of Rs.2500/b. Improved



ICT infrastructure and services has played key role in improving bank's performance and productivity.

3000+ commercial banks branches are online now; out of total 7000 branches in the country. 90% of the urban area branches are online. Over 1000 bank's branches are authorized to deal in foreign exchange.

Several licensed exchange companies are handling foreign exchange business in the country, under guidance and rules of State Bank of Pakistan.

Two ATM switches are operating with countrywide network of over 1100 ATMs. 3.3/Million ATM / Debit cards have been issued with 1/Million credit cards. Smart cards, stored value cards, loyalty cards and pre-paid cards have become part of the culture in urban cities.

Five POS switch networks are operational in the country with 25,000 POS terminals. Two Loyalty card POS networks are also working and doing good business.

Payment gateway by Citibank for Internet transactions (for B2C transactions) is in operation since last three years. Airlines, mobile companies, ISPs and merchants are using the service.

Automated check clearing house (NIFT a Public-Private company owned 51% by banks) is operational in 12 cities of Pakistan, with turnover of 30/m/checks/year. Efforts are underway to establish Electronic Check Clearing House (ECH) operation by next year.

Mobile phone banking services are available with couple of banks, where customer can use it for payment of utility bills, check balance and perform several other transactions online.

Following projects are at various stages of implementation in private and public sector:

- Utility billing with e-Payments
- E-Security Infrastructure
- Mobile Payment Gateway
- E-Money, Digital cash, Smart cards, Offline POS
- Payment Gateway for Internet / POS transactions
- Money Exchanges Reporting
- Workers Remittance project for Non Resident Pakistanis
- Foreign exchange reconciliation for Import / Exports and services
- Capital market integration with payment system

Government sector: Project of US\$37/million funded by World Bank PIFRA project is being implemented in AGPR (Accountant General Pakistan Revenue).

Online Billing project of US\$35/M is also underway for PTCL billing that would be linked to the banks.

Central Board of Revenue has initiated online payment of income tax taxes for taxpayers and for duty payment for importers and exporters, linked with National Bank of Pakistan.



2005 Country Progress Report : PHILIPPINES

SECTION 1 - GENERAL CONDITION UPDATE

1.1 Progress in the implementation of the Electronic Commerce Act

The Philippines passed Republic Act No. 8792 [An Act Providing for the Recognition of Electronic Commercial and Non-Commercial Transactions and Documents, Penalties for Unlawful Use Thereof and For Other Purposes] otherwise known as the **Electronic Commerce Act** (ECA) of 2000, which was signed into law by then President Joseph Estrada on 14 June 2000.

The ECA aspired to “facilitate domestic and international dealings, transactions, arrangements, agreements, contracts and exchanges and storage of information through utilization of electronic, optical and similar medium, mode, instrumentality and reliability of electronic documents related to such activities and to promote the universal use of electronic transactions in the government and by the general public.”

The Department of Budget and Management (DBM) created the **eGovernment Fund** in 2003 by allocating around two percent of the capital expenses, maintenance, and other operating expenses budget of each government agency for e-government projects. Under the 2003 national budget, this amounted to around four billion pesos. Releases from the e-government fund for specific e-governance projects were approved by the policy making Information Technology and Electronic Commerce Council (ITECC).

Executive Order No. 269 "Creating the **Commission on Information and Communications Technology** (CICT)", issued on January 12, 2004 transformed ITECC into CICT with the following strategic mandates:

1. To provide affordable Internet access to all urban and rural communities
2. To build ICT awareness and capability in Philippine society
3. To provide a safe, healthy and competitive ICT-enabled business environment
4. To generate high value jobs in all communities through world-class ICT-based and ICT-enabled services
5. To provide ICT-enabled government services directly to citizens and businesses

The National Computer Center (NCC), one of the member agencies of the Commission, backstops the **eGovernment Development Group** of the CICT and has the following major functions:



1. Government ICT Policy, Research and Standards Development – e.g., preparation/update of the **Government Information Strategic Plan (GISP)**, issuances on ICT Policies and ICT Standards for adoption by the executive branch of government or for consideration by the Legislature
2. Government ICT Program Review and Monitoring – e.g., oversight project portfolio review and monitoring on all projects funded out of the eGovernment Fund
3. Government ICT Consulting Services Office – ICT-related consulting assistance to National Gov't Agencies (NGAs); project management for the **e-Gov Services Portal** and the **eGov Payment Gateway** initiatives
4. Government ICT Field Operations Office (FOO) -- e.g., ICT-related consulting assistance to Local Gov't Units (LGUs) and to field offices of NGAs; project Management for **e-LGU** initiative to automate revenue-generating functions and to establish LGU-owned and managed Community eCenters

The eGovernment Fund was institutionalized as an alternative funding source for mission-critical, high-impact, and cross-agency ICT projects to:

- Provide a facility and mechanism that would provide full funding support for mission-critical government ICT projects;
- Ensure successful completion of high-impact ICT projects that would jumpstart the development and implementation of eGovernment throughout the country; and
- Facilitate the professional evaluation, selection and monitoring of ICT projects that would lead to more effective and/or efficient cross-agency interfaces.

The NCC in cooperation with the National Economic and Development Authority (NEDA), eGovernment Fund Implementation Committee, Build-Operate-Transfer (BOT) Center and the Department of Science and Technology (DOST), has continued to monitor and evaluate the implementation of government ICT projects.

These developments accelerated the implementation of Philippine e-governance projects, particularly for trade facilitation. Among these initiatives, in various states of completion, are the following:

- a. Bureau of Internal Revenue (BIR) Integrated Computerization Project, which incorporates e-submission of government payees, external linkages with government agencies, tax compliance verification drive using mobile technology, computer-assisted audit program, automated excise data management system, and integrated tax system web, among others. The electronic filing and payment system (eFPS) module of the project won the top prize in the Asia-Pacific Economic Cooperation Asia-Pacific Digital Opportunity Center (APEC-ADOC) Awards held in Taiwan.



- b. E-Budget Implementation and Business Continuity, which will support budget preparation for the entire government bureaucracy, and enhances DBM's procedures for generation of analytical/statistical reports on allotment/cash releases, obligations and disbursements to improve programming of the government budget.
- c. Transaction Monitoring and Analysis System (TMAS) of the Anti-Money Laundering Council, to sustain the processing, storage, and analysis of information essential for efficiently carrying out the anti-money laundering policies and regulations in the Philippines.

1.2 Philippine Policy Imperatives for Trade Facilitation

Trade facilitation is the hallmark of the *Philippine Export Development Plan* (PEDP) 2005-2007, as approved by President Gloria Macapagal Arroyo on 15 February 2005. The PEDP is a rolling three-year export plan that forms part of the Medium Term Philippine Development Plan (MTPDP). Its implementation is overseen by the *Export Development Council* (EDC).

The policy initiatives in the PEDP to achieve trade facilitation are as follows:

- a. Streamlining and simplification of procedures – efforts on reducing the number of signatures, documentary requirements, processing time and cost. This requires key government agencies such as the Bureau of Customs (BOC) and the Bureau of Foods and Drugs (BFAD), among others, to automate their clearance procedures.
- b. Accelerated implementation of digital trading systems – development of business matching and account management modules to facilitate matching of foreign buyers with Philippine exporters.
- c. Hastened completion of infrastructure improvements – creation of common services facilities by each export sector with high-capacity digital network for the ICT-enabled services exports in partnership with the private sector.

On 18 May 2005, the President also issued Executive Order No. 428 which directed departments, bureaus, agencies and offices in the Executive Branch of Government, including Government-Owned and Controlled Corporations (GOCCs), to simplify rules, regulations, procedures and reduce reportorial requirements imposed for business and industry, with the aim of eliminating duplication and unnecessary requirements. Specific government office commitments and timelines for implementing the PEDP, particularly the procedural simplification directive of the President, are currently being drawn up by the EDC. Trade facilitation in EDC is being handled by its *Networking Committee on Trade Policy and Procedures Simplification* (NC/TPPS).



1.3 Statistical Information

1.3.1 Telecoms Indicators

The Economist Intelligence Unit (EIU) came up with the following indicators on Philippine telecommunications in its Executive Briefing published in November 2004:

	1998	1999	2000	2001	2002	2003
Telephone main lines ('000)	2,512	2,858	3,109	3,322	3,553	3,692
Telephone main lines (per 100 population)	3.3	3.7	3.9	4.1	4.3	4.4
Phone sets ('000)	4,719	5,459	5,638	5,961	6,075	6,169
Mobile subscribers ('000)	1,714	2,778	6,311	10,876	15,240	22,560
Mobile subscribers (per 100 population)	2.2	3.6	7.9	13.4	18.4	26.7
Internet users ('000)	1,213	3,748	3,909	4,160	4,329	4,502
Internet users (per 100 population)	1.6	4.8	4.9	5.1	5.2	5.3
Personal computers (stock per 1,000 population)	18	18	19	20	20	22
Telecommunications investment (US\$ m)	233	529	145	238	159	98

Sources: *Pyramid Research; Economist Intelligence Unit.*

The EIU noted that mobile communications has been expanding rapidly at the expense of the fixed-line market. Fixed teledensity stood at about 4.4 per 100 persons at end-2003, up only marginally from 3.3 at end-1998. The distribution of fixed lines is highly skewed towards the National Capital Region (NCR, Metro Manila), which in 2001 accounted for 2.95m, or 42%, of the fixed lines available. The mobile phone market, by contrast, has witnessed tremendous growth, with the subscriber base rising to 22.6 million by end-2003 compared with 1.7m in 1998. The number has increased to 32.9 million by end-2004. Prepaid services are particularly popular in the Philippines, accounting for around 95% of the market and helping to push up mobile phone penetration rates. Short message service (SMS) use is high, with the result that wireless data transmission accounts for 38% of wireless revenue. The Philippines is the world leader in the short message service (SMS) mobile-phone market, with mobile-phone operators handling 150m-200m messages per day. Global system for mobile communications



(GSM) and general packet radio service (GPRS) are the Philippines' mobile-phone technology standard.

CELLULAR MOBILE TELEPHONE SUBSCRIBERS 2004

OPERATORS	2002	2003	2004
BAYANTEL	not operational	not operational	not operational
DIGITEL	not operational	732,467	1,200,000
EXTELCOM	* 29,896	29,896	13,670
GLOBE	6,572,185	** 8,800,000	** 12,513,973
ISLACOM	181,614	--	--
PILTEL	1,773,620	2,867,085	4,612,450
SMART	6,825,686	10,080,112	14,595,782
TOTAL	15,383,001	22,509,560	32,935,875
POPULATION	79,476,271	81,054,329	82,652,033
CMTS DENSITY	19.36	27.77	39.85

Population Source: NSCB

** Globe & Isacom subscribers combined under Globe

* No report submitted; based on old report.

Source: NTC website www.ntc.gov.ph

Ownership levels of PCs remain low—only 22 per 1,000 persons in 2003—which in turn has kept a lid on the development of e-commerce in the Philippines. In 2002 the total e-commerce market was worth only around US\$100 million, according to calculations by Forrester Research and the UN Commission on Trade and Development. The total number of Internet users in the country increased to 4.5 million in 2003 compared with 1.2 million in 1998. The Philippines Online Consumer Report for the first half of 2003 says that regular Internet users in the Philippines remain young, predominantly male, highly educated and likely to be employed. Internet use remains dominated by a combination of high disposable income and access through the workplace. With 72 percent of Internet users clustered either in or around Manila, Internet use has yet to reach significant levels in rural or suburban areas.

To determine the magnitude of Ecommerce use of ICT among SMEs in the country, the Digital Philippines Foundation conducted a survey among 498 SMEs in Metro Manila, Cebu and Davao. The survey results showed that 35.7 percent of the firms have used websites primarily for promotion and advertising, 27 percent are into actual selling or purchasing of goods and



services online, while only 5 percent make use of Internet banking, primarily to check balances and transfer funds. Security and privacy concerns constrain users to go into online payment transactions. In a larger scale, the findings implied that usage of ICT services in the country have yet to be maximized, and that ICT services have to be further expanded.

The IT market is expected to be driven by an increasing number of companies adopting e-commerce and e-business methods. In order to accommodate the increasing demand for multimedia services, major telecoms operators have been upgrading existing networks to accommodate high-speed internet access. Fibre-optic digital networks running asynchronous transfer mode (ATM), frame relay, cable Internet and integrated services digital network (ISDN) rollouts were begun in 2000-02. With 2G (mobile phones that can receive images) and 2.5G (mobile phones that can receive images and connect to the Internet) phones considered more appropriate for the Philippines in view of the exorbitant cost of 3G handsets, it will be some years before 3G telephony takes off in the Philippines.

The NTC considers the Internet, as well as Voice Over Internet Protocol (VOIP), to be a value-added service with no licence requirement. A value-added service is a deregulated service and can be provided by both public telecommunications entities (PTE) and non-PTEs. Value-added service providers, however, rely on the transmission, switching and local distribution facilities of local exchange carriers (LECs), inter-exchange carriers (IECs) and international gateway facility (IGF) operators.

TELECOM INDUSTRY STRUCTURE

	2002	2003	2004
LOCAL EXCHANGE CARRIER SERVICE	74	73	73
INTER-CARRIER CARRIER SERVICE	14	14	14
INTERNATIONAL GATEWAY FACILITY	11	11	11
RADIO MOBILE			
Cellular Mobile Telephone Subscriber	* 7	* 7	** 7
Public Trunk Repeater Service	11	11	10
RADIO PAGING SERVICE	11	11	8
VALUE ADDED SERVICE			
With Networks			
Coastal	12	13	18
Broadband	19	19	19
Without Networks	186	249	292

Note: * Bayantel & Digitel not yet operational

** Only Bayantel is not yet operational

Source: NTC website www.ntc.gov.ph



1.3.2 Status of Web Presence of National Government Agencies

As of the second quarter of 2005, 90.9% or 341 of the 375 national government agencies have websites; only 34 have no websites. Majority of national government agencies (NGA) are equipped with Internet access and e-mail facilities in their central offices. Fifty-four percent (54%) currently provide e-services to the public, while 74% of government offices and agencies have existing linkages and 99% have homepages.

Considering the pervasiveness of SMS, NCC conducted a study on NGAs using SMS to communicate with their clients. As of June 2005, based on the NGAs that responded to the 2004 monitoring study, 50 agencies were found to have their own SMS facility mainly to receive from the public any queries, complaints, recommendations, and feedback on their services. A number provide information through structured SMS queries – e.g., TXTOURISM to obtain vital information about a tourist destination, GSIS Infotext for registration and inquiry on loan status, balance and loanable amount, retirement claim status and amount, and retirement claim amount. Notably, the BIR is using SMS for taxpayers to report their monthly sales online, some by direct connection to their CRM/POS machines, and to pay taxes of P10,000 and below.

1.3.3 Status of Web Presence of Local Government Units

As of December 31, 2004 only 15 municipalities out of the 1,694 Philippine local government units (LGUs) were not able to maintain web presence. Out of the 79 provinces, 42 LGUs or 53% have static websites, 26 LGUs or 27% have enhanced websites, and 11 LGUs or 14% have interactive websites. Out of 115 cities, 68 LGUs or 59% have static websites, 32 LGUs or 28% have enhanced websites, and 15 LGUs or 13% have interactive websites. All provinces and cities have maintained an online presence, with the NCC launching at least a static web presence in all LGUs.



As of June 30, 2005 (Source: NCC Website, www.ncc.gov.ph)

NATIONWIDE	With Website		Without Website	Total LGUs
	Total	%		
Cities	115	97.4	2	117
Provinces	79	100.0	0	79
Municipalities	1,481	99.0	19	1,500
Total	1,675	98.9	21	1,696
Luzon	With Website		Without Website	Total LGUs
	Total	%		
Cities	56	96.6	2	58
Provinces	38	100.0	0	38
Municipalities	711	99.7	2	713
Total	805	99.5	4	809
Visayas	With Website		Without Website	Total LGUs
	Total	%		
Cities	31	96.9	1	32
Provinces	16	100.0	0	16
Municipalities	362	96.3	14	376
Total	409	96.5	15	424
Mindanao	With Website		Without Website	Total LGUs
	Total	%		
Cities	27	100.0	0	27
Provinces	25	100.0	0	25
Municipalities	409	99.5	2	411
Total	461	99.6	2	463



SECTION II – EDIFACT/ ebXML/ XML Based Standards Development

2.1 Work on Standards

The Bureau of Product Standards (BPS) is the national standards body of the Philippines. Established by Republic Act 4109 and Executive Order 133, the BPS is a governmental agency under the Department of Trade and Industry (DTI) mandated to develop, implement and coordinate standardization activities in the Philippines. It is primarily involved in standards development and standards implementation and promotion.

The BPS is recognized by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), as the national standards body in the Philippines. In the same way ISO and IEC develop and maintain international standards, BPS formulates Philippine National Standards (PNS) which are normally reviewed every five years or as the need arises due mainly to advancement in technology and alignment with international standards.

The BPS Technical Committee on Information Technology handles the drafting and reviewing of work in the ICT field. Member organizations include: among the private sector, Information Technology Federation of the Philippines, Philippine Computer Society, Management Information Services Managers Association of the Philippines, Philippine Internet Service Organization, and Philippine State Universities and Colleges Computer Education Society; among government, NCC for CICT, Advance Science and Technology Institute (ASTI) for the DOST, and the Department of Transportation and Communication (DOTC).

BPS has already adopted a number of international ICT standards, including standards on electronic data interchange, security techniques and digital signatures. Recognizing the benefits of international standards to Philippine trade and industrial development, the BPS is intensifying its participation in international standardization activities.

Work on ebXML and XML standards is, to some extent, being done by the Philippine Article Numbering Council (PANC), while RosettaNet standards are being developed with RosettaNet Philippines.

2.2 EDI Applications

2.2.1 GTEBNet

The GTEBNet is an electronic system for garments quota management handling export certification, import authorization, submission of textile visa information to the US customs administration, and updates on quota allocations. It is an EDI program operated by the Garments and Textile Export Board (GTEB), a quasi-government organization, since December 1994 and had serviced more than 1,500 garment exporters, with an estimated transaction volume of 240,000 annually. With the abolition of quota restrictions on garments



and textile exports, the GTEB was abolished and the GTEBNet terminated in 2005.

2.2.2 BOC- EDI Gateway

Another system which uses EDI is the EDI Gateway to the Bureau of Customs, which enables the translations of messages to and from EDI formats. EDI messaging is being used for lodging import, warehousing and consumption entries and for receiving Customs assessments of payable duties and taxes.

SECTION III – TRADE FACILITATION/ eBUSINESS/

eCOMMERCE RELATED PROJECT UPDATES

3.1 Automated Customs Systems

3.1.1 ASYCUDA

The BOC implemented an IT based system for payment, clearance processing and shipment release from customs control in 1995. The Bureau utilized a standard software package ASYCUDA, developed by UNCTAD and used by more than 60 countries.

Project Abstract Secure (PAS), a joint undertaking between BOC and the Bankers Association of the Philippines (BAP), allowed payment of duties and taxes to Authorized Agent Banks (AABs). An Automated Customs Operating System (ACOS) allowed an importer or an agent to create one single electronic clearance document using work stations in their offices, which is then sent to and processed by BOC. For those who have not been extended this tele-clearance facility, Data Encoding Centers operated by the Philippine Chamber of Commerce and Industry (PCCI) digitize the paper declarations into electronic declarations that are then processed by Bureau computers electronically. The On-Line Release System (OLRS) facilitates the final release of in-dock shipments from Customs control. The off-dock OLRs utilizes the public telephone system for transmitting release instructions to the inland Container Freight station located many kilometers from the ports.

Once the system was in place the BOC implemented a risk assessment program that involved developing a Selectivity System. This system subjects all cargoes to computerised scrutiny to determine the extent of examinations required based on their risk levels and direct the cargo to pass through a Green, Red or Yellow Lane.

3.1.2 Super Green Lane

To improve efficiency further, BOC introduced the Super Green Lane (SGL), a special customs clearance facility that allows advance processing and clearance of imports, in December 2003. Effectively, SGL shipments are cleared before they arrive at Philippine ports. At present the



SGL is available at three major ports in Metro Manila and to 1000 importers. With the use of electronic data interchange, qualified importers may lodge import entries from their own offices, 24 hours a day and seven days a week, using a computer connected to the Bureau. The facility has benefited users through greater efficiency in customs processing, fast release of imports, speedier delivery of goods (particularly raw materials) and lower costs. Those shipments that have undergone advance processing and clearance may be released from customs in only about three hours (compared with 6.8 days in the past) after their arrival at Philippine ports. Thus, the SGL is referred to as the .ship to truck system. More importantly, importers are spared lost time and wasted effort queuing at customs offices.

3.1.3 Automated Export Documentation System (AEDS)

In 2002, the AEDS was developed by e-Konek to accept export declaration entries at point of origin through a workstation at exporter's location. Workstations at exporters' location are connected to the AEDS server using frame relay technology. The AEDS is a data entry module for ASYCUDA, which was customized and integrated with a bar code technology to verify and authenticate the export declaration, as the goods for export are transferred from point of origin to port of exit from the country. For the current implementation, port of exit from the country is NAIA. AEDS has been rolled out for the semiconductor and electronics export sector, through the Semiconductor and Electronics Industry of the Philippines, Inc. (SEIPI) which has encouraged use of AEDS among 82 member locators and forwarders.

AEDS was also rolled out at the Subic Special Economic Free Zone in 2004, where it has become part of a Trade Automation and Facilitation System, a simplified and harmonized clearance process wherein computer processable forms can be accepted and used by both SBMA and the BOC Subic Customs Collection District. The project used Asycuda World, the new e-customs web-based platform launched by the UNCTAD in September 2003. Additionally, Philippine Economic Zone Authority (PEZA) locators in Cebu province (MEPZ1, MEP2 and Cebu Mitsumi zones) have completed AEDS facility installation and full cycle test and is ready for roll-out.

3.1.4 RosettaNet

In addition to the online lodgment of export declarations via the AEDS, BOC also adopted RosettaNet standards on 6 February 2004 to enable electronic and semiconductor companies to lodge export declarations, integrating data from the shipper's invoice and forwarder's airwaybill, thereby enhancing data accuracy and integrity. RosettaNet is also being piloted for the PEZA auto import permit.

3.2 E-Government

3.2.1 Bureau of Food and Drugs (BFAD) Automation

The project involves the automation of the BFAD Systems in 2004, prioritizing Registration Processing and Monitoring System and all its affiliated processes. It increases the capability of BFAD to process more applications for licenses and registration quicker maintaining and



further improving service quality. The project is expected to be completed towards the end of 2005.

3.2.2 Philippine Business Registry

The project, recently started, involves the development and implementation of a web portal that will provide a seamless transactional environment for business registration and facilitation. The Philippine Business Registry shall serve as a storage database for all business entities' (sole proprietorship, partnership, corporations, profit and non-profit organizations) registration information, including information from DTI, BOI, SEC, BIR, and SSS. It will provide entrepreneurs wanting to set up businesses in the country a one-stop processing center that link the primary agencies involved in granting business licenses.

3.2.3 Land Transportation Office (LTO) Information Technology Project

The project is fully operational and provides an integrated infrastructure, which interconnects LTO's district offices nationwide and enable on-line transactions processing and integrate its mission-critical business processes:

- Front-end applications
 - o Motor Vehicle Registration System
 - o Drivers Licensing System
 - o Manufacturers, Assemblers, Importers and Dealers Reporting System
 - o Law Enforcement and Traffic Adjudication System
 - o Revenue Collection System

- Back-end applications
 - o General Ledger System
 - o Human Resources Management System
 - o Integrated procurement and disbursement management System
 - o Establishment of Data Center

3.2.4 Electronic Procurement System

The EPS reforms and modernize government's procurement services through the creation and operation of a central portal for government procurement, bidding and supplier information requirements. Some P80 million in newspaper advertisements and P600 million out of the P17 billion-government procurement budget are expected to be saved from the EPS. Launched in November 2000 by the Procurement Service of the DBM, it is composed of:

- Public Tender Board to provide access to information and distribute bid packages
- Electronic Catalog to support purchase of goods and services by public sector agencies
- Supplier Registry for the registration of supplier wishing to do business with government agencies



3.2.5 NBI Clearance System

Those who have to obtain or renew their clearances with the National Bureau of Investigation (NBI) no longer have to form long queues at the NBI head office because of NBI clearance renewal kiosks set up in selected shopping malls since 16 October 2003. The process takes 5 minutes, and allows individuals with similar names to criminals and fugitives to clear their records immediately. This is often an employment requirement, including departing Overseas Filipino Workers (OFWs).

3.3 Other significant Initiatives

3.3.1 G-Cash Payments

On October 22, 2004, Globe Telecom, a GSM operator in the Philippines launched G-CASH based on Utiba Mobility's U:Trust solution. G-CASH allowed subscribers to send and receive money transactions person-to-person (P2P). The service also allowed sending domestic and international remittances to subscribers in the Philippines. Recipients can in turn conduct transactions using this mobile wallet or exchange stored-value for cash in designated outlets. The G-CASH mobile wallet can store a minimum of one peso to a maximum of 10,000 pesos with maximum transactions of up to 40,000 pesos.

3.3.2 Voice Over Internet Protocol (VOIP)

PLDT has already started VOIP since 2002, shifting its core network from circuit-switch to packet-switch technologies. The move to IP-based systems has enabled PLDT to offer a wide array of innovative new generation products and services at more reasonable costs tapping different networks and systems of the company. As for its IP offering, Globe under the umbrella brand GlobeQuest has been offering its IP VPN services. To date, the company has rolled out the service to some seven sites outside the country and eight sites locally. Bundled in this offering is a security feature dubbed Remote Office Service that allows secure remote access to the corporate network via IP. Companies availing of the IP VPN can easily install a 'client' or software to automatically enable the Remote Office Service.

3.3.3 Radio Frequency Identification (RFID)

One application of RFID in the Philippines is manifested in the fuel management of a national government agency. They had a problem in their accounting and control of fuel management, which resulted in delayed reporting and irreconcilable fuel inventory. Consequently, they sought the help of RFID technology for immediate fuel management and fast payment. Users need only to tap their card onto the terminals that are mounted on the gas pumps in order for them to withdraw gas with amazing transaction speeds. Because of this, they have greater operating efficiency and a simplified supply process, consistent record keeping and less paperwork. They were also able to track purchasing and utilization of their fuel resources more effectively.



2005 Country Progress Report : SINGAPORE

SECTION 1 - GENERAL CONDITION UPDATE

1.1 A Global City at Asia's Crossroad

International businesses, seeking to extend their reach into Asia and the rest of the world, often look to Singapore as a highly preferred base for a successful launch. And executives of multinational corporations readily accept appointments to live and work in the "Garden City".

In Singapore, the pace of commerce is driven by cutting-edge info-communications technology. With direct Internet connectivity to more than 20 countries - at more than 140Mbps to key regional markets such as China, Korea, Japan, Hong Kong, Australia, India and Taiwan, and 4Gbps to the United States - it's one of the most 'connected' city in the world.

Besides having a highly developed technology infrastructure, Singapore is a sophisticated city offering the region's best education, transportation, legal, and lifestyle infrastructure.

Home to a highly educated multilingual workforce, Singapore is renowned for being a business-friendly city, where English is the language of industry, education, and government.

A comfortable and clean city, with some of the most beautiful urban spaces in Asia, this Garden City is also a robust and entrepreneurial island-state, where opportunities abound for corporations and individuals alike.

1.2 A Pro-Business Environment

Singapore's world-class infrastructure, transparent business practices and liberalised telecom market have attracted more than 200 new telecom operators since the telecom and IT markets were liberalised in April 2000.

On top of that, a comprehensive system has been put in place to ensure an open and fair market that promotes both competition and co-operation among telecom players in Singapore.

Public and private sector training programmes sustain one of Asia's most infocomm-savvy workforces. And, some of the world's most flexible immigration laws ensure that businesses can recruit offshore talent when they need it.

Innovation is a way of life in Singapore, thanks to corporate R&D hubs such as Ericsson's Cyberlab, Kent Ridge Digital Labs, and Hewlett-Packard's Mobile e-Services Bazaar.

Singapore nurtures and protects intellectual property. The Intellectual Property Office of Singapore leads a government-wide effort to guard intellectual property rights, and the *Writing Down Allowance for Approved Intellectual Properties* gives favourable tax concessions for



innovations created in Singapore.

Singapore is also a natural test bed for new ideas and products. Its multicultural, multilingual citizens are tech-savvy and internationally recognised as 'early adopters'. Internet, mobile telephone and PC penetration rates are among the highest in the world - half of Singapore's households have Internet access, three-quarters of its population carry mobile phones, and 61% of homes own at least a PC. And hand-held devices of all kinds are commonly used for business and leisure, making Singapore a 'living lab' for wireless technologies.

More than 6,000 multinational companies with regional HQs or operations in Singapore bear testimony to its excellent standing among international business leaders and talent. And no wonder: Few countries in the world can match the stability and integrity of Singapore's political and legal systems.

1.3 A World-Class Infrastructure

Located at the crossroads of Asia, Singapore has long been known as a major financial, Infocomm and transportation hub. More than 6000 MNCs have made Singapore their home in Asia. Many use it as a launch pad to expand into the region. They enjoy the benefits of being a part of a world-class business hub with excellent infrastructure, skilled & IT-savvy workforce, pro-business government policies and a stable environment.

In Singapore, we have more than 21 Tbps of total submarine cable capacity and international and regional telecoms connectivity to more than 100 countries. Complementing this is over 1.0 million square feet of data centre space offering world-class capabilities meeting stringent standards in security, availability and service level quality. It's everything you need for business continuity/disaster recovery, server/data centre consolidation and data storage services.

In an age where global telecommunications demands seamless connectivity and the ability to deliver services across borders, our telecom infrastructure and data centres can provide you the stability, reliability and capacity so critical to your business.

Singapore is well adapted for the Internet age too. Practically every home, school and office in Singapore has access to broadband. Security in electronic commerce is a high priority for the nation and wireless technologies are set to become a cornerstone of the island-state's future.

No matter whether you choose to live, work or do business in Singapore, you can be assured of a technological environment ready for the Infocomm millennia.



SECTION II – EDIFACT/eBXML/XML Based STANDARDS

DEVELOPMENT

2.1 AFACT - BCF – ECO PROJECT

As part of the AFACT Business Collaboration Framework Working Group's initiative, Singapore is a leading a ECO project team comprising members from Singapore, Malaysia, Chinese Taipei, Australia, India and South Korea.

The purpose of the project is to develop the business collaboration and business information model for the Certificate of Origin. This will be based on the UN/CEFACT Business Collaboration Framework.

The Certificate of Origin system is a large and complex system. A complete commercial system involves technologies like PKI, Optical Watermark and Print Control. The scope of this project is limited to the design-time modeling of the business collaboration and business information. It excludes the technology implementation. This is within the mission and objectives of UN/CEFACT and its groups.

The project is divided into three phases as follow:-

1. Define the business collaboration and business information model
2. ECO Interoperability Testing
3. ECO Pilot Testing

In Phase 1, the work focuses on developing the Certificate of Origin data model. This was completed and presented to the 22nd AFACT Plenary held in Singapore in September 2004.

In Phase 2, the XML implementation of the data model, called Certificate of Origin Markup Language was developed and completed. Work on the business collaboration model was also done. This is represented using ebXML Business Process Specification Schema (BPSS). The ECO Interconnectivity Specification was also developed. It described how an organization implementing an ECO system can conduct ECO interconnectivity testing with another organization. The work for phase 2 was presented to the AFACT Steering Committee mid-term Meeting held in Hanoi, Vietnam.

2.2 Universal Business Language (UBL) Transport

Sub-Committee (TSC)

The UBL TSC was formed in August 2005. The TSC will liaise with governments, industry and organizations responsible for e-commerce solutions to identify requirements for the



development and implementation of UBL Transport documents. It will develop, document and maintain the conceptual models for the UBL Transport package.

The deliverables are (1) UBL Transport process models, (2) UBL Transport package spreadsheet model, (3) UBL Transport document spreadsheet model and (4) User documentation of the Transport models.

Four documents have been identified to be included in the UBL Transport package. These are the Certificate of Origin from CrimsonLogic and Forwarding Instruction, Bill of Lading and WayBill from DTTN. Other documents may be considered for inclusion.

CrimsonLogic chairs this UBL TSC, with CECID from HongKong as editor. DTTN is a working member of this committee. Currently, the TSC is going through the harmonization exercise to align the CrimsonLogic COML and DTTN data models. The first draft of the UBL TSC work is expected to be completed by the end of 2005.

2.3 Information Exchange Technical Committee Seminar

As part of an on-going effort to promote the awareness of XML-based standards, the Information Exchange Technical Committee of the Information Technology Standards Committee organized a half-day seminar on 31 March 2005.

Open Standards like Electronic Business XML (ebXML) helps to make electronic business possible by organising business content around business processes and interchangeable core components and predefined data elements.

Another locally developed standard, XML Interoperability Platform (XIP) provides a simple system to achieve interoperability for the most common business operations. Companies can use this platform to explore how to adopt XML in their businesses. XIP aims to be simple and easy to implement so that companies can reap the return and appreciate XML before investing in more comprehensive platform like ebXML.

For topics were presented. These are (1) ebXML – The new global standard for e-Business, (2) ebXML – Technical Architecture, (3) ebXML, RosettaNet and Web Services. How about EDI? and (4) XIP and Web Services – Simple XML Interoperability. It was attended by about 50 IT professionals.



SECTION III – eBusiness/eCommerce Related PROJECT UPDATES

3.1 Web Services – Engine of Growth

In 2003, Web Services has been identified as one of the next waves in IT which will bring about a new level of connectivity, communications and collaboration on the Web. Following that, IDA announced the Web Services Programme, WEAVE, which stands for "Web Services Add Value to Enterprises". Under this programme, IDA will contribute S\$40 million to support Web Services initiatives. Since then, IDA has supported 13 Web Services projects involving 20 companies. The projects have a total value of S\$20 million, with IDA contributing about one-quarter of the funding. The potential revenue from the commercialization of these projects is projected to amount to S\$46 million over the next two years. The participating companies come from a variety of industries, including high-tech manufacturing, insurance, property management, healthcare, arts and entertainment, banking, professional education and travel.

So as to boost the Web Services manpower capabilities, IDA in conjunction with the National Infocomm Competency Centre (NICC), the SiTF Web Services Chapter, XMLone.org User Group and other industry players established the world's first Web Services Certification Framework. It has three levels: Developers, Specialists and Architects.

In a separate effort, OASIS, in conjunction with IDA, set up the OASIS Framework for Web Services Implementation Technical Committee (FWSI TC). The OASIS FWSI TC will define a practical and extensible methodology consisting of implementation processes and common functional elements that practitioners can adopt to create high quality Web Services systems without reinventing them for each implementation.

The OASIS FWSI Functional Elements Specification defines a set of Functional Elements for practitioners to translate into technical specifications. It is the purpose of this specification to define the appropriate level of abstraction for these Functional Elements and to specify the purpose and scope of each of them. This is to facilitate efficient and effective implementation of Web Services.

The OASIS FWSI Implementation Methodology Guideline specifies activities in the Web Services implementation process. It illustrates the approach to incorporate these activities into an existing agile software development methodology.

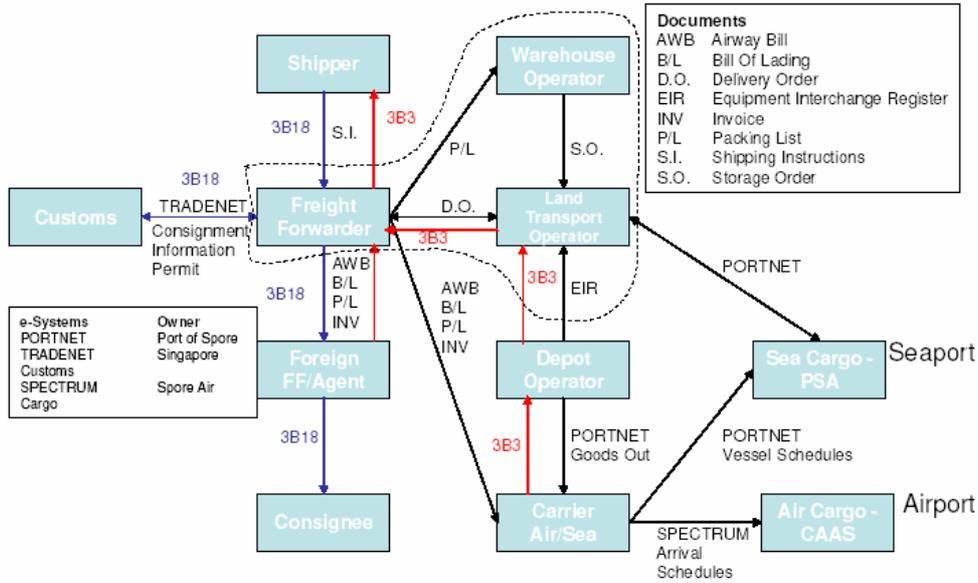
3.2 RosettaNet Singapore e-Customs Project

RosettaNet Singapore, in conjunction with Spring Singapore and IDA is currently working on a eLogistics/eCustoms project. The project is targeted at Shipping Logistics provider, freight forwarder and Customs broker. It focuses on PIP3B18 and other related PIPs.

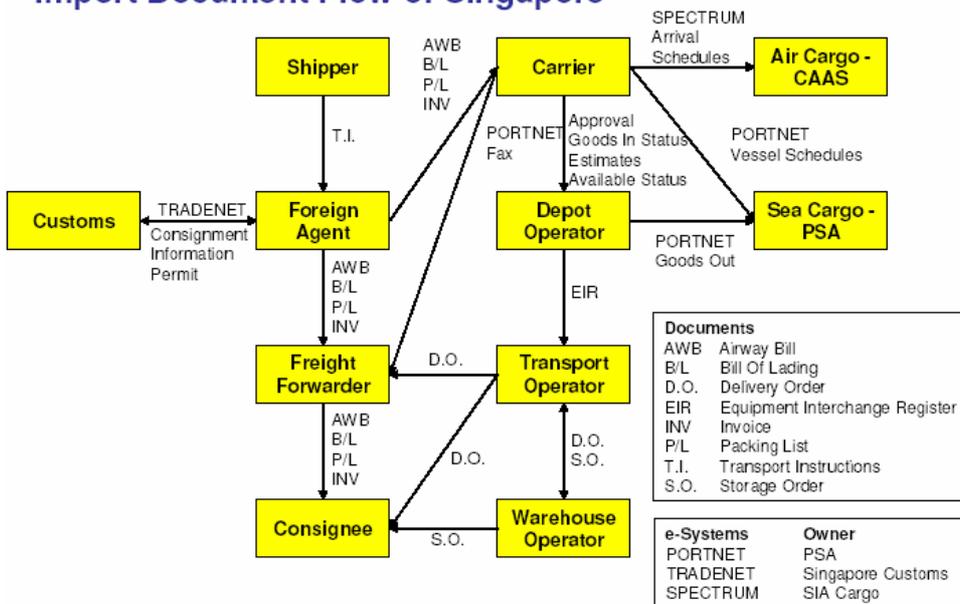


The project team has drafted Singapore's export and import process as shown below.

Export Document Flow of Singapore



Import Document Flow of Singapore





In line with the e-Customs project, Schenker, an international Integrated Logistics Services Provider in April 2005 selected CrimsonLogic, to provide a cross-border permit declaration solution using the eCustoms standard. This implementation will be the first eCustoms solution based on RosettaNet, the industry's leading eBusiness process standards consortium, to be rolled out in Singapore.

Schenker selected CrimsonLogic's cross-border permit declaration solution for RosettaNet to enable the electronic transmission of large numbers of import and export declaration documents from Schenker's clients directly to Customs agencies. Developed around RosettaNet, this cross-border permit declaration solution aims to improve the efficiency of import and export procedures through automation, using the eCustoms standard. This will enable Schenker to add value to its clients, creating a competitive edge, as well as improving Schenker's own efficiencies.

Using the cross-border permit declaration solution, Schenker will be able to send and receive secure, RosettaNet-based trade permits in bulk, between Singapore and Malaysia, for a start. The system also links to shippers in Europe to enable data reuse for trade declarations, resulting in a faster and more simplified end-to-end customs clearance cycle.

By allowing the trading partners in Europe to submit electronic trade declaration documentation in the specified RosettaNet format, the CrimsonLogic cross-border permit declaration solution has significantly cut down the time taken for Schenker to submit a permit declaration to the Singapore and Malaysia customs from days to a matter of minutes.

3.3 Hospital Goes Hassle Free with High Tech

Alexandra Hospital is harnessing the power of infocomm technologies to fulfill its vision of what it calls the "hassle-free" hospital. In November 2004, Alexandra Hospital announced that it is launching a new initiative called Healthcare.NET, which will pilot and test bed the use of infocomm technologies to bring about a patient-centric, seamless, safe and cost effective healthcare system. The hospital signed a Memorandum of Intent with IDA and Microsoft to make Healthcare.NET a reality.

The IDA will provide technology advice and support to help manage the project, and bring on-board industry partners for the development and deployment of solutions for the project. Microsoft will provide software development and IT consulting resources using its .NET technology.

Under the MOI, Alexandra Hospital will work with the partners to streamline its processes and enhance patient services with the help of technology. The initiative will be implemented first at Alexandra Hospital's Department of Emergency Medicine, followed by its Specialist Outpatient Clinics and all Inpatient Wards.

The three-year Healthcare.NET project will deliver critical information to healthcare workers that will enable faster diagnoses, more effective treatment and an enhanced experience for patients, using intuitive "digital dashboard" user interfaces. Patients will be empowered with healthcare information for preventative and post illness care as well as their treatment in



hospital. The dashboards will provide a consistent interface that allows users - whether patients or healthcare workers - to intuitively start using the system with minimal training, and share information where appropriate.

IDA is happy to support this project because it pilots the innovative use of infocomm technologies in the healthcare sector, to enhance the quality of care to patients and improve efficiency in the hospital. In addition, this project will help Singapore's local infocomm companies acquire new capabilities in developing healthcare solutions on the .NET platform.

3.4 Government and Industry to Groom Top Infocomm Students with the National Infocomm Scholarship

In August 2005, 20 bright infocomm students received the National Infocomm Scholarship (NIS) today. Currently in its second year, the NIS is an initiative of the Infocomm Development Authority of Singapore (IDA) supported by the Singapore Infocomm Technology Federation (SiTF) and the Singapore Computer Society (SCS). It aims to ensure that the infocomm industry continues to attract the best and brightest talent to drive future growth and to groom a pool of future leaders to contribute to Singapore's continued competitiveness in infocomm.

The NIS is run in partnership with leading infocomm companies in Singapore. This makes the scholarship unique and special as it is the only government - industry scholarship that allows the scholars to be nurtured by leading infocomm companies during their course of study and attachment. Applications are invited from the top Junior College, Polytechnic and University students and the scholars are selected jointly by IDA and the sponsoring companies.

Scholars will be given the opportunity to do a six-month attachment and mentorship with their sponsoring infocomm company at their overseas offices or research facilities in the final year of undergraduate study. These industry-sponsored attachments will give the students wider exposure, international working experience and industry guidance even before they graduate.

IDA is happy to receive such strong support from established infocomm industry partners for the National Infocomm Scholarship to create industry-ready talent. Its partnership with them is important as it shows the commitment from the infocomm industry to build and nurture Singapore's infocomm future. The NIS scholars will receive solid industry grounding, exposure and skills that will eventually shape Singapore's infocomm landscape. It is certainly a win-win situation for all and IDA encourages more companies to partner it and groom Singapore's future infocomm leaders.

The NIS sponsors are leading local infocomm companies and MNCs, namely: Computer Associates Pte Ltd, Fujitsu Asia Pte Ltd, Frontline Solutions Pte Ltd, IBM Singapore Pte Ltd, Intel Technology Asia Pte Ltd, Microsoft Singapore Pte Ltd, NCS Pte Ltd, Oracle Corporation Singapore Pte Ltd and Singapore Computer Systems Ltd. These companies have partnered IDA in nurturing the best in infocomm talent as they recognise how the Scholarship can complement their own strategies in manpower development and human resource management.



2005 Country Progress Report : THAILAND

SECTION 1 - GENERAL CONDITION UPDATE

1.1 Status of ICT and e-Commerce Development

1.1.1 ICT

International trade and transport Thailand, as a center for logistics hub of Indo-China on IT Technology, especially for ICT development on Information Network, Trade Facilitation and Electronic Business needs to develop more concept and content of the IT2010 which supports Thailand National ICT Master Plan. The IT technology serves as the country development towards the "Knowledge-based and Sustainable Economy". (KBE)

Three key strategies of "IT 2010 for KBE" are identified as "building human capital", "strengthening information infrastructure and industry", and "promoting innovation". Five main flagships under IT 2010 policy are: e-Government, e-Commerce, e-Industry, e-Education and e-Society. All operate upon the strong base of information infrastructure and industry.

After forming the Ministry of Information and Communication Technology of Thailand, the ICT Ministry has its functions to spearhead and co-ordinate all policies, strategies and work programs as declared within IT2010 policy framework and the National ICT Master Plan which identifies more specific strategies, work programs and clear targets to be carried out in five years (2002 – 2006).

In 2003, the Ministry of Information and Communication Technology (MICT) launched a major initiative to make widely available "low-cost" PCs to the general public as well as civil servants. The PCs distributed through this project was bundled with the open-source software, i.e., Office TLE, which has equivalent functions to the Microsoft Office packages. Shortly after the launch of the project, Microsoft had announced a drastic price reduction, to approximately US\$ 35, for an individual user who purchased a PC under this project. Moreover, a "low-interest" fund was also made available for those in need. This fairly "well-designed" package has generated much interest from those who were considering buying a home-use PC for the first time. It was reported that more than 200,000 units were purchased under this program, causing a big jump in the PC penetration rate in Thailand, as shown in Table 1.



Year	2001	2003	2004
Overall	5.1	8.2	11.1
Bangkok	19.8	24	28.1
Central*	5.1	7.5	11.6
North	2.8	6.1	9.0
Northeast	2.0	4.5	6.3
South	2.3	6.1	8.6

Remark: *Exclude Bangkok

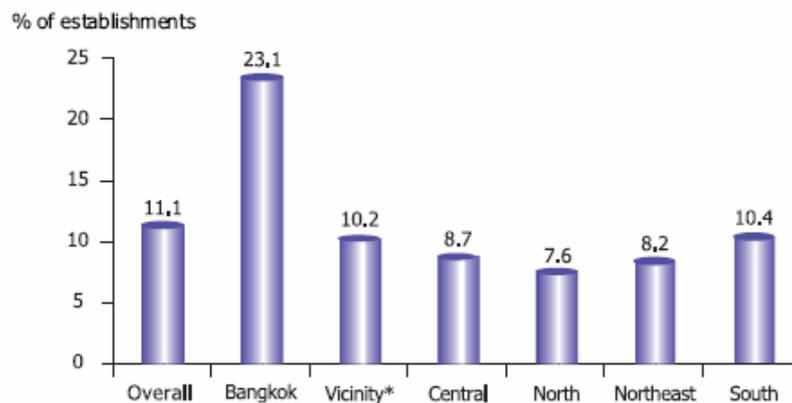
Source: Report on the 2001 Survey on Information Technology, NSO

Report on the 2003 Survey on Information Technology, NSO

Report on the Information and Communication Technology Survey (Household) 1st quarter 2004, NSO

Table 1 : Percentage of Households with Computers (2001 – 2004)

As shown in the above table, the percentage of households with computers arises from 5.1% in 2001 to nearly 11% in mid 2004. Nevertheless, the problem of digital divide still prevails, with household and business establishments in Bangkok having greater access to computers than those residing outside Bangkok as shown in Figure 1.



Source: Report on the 2004 Information and Communication Technology Survey on Business Establishment

Remarks: *Vicinity includes Pathumthani, Nonthaburi, Samut Prakam, Samut Sakorn and Nakorn Pathom

Figure 1 : Percentage of Business Establishments with Computers



The size of firms, classified by the number of employees, is related to the extent to which firms absorb new technology. As shown in Table 2, the larger the firm is, the more likely it will own and use computer in its business. In this respect, small and medium enterprises (SMEs), which are fundamental to Thai economy, have not widely adopted the new technologies. The National ICT Master Plan (2002 - 2006), therefore, has devised a strategy which aims to increase the use of ICT among SMEs.

Firm Size	%
1-15 employees	10.1
16-25 employees	72.4
26-30 employees	68.7
31-50 employees	78.2
51-200 employees	90.1
more than 200 employees	97.4

Source: National Statistical Office (NSO)

Table 2 : The Ratio of Business Establishments with Computers by Size of Firms

The Thai telecommunication sector has just crossed the threshold. After long awaiting, the National Telecommunications Commission (NTC) was set up in October 2004. The market structure of the telecom sector in the absence of NTC remains unchanged from the year 2003, with the number of operators in both fixed-line and mobile sector the same as in 2003.

Fixed-line service providers include TOT Corporation Public Company Limited, True (previously TelecomAsia Corporation) and TT&T Public Company Limited. Solely international service provider is CAT Telecom Public Company Limited.

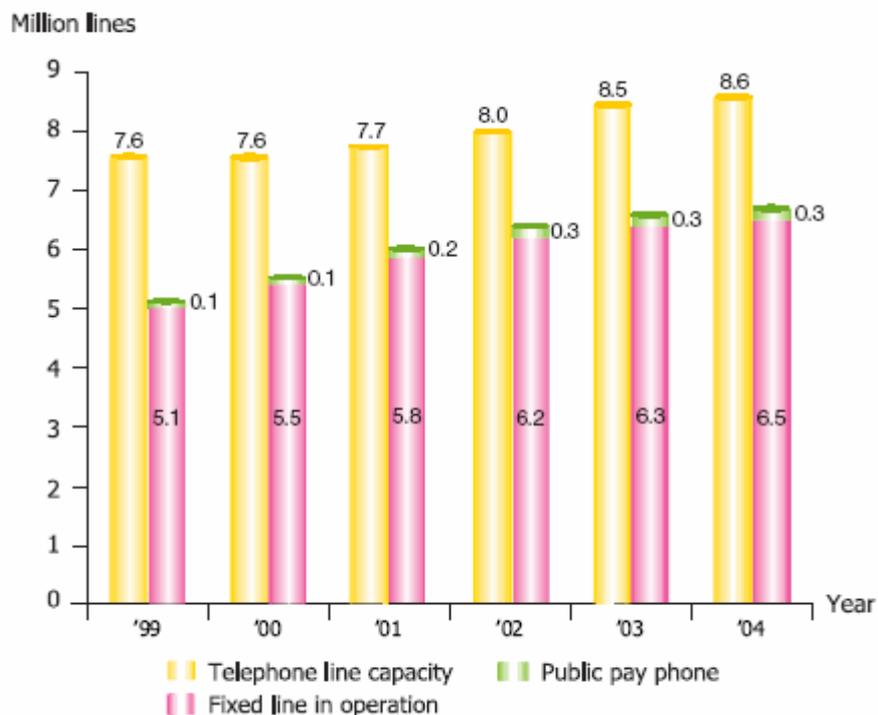
Mobile phone service operators are

- Advance Info Service Plc. (AIS): GSM 900-MHz and GSM 1800-MHz mobile phone
- Total Access Communication Plc. (DTAC): Cellular and digital 1800-MHz mobile phone
- Thai Mobile Company Limited: 1900-MHz CDMA mobile phone



- Hutchison CAT Wireless Multimedia Ltd.: CDMA mobile phone
- TOT Corporation Plc.: 470-MHz or cellular 470 mobile phone
- CAT Telecom Plc.: cellular AMPS 800 A-Band mobile phone.

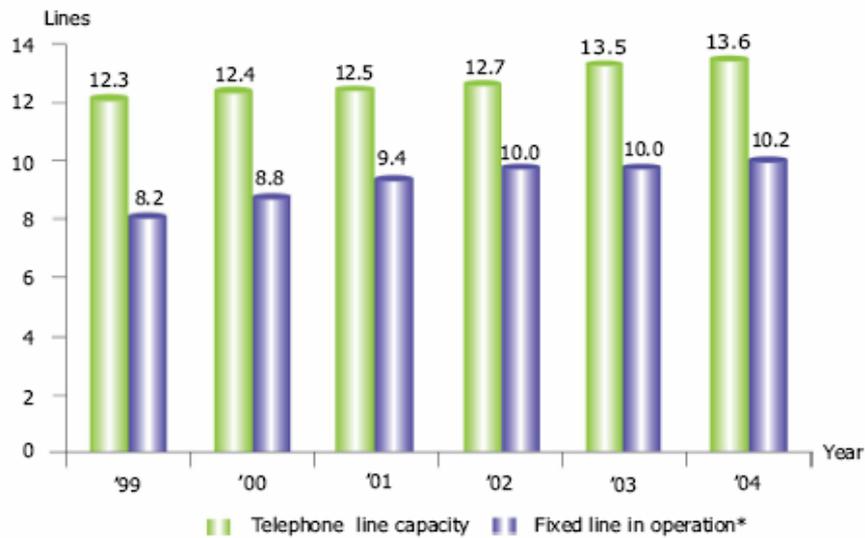
The growth in telephone penetration has been sluggish over the past couple of years, with number of fixed line subscribers increase only slightly. Although the fixed-line penetration in upcountry has been increasing at a greater rate than in Bangkok, the digital divide still prevails. The summarized telecommunication statistics are illustrated in Figure 2 – 7.



Source: TOT Corporation Plc. (formerly the Telephone Organization of Thailand)

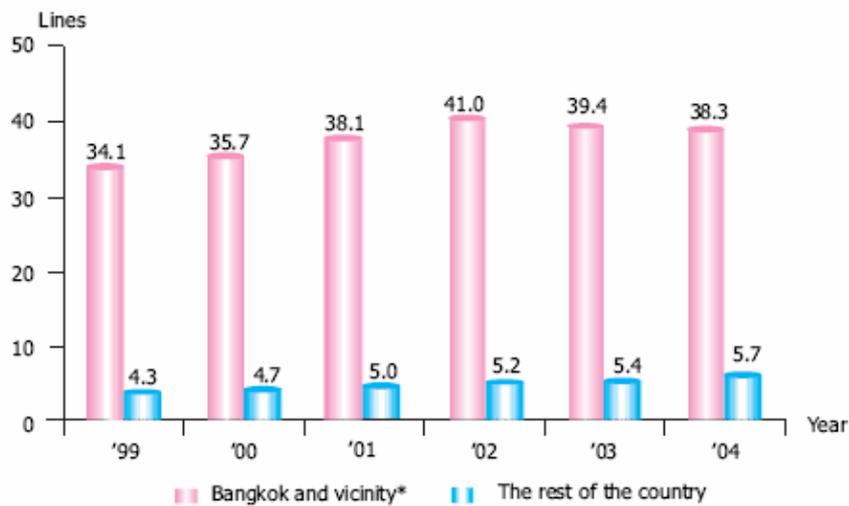
Note: All data presented in telecom section from 2002 onwards are collected in the calendar year. Previous data are in the fiscal year, which is the 12 months beginning October 1 of the year stated.

Figure 2 : Number of Telephone Lines (1999 – 2004)



Source: TOT Corporation Plc. (formerly the Telephone Organization of Thailand)
Remarks: *Exclude public pay phone

Figure 3 : Number of Fixed Lines per 100 Inhabitants (1999 – 2004)



Source: TOT Corporation Plc. (formerly the Telephone Organization of Thailand)
Remarks: *Vicinity includes Pathumthani, Nonthaburi and Samut Prakarn



Figure 4 : Number of Fixed Lines per 100 Inhabitants by Location (1999 – 2004)

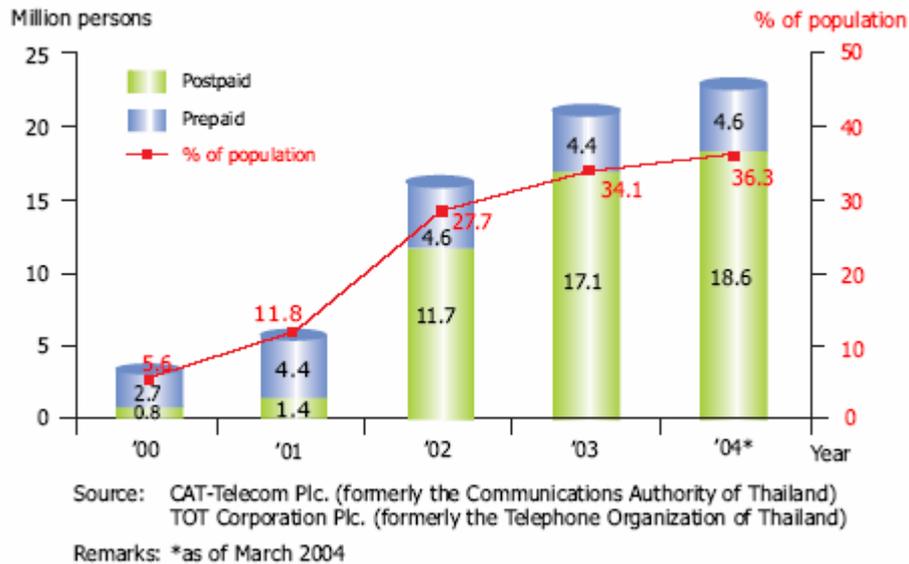


Figure 5 : Number of Mobile Users (2000 – 2004)

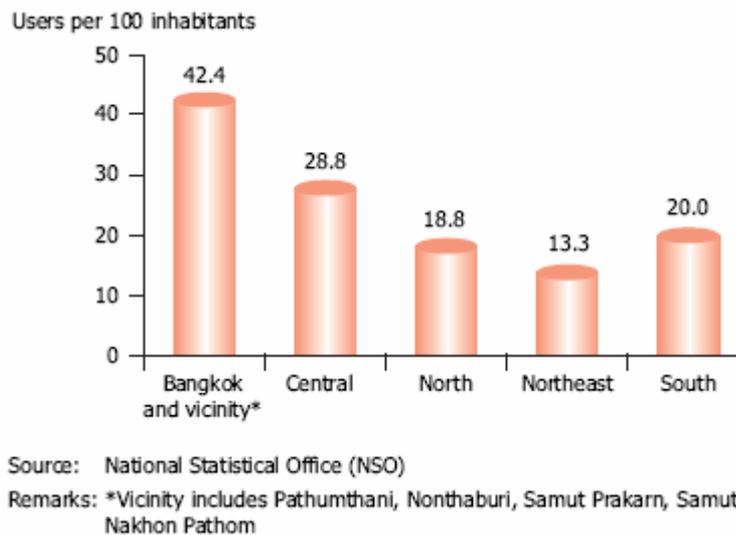
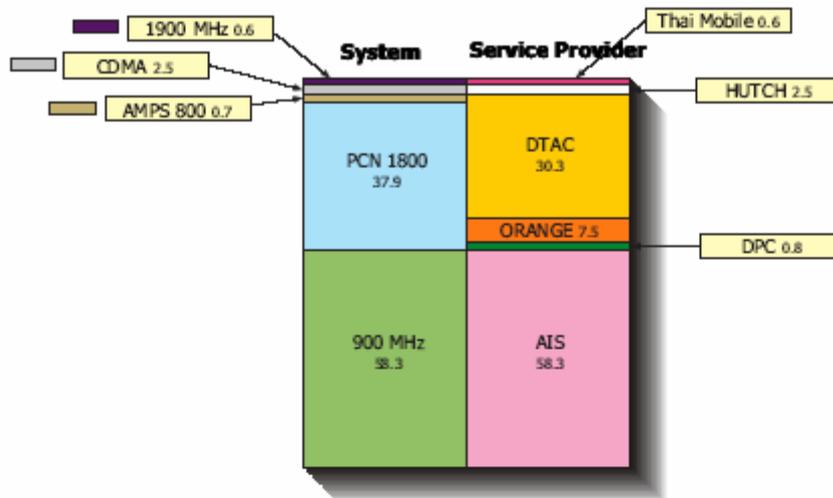


Figure 6 : Number of Mobile Users per 100 Inhabitants by Location (2003)



Mobile Users by System (2004*)

System	Number of Users	%
900 MHz	13,539,148	58.3
PCN 1800	8,815,356	37.9
CDMA	590,198	2.5
AMPS 800	150,220	0.7
1900 MHz	142,610	0.6
470 MHz	6,176	0
total	23,243,708	100

Mobile Users by Service Provider (2004*)

Service Provider	Number of Users	%
AIS	13,539,148	58.3
DTAC	7,029,979	30.3
Orange	1,743,384	7.5
Hutch	588,398	2.5
DPC	192,213	0.8
CAT	1800	0.0
TOT	6176	0.0
Thaimobile	142610	0.6
Total	23,243,708	100.0

Source: CAT Telecom Plc. (formerly the Communications Authority of Thailand)
TOT Corporation Plc. (formerly the Telephone Organization of Thailand)

Remarks: *as of March 2004

Figure 7 : Market Share of Mobile Phones by System and Service Provider (2004)

Internet is increasingly instrumental to information and knowledge access in the Thai society. It is also a vital infrastructure for business communication and transaction. The growth of Internet



users is steadily increasing and reaches approximately 7 million users in 2004, equal to 11.9 users for every 100 population as shown in Figure 8.

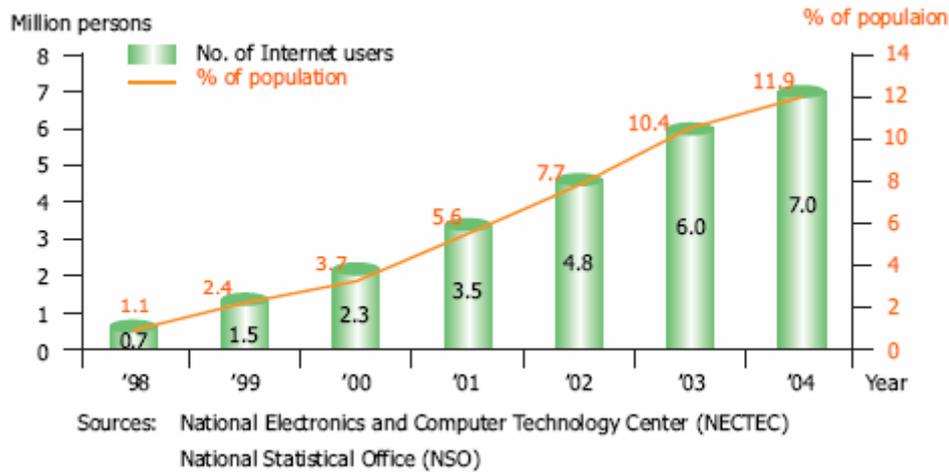


Figure 8 : Number of Internet Users (1998 – 2004)

Internet users are concentrated in Bangkok and other big cities. Nevertheless, the proliferation of Internet users has recently emerged in all regions outside Bangkok as shown in Table 3. In addition, there is no apparent gender divide in Thailand. Both men and women have nearly equal access to the Internet as shown in Figure 9.

Region	Number of users (million persons)			Users per 100 Inhabitants		
	2001	2003	2004	2001	2003	2004
Whole kingdom	3.53	6.03	6.97	5.6	10.4	11.9
- Bangkok and vicinity*	1.23	2.01	2.00	16.0	26.9	26.6
- North	0.52	1.00	1.21	4.6	9.7	11.4
- Central	0.83	1.34	1.52	5.9	10.1	11.2
- Northeast	0.56	1.07	1.49	2.6	5.6	7.7
- South	0.39	0.62	0.76	4.7	8.2	9.9

Source: National Statistical Office (NSO)

Remarks: *Vicinity includes Pathumthani, Nonthaburi, Samut Prakam, Samut Sakhon and Nakhon Pathom



Table 3 : Internet Penetration by Location (2001 – 2004)

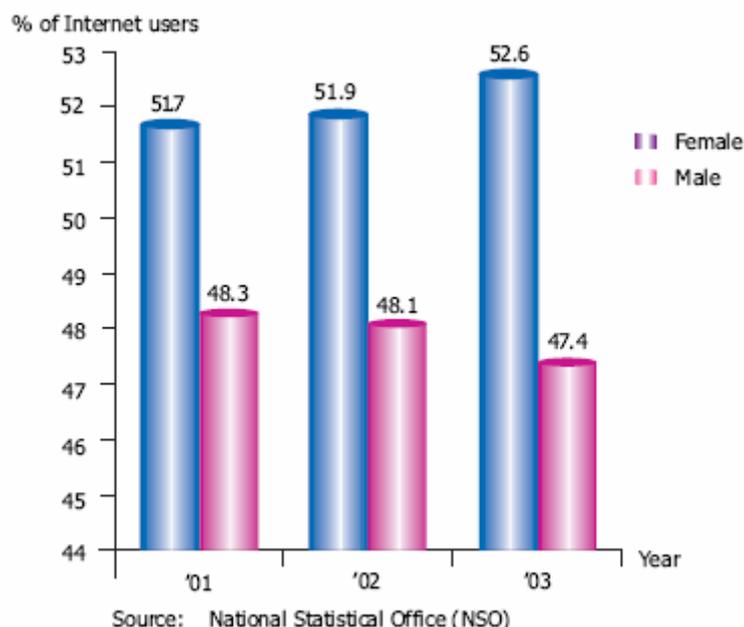


Figure 9 : Internet Users by Gender (2001 – 2003)

1.1.2 e-Commerce

The National ICT Master Plan (2002 – 2006) encourages business sectors, particularly small and medium enterprises which are the driving force behind the national development, to deploy ICT in order to boost up their competitiveness. ICT is to be applied in both manufacturing and marketing functions.

However, the diffusion of ICT among business establishments was limited and uneven. On average, 11% of business establishments have computers, whereas only 4.2% and 1.2% have access to the Internet and own Web sites, respectively, as illustrated in Figure 10. The size of firms is related to the extent to which firms absorb new technology. By and large, the larger the firm is, the more likely it will own and use ICT in its business as shown in Figure 11. Overall, computer is more widespread and commonly used than the Internet and Web site.

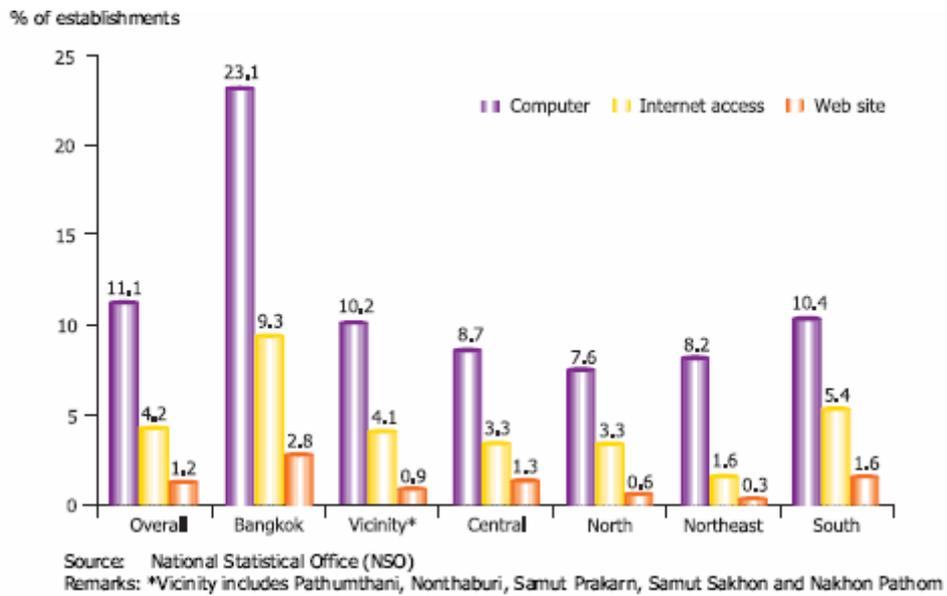


Figure 10 : Percentage of Establishments with ICT by Region (2003)

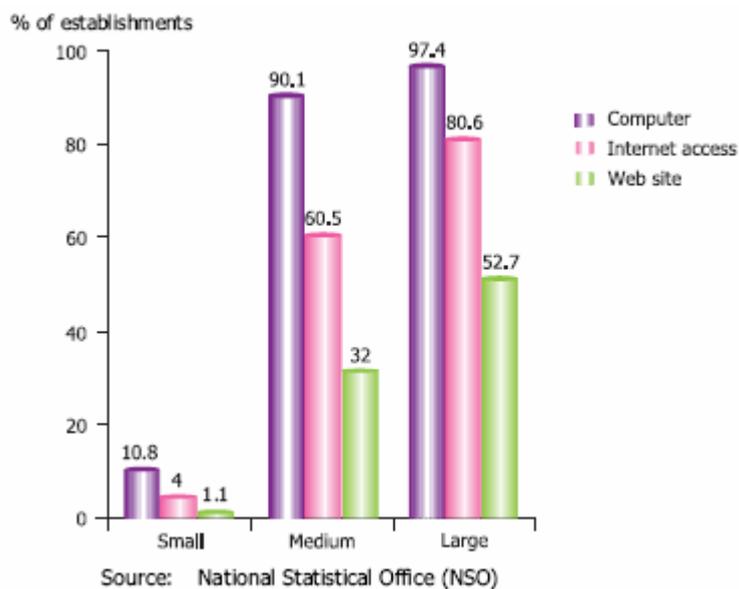


Figure 11 : Percentage of Establishments with ICT by Size (2003)



The Department of Business Development, Ministry of Commerce, launched a program in May 2003 on Registration of E-Commerce Entrepreneur which requires e-commerce entrepreneurs to register with the department in accordance with the Commercial Registration Act, 1956. Approximately 900 have registered 1,200 Web sites so far. Three quarters of those businesses are located in the central region, and 77% are “.com” followed by “.co.th” and “.net” at 11% and 6%, respectively. This registration program is not only a tool for data and statistics collection, but also a vehicle for e-Commerce promotion. In 2005, the department issues a Trustmark to qualified entrepreneurs. For consumers, this Trustmark provides them confidence in the credibility of the provider, thus, encourages them to purchase via e-Commerce.

According to a survey of 880 e-Commerce entrepreneurs, e-Commerce transaction value for B2B and B2C was estimated at 58,529.16 million baht. Meanwhile, as the government is driving towards e-Procurement, B2G transaction value has been rising from 182 million baht in 2002 to nearly 5,000 million baht in 2003. Business-to-Consumer or B2C, on the other hand, is not well established in Thailand. According to the survey on Internet Users Profile of Thailand, it is found that during 1999 – 2003, only 20% of Internet users have ever purchased goods/services via the Internet. When asked for the reasons to which users did not buy via e-Commerce, a number of issues came up. For instance, some users need to touch and feel the feelings to be confident in the quality of the products in question. Others were concerned with online security and fraud, particularly when they have to give out their credit card number on the Internet.

The year 2003 also witnessed the breakthrough of online trading, of which the value has reached 417,916 million baht, more than 600% increase from 2002. One of the main reasons behind the leapfrog was an enormous boost in the number of registered customers and active customers. The customers who registered to open an Internet trading account increased 140%, from 16,381 in 2002 to 39,882 in 2003. Out of this, approximately 25% was active customers who at least once ever traded online.



Source: Department of Business Development (DBD), Ministry of Commerce
Remarks: *as of July 16, 2004

Figure 12 : Registered e-Commerce Web Sites by Domain Name (2004*)



	Value (Mil. baht)	%
e-Commerce transaction value in total	63,436.42	100
B2B transaction value	57,812.23	91
B2C transaction value	716.93	1
B2G transaction value**	4,907.26	8

Question: What is your estimated value of transaction processed via e-Commerce or e-Marketplace?

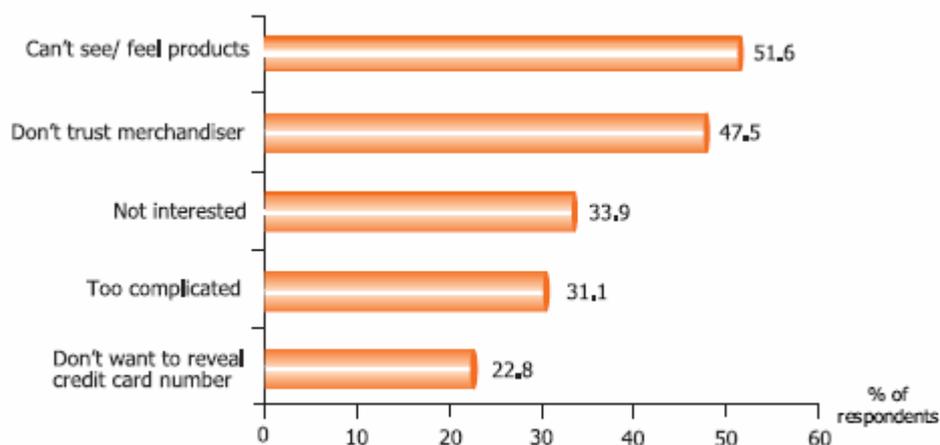
Sources: NECTEC, The Comptroller General's Department; Ministry of Finance

Based: A sample size of 60 e-Commerce key players in Thailand

Remarks: *Exclude transaction value of online trading. The value is compiled from two sources: NECTEC and the Comptroller General's Department

**The figure of B2G transactions is reported by the Comptroller General's Department

Table 4 : e-Commerce Transaction Value (2003*)



Source: National Electronics and Computer Technology Center (NECTEC)

Figure 13 : Reasons Against Internet Purchase (2003)



1.2 Thailand Integrated Single-Window E-Logistics Platform

In a move to enhance Thailand's competitiveness, the Cabinet has approved a national logistics strategic plan as proposed by the office of the National Economic and Social Development Board (NESDB) on 9th November 2004. Strategic challenges facing Thailand's logistics system are stresses to place importance on promoting the business, related government agencies and logistics service providers to realize cost efficiency, responsiveness, and reliability in distributing products and services to local and overseas consumers. The country's logistics systems as a whole are needed to be upgraded, not only on physical transportation infrastructure but also on legal aspects, human capacity building and information infrastructure.

When analyzing the information exchange that takes place between the logistics operators, we realize that the core information and document exchange that steers and controls the controlling authority, transport and payment processes is still relying on traditional paper-based documents. Paper-based trade documentation is usually estimated to cost between 5 and 10 percent of the value of traded goods.

To improve efficiency and reduce trading costs, NESDB, Ministry of Information and Communication Technology (MICT), Customs Department, and Ministry of Commerce are mandated to work with other related agencies from both public and private sectors in developing strategic roadmap for information exchange among government authorities, transport-related providers, banks and insurance related to import, export and transport activities for international trade. To take forward this initiative, MICT determined and recommended guidelines for establishing integrated single-window e-logistics platform for Thailand including approaches for relevant trade facilitation actions and measures, information system framework and development, techniques and implementation models for paperless trade and electronic logistics systems, a functional and technical blueprint of the Thailand e-Logistics Hub and recommendations on standards and protocols.

1.3 Status of IT Laws

The current status of IT laws is as follows:

- Electronic Transactions Law and Electronic Signatures Law
These two laws had been merged and enacted on December 2001 so called "the Electronic Transactions Act B.E. 2544 (2001)
- Computer Crime Law
The draft on Computer Crime Bill has been approved by the Cabinet in September 2003 and will be submitted to the parliament for approval
- Data Protection Law
The Draft on Data Protection Bill has already been drafted and the Ministry of Information and Communication Technology will be submitted to the Cabinet for approval
- Electronic Fund Transfers Law



- The Law is in drafting process
- National Information Infrastructure Law
The draft is under consideration of the Ministry of Information and Communication Technology.

SECTION II – EDIFACT/eBXML/XML Based STANDARDS DEVELOPMENT

2.1 Thailand EDI Council

As the emerging of electronic commerce, National Electronics and Computer Technology Center (NECTEC) and National Information Technology Committee Secretariat (NITC) set up a subcommittee on EDI for International Trade since 1992. The workhorse of each subcommittee is carried out by NECTEC which acts as the Committee's Secretariat. The subcommittee has taken steps towards the development of EDI in Thailand until December 1993. The subcommittee was subsequently renamed to Thailand EDI Council (TEDIC). Setting up of TEDIC is the aim to achieving the following mandates:

- Establish policy and objectives on EDI for the country.
- Set up working groups to develop EDI, support EDI utilization, develop message standards, study and recommend EDI-related legal framework.
- Facilitate and monitor the operations of the working groups and other relevant agencies on EDI to follow the government policy and objectives.
- Manage the establishment of the national EDI service provider according to the government's direction.
- Represent Thailand in coordinating and consulting with other nations in international EDI development.
- Carry out other EDI-related activities.
- Carry on work, study results and development plan from the former subcommittee on EDI.

2.2 TradeSiam: Thailand's National EDI Service Provider

Since 1995, TEDIC proposed the creation of TradeSiam as a joint venture company between Thai government agencies and the private sector mainly to facilitate international trade. It started a limited pilot service in December 1998 and fully operated in May 1999.

TradeSiam serves as a centre to provide EDI services between government agencies and the private sector. In order to operate efficiently, TradeSiam is managed as a private company where it positions itself as a national EDI service provider with the following objectives:



- To act as the designated EDI gateway between government agencies and the private sector.
- To become the major training centre for businesses using EDI, and
- To coordinate with the Thailand EDI Council in EDI development.

As a one-stop service, trading partners will be able to successfully use trading procedures such as Customs declaration, import certification, export license, or electronic funds transfer using the EDI-standard format UN/EDIFACT. TradeSiam also provides a facility to convert other EDI standards such CARGO*IMP to UN/EDIFACT and vice versa.

SECTION III – eBusiness/eCommerce Related PROJECT UPDATES

3.1 Integrated Single-Window E-Logistics: Integrated E-Government and Transportation-Related E-Services for Importers, Exporters and Cross-Border

The National Competitiveness Committee, a high-level public-private committee, chaired by our Prime Minister, and comprised of economics-related Ministers and Business Leaders, initiated in 2003 an inter-agency task force to develop an integrated roadmap for building our national logistics competitiveness. National Logistics Master Plan towards the year 2009 has been developed with a vision for Thailand as a world-class Logistics Hub for indo-China. The objectives are for cost efficiency, reliability and security, and responsiveness. Six strategic development agendas proposed in this master plan are:

- (1) improving logistics infrastructure,
- (2) linking transactions, information and database systems,
- (3) building capacity for better logistics management,
- (4) strengthening logistics services providers,
- (5) cooperating towards regional economic integration, and
- (6) redesigning law, regulation and institutional framework.

The National Competitiveness Committee assigned National Economic and Social Development Board (NESDB) and Ministry of Information and Communication Technology (MICT) to take care the second strategic development agenda. Consequently, the single window e-logistics strategy and its implementation roadmap was initiative proposed by NESDB as one of national agenda priorities to enhance the overall competitiveness of the country through an efficient logistics-related information flow.



Ministry of Information and Communication Technology (MICT) has taken forward the “Integrated Single-Window e-Logistics - Integrated e-Government and Transportation-related e-Services for Importers, Exporters and Cross-border” project to support the national agenda proposed by NESDB. This project will create a data network and infrastructure to link all logistics players via a single window entry, including Customs Windows, Licensing Agency Window, Port & Trading Windows. This will enable the exchange of electronic documents and services among government agencies, businesses and logistics communities so as to eliminate inefficiencies in administering cross-border transactions and maximize the business value of ICT in fulfilling all import, export, transit-related regulatory and transportation-related requirements.

To progress the development, MICT has established a National Blueprint in developing core IT systems that will facilitate the exchange of commercial and regulatory documentation necessary for trade and logistics. Specifically, the blueprint provides the functional and technical architecture and the development roadmap for the standardization, simplification and harmonization of legally binding trade-related electronic documents and business processes.

The project implementation will be done in three phases: the first phase implementing Trade Compliance Hub which covers customs declaration and clearance, and related internet license, certificate and permit issuing; the second phase involving more electronic documents and procedures related with transport procedures, such as port operators, carriers, freight forwarders and other logistics service providers; and the third phase extending to include both export and import-related procedures, more licensing agencies and more products to be covered. This e-logistics platform and its work programmed will be aligned and supportive to regional integration initiatives, e.g. GMS Cross-Border Agreement, and ASEAN Single Window Initiative. The first phase of this project will launch in October 2005.

3.2 One Stop Export E-Services

A pilot project so-called One Stop Export e-Services led by the Department of Export Promotion and Royal Thai Customs Department is now being implemented taking initially into account functions and requirements of eight agencies based on Customs value framework to provide a Web-Based Single Window Entry system that enables exporters to apply for trade permits and licenses/certificates through centralized e-Forms. The second phase of the project will incorporate relevant technologies such as digital signature and data watermarking to enable exporters to print approved licenses/certificates from their own PCs.



2003 eASIA Award Success Stories

Trade Facilitation
eBusiness in the Private Sector
eBusiness in the Public Sector



2003 eASIA Award : Trade Facilitation

Category : Trade Facilitation
Project title : Facilitating Cross-Border Paperless Trading and Customs Clearance Organization : Trade-Van Information Service Co.

Summary

Unbounded TradingNet "Facilitating Cross-Border Paperless Trading and Customs Clearance"

Trade-Van has built a highly integrated and efficiently managed networking service, on the foundation of the cargo-clearance networking service, to help the trade communities and the related government agencies strengthen their core competence. Trade-Van provides a one-stop connection service window for the cargo/trade community, which covers the processes from purchase order, invoice, customs clearance, etc., to proof of delivery. The value-added network was built to play as the trade facilitator in order to achieve paperless trading, trade facilitation and information visibility. To be a one-stop connection window, Trade-Van has made every endeavor to align, exchange information with other global services network, such as PAA(PAA-Pan Asia e-Commerce Alliance), TRAXON, SITA, etc. It is recognized that what Trade-Van has done for the trading community can eliminate the requirement for paper documents needed for customs, other cross-border trade administrations, and logistics industries. It can significantly reduce business costs and streamline transport, freight, customs and other trading transactions throughout the region.

Category : Trade Facilitation
Project title : Port EDI - Port Electronic Data Interchange System
Organization : Waterfront Vitalization and Environment Research Center WAVE

Summary

New Port Scene "Port EDI - Port Elec-tronic Data Interchange System"

Port-EDI System in Japan launched in October 1999 to introduce EDI system in Port and harbor community to reduce paper-based procedures. This system is fully based on UN/EDIFACT standards and implemented some of UN Standards Messages, such as BERMAN(Berth Management message), PAXLST(Passenger List message), IFTDGN(Dangerous Goods Notification message), IFTSAI(Forwarding and transport Schedule and Availability Information) and APERAK(Application Error and Acknowledgement Message). The usage rate is growing month by month since the System launched in October 1999 from 541 applications to 20,551 in October 2002. The most important issue is how Japanese Government quickly does ratify the IMO/FAL Convention and simplify current procedures based on this convention. Also, the Single Window System of which the Port-EDI System is inter-connecting with the Sea-NACCS has been developed and will be launched in August 2003. In the meantime, users can submit their messages into the single entry point through the Internet or Dial-up Line.



2003 eASIA Award : Trade Facilitation

Category : Trade Facilitation
Project title : Korea e-Trade Hub Project
Organization : KTNET

Summary

e-Business Roamer "Korea e-Trade Hub Project"

The vision of e-Trade Hub is "Single global e-Trade Service". It means that once traders or related organizations are connected to e-Trade Hub, they are able to do "Single Window" based transaction with trading partners in the world any time, any where over the internet. It provides more efficient and cost effective solution to e-Trade industry, and handles connecting corporate legacy system, EAI and B2Bi in unified framework. In addition to the foundation functionality described above, eTradHub service also provides the interconnection with global network include PAA(Pan-Asia e-Commerce Alliance) service, Korea-Japan e-Trade Hub project and ASEM(ASIA-Europe e-Commerce) project. e-Trade Hub brings a new level of core infrastructure in e-Business of Korea. By establishing the electronic trade network with international standard e-Business model, e-Trade Hub will expand Korea's electronic trade market and software industry as the central area of the global e-Business community.

Category : Trade Facilitation
Project title : TradeNet
Organization : CrimsonLogic Pte Ltd

Summary

Easy Customs Declaration "TradeNet"

As Singapore's trade grew, the government authorities had to constantly increase the recruitment and training of processing staff to take care of the growing volume of trade declarations. TradeNet, Singapore's venture into electronic trading using Electronic Data Interchange or EDI was implemented on 1st of January 1989. under the TradeNet System, the trading community is given an electronic means of submitting trade documentations to all relevant government authorities for their processing, through a single entry point. Upon submission, traders will receive an electronic approval conditions or reasons for rejection. Today, there are more than 2,500 establishments plugged into TradeNet, from traders, shipping agents and freight forwarders to air cargo agents. More than 600,000 permit applications are being processed through the TradeNet system every month. 95% of these permits are processed within a minute. The TradeNet System on the Internet links traders to the different government authorities with greater work efficiency and increased case of use. In today's technology-driven business world, employing the right state of the art technology is crucial for companies to gain that competitive edge.



2003 eASIA Award : eBusiness in the Private Sector

Category : eBusiness in the Private Sector

Project Name : 「Hua-Nan Venus Plan」 --- Global eFinancial Services

Organization : Hua-Nan commercial Bank, Ltd.

Summary

Precedential Customer Service " 「Hua-Nan Venus Plan」 - Global eFinancial Services"

Considering the demand of the enterprise for the rapid capital control in response to the globalization and liberalization of the industry and the demand of the customer for the integrated and convenient financial products and services, HNCB stated to cooperated with the IT industry to improve the overall response efficiency of the supply chain for the industry , enabling the transformation of the industry, and reinforcing the global competitive strength of individual enterprises in year 2001. The "Venus Plan" is designed with the client as the core of the entire plan. It provides integrated financial products and services based on the demand of the client, and expands the application scope from a single client to the entire community and supply chain system. The goal of the "Venus Plan - Global e-Financial Service" is to respond to the requests of clients more rapidly, to improve the originality of financial products and to introduce the e-Information exchange standard, enterprise information link and information share mechanism on the Internet to reinforce the loyalty of the clients. Introducing the "Venus Plan" in the new economic era creates a "Three Win" effect for HNCB, the banking industry and clients.

Category : eBusiness in the Private Sector

Project Name : Global Supply Chain Community Service – viaHub

Organization : e-Commerce Resources Center ECRC, III(Institute for Information Industry)

Summary

String of Global Business "Global Su-pply Chain Community Service- viaHub"

viaHub is a B2B Common platform, which adapts RosettaNet standard and data/network security technology, hardware reliability and XML technology etc. In the past two years, viHub has been successfully worked with BenQ, Tatung, Yageo, D-Ling, AU Optronics, World Peace Industrial, Lite-On Electronics, Lite-On IT, Accton, and Elitegroup Computer Systems commit to adapt viaHub platform in Star Project to link 500 suppliers. The trade value processing on viaHub by the end of 2003 will more than NT\$200 billion annually. These 10 participating IT firms in the Star Project will have combined revenue of NT\$480 billion for the full year 2002, or 4.8% of Taiwan's gross national product. ViaHub will keep strengthening its competitive ability(e.g. e-Design, e-Sourcing, e-VMI, etc) to facilitate Taiwanese supply chain community connect with overseas buyers, in order to make Taiwan become the global e-Business trading center.



2003 eASIA Award : eBusiness in the Private Sector

Category : eBusiness in the Private Sector

Project Name : Solme B2Bi Suite for ebXML Development

Organization : InnoDigital Co. Ltd.

Summary

Industry On The Move "Solme B2Bi Suite for ebXML Development"

The Solme B2Bi suite project proves the concept of ebXML as one of the first implementations and proposed a leading electronic business-to-business model. The main goal of this project is to develop a complete B2Bi platform, which enables all business in any shape, form or size and to easily conduct B2B eBusiness with beneficial returns. Companies always seek to manage costs while increasing profitability. This strategic goal urges them to rush to eBusiness. However, the old-fashioned electronic business-to-business models such as EDI still have limitations such as large initial investment, absence of global open standard, etc. ebXML, which is sponsored by OASIS and UN/CEFACT, gives us the prospect of building more open B2Bi framework. EbXML presents an infrastructure and semantic framework that ensures business-to-business interoperability. The ultimate goal of B2Bi suite project is to prove the concept of ebXML and provide a leading electronic business-to-business model, which enables companies of any size to conduct electronic business-to-business collaborations and eliminate paper documents, reducing costs and improving efficiency.



2003 eASIA Award : eBusiness in the Public Sector

Category : eBusiness in the Public Sector

Project Name : The eBusiness Project: for the IT and other Major Manufacturing Industries

Organization : Ministry of Economic Affairs

Summary

Predominate Competitiveness "The eBusiness Project: for the IT and other Major Manufacturing Industries

Electronic business implementation is one of Taiwan's most critical success factors for industry development especially in facing the developing trend of globalization. In response to this brand new business environment, The Taiwan government in cooperation with private sectors from various industries has communally participated in the "Industry automation and Electronic Business Program(IAeB)" led by MOEA from the year 1999 on. This project has three focuses: "The Enhancement of Industry e-Business Infrastructure", "The Reinforcement of the Industry Electronic supply Chain", and "The Assistance of e-Marketplace Industry Development". In addition to revolutionizing the global business models for Taiwan's IT industry, this project fully mobilized the implementing in e-Business trends in other major manufacturing industries. The benefits and results attained through the implementation of the e-Business project will advance multinational economic cooperation between various industries. (website: www.moea.gov.tw or itap.tdp.org.tw or www.moeaidb.gov.tw/~iaeb/)

Category : eBusiness in the Public Sector

Project Name : The Electronic Filing System

Organization : The Supreme Court, Singapore

Summary

New Law Epoch "The Electronic Filing System"

The Electronic Filing System (EFS) is the world's first nationwide paperless court system. The EFS is an excellent case study of how information technology is harnessed to help achieve effective, efficient and economical dispensation and administration of Justice. This system revolutionizes the conduct of civil litigations in Singapore through its facilities for electronic filing, electronic extracts, electronic service of documents and electronic information services. The introduction of court hearings in an electronic environment frees lawyers from the logistical burden of managing physical files, which includes tracing, moving and storing them. The EFS aims to minimize paperwork and allow secure reliable and convenient exchange of information and legal documents between law firms and courts. Also, it takes advantage of the proven leading edge technologies in Web, J2EETM, XLM messaging and public key infrastructure to facilitate the just, efficient and expeditious conduct of civil litigation.



2003 eASIA Award : eBusiness in the Public Sector

Category : eBusiness in the Public Sector

Project Name : eRevenues Strategy: A revolution in tax administration

Organization : Revenue Dept., Ministry of Finance

Summary

Limpid Finance "eRevenues Strategy: A revolution in tax administration"

The Revenue Department as an organization responsible for collecting the majority of government revenue is driving forward to modernize the whole organization nationwide by implementing a series of e-Revenue strategies. This system utilizes ICT technology and is directed towards the internal improvement of tax administration as well as the creation of electronic interfaces with external bodies. Electronic taxpayer service initiatives have driven the Revenue Department towards improved levels of service, transparency and professionalism. e-Revenue's project scopes include: a. e-service: utilizes information and communications technology (ICT) to provide better and professional services to taxpayer. b. up-to-date finance: enhance the efficiency and fairness in tax collection by utilizing modern information and communications technology. In order to achieve its departmental mission, the RD takes initiatives for the e-Revenue strategies. The RD is driving forward to be modernized across the whole organization nationwide with the increasing utilization of ICT.



2004 eASIA Award Success Stories

Bridging Digital Divide
Electronic Business in Private Sector
Electronic Business in Public Sector
Trade Facilitation



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: Bridging The Digital Divide In An e-Era

Organization: Institute for Information Industry

Summary

Bridging The Digital Divide In An e-Era is designed to provide IT education and assistance to people in remote areas in Taiwan and improve their education, society and financial capability.

In Taiwan, aboriginal people have only half as many households with computer ownership and only 1/3 of them have access to the Internet. Capital Taipei City has twice as many households with computer ownership than Nantou County in the south.

Due to the digital divide among ethnic groups and cities, IIT funded the "Bridging Digital Divide Project" (BDDP) in 2001 to bridge the gap. With efforts from both public and private sectors, IT education has been provided to people in remote areas and improved their financial capability.

Methodology/Scope

The project is divided into three stages:

- **Promoting digital concepts and knowledge (2001)**

To raise the awareness of digital divide, some NTD\$29 million was allocated for special exhibitions and seminars, computer donation, training teachers and the establishment of demonstration sites.



• **Establishing experimental digital sites and providing guidance (2002)**

People living in rural areas gained access to digital tools and were taught how to maintain and repair computers. Several demonstrative sites were built to provide a comprehensive digital-learning system.

• **Emphasizing on integrative digital solutions (2003/2004)**

Multiple resources are invested in these remote areas, including digital tools, digital-learning facilities and digital course materials. Major tasks included improving villagers' digital skills and assisting local schoolteachers to utilize digital tools in teaching.

Achievements/Challenges

This project has greatly enhanced local villagers' digital skills and assisted the sustainable development of villages. Integrated resources and other institutes have helped to bridge the digital divide in Taiwan.

In the past three years under this project, 11 counties have been benefited from 133 IT activities and 63,500 people have attended those activities. About 2,800 people and 660 computer volunteers were trained in computer and Internet courses held in remote areas. A total of 10 new and 304 used computers have been donated to 20 sites in need and 16 organizations have contributed to efforts for bridging digital divide.

Challenges the project faces include:

- Villagers must learn to maintain and operate the information and Internet facilities in their region.
- Create demand for the use of computer and Internet in remote areas
- Assist an integrated, sustainable development in remote areas



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: Personnel Training of Electronic Business

Organization: Department of Commerce, MOEA

Summary

The Personnel Training of Electronic Business project aims to provide manpower cultivation resources in central and southern Taiwan, where resources have been insufficient.

This project enables people with no IT background to acquire basic e-business knowledge through National Chung Cheng University's automation center, manufacturing integration center, library and digital learning center. Trainees learn about how e-business works, study examples of successful e-business cases and acquire other new skills.

In order to meet the needs in central, southern and eastern Taiwan, the project combines in-class instruction with distance learning. The manpower cultivation and knowledge extension have brought about a significant narrowing of the digital divide between enterprises and rural areas.

This project is expected to train over 500 individuals annually, with each undergoing at least 48 hours of training.

Methodology/Scope

Three training programs -- "Management of Operations in e-Business", "Project Management in e-Business" and "Strategy and Planning in e-Business" -- were launched to serve different targeted attendees among low, middle and high-ranking personnel from businesses such as retail, service and logistics.



Project implementing methods are explained based on course content planning, execution of program commencement, program implementation concept, and method of preparing teaching material, online structure of teaching platform, performance assessment and analysis

A program prototype is in place to arrange the schedule, recruitment and propagation of the program. This will provide suitable training programs to meet the needs of local industry and trainees.

Achievements/Challenges

Since the start of this project, a total of 9,000 disks of e-books on the three training programs were published between 2001 and 2003. In 2002, free e-books were downloaded 1,509 times, and the accumulated download count reached 3,866 times in 2003.

This project has enabled 73 percent of students to become e-proficient in central, southern and eastern Taiwan and also helped to reduce the digital divide between rural and urban areas.

The project's blueprint for the future:

- Training personnel for e-commerce as the basic foundation during 2001 to 2005
- Encourage industries to adopt e-commerce widely in 2006 and develop fully digitized course contents.
- e-commerce training should be conducted across the country in 2007
- In 2008, e-commerce training will be internationalized as successful overseas cases will be adopted as case studies and certified e-commerce personnel from abroad will be introduced for the training.



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: eSuvidha

Organization: National Informatics Centre, Department of Information Technology, Government of India

Summary

e-Suvidha is an e-governance package that provides a single window facility for citizens to submit requests for civil services and to monitor the status of their application. The web-based software is developed to automate such application process, which was long and tedious in the past.

The project aims to construct IT infrastructure in the North Eastern States of India by establishing Community Information Centers (CICs) in 487 blocks of eight States. These CICs are equipped with computer and communication infrastructure to connect the local population with the digital world.

Methodology/Scope

Windows 2000 has been chosen as the server platform. CICs use a visual-based client application which provides interface for application acceptance and upload data to the server at State Head Quarters. The Application Processing Centres are in charge of updating the status of application through a web-based interface.

The e-Suvidha Application has four modules: Administration, Processing, Application Status and AAC.

- **Administrative module:** used for administrative purposes and covers nature of the services, expected time for the application, details of required documents and the



department that processes the application.

- **Processing module:** used by the Application Processing Centers to update status of an application.
- **AAC module:** a client-server application installed at the CICs to accept application forms. It is used to upload application data to State Head Quarters Server for processing.
- **Application Module:** enables the applicant to view the status of application submitted at AAC through the Internet.

Achievements/Challenges

eSuidha has been implemented in about 50 CICs, mainly in the states of Arunachal Pradesh, Assam and Tripura. Government of Tripura has recently decided to implement eSuidha across the state as a delivery point for all citizen-centric services.

Efforts are being made to implement eSuidha in all 487 CICs of the North East and training and awareness programs have been conducted for CIC operators in order to accelerate the process.

Looking forward, the project needs to:

- develop a generic application that can accommodate diverse processing practices across States and Services;
- tackle different administrative structures in different states;
- provide a common interface that can allow different government departments in various levels to process the applications;
- identify an application for processing by an Application Processing Centre from applications received by Application Acceptance Centers all across the state and
- install and configure and maintain AACs module at about 500 CICs.



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: eBario: Providing Equal Access to ICTs for Rural Communities

Organization: Universiti Malaysia Sarawak

Summary

eBario is a pilot project designed to provide Information and Communication Technologies (ICTs) to Bario in the Kelabit Highlands, close to the border

between Kalimantan in Miri Division of Sarawak.

Today, schools and communities in Bario have access to telephones and the Internet. The community is also applying ICTs in their daily life. With access to ICTs, there has been increased computer literacy in Bario and the standard of living has been greatly improved.

The most obvious impact is an increase in the number of tourists. As of October 1,

2003, the number of flights to Bario has increased from one to two flights a day. The project also contributed in easing the migration problem, as an increasing number of young people stay in Bario with their families to run tourist accommodation and tourist activities. There are now six lodges and three homestays in Bario.

Methodology/Scope

The project employs the Participatory Action Research (PAR) model, where the community is involved in the process of generating knowledge about their own conditions and learning how ICTs can improve their community. The approach allows the community to identify problems, followed by guidance from the research team to find a solution to these problems. Under the PAR methodology:



- researchers learn about life in Bario from the community;
- the community learn about ICTs from the researchers;
- community members play a major role in the research by contributing ideas;
- researchers identify with the community and
- as a team, the community-researchers partnership achieves mutually beneficial outcomes from the project.

Plans are underway to initiate e-commerce to allow the community to sell their products such as handicrafts, and much sought-after fragrant Bario rice online.

Achievements/Challenges

The eBario project's achievements so far include:

- named as one of the Top Seven Intelligent Communities 2001 by World Teleport Association
- Industry Innovators Award for Systems Development & Applications by Society of Satellite Professionals International in 2002, Washington DC
- Special presentation on e-Bario at 2003 World Summit on Information Society (WSIS) by Strategy and Policy Unit of ITU (ITU-SPU)
- Winner of IT Premier Award Anugerah Perdana Teknologi Maklumat (socio-economic sector) (2003) – presented by the Prime Minister of Malaysia
- Special Mention: DAGs Demonstrator Application Grant Scheme (DAGS) Convention 15th January 2004

One of the main challenges the eBario team faces is transport in the remote area of Bario. The team needs to fly computers, materials for the telecenter and even fuel to run the generator into Bario. As diesel-powered electricity is too costly, a hybrid design based on solar-power in addition to a diesel-powered generator has been implemented.



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: Rural Internet Program

Organization: Ministry of Energy, Water and Communications

Summary

The Rural Internet Program (RIP) is designed to increase Information and Communications Technology (ICT) literacy and awareness in targeted rural areas.

The population census 2000 showed that 40 percent of Malaysia's population or nine million people live in rural areas. A Needs Survey also showed that 66.7 percent of people in the rural areas have not used Internet and 61.3 percent of those who have not used Internet are interested to use the Internet.

The RIP aims to serve approximately 2.8 million people in the rural population by 2008, primarily those above 17 years old.

Methodology/Scope

In this project, the government provided each Rural Internet Centre (RIC) with basic telecommunications infrastructure. Facilities provided include five or six personal computers, two laser printers, one colour printer, one scanner, one digital camera, one unit of air conditioner and broadband internet access (ADSL or ISDN).

The operating cost of the RICs is borne by the Government. A remote online monitoring system has been set up at each RIC for the Ministry to monitor and obtain statistics for RIP planning and development.

Two government-appointed supervisors at each centre are responsible for daily operations.



They are required to submit reports fortnightly to the Ministry.

Women and the elderly are given priority in this project since the objective of the RIP is to improve the IT literacy of this specific group in the society. Students, though also allowed to use these facilities, are not given top priority in this programme since they are offered other opportunities such as computer labs in schools.

Due to the low level of computer literacy in these areas, users learn to know basic computer hardware such as keyboard and mouse in the initial stage. Later on they learn about basic computer skills including word processing and spreadsheets.

Achievements/Challenges

Since the commencement of the RIP in December 2003, RIC users and awareness about this programme have been increasing. On average about 60 to 70 people use the centre every week, with some 10 to 15 new users. Users are mainly housewives, pensioners, youngsters and the self-employed. To date, the number of users trained totalled 21,219 while the number of users stood at 29,032.

The introduction of e-mail application has also helped many elderly users to communicate with their children living in urban areas. A number of ASEAN visitors have visited this program and want to install similar systems in their country.

One of the challenges is people's perception of ICT, as many parents are still sceptical about the Internet, which they view as a venue of computer games or chat rooms. Therefore in addition to communicating with parents, a filtering system should be installed to ensure positive use of Internet.

If needed, a mini exhibition or virtual centre should be set-up at RICs to display current and future Internet technology and increase positive awareness in the rural areas.



2004 eASIA Award : Bridging Digital Divide

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Bridging Digital Divide

Project title: Virtual Malaysia Project

Organization: Creative Advances Technology Sdn Bhd

Summary

The Virtual Malaysia portal is an open e-business platform designed by Creative Advances Technology (CAT) to maximize the Information Communication Technology (ICT) for operators in the tourism industry.

Originally developed as an R&D project, the Virtual Malaysia portal has been upgraded and enhanced with GIS Map, Virtual Reality, e-brochure, e-commerce, e-packages, SMS and PDA download and acts as an e-commerce platform.

Operators in the tourism industry will be able to use the Virtual Malaysia portal to kick –start their e-business at a minimal cost. The project also offers other mediums including CDROM (multimedia and graphic) and Magazine (publication) as the tools for tourism promotions.

Methodology/Scope

Virtual Malaysia involves e-marketing, e-commerce and e-resource management.

The CAT Content Management System is designed to simplify the hassle and tedious scope in managing, updating and disseminating content. Through this Content Management System, activities such as publishing, deleting, updating and monitoring the content can be managed systematically.

The project includes:

- **Packages2Go:** a system designed for travel agents to have online presence; they can



also sell their travel packages in a wider target market.

- **GIS Map:** it assists tourists to navigate through GPS (Geographic Positioning System) and can be downloaded into PDA.
- **E-Mall:** it offers online shopping for travel and tourism products such as crafts, crystal and publication.
- **E-ticketing:** an e-business solution that allows online business transaction.
- **'C-Flex':** the multitemplates and content management system enables users to conduct e-business with just one click.

Achievements/Challenges

Virtual Malaysia currently receives more than five million hits per month. In addition to promoting Malaysia as a tourist destination, Virtual Malaysia also provides the facility and infrastructure of e-commerce for Malaysian companies to sell their products and services online.

VirtualMalaysia.com has received prestigious awards including

- "Best Content Development" at the Asia Pacific MSC at the IT and Telecommunications Awards (APMITTA)
- "The Best Tourism Applications" award at the Asia Pacific Information Communications Technology Awards (APICTA)
- ICT Premiere Award 2003

The latest development in this project is Malaysia Diving and Snorkelling Guide CD/DVD ROM that features more than 200 dive sites and underwater footage as well as videos.

One of the challenges is how to manage the balance between cultural and technical changes. As the tourism industry is most sensitive towards changes in economy, tourism-based organizations need to be proactive in order to capture the ever-changing streams of economies.



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: "On Demand", A Revolutionary Step in the Paper Manufacturing Industry for the New Century

Organization: Yuen Foong Yu Paper Mfg. Co, Ltd.

Summary

The On Demand project is an e-service platform through which e-business processes are established to provide customers a new range of services featuring rapid response, one-stop shopping and rapid problem solving.

The project meets the need for a system to bring customers closer to Yuen Foong Yu. There are two divisions of this project are Fine Paper & Paper Board Division and Container Board & Packaging Division.

The new business model helped Yuen Foong Yu and other companies in the paper manufacturing industry to reduce inventory levels, improve operational performance and achieve the industry's "On Demand" objectives. All the 116 participating downstream customers were able to achieve significant reduction in inventory levels, with total savings at more than NT\$2 million a year.

The On Demand project offers an example of how a traditional industry can use information technology to improve the overall operational performance and at the same time encourage downstream customers to raise their level of e-business adoption.



Methodology/Scope

The first step of the project was to conduct a survey on customers' needs. Both Divisions then followed by internal SWOT analysis. The project then developed a new business strategy with changes in operational models and processing procedures.

The electronic service platform was designed and implemented to carry out the new procedures and functions. To promote the use of the new system, top managers have personally visited all major customers. A series of demonstration and seminars were conducted in different geographical areas. The benefit to the customers from the use of the system is the true key factor to convince the customers and to the success of the Project.

Achievements/Challenges

Through this e-business platform, customers have achieved additional cost savings in packaging material inventory and purchasing due to the shortening of the transaction process and delivery periods.

In terms of business results, the Container Board & Packaging Division is electronically connected with 279 customers. The revenue from strategic customers has gone up from 150 million NT dollars in 2001 to 650 million NT dollars in 2003. The cost savings associated with human resources at the design center is now 6.9

NT million dollars per year.

Challenges include:

- When deliveries are due to the customers, the distributor usually informs the company before a delivery is made, causing deficiency.
- Deficient in-between systems caused overstocking for the paper mills, distributors, and printing plants.
- Emergency problems caused by papers or printing are not solved instantly, increasing production costs for customers



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: Pioneering Semiconductor Value Chain Integration: TSMC/ASE e-Supply Chain Project

**Organization: Taiwan Semiconductor Manufacturing Company (TSMC)
Advanced Semiconductor Engineering Inc. (ASE)**

Summary

The TSMC/ASE e-Supply Chain project is an industry-shaping, paradigm-shifting force to upgrade the entire semiconductor industry competitiveness through process and data standardization.

The project is designed to integrate key operational activities and data between TSMC and ASE, resulting in a seamless information and transaction interface to their joint customers, as if manufacturing took place in the customers' own backyard.

This project led to the standardization of the entire semiconductor supply chain processes and protocols, thus elevating the industry's efficiency and value creation to the next level.



Methodology/Scope

Substantial resources have been deployed to implement the project over a six-year period. An iterative, phased approach in project management was adopted to ensure solid delivery of milestones without significantly disrupting current operations.

The core element in the project is data sharing, aiming to achieve integrated utilization of data between upstream, midstream and downstream enterprises.

The strategy focuses on the adoption of innovative standards, simplified procedures and has an emphasis on cost-down. A comprehensive e-business supply chain platform has been established to enable customers and strategic partners to exchange data with TSMC and ASE in an efficient and convenient manner.

In building this logistics system, the two companies are able to leverage the advantages that they enjoy as a result of being leading players in their respective fields - IC foundry operation and IC assembly and testing.

Achievements/Challenges

The project's process integration and data exchange experiences has formed the foundation of RosettaNet standards. Other leading companies in the semiconductor industry have followed suit, drawing up supply chain standards for the IC industry as a whole that will facilitate the growth of Taiwan's IC companies.

The most difficult challenges encountered over the six-year period of project implementation related to business process re-engineering, process integration, process and data exchange standardization and change management.

Going forward, the project will focus on the following:

- Extending the e-Supply Chain to more partners both up and down the value chain
- Continuing to shape industry standards through RosettaNet



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: Web based Enterprise-wide Integrated Application System (EIAS)

Organization: Gujarat Co-operative Milk Marketing Federation

Summary

The Enterprise-wide Integrated Application System (EIAS) project is designed to integrate information of the supply chain in the milk industry.

The system speeds up the delivery of information in India, where a national-wide telecommunication infrastructure is still not in place. In short, it brings under one umbrella procurement information from 2.2 million farmers on one side and 3000 distributors on the other.

Information delivery has been greatly improved by EIAS. Under this system, information on milk procurement reaches the decision-making level (the Federation) from the collection point in about 12 hours. Production and dispatch details from production centers reach the Federation within two to three hours.

Sales and stock data from remote sales locations can also reach the Federation every two hours with the help of EIAS.



Methodology/Scope

EIAS, a customised ERP (Enterprise resource planning), adopts the client-server technology so EIAS can be plugged into various points in the supply chain.

The project's Zonal offices and major members of the Federation are connected through a secure IP-based VPN. All sales offices, C&F points and wholesale distributors are also connected through TCP/IP Internet Mail Account for timely exchanging of information.

The Geographical Information System(GIS) is installed at the project's head office and key marketing offices. With the help of GIS, it is easy to locate members and update their information on a regular basis.

GIS is also used for business planning and review activities. It enables the system to obtain information in the milk society such as farmer member census and animal census data. As a result farmers are able to monitor milk production, animal productivity and the health condition of animals and conduct industry analysis.

Achievements/Challenges

Achievements under EIAS include:

- Significant inventory reduction of up to 25 percent at all levels of supply points.
- Improved forecast accuracy and optimisation of resources.
- Greater distribution penetration and more efficiency in the supply chain.
- Strong alignment of people, processes and technology..
- Improved service and distribution of stocks in the market.

This project has won recognition in the industry, including:

- Selected for the IMC Ramkrishna Bajaj National Quality Certificate of Merit, 2003 in the Service Category
- Award for Brand Excellence - for creating an identity of an Indian Brand
- GCMMF ranked the 6th in the Business world survey ranking of India's most respected companies Awards (2003), and was the 3rd of FMCG sectoral winners.



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: Internet EDI Security System

Organization: Meteora-System Co., Ltd

Summary

This Internet EDI Security System features a 'Trust Model' to provide a legally binding contract between two business parties across borders. It follows UN/CEFACT Recommendation No.26 and enables businesses involved to build cross-border relationships without relying on a third party such as CA.

(UN/CEFACT is the United Nations Centre for Trade Facilitation and Electronic Business. It is open to participation from Member States, intergovernmental organizations, and sector and industry associations recognized by the Economic and Social Council of the United Nations (ECOSOC). The Centre's objective is to be "inclusive" and it actively encourages organizations to contribute and help develop its recommendations and standards.)

The contract can only be addressed by UN/CEFACT and is supported by an Internet encryption and logging system, known as the "Silk Road".

The Internet EDI Security System followed the project of "Silk Road" and succeeded in standardising the technology as one-time cipher for the net. The core of the technology is a system of changing keys. More practically, this software has been applied to IP telephone, which makes eavesdropping impossible by any means over the net.



Methodology/Scope

The Internet EDI Security System followed a decryption technology of Silk Road and succeeds in standardising the technology for the net. The core of one input for the net is the changing keys, and is referred to as “one-time keying”.

It aims to provide electronic messages with a “legally binding effect” across different national legal systems and intend to overcome the problems across borders. In this case, "national" is synonymous with the corporation. Key issues include differences in national legal systems, authentication across borders and security.

Achievements/Challenges

This goal is to create a legally binding contract based on an agreement between two parties conducting business across borders.

One-time pad cipher, standard encryption lists recommended by such as NIST, NESSI, CRYPTOREC are only temporary solutions since with the same keys and text, the transformed message always produces the same cipher-texts.

This is the main reason the one-time pad cipher is quite different.

Further out the idea is to spread the usage of this ‘Silk Road’ technology as it does not conflict with current technology.



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: Automate@hsbc

Organization: HSBC Bank Malaysia Berhad

Summary

The Automate@hsbc project is designed by HSBC Bank Malaysia to help Small-Medium Enterprises (SMEs) to achieve greater efficiency and competitiveness by using HSBC's IT infrastructure and facilities.

Instead of investing heavily on their own technology infrastructure, SMEs can use HSBC's facilities to conduct e-commerce e-banking.

This project creates the driving theme of allowing small businesses to utilize facilities of their business partners that operate in a large scale. This system is applicable to all smaller enterprises especially in developing countries.



Methodology/Scope

Automate@hsbc offers SMEs primarily free of charge services, or a small nominal fee if any, to enhance the value proposition for their customers. SMEs can enjoy a powerful suite of e-facilities. They also receive benefits including critical event alerts, online information, e-collaborative workflow operation, e-trade facilitation and tracking, electronic filing/retrieval, cheque outsourcing, financial control and other cost-saving advantages.

In short, the project means implementation of a wide range of electronic facilities, including internet, wireless, self-service and other technologies, to offer a complete set of value-added services and business benefits to SMEs. It offers:

- 24hrs Electronic Banking Centres for online bulk cash deposits, cheque payments/deposits
- Electronic cheque writing & receivable outsourcing
- SMS & Secured Email Smart Alert services
- Internet banking
- E-collaborative workflow processing & e-trade facilitation
- 24hrs Telebanking service and Call Centre support

Achievements/Challenges

About 3,000 SMEs have signed up in different degree of automation and e-collaborative operation. When fully used, there are over 20,000 online users. This project has helped banks to have over 90 percent customer transactions and 70 percent of TT (Telegraphic Transfers) done via internet banking.

Automate@ hsbc has been awarded with the following in the past:

- "Best of E-Commerce Applications" by Asia Pacific ICT Awards 2003
- "Best of E-Commerce Applications" by MSC-APICTA Awards 2003
- "Best Consumer Internet Bank 2003" by Global Finance
- CIO Asia Awards 2004
- Malaysian PM's IT Award 2002 for Bulk Cheque Scanning Deposit Machine & end-to-end processing solution



2004 eASIA Award : Electronic Business in Private Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Private Sector

Project title: FlexiClaims

Organization: CrimsonLogic

Summary

FlexiClaims is a web-based end-to-end automated claim processing system for healthcare management organizations (HMOs) and/or insurance companies to manage operational processes with more flexibility.

From medical benefits management, membership administration and claims processing, to billing and generating specialized management reports for reference and analysis, FlexiClaims combines them at one stop for customers' convenience.

Customers will not have to manually submitting multiple claim forms as FlexiClaims automates all these so that the processes between the parties involved – HMOs and/or insurance companies, clinics, hospitals, and corporations – blend seamlessly into only one procedure. As a result, HMO and insurers are able to maximise efficiency, delivery quality and operational transparency, with reduced claims turnaround and real-time utilization performance.



Methodology/Scope

FlexiClaims replaces the manual task of submitting claims to HMOs and claim processes by HMOs. The application is a multi-tier web application, designed based on the object-oriented concept and developed using the Java 2 Enterprise Edition platform (J2EE) technology. The system:

- allows user manage service provider, membership account, plan scheme creation and claim processing
- allows user to submit and approve claim online
- enables claims processing fully integrated with service provider, membership and plan
- provides information
- generates statistical reports for analysis
- helps companies manage employee account

Achievements/Challenges

FlexiClaims allows HMOS and service providers to submit claims online. HMOs are able to access the claim submission for evaluation and go through the claims approval process immediately. The claims process is fully integrated with service provider, membership and scheme module to access information that is needed during the end-to-end claims cycle.

With FlexiCaims, HMOs can now manage claim 24x7 online and easily integrate with new service provider. The claim process is shorter with minimal error by integrating with service provider, membership and scheme information. The integrated information also reduces the manual tasks of submitting and crossing reference to numerous documents, hence reducing and controlling claim fraud.

CrimsonLogic, the developer of FlexiClaims, is currently marketing the service to overseas HMOs. Marketing efforts are also being made to promote the service to overseas authorities. Through presentations and demonstrations in conferences and exhibitions.



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector

Project title: eBAS – A Successful Government EIP

Organization: Directorate-general of Budget, Accounting and Statistics (DGBAS), The Executive Yuan

Summary

eBAS (electronic Budget, Accounting and Statistics) is a portal and knowledge management platform designed to improve the inter-governmental communication.

It rebuilds business digitalization processes and increases administrative efficiency. As a result, eBAS reduces both time and cost of data transfer and to increase administrative efficiency.

All DGBAS (Directorate-general of Budget, Accounting and Statistics) subordinate agencies and personnel have linked up to the new network, which has its own dedicated website to provide various e-business application, data exchange and communication functions.

Methodology/Scope

eBAS is constructed as a G2G (Government to Government) network for rapid data transmission and exchange. It is a portal that integrates BAS application services, including information systems such as Government Budget, Government Accounting, Official Statistics Management, Census Investigation and BAS Personnel.



There are four strategies in this project:

- **Innovative Service:** provide an environment in the BAS e-community for stimulating creativity and establishing appropriate behavior.
- **Common Consensus:** form information promotion taskforces to build up common consensus within the organization.
- **Effective Reengineering:** convert existing paper-based processes into digital data exchange mechanism and set up an assessment procedure for the BAS system.
- **Electronic Infrastructure:** set up a mode of communications to overcome the limitations of distance among the BAS members across the country. Complete the knowledge bank to provide an intelligent platform for national BAS staffs.

Achievements/Challenges

eBAS has improved G2G, G2C (Government to Citizen) and C2C (Citizen to Citizen) administration and service efficiency. The achievements include:

- Significantly reduces time and cost of data transfer and increases efficiency.
- Reduces the quantity of documents and repeated data input to save costs and shorten processes.
- Standardizes procedures to reduce overall operating cost.
- Strengthens the BAS personnel's knowledge management and communication ability.
- Establishes a nation-wide family of BAS members to bolster their morale.

Looking forward eBAS will integrate all BAS-related management information systems into the eBAS intelligent platform to strengthen a digitalized workflow and operation environment.

The eBAS system's successful experiences should also be promoted to other governmental organizations to improve inter-government communication and administrative efficiency.



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector

Project title: Vitamin C (Cash) — Supply Chain e-Financing Project

Organization: Department of Industrial Technology, Ministry of Economic Affairs

Summary

Project C focuses on e-financing operations in a supply chain between manufacturers and suppliers in the IT sector. It seeks to align cash flow services with the existing e-business supply chain to provide a range of financial services including global payment and collection, offset, account aggregation and an online financing system.

This project brings together players in the banking industry and assists them in solving payment issues between lead manufacturers and their suppliers.

It also creates an enabling environment for Taiwan's industries to keep orders, financing and cash within Taiwan and to construct a global financial services network for domestic banks.

Methodology/Scope

This project integrates e-supply chain systems with e-payment services provided by financial institutions to replace paper checks, providing electronic banking services for enterprises. The online e-finance service for suppliers is free of a guarantee requirement and uses the transaction information at any given step in the order process.



Methodology:

- Setting application qualifications, principles for approval and calling for qualified players through an openly announcement.
- Using the mechanism of the DoIT/MOEA's IT Application and Promotion (ITAP) Program for Enterprise to guide, audit and promote the execution of each participant in Project C.
- The Bank Working Group (BWG) is organized to set common electronic banking requirements and coordinate business processes between banks, lead manufacturers and suppliers.
- Coordinating the BAROC (The Bankers Association of ROC) to take responsibility for developing and disseminating FXML standard messages for Project C
- Seeking common ground, setting unified inspection and acceptance regulations.

Achievements/Challenges

This project has helped to strengthen the competitiveness of Taiwanese banks, giving Taiwan's financial sector an edge in terms of capabilities and innovative services. It also enables Taiwanese financial institutions to build a global financial services network.

By the first quarter of 2004, Project C had included eight banks and over 4,500 suppliers. The amount of e-finance had reached NT\$23 billion, and this figure is projected to grow to NT\$60 billion at the end of 2004. Suppliers obtained favorable loan rates, with reductions of approximately 50 percent. The increased transparency of transaction information made it possible for banks to simplify their credit procedures, saving them around NT\$30 million.

Thorny issues in this project include accounts receivable and accounts payable issues as the integration with e-payment tools has not finished at that moment. The majority of payments are still done via paper means by writing a check, or through other complex manual processes. Another challenge is supplier's financing issues.

Looking forward, Project C e-finance services aim to reach Taiwanese firms abroad via overseas bank branches.



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector

Project title: e-Panchayat

Organization: National Informatics Centre, Department of Information Technology, Ministry of Communications and Information Technology, Government of India

Summary

The e-Panchayat project is designed to introduce IT services to the village level.

The services provided by e-Panchayat range from simple birth and death certificates, trade licences to works monitoring and financial accounting.

Under this project, a website has been set up for each Panchayat, which is the village-level government.

The project aims to bring a customized information system and IT infrastructure to the village level. In addition to introducing the digital culture to villagers, the project will also minimize the recurring expenditure on operation and maintenance.

Methodology/Scope

As desktops are now available at affordable prices, the e-Panchayat software can be easily loaded into the computer system in the village. The system will eventually be available across the state and some strategies have been mapped out to achieve this goal.



Due to budget concerns, the Commissioner Panchayat Raj & Rural Employment will only be responsible for expenses of the servers. On a Build Own and Operate (BOO) basis, the systems will be facilitated by a self-employment generation scheme.

Under this scheme, one or two families in each village will make a living by providing services to the entrepreneur who runs the e-Panchayat. As the entrepreneur receives payments to input data and reports, he/she will be responsible for system maintenance, procurement, internet connection and associated logistic issues.

The software in this project is developed by National Informatics Centre (NIC) and the central server infrastructure by the State Government. The field level resources are facilitated in line with the BOO model.

Achievements/Challenges

Some selected panchayats, including Ramachandrapuram and Edida , have started deployment and implementation of this electronic system. Over 200 RSDP (Remote Sensing Data Policy) operators have been trained by NIC to be the major stake holders in providing and maintaining resources to villages lack of financial resources.

Major challenges in this project include:

- Lack of resources.
- Lack of infrastructure.
- Lack of awareness among various stake holders.
- Misconceptions about the proposed systems.
- Lack of commitment.
- Resistance to Change.
- Lack of change management strategy at State level.

The next step is to sign a MOU between NIC and the GP Department and start the implementation by organizing training and awareness programmes.



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector
Project title: Electronic Bidding Core System
Organization: Japan Construction Information Center

Summary

The Electronic Bidding Core System allows bidders to use the internet rather than have to be present at the venue. They simply file the bids from their office.

It aims to consolidate current Electronic Bidding Systems and reduce costs for bidders.

A bidder may build their own Electronic Bidding System based on the Core System and this is designed to reduce costs and prevents multiple interface and authentication, which has been confusing in the past.

The Japan Construction Information Center (JACIC) and the Service Center of Port

Engineering (SCOPE) have jointly set up the "e-Bidding Core System Development Consortium" to introduce the Core System to the public as well as local government offices. The Core System is highly flexible and can be applied to different users.

It supports registration, application, bidding and re-bidding and also shows the results of tenders on the system. But companies without Internet can still use the traditional paper bidding system.



Methodology/Scope

The Electronic Bidding Core System provides a simple screen layout so users can understand the bidding progress at a glance. They can also customize their screen layouts through this user-friendly system. The layout is in accordance with GUI Guidelines, which details how to use other Electronic Bidding Systems along with the core system.

The Core System is in two parts, a customisable area and a core area. In the former, users can design their own screen and account books. In the latter, bidding-specific program components and a public key infrastructure are included. As the Core System is developed with Java, program codes can be unified to improve efficiency in development and maintenance management.

Achievements/Challenges

Results of an opinion survey on bidding-related businesses have shown that the Core System is highly reliable and flexible. So far 25 ministries and public corporations, including MLIT and MAFF, all prefectures and government-designated cities are using this system as special members. MLIT has been operating an Electronic Bidding System based on the Core System since 2002, and has implemented about 30,000 electronic bidding as of March 2003.

The system has significantly simplified the bidding process and attracted more bidders. Standard electronic authentication has been adopted for implementing transactions to prevent Internet forgery and alteration.

The Core System V3.1 has been released, greatly enhanced the system's performance particularly in its multiprocessing capability.



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector

Project title: e-management for education (IMSeducation)

Organization: University College of Engineering & Technology Malaysia

Summary

The Integrated Management System Education (IMS education) project is designed to help universities in managing resources and decision-making with an integrated system. This total campus management system is a combination of software engineering, network engineering, electrical engineering, management and psychology.

The project aims to:

- Improve efficiency and productivity;
- Deliver culture values;
- Reduce operation cost and increase profit;
- Integrate organizations through the Integrated Information System and
- Provide effective Decision Support and Strategic Planning Tools



Methodology/Scope

IMS education adopts a strategic approach that manages an organization through a technology-based system. It focuses on Integration, Automation, Artificial Intelligence, Dynamic and Paperless.

- **Integration:** all data is stored in a single Integrated Database to avoid duplication and all applications are fully connected as one integrated process.
- **Automation:** it avoids manual transferring of information between all related entities in the organization. All the processes are done by the Integrated System.
- **Intelligence:** the Intelligent Timetable Engine enables all slots in the time table to be done in a fair, optimum and efficient manner.
- **Paperless:** all application, approval, meetings or reporting mechanism have been adjusted to ensure the use of online information instead of hard copy.
- **Dynamic:** the system in the e-management's environment has been designed to cater any change at any time as required.

Achievements/Challenges

The achievements of the projects include:

- The Premier Award 2003 from MAMPU in Public Sector Category
- MSC APICTA 2003 Merit Award (MSC Asia Pacific ICT Award) in education category
- Finalists PIKOM 2003 (Malaysian Computer Asssocation) in private sector category

The IMSeducation project should be extended to datawarehousing and data mining activities to produce analytical reports to support the strategic planning of the organization. It should also be expended to other sectors such as IMShealthcare, IMSmanufacturing, IMSbanking, IMSrestaurant, IMSconstruction, IMSfinancing and IMStrading.

One of the major challenges in this project is to convince the top management about benefits of e-management and the implications to the university. The short dateline, fast deliverables, high expectations from the users, zero error, zero downtime, no alternative and no turning-back strategy require a very strong and tough team and project leader .



2004 eASIA Award : Electronic Business in Public Sector

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Electronic Business in Public Sector

Project title: Tax Agent Portal

Organization: Australian Taxation Office

Summary

The Tax Agent Portal project aims to deliver a convenient and secure website, within which tax agents can access a range of online products, services, tools and information relating to the tax system.

The Portal was designed with direct input from tax professionals at all stages. It provides convenient access to view client information, update certain client details in real time, download reports, submit online forms and send messages to the Tax Office - all within a secure environment. The Portal is available to all registered tax agents via a secure link.

One of the early deliverables of this program was a secure online environment within which tax agents could access information regarding their clients and submit transactions to the Tax Office. The ultimate aim of the Tax Agent Portal is to become a fully integrated, electronic hub for accessing information from, and transacting business with, the Tax Office. The project has been progressing well and is on track to deliver future improvements to reach the stage where tax agents have a high fidelity portal environment where eBusiness transactions will satisfy nearly all of their tax interactions.



Methodology/Scope

- Taking a **user-centred approach**, creating products and services that are Easier, cheaper and more personalised.
- Making the emerging design **visible** through early **documentation** and Prototypes that focus on dialogue, sustain energy and facilitate co-design.
- Working collaboratively in **interdisciplinary teams**, helping ensure that, When change is implemented, the user experience reflects that intent.
- Building a **shared understanding of intent** and ensuring that, when Change is implemented, the user experience reflects that intent.
- Following a **disciplined yet flexible process** that stays true to our design Principles and achieves higher quality in less time.
- Mapping the user pathway and other layers of design upfront to create a **Coherent blueprint** for change.
- Looking for **innovative solutions** that align with corporate directions and Achieve a balance between tax system integrity and user expectations.

Achievements/Challenges

The Tax Agent Portal has been highly successful and is used by a large proportion of tax agents on a daily basis, with usage increasing each month. It currently has around 100,000 logons every week by an average of 11,000 different agents. During April 2004, there were more than 3.5 million page hits on the Tax Agent Portal. In 2003, the Tax Agent Portal was nominated for, and won, the CPA Australia – Queensland Public Sector Award that recognises significant contributions and innovations to the fields of finance, accounting and business within the public sector.

Security is the biggest challenge for this project. The Portal offers two levels of authentication - User ID/Password and Public Key Infrastructure (PKI) digital

certificate security. This accreditation provides assurance that the certificate issuing process and the technology and practices that underlie it are robust and are in line with published standards. As part of the assurance processes relating to security, independent bodies have undertaken a Threat Risk Assessment and conducted penetration testing for each portal release.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Trade Facilitation

Project title: eTrade (Facilitating international trade in India)

**Organization: Department of Commerce, Ministry of Commerce & Industry,
Government of India**

Summary

The eTrade project is a solution based on e-commerce (EC) and electronic data interchange (EDI). The unified portal allows the trading community access to all trade regulating agencies that deliver their services through electronic means.

The eTrade project aims to:

- Simplify procedures.
- Provide 24 hour access to users with their business partners.
- Increase procedure transparency.
- Reduce costs and time in transaction.
- Introduce international standards and practices to the domestic industry.



Methodology/Scope

Under the project, departments involved in international trade need to offer their services via EC/EDI with an objective to bring the overall transaction time to international level.

Problems in EC/EDI implementation have been identified and a study was conducted on the framework for implementation of EC/EDI in India. Important strategies include:

- Mapping and re-engineering of the core regulatory trade processes.
- Defining clear success criteria for EC/EDI implementation and connecting all agencies to the system.
- Assigning an agency to monitor and assess the implementation.
- Setting up a task force to process re-engineering.
- Planning National Message Development project;
- Internetworking of VANs.
- Seeking legal amendments to facilitate the project.
- Organizing training programmes.

Achievements/Challenges

Achievements of the eTrade project include:

- Integration of all international trade regulatory / facilitating agencies eTrade through a portal (<http://etrade.nic.in>) has been provided this year.
- The project has empowered the trade & industry to have a transparent system for international trade, wherein they would be in-command to have anywhere anytime access to all the trade regulatory/facilitating agencies.
- Significant reduction in transaction time of services is achieved e.g. license application now disposed in 6 hours instead of earlier 45 days.
- Reduction and early detection of frauds.
- Digital Signature/PKI integration
- Electronic Payment integration
- Uniformity and simplification of processes across different locations

Looking forward, the project is working on a web-based system to computerize shipping documents so operators can exchange information in a secured electronic environment.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: eBusiness on Public Sector

Project title: Using Smart Card in Customs Procedure

Organization: ASYCUDA project - Islamic Republic Of Iran Customs Administration

Summary

The Smart Cards project is designed to replace paper-based permits with electronic means. These electronic permits are much more configurable and manageable than paper-based permits.

As one of the most common customs offences in Iran is documents forgery, Smart Cards will reduce document forgery and are ideal substitutes to paper-based documents. With a layered security mechanism of storage and retrieval, Smart Cards are the most secured permits in circulation.



Methodology/Scope

The following procedures are adopted in the Smart Cards project:

- **Import procedure:** all the permits issued by the Customs will be encoded in the Smart card format by the Smart Card machine. All the cards are subjected to configuration before encoding.
- **Transit procedure:** data/information of transit documents will be encoded into the Smart Cards. The data will be tracked en route to destinations and controlled by relevant controlling agencies. All transit data will be written-off down the road.
- **Export procedure:** controlling agencies in this case act as port offices or warehouses.
- **Miscellaneous procedure:** as all Customs procedures have been addressed in the automated ASYCUDA system, Smart Cards can be applied for other purposes.

Achievements/Challenges

Smart Cards achievements include:

- Increase the government's revenues by reimbursement of taxes that were not levied before.
- Replace all paper-based documents by electronics means.
- Speed up the issuance of permits by removing the manual method.
- Reduce related costs.

A lack of robust and reliable telecommunication infrastructure in Iran has been the biggest issue for Smart Cards as not all parties involved are equipped with the Internet.

Looking ahead the project needs to seek closer co-operation among organizations in the trade chains and active users of this facility. It is also crucial to build a culture of data exchange.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Trade Facilitation

Project title: PTP Community Systems

Organization: Port of Tanjung Pelepas

Summary

PTP is one of Malaysia's latest and most modern container terminals. The PTP

Community Systems were developed to provide tools for its community to carry out business transactions via electronic means. They consist of various application systems to serve distinct functions of port business or authority requirements.

The project offers the community all necessary functions in conducting business transactions related to the seaport. With the ability to handle remote and self-service database transactions, the community can perform their functions anytime and anywhere.

The systems have transformed PTP to an efficient port through flexibility, a comprehensive network and simplified process. Many approaches in this project are completely new to Malaysian ports and the success of PTP means a model has been set up for other ports to follow.



Methodology/Scope

PTP Community Systems consist of the following:

- **Navis** - container operation system
- **FZIPS** - Free Zone information processing system
- **VCS** - Vessel clearance system
- **GCAMS** - Gate control and monitoring system
- **SCM** - Simplified container movement

The systems aim to create a one-stop-access point for operators to deal with PTP and reduce any duplicated data entry in the process.

The systems operate on a 24-hour basis and data facilitation is made possible via usage of UNEDIFACT messages, direct entry via the Internet, or uploading of simple data format.

Achievements/Challenges

Benefits brought in by the systems include time and cost saving, minimum duplication of data, self-service flexibility, simplified process and efficiency.

As the systems are now in place and most of the process has been defined, the next step will be to transform sporadic interfaces to a structured manner. A service platform where interfacing can be done in service layers rather than from system to system should be built. The portal approach will be used to reflect single market place.

One of the main challenges is to transform the paper-based exercise to completely paperless, especially when it involves different parties. As some approaches required high-level policy reviews, delays are inevitable and such delays have become an obstacle in system development.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Trade Facilitation

Project title: Green Light Partnership for Trade Development

Organization: Mongolian National Chamber of Commerce & Industry

Summary

The Green Light Partnership for Trade Development is designed to promote and support trade and investment. This project acts as a bridge between public and private sectors for a constructive dialogue on trade facilitation.

As the project organiser, Mongolian National Chamber of Commerce & Industry (MNCCI) gives priority to issues related to trade facilitation and business environment. One of the MNCCI's main tasks in 2003-2004 is to promote trade facilitation throughout the country, by building a structure consisting of representatives from the government and non-governmental organizations.



Methodology/Scope

An IT Committee, organized by MNCCI, was established in 2003 consisting of IT companies, non-governmental organizations and IT specialists from MNCCI. The Committee has jointly conducted a yearly study on E-Assessment of Mongolia with Development Gateway of Mongolia, an NGO.

MNCCI and Mongolian Custom General Administration have also moved to simplify paper-based procedures at the customs. An e-application system for Certificate of Origin has been introduced at the beginning of 2004.

The "Co-operation Declaration of Business Representing NGOs of Mongolia" project has been established to facilitate trade and develop the private sector.

Priorities are:

- To reach business communities and the private sector and form a framework for business related laws and regulations.
- To promote IT and e-commerce in Mongolia; transfer foreign trade documents into the e-form under the drive for e-customs.
- To play a strong advocacy role and create more opportunities for the Mongolian business community.
- To simplify trade procedures and promote e-commerce.

Achievements/Challenges

Currently over 30 associations representing the business community have joined "Co-operation Declaration of Business Representing NGOs of Mongolia" and they have set up a Council of Business Supporting Associations.

In 2004 MNCCI will set up the National PRO Committee to increase awareness and acceptance of trade facilitation. The first Business to Business, B-to-B, electronic offer network, which will allow domestic businesses to exchange offers in E-form, will also be established for the development of e-commerce in Mongolia.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Trade Facilitation

Project title: Transport Code Repository

Organization: Tradegate Australia Ltd

Summary

The Transport Code Repository is a single point of reference for codes needed for e-commerce. This online reference acts as a central location linking all the codes.

As it is critical in e-commerce to have a commonly accepted list of codes that all parties can agree on, the Transport Code Repository automates the distribution of code tables whenever they are changed.

Premier users receive automatic updates of code tables through this system daily so they are always up to date. Tradegate, a non-profit association, acts as a neutral, independent manager of the repository, with codes maintained by the "owners" of the codes.



Methodology/Scope

- Conduct a review of existing code sets to remove inaccurate and redundant codes and to make provision for new codes where required
- Create a repository of code accessible – via the internet – and usable by all organisations irrespective of size or industry sector
- Provide links to code sets maintained by international agencies such as ISO, UN, WCO, WTO, IMO, SMDG, EAN-UCC, etc., to enable quick and ready access to the relevant codes
- Provide a mechanism for update of both national and international code sets to ensure their relevance to industry requirements

Achievements/Challenges

The Code Repository simplifies the maintenance of codes that are hosted on it, by allowing anyone with internet access to search for a code and request a new code if they cannot find what they are looking for. This request is sent to the code maintainers, the “owners” of the codes who create the appropriate code if necessary.

The main challenge is to gain more acceptance of the system within the community and to get more code tables hosted on the repository. The final method of cost recovery of the service on an ongoing basis has not been determined as it may ultimately be determined by usage. The options are to charge an annual fee to access the service or a transaction based fee for each access or to seek combined government/industry grant funding to provide the service on an ongoing basis. The latter would certainly be less demanding and costly in terms of administration.



2004 eASIA Award : Trade Facilitation

Asia Pacific Council for Trade Facilitation and Electronic Business

Category: Trade Facilitation

Project title: CertOfOrigin

Organization: CrimsonLogic Pte Ltd

Summary

CertOfOrigin is the world's first end-to-end web-based COO application and certification system, providing a single interface for exporters and their agents to apply for a COO conveniently.

CertOfOrigin is developed to simplify the workflow of COO, which is one of the documents required by some banks, or authorities to complete cross-border trade between buyers and sellers.

The system enables the Authorised Organisations (AO) to approve COO applications, as well as the documents required to authenticate the origin of the goods traded online securely and conveniently. The entire process, from COO application by exporters and their agents to receipt of approved COO by the Customs officers and other trading partners in the importing country, can be completed in an electronic environment, bringing multiple benefits to the trading community.



Methodology/Scope

CertOfOrigin allows exporters to submit an application electronically from the comfort of their office or anywhere else. It also enables chamber officers to approve and certify COO applications online with easy retrieval of supporting documents through data integration capability built within CertOfOrigin. Immediate transmission of approved COO to designated recipients such as the banks, overseas buyers, and customs officers has also been enabled in a secure electronic environment.

This system:

- allows the exporters and agents to apply CO online
- allows AO to certify CO online
- allows the specify CO recipients to take a hard-copy printout of the CO
- transmits the CO to the destinations like banks or overseas buyer electronically.

Achievements/Challenges

In Singapore, the four chambers of commerce has accepted and implemented CertOfOrigin as an electronic COO application and certification system. CertOfOrigin was officially launched with the full support of the chambers. The Singapore Business Federation and Singapore Customs have also endorsed the project.

CrimsonLogic, the developer of CertOfOrigin, is currently marketing the service to overseas customs and embassies in countries such as North America and the Middle East to develop a truly global eTrade environment.

Challenges it faces include the promotion of new technology acceptance by the trading community and electronic COO acceptance by overseas authorities, such as the Customs.



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Meeting History



Meeting History

	<i>Date</i>	<i>Place</i>	<i>Remark</i>
1st	1990. Nov. 5~6	Tokyo, Japan	JS/EB Plenary
2nd	1991. Jun. 25~26	Singapore	JKS/EB Plenary & EDICOM '91
3rd	1991. Oct. 28~29	Tokyo, Japan	AS/EB Plenary
4th	1992. Jun. 11~12	Tokyo, Japan	AS/EB Plenary & EDICOM '92
5th	1992. Oct. 29~30	Seoul, Korea	AS/EB Plenary
6th	1993. May. 20~21	Beijing, China	AS/EB Plenary
7th	1993. Oct. 25~27	Seoul, Korea	AS/EB Plenary & EDICOM '93
8th	1994. Jun. 6~8	Kuala Lumpur, Malaysia	AS/EB Plenary
9th	1994. Nov. 28~30	Taipei, Taiwan	AS/EB Plenary & EDICOM '94
10th	1995. Jun. 5~7	Bangkok, Thailand	AS/EB Plenary
11th	1995. Nov. 1~3	Kuala Lumpur, Malaysia	AS/EB Plenary & EDICOM '95



	<i>Date</i>	<i>Place</i>	<i>Remark</i>
12th	1996. Jun. 4~7	Philippine	AS/EB Plenary
13th	1996. Oct. 28~30	New Delhi, India	AS/EB Plenary & EDICOM '96
14th	1997. Apr. 30~May. 2	Singapore	AS/EB Plenary & EDICOM '97
15th	1997. Nov. 2~6	Colombo, Sri Lanka	AS/EB Plenary
16th	1998. Jul. 4~10	Tehran, Iran	AS/EB Plenary
17th	1999. Sep. 5~10	Seoul, Korea	AS/EB → AFACT Plenary & EDICOM '99
18th	2000. Sep. 11~15	Taipei, Taiwan	AFACT Plenary & EDICOM '00
19th	2001. Oct. 1~3	Jakarta, Indonesia	AFACT Plenary & EDICOM '01
20th	2002. Oct. 28~Nov. 1	Kuala Lumpur, Malaysia	AFACT Plenary & EDICOM '02
21st	2004. Jan. 11~14	Karachi, Pakistan	AFACT Plenary & EDICOM '03
22nd	2004. Sep. 19~22	Singapore	AFACT Plenary & EDICOM '04
23rd	2005.Oct.24~27	Ha Noi, Viet Nam	AFACT Plenary & EDICOM '05



2005 AFACT Year Book

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PREFACE I

AFACT Steering Committee Chairman, Mr. Tran Thanh Hai



Globalization is spreading to every country, posing new challenges to business people for survival and growth. Raising competitiveness becomes an urgent need for all enterprises.

Expanding business using electronic mode is a great factor that helps enterprises cut transaction costs, secure opportunities and turn them into profit. In addition, trade facilitation activities led by government agencies also help to make business processes more effective.

Over the past few years, the Asia Pacific Council for Trade Facilitation and Electronic Business (AFACT) has exerted restless efforts to encourage trade facilitation and electronic business and promote their benefits across borders.

Asia is changing, and so is trade. Building strong economic connections with a view to narrow down the development gap among Asian countries is currently our top priority. AFACT shall make its contribution by installing information technology and e-commerce as a viable momentum for this process, and by supporting reform activities currently underway in the region.

This year, AFACT focuses on paperless trading promotion, cooperation in developing and adopting non-contact technologies, and the reform of the organization towards more substantial and reality-aligned activities. I believe that AFACT will continue its tradition, expand its membership and achieve new goals.

This yearbook is an important work featuring AFACT's achievements in the last year. I would like to express gratitude to its contributors and hope it will become a useful handbook for all that are concerned with trade facilitation and electronic business in the region.

Chair of AFACT
Deputy Director-General
E-Commerce Department
Ministry of Trade, Viet Nam

Tran Thanh Hai



PREFACE II

UN/CEFACT Vice Chair, Mr. T.A. Khan



During the last two decades, information and communication technology have empowered societies in different and diversified ways by affecting different sectors including; trade, governance, tourism, education and entertainment amongst other sectors. Moreover, it has given businesses, governments and other economic establishments the platform to increase and diversify productivity as well as contributed to business and economic development and growth.

The Governments/ policy makers in the developing countries are making serious efforts to close the digital gap with the developed world and becoming more integrated into the information society. Trade process standardisation is an integral part of any such exercise. The Asia Pacific Council for Trade Facilitation and eBusiness (AFACT) is making sustained efforts in helping the Asia Pacific region in realizing these objectives. More and more nations are getting attracted to benefit out of it. The meeting of the AFACT in Vietnam for the first time is an ample indication of this growing trend.

The AFACT has a firm objective to facilitate close co-operation between all member nations in adopting the international standards and best practises in association with the United Nations Centre for Trade Facilitation and eBusiness (UN/CEFACT).

This is the second consecutive year when the AFACT Secretariat has compiled this year book. I am sure like the first issue of the AFACT year book this issue would also provide an insight into trade facilitation and eBusiness issues and solutions. I appreciate AFACT Secretariat for the efforts put in by them as well as the HODs of the member nations for contributing excellent content for the book.

UN/CEFACT Vice Chair &
Deputy Director General, NIC
takhan@nic.in

T. A. Khan

Preface



PREFACE III

AFACT Secretariat, Dr. Jyh-Sheng Ke



Powered by the rapid advancement in information technology development, the ubiquitous Internet and easy access to telecommunications facilities, global e-business is thriving. It has since transcended the geographic boundaries of traditional commerce to become one of the primary driving forces of the 21st century's economic growth. Facing these new trends, we must embrace the new challenges and seize the opportunities that e-business brings.

As a member of the AFACT community, Chinese Taipei has been working vigorously in international cooperation, by offering assistance to promote

Internet interoperability, and cooperating with each member economies in the region to accelerate Internet development toward building a sound foundation for e-business to succeed.

In 2000, Chinese Taipei hosted the 18th AFACT Conference, and was elected as the secretariat under AFACT in 2001. It greatly enhanced Chinese Taipei's participation and contribution to the AFACT. In March 2002, the AFACT Secretariat has officially been launched into operation by Chinese Taipei and was granted for a four-year term from 2002 to 2005. Again, in September 2004, Chinese Taipei was nominated and chosen for a second term of the AFACT Secretariat from 2006 to 2009.

In the capacity of performing AFACT tasks on Trade Facilitation and Electronic Business in the Asia-Pacific region, the AFACT Secretariat has successfully organized the first eASIA Week in 2003 and the 2nd eASIA Week in 2004. Both had received worldwide attention and acclamation. The eASIA Week event has accommodated AFACT members to better understand the direction of international e-commerce, and also allowed the AFACT Secretariat to gain recognition from AFACT for its service development through presenting partnership opportunities with other member economies. Among the documentation of progress and development of AFACT, the AFACT Secretariat published the "2004 AFACT Year Book", and will continue to do so. This annual publication may serve as a handbook for AFACT members and a reference for non-members who seek to join the AFACT community.

Certainly, the creation of the annual book could not have been accomplished without support and backing from AFACT members. In hope of accomplishing the mission of the AFACT Secretariat and improving subsequent annual publications, we welcome comprehensive and constructive suggestions relating to all fields of e-Commerce.

Finally, we anticipate that members of the AFACT community will cooperate with each other in promoting the ongoing deployment of e-commerce in Asia, making Asian e-commerce a beacon of success, and facilitating progress and innovation to promote economic equality in the region and around the world.

AFACT Secretariat
President, Institute for Information Industry (III)

Dr. Jyh-Sheng Ke



PREFACE IV

UN/CEFACT Rapporteur for Asia, Mr. Sangwon Lim



The world seems to be getting into the boom of U or Ubiquity, shifting from the mega-trend of E or Electronic in the last several years. It used to be not hard to see that the word E was attached to almost everything: e-Commerce, e-Society, e-Government, eHealth, etc. Nowadays, the word U seems to be combined to everything. You can easily see such words as u-Society, u-City, u-Commerce, u-Business, u-Learning, to name a few. Does AFACT, with its portfolio of trade facilitation and eBusiness, have any role in this ubiquitous world? The answer is Yes.

The essence in ubiquity is the enhancement of connectivity through the facilitation of convergence. However, in this mega-trend of ubiquity, we are mostly talking about connectivity and convergence at the device level. Even though connectivity at the device level is important, we will not be able to realize u-world without human and organizational factor. While connectivity at the device level can be easily facilitated through technological innovation, connectivity at the human and organizational level needs relationship building through time-consuming interactive process among stakeholders. AFACT, with its mandate to facilitate international transactions through the simplification and harmonization of procedures and information flows, has successfully established human and organizational connectivity in Asian and Pacific region through its more than a decade of activities.

Currently, AFACT has a strong foundation for regional and global connectivity with the membership of 17 member countries/economies and 2 associate members. AFACT has much potential and capacity to bring ubiquity into the region for joint prosperity. We, AFACT community members, need to commit ourselves to the realization of ubiquitous commerce in the region by seeing the emergence of u-trend as an opportunity rather than a crisis.

UN/CEFACT Rapporteur for Asia

Sangwon Lim

Preface