



CRITICAL SUCCESS FACTORS OF e-GOVERNMENT
IN THAILAND

By

Ms. Phennapa Thaiwattananon

Submitted in Partial Fulfillment of
the Requirements for the Degree of
Master of Science
in Information Technology
Assumption University

September, 2002

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Project Title Critical Success Factors of e-Government in Thailand

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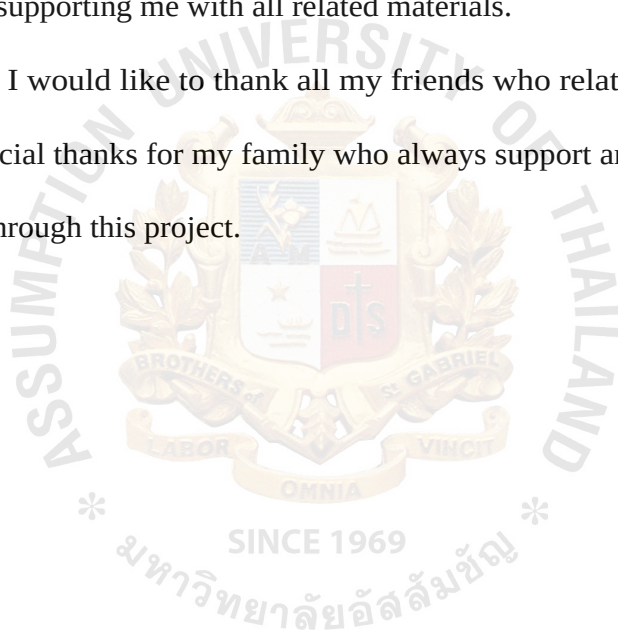
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ABSTRACT

At present, the world is in what can be called the information technology age, which includes both computer technology and information technology that has created many changes in society and the economy during the past decade. Countries all over the world, both in the government and private sectors, have begun using information technology to benefit their respective countries and societies.

A new economic system has been born. In the past, the main components of an economy were labor and investment; within the new system, the production factors of information and knowledge have become important in creating productivity and increasing the ability of that country to compete with others around the world.

All countries are able to use information technology to benefit both the government and private sectors. The development of information technology in the initial stages usually occurs with the private sector first; however, for the country to increase its potential capabilities, there must be development of information technology in both the government and private sectors simultaneously.

At present, the country's government has seen the importance in using IT through the use of computer technology and networks that would help increase effectiveness in operations in the management and servicing of the people, as well as in developing the economy and society.

This project has studied the general features of e-Government and e-Government in Thailand, from its origins until its current status, making use of the example of the current existing of e-Government in Thailand: the e-Registration system of the Ministry of Interior and the e-Taxation system of the Ministry of Finance. Critical Success Factors of e-Government in Thailand have also been studied, which can be counted as the objective of this project. It is hoped that this

project will lead to an improvement to policies and planning processes so that the Thai government can develop itself into truly becoming an e-Government.



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CHAPTER 1: INTRODUCTION

1.1 BACKGROUND OF THE PROJECT

In the present times of globalization, society has entered into an age where it is called "an information society." It is important, therefore, that the Thai society and people develop into a society of learners who are able to use their intellect to further develop the country through the use of modern information technology and telecommunications systems as the triggers.

The organization that is important in the development of the country's society, economy, and further advances in the ever-changing world is the government. At present, the governments of many countries have employed the use of electronic means to help in servicing the people; this type of government is called the electronic government (e-Government). This kind of evolution is inherent in countries that have advances in communications and information technology, such as the United States of America, Canada, England, and even countries in Southeast Asia such as Singapore and Malaysia. These countries have set goals and steps to proceed in meeting those set goals and objectives.

For Thailand, the development of an electronic government has only started during recent years, since the concept of e-Government is one of the activities of e-Thailand under the framework of cooperation of the e-ASEAN Initiative for countries to develop their governments by the effective and efficient use of IT.

Nevertheless, the e-Government in Thailand can be considered a new subject for the public as well as government employees as well. Therefore, education and the dissemination of understanding about the e-Government in Thailand would be beneficial to expanding knowledge and understanding about the framework and methods more widely. This can be considered one way to develop and advance e-

Government in Thailand in order to meet set objectives. The result would be a Thai society that is ruled with good governance, thus improving the people's quality of life.

1.2 STATEMENT OF THE PROBLEM

An e-Government is the new method of management through the use of technology, computers, and communication networks in order to increase the effectiveness of the government's operations, improve the services given to the people, and improve informational and database services to support the development of the economy and society, resulting in the people being closer to the government.

All the same, in proceeding with the steps planned to meet the established goals and objectives, what needs to be considered are the critical success factors that would enable Thailand to develop its e-Government. These factors are both internal and external; therefore, this study will focus on the critical success factors of developing the government's information technology. These critical success factors are supporting factors, and effort needs to be exerted to avoid the factors that obstruct their support.

The critical success factors will be studied from documents and referring literature both in- and outside the country, and there will be interviews with managers and experts, which would give both knowledge and suggestions that are beneficial for this project.

1.3 OBJECTIVES

The objectives of this project are as follow:

- To gain more clarified knowledge about the current status of e-Government in Thailand

- To identify Critical Success Factor of e-Government in Thailand
- To increase the understanding of e-Government for Thai people
- To gain the opinion and rational reasons from the related people in order to get the internal factors of implementing e-Government

1.4 SCOPE OF WORK

In the project, for the subject of critical success factors of e-Government in Thailand, the researcher started by establishing research limitations from relevant literature, overall picture, general history, and the present status of the e-Government in Thailand through the presentation of the National IT Policy and IT 2010. Afterwards, the researcher studied e-Government by choosing to focus on the e-Registration system of the Department of Local Administration, in the Ministry of Interior, as well as e-Taxation of the Ministry of Finance.

In the study of both cases, the researcher divided the topics into the following: Vision, Objectives, Scope, Services, Benefits, and Current Problems. Lastly, the researcher studied and analyzed the critical success factors of e-Government in Thailand.

In this project, the researcher studied information from various documents from relevant websites and government offices, and at the same time interviewed the following individuals:

- Mr. Jirapon Tubtimhin, e-Government Project Manager, National Electronics and Computer Technology Center (NECTEC)
- Mr. Supachai Jongsiri, Chief Information Officer, Ministry of Finance

The objectives of the interviews were to learn about the framework, learn about the reasons, problems, as well as critical success factors in the development of e-Government in Thailand.



CHAPTER 2: e – GOVERNMENT IN THAILAND

In past few years the trend of e-Government has become popular in many countries around the world. e-Government has changed the way of government agencies working and services in order to increase efficiently and effectively. Many governmental countries have embraced the digital revolution and try to change to e-Government. Some countries have gone for it with successful story but some countries are just starting it. Thus it should have some factors that make countries still be on the way of development.

2.1 Definition and Objectives

- e-government is the transformation of public-sector internal and external relationships through Internet-enabled operations, information and communication technology- to optimize government service delivery, constituency participation and governance [4].

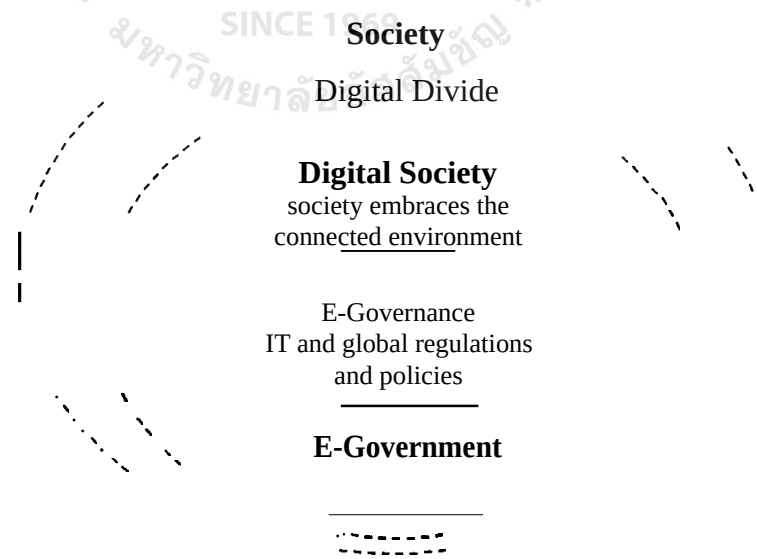


Figure2-1: e-Government Scope

- e-governance is the development, deployment and enforcement of the policies, laws and regulations necessary to support the functioning of a digital society and economy, as well as e-government.
- Digital society is a society or community that is well-advanced in the adoption and integration of digital technology into daily life at home, work and play. In the short term, governments are putting transactional services (e.g., permitting, payment and billing) on their agendas, but a strategic view of e-government includes social, technological, economic, environmental and political agenda items.
- The digital divide is the gap in opportunities, experienced by those with limited accessibility to technology- especially the Internet. This includes accessibility limitations in the following categories: social issues (e.g., need to talk to a person), cultural issues (e.g., language barriers), disability issues, economic issues (e.g., access to technology devices) and learning issues (e.g., marketing, unfamiliarity, changing habits)
- e-Government refers to the use by government agencies of information technologies (such as Wide Area Networks (WAN), the Internet, and mobile computing) can make the useful connection among citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, higher convenience, revenue growth, and/or cost reductions [2].

- E-government is all about government agencies working together to use technology so that they can better provide individuals and businesses with government services and information. It is not a massive Information Technology (IT) project. Much of it is about establishing common standards across government, delivering services more effectively, and providing ways for agencies to work together using technology [3] .

Objectives

The overall objectives of e-government in worldwide countries are almost the same. They want to achieve three types of objectives

I. Improved Citizen Service

- Convenience: improved access; less time-consuming interaction
- Customization: service offerings tailored to citizens' specific needs
- Improvement of transparency and building trust
- More active citizen interaction and democratic participation in decision-making

II. Government Efficiency

- Improved productivity & skills for government employees
- Improved collaboration and knowledge sharing within government at all levels
- Redefinition of operating model and process improvements

III. Economic Growth

- Stimulation of e-commerce adoption
- Building of societal IT skills and capabilities

- Creation of attractive environment for investment in IT and other industries

2.2 Four Phases of e-Government

In order to be good governance, we divide the development into 4 stages and in each stage has the indicator as following:

- Phase 1 - Web presence: agencies provide a website to deliver basic information to the public.
- Phase 2 - Interaction: agencies extend the capability of their website so people who used to visit a government office now have online access to critical information, forms to download and can contact the agency by e-mail.
- Phase 3 - Transaction: agencies add self-service applications to their websites so that people can complete entire transactions or processes online. The web begins to complement other service deliver channels, providing round the clock access and opportunities to develop cross-agency common, shared services. In this phase agencies also move towards e-procurement, by putting requests for proposal and biddings regulations online.
- Phase 4 - Transformation: the delivery of government services and potentially the operation of government itself is redefined. Information, service delivery and government processes are increasingly integrated across traditional boundary lines between agencies; between central and local government; and between government, the private sector, non-government organizations and individuals. Information and services are increasingly tailored to the particular needs of individuals and

businesses. The identity of individual agencies matters less to people as information and services are accessed through a single point of contact on the web. E-government reshapes the relationships between agencies, government and individuals, and government and business [4].

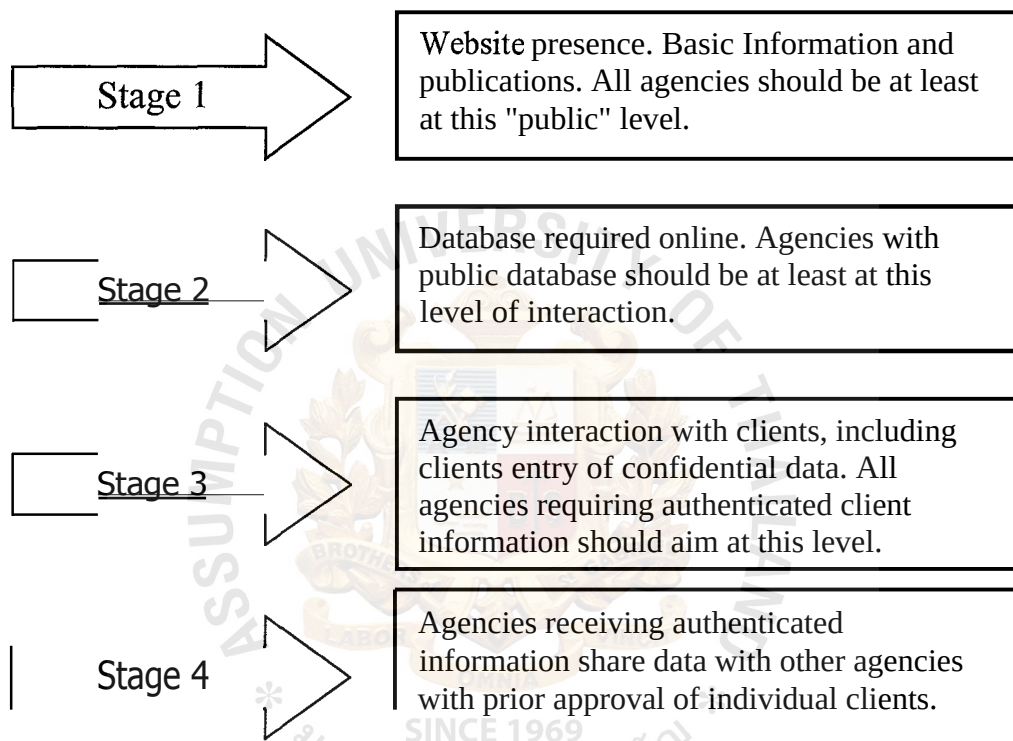


Figure 2-2: Phases of e-Government Implementation Model

2.3 e-Government Characteristics

e-government should be

1. Easy to use, connecting people with government agencies according to their needs.
2. Available to everyone, at home, at work, in schools and etc.
3. Private and secure, with the appropriate standards for privacy, security, and authentication.

4. Cost-effective, through strategic investments that produces significant long-term efficiencies and savings.

2.4 e- Government Categorization

In general, most countries with e-government have aimed to provide a full range of 3 categorizes

1. Government-to-Citizens (G2C): Build easy to find, easy to use, one-stop points-of-service that make it easy for citizens to access high-quality government services.
2. Government-to-Business (G2B): Reduce government's burden on businesses by eliminating redundant collection of data and better leveraging e-business technologies for communication.
3. Government-to-Government (G2G): Make it easier for localities to meet reporting requirements and participate as full partners in citizen services, while enabling better performance measurement, especially for grants. Other levels of government will see significant administrative savings and will be able to improve program delivery because more accurate data is available in a timely fashion.

2.5 National IT policy and IT 2010

Over the past decade, Information and Communication Technology (ICT) has been recognized as a potential enabler for national economic and social development and for strengthening competitiveness for Thailand. Back to the last ten years, IT was known by only few groups of people. The Royal Thai government has launched a number of policies and initiatives to drive Information and Communication

Technology (ICT). Perhaps the foremost player has been the National Electronics and Computer Technology Center (NECTEC) created in 1989. NECTEC is one of three research centers under the National Science and Technology Development Agency (NSTDA) that in turn is part of the Ministry of Science and Technology.

A formal ICT policy body, the National Information Technology Committee (NITC) was established in 1992. Chaired by the Prime Minister and consisting of senior officials from the public and private sector, the mission of NITC is to promote ICT for social and economic development. NECTEC serves as the secretariat for NITC.

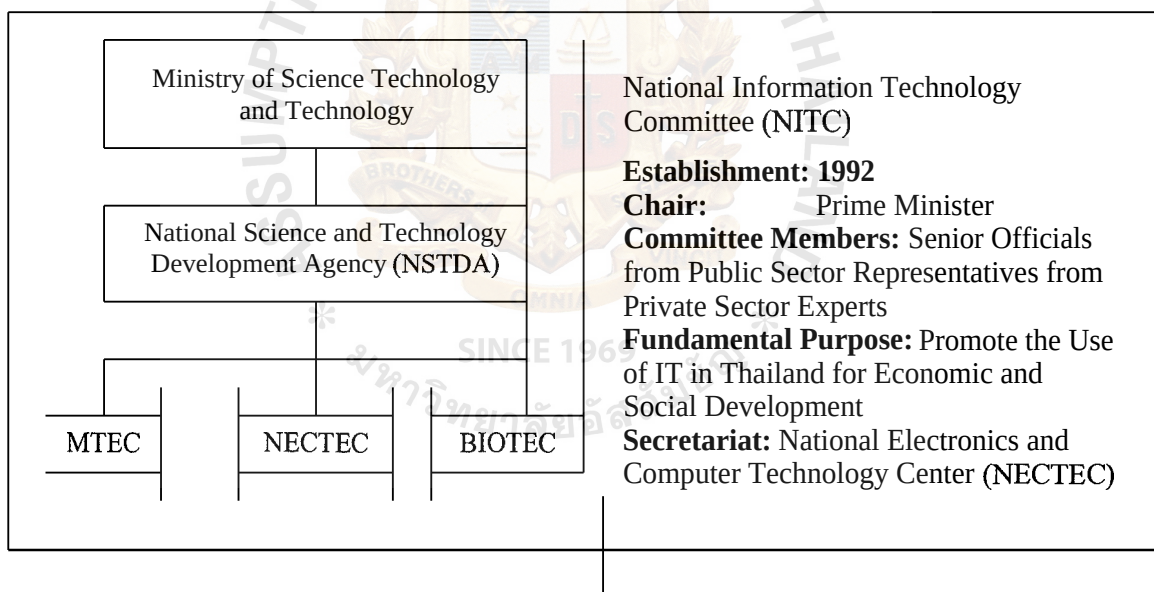


Figure 2-3: Thailand's ICT organizations

In February 1996, the cabinet endorsed the First Thailand National IT Policy called IT 2000. IT 2000 put forward the vision for the country to properly exploit IT to achieve economic prosperity and social equity.

IT 2000 emphasized the three common development agendas as following

1. To build an equitable national information infrastructure

2. Human Resource Investment: to invest in people to accelerate the supply of IT manpower and to develop an IT —literate workforce
3. To achieve good Governance through the use of IT in delivering public services and in government administration.

From the basis framework and recommendations, there are some pilot projects initiated and implemented by NITC to materialize the goal of each pillar of IT 2000.

- SchoolNet Thailand: a national school information action program to empower all schools to access a large pool of information resources using the Internet. (See the web site <http://school.net.th> for more information.)
- GINet: Development of Government Information Network to facilitate intra and inter-agencies communication and information exchanges. (See the web sit <http://thaigov.net/> for more information)
- IT Laws: Development of legal infrastructure to support the application of IT in the country.

IT 2010 Framework

The changes that have occurred in international arena such as globalization, borderless commerce, creation of new non-tariff barriers, also affect the country. Though the principle of the three pillars of IT 2000 still prevailed to a certain extent, the NITC realized that there was a need for a second phase of national IT policy, to give a thrust for Thailand to move forward into the next wave of digital economy.

Information Technology Policy 2001-2010 (IT 2010): Thailand Vision Toward a Knowledge-Based Economy. IT 2010 has set the key development

objectives to exploit the benefits of information and communications technology to move Thailand to the "Knowledge-Based Society and Economy".

To this end, IT 2010 identifies three crosscutting principles to support the framework as follows: (See Fig. 2- 4)

1. Building human capital,
2. Promote innovation, and
3. Invest in information infrastructure and promote the information industry.



Figure 2- 4:

IT policy Framework: towards the Knowledge-Based Economy

Under this framework, three specific development goals based on "technological and social indicators" were identified. These are:

1. To raise the technological capability of the country, as classified by the UNDP *Technological Achievement Index* from being in the "Dynamic

Adopters" group, to the "Potential Leader" group, by 2010, (SEE APPENDIX A)

2. To increase proportion of "Knowledge Workers" in the country from 12% (in 2001) to 30%, by 2010,
3. To increase the share of "Knowledge-Based Industries" within the overall economy to 50% by 2010.

The main objectives of Implications from the IT 2010 are follows:

- To improve and enhance efficiency and effectiveness of public services to citizen by using ICT to achieve electronic service delivery at 24*7
- To improve and enhance efficiency and effectiveness of the public administration process aiming at common computer software as tools.

To achieve the goals, IT 2010 identified five main flagships that have to be developed as follows: (See Figure 2-5)

1. *e-Society*, covering issues such as digital divide, quality-of-life, culture, health, public participation;
2. *e-Education*, includes issues of life-long learning, computer literacy, human resource development, virtual education, etc.;
3. *e-Government*, including public service via electronic service delivery, employment, legal infrastructure;
4. *e-Commerce*, with special focus on 'e-services' including not only finance, tourism and IT services, but also other industries; and
5. *e-Industry*, focusing on e-manufacturing and IT-related industries, plus issue such as standardization.

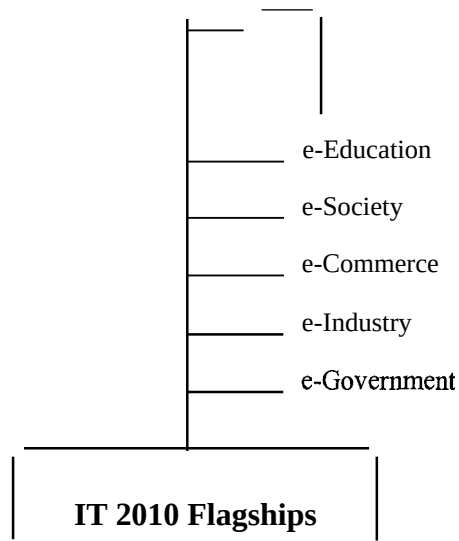


Figure 2-5: IT 2010 Flagships

2.6 e-Government Background

e-ASEAN Initiatives

In 2000(B.E. 2543), ASEAN countries endorsed the e-ASEAN initiative to promote potential of information technology in order to strengthen their competitiveness in the world economy. e-Government is one of the five key areas that ASEAN countries have committed to implement. On July 3, 2000, the Economic Cabinet considered the issues raised in e-ASEAN initiative, and envisioned that Thailand must first work on developing of **e-Thailand** as priority in order for preparing readiness for the country and minimize drawbacks in the development process of IT infrastructure.

Five areas of e-ASEAN initiative are 1) The establishment of the ASEAN information infrastructure. 2) The growth of e-commerce. 3) The establishment of a free-trade area in products, services, and investments. **4) The development of e-society.** And 5) The establishment of e-Government. See Table 2-1

INFRASTRUCTURE (ALL)

1. Enhance interconnectivity and interoperability of National Information Infrastructures by 2001
2. Encourage cooperation
3. Internet exchange & gateway
4. Regional caching/mirroring
5. Hubbing
6. Facilitate the development of the All Backbone

E-COMMERCE FRIENDLY ENVIRONMENT

1. Agree on regional standards based on International norms
2. Electronic identification and authentication(such as PKI)
3. Secure electronic payments and settlements
4. Legal recognition of electronic transaction
5. Code of e-commerce practice
6. Implementation schedules
7. e-commerce code based on UNCITRAL for all countries by 2003
8. For those w/ e-commerce legal infrastructure:
 - Encourage the mutual recognition and cross certification of digital signature and documents by 2001
 - Facilitate secure regional electronic payments and settlements at the latest by 2002

COMMON MARKETPLACE FOR ASEAN ICT GOODS AND SERVICES

1. Liberalization of trade in goods
2. Accelerate tariff reduction
3. Liberalization of trade in services
4. Accelerate framework agreement on services
5. Investment promotion in ICT sector
6. Extend incentives
7. Facilitation of trade
8. Fast track MRA implementation

E-SOCIETY

1. Foster development of a knowledge-based society
2. Narrow the digital divide
3. Enhance workforce competitiveness
4. Facilitate flow of knowledge workers in the region
5. Use technology to enhance the spirit of ASEAN community

E-GOVERNMENT

Use ICT to:

1. Enhance delivery of services to the people
2. Facilitate free flow of goods, data and movement of People within ASEAN
3. Facilitate linkages between public & private sector, & Promote transparency
4. Enhance inter-governmental cooperation

Source: e-ASEAN website

Table 2-1: Elements of e-ASEAN

Thailand e-Government

E-Government development has been driven since 1994(B.E. 2537) by the Sub-Committee of Promotion of Utilization of Information Technology in Public Organization which is under the National Information Technology Committee (NITC). Several measures have been imposed to support and promote this initiative such as computer training for mid-level officers (Classification: C5-6), specifying minimum requirements of IT equipment for government agencies, CIOs' appointment in public sector, conducting IT Master Plan of ministries, departments & provinces, etc.

The then e-Thailand initiative resulted from e-ASEAN initiative has driven NITC to appoint a sub-committee for e-Thailand development of which e-Government is one of the key development areas. Consequently Thailand e-Government project has been set up under the UPU agenda with final approval of NITC chaired by the Prime Minister.

The project important mandate is to coordinate and facilitate public organization in rendering Good services through electronic media as Red-tape reduction toward one stop service, Rapid Response, Rural Coverage, and Round-the-clock or 24*7 service.

- e-Thailand key areas are e-Government, e-Society, e-Commerce Facilitation, Information Infrastructure and Liberalization

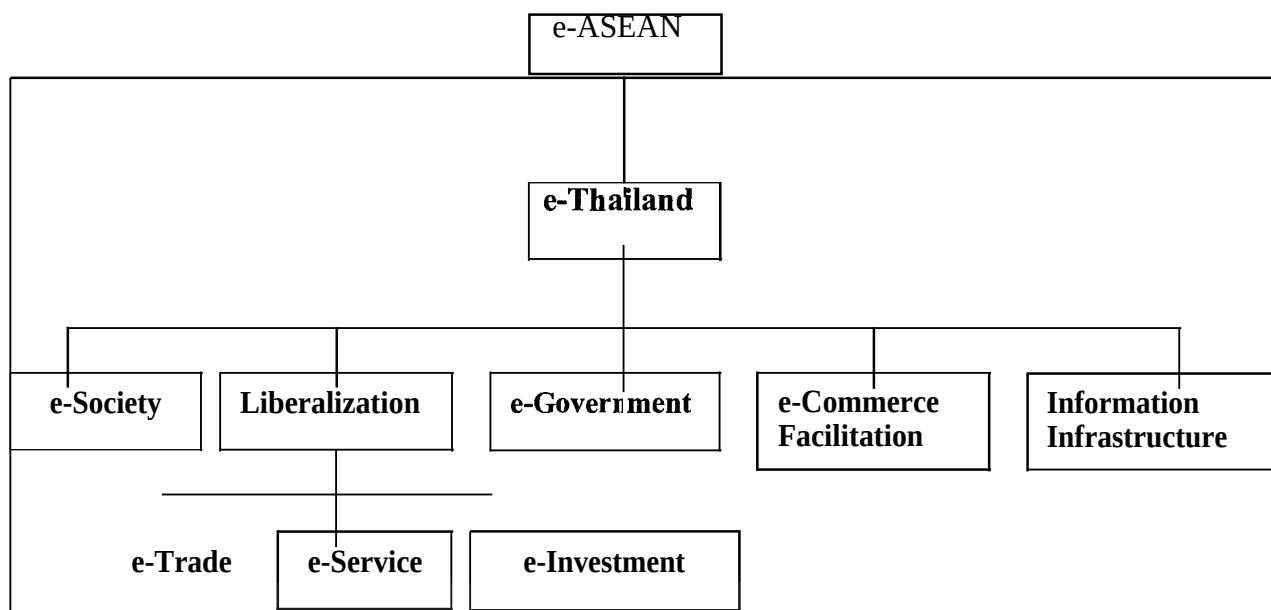


Figure 2-6: e-Thailand Organization chart

Goals of the e-Government Project in two years time are to coordinate and facilitate the implementation of **Pilot Projects** on various public services and to set up standards, guidelines, and manuals for interoperability for public agencies and electronic services in implementing the e-Government program.

E-Government Project objective:

➤ To establish a framework for building up e-Government in the following areas:

- Public services
- High quality and standard services to citizen, business and public sectors

Good services through electronic media resulted in Red-tape reduction toward one stop service, Rapid Response, Rural Coverage, and Round-the-clock.

- Public administration:

- Financial management between government and business sectors,
Electronic procurement toward rapidly, transparency and fairness,
- Government data and resources management.
- Communication and coordination between government sectors:
 - Intra-and Inter-Ministries.
 - Among central, regional and local administrations.
- > To set up guideline for reprocessing of public organization.
- > To implement and evaluate e-Government pilot projects.
- To employ the defined strategic framework and action plan in implementing projects associated with e-Government in the following phases.

In general, most countries with e-Government have aimed to provide a full range of G2C, G2B and G2G e-services and applications. However, it differs from one country to another country. It depends on different factors such as computer literacy, purchasing power, government service priorities, and political and business trends. Each country reaches the percentage of completing implantation in difference.

2.5 e-Government Current Status

The government has goals to develop e-Government so that each governmental office can use the IT system in operations and management, as well as in servicing the people more widely, conveniently, quickly, and effectively. In the initial stages, there would be 5 groups of services within the e-Government system, as follows:

1. The service of giving information accurately, conveniently, and quickly, with the ability to use the information through web sites in the form of on-line information services – this includes giving economic and financial information from the Ministry of Finance and the Bank of Thailand; giving tourism information from the Tourism Authority of Thailand; and giving statistical information about Thailand from the various statistical institutions.

2. The service of giving information in the form of simple transaction services in order to facilitate searches, verification, and processing through the internet – this includes giving information through <http://www.thairegistration.com> in order to find and reserve names for juristic persons, and recording, searching, and verifying juristic person information; giving information from the registration offices of the Ministry of Interior through <http://www.khonthai.com> to service the various offices in checking registration work and giving e-mail addresses to the people.

3. The service of giving information in the form of Payment Gateways – this includes such things as submitting forms and paying taxes through the internet by the Revenue Department (e-Revenue); the service of customs and duties through the internet by the Customs Department (e-Customs or Internet EDI); and the submission and payment of excise taxes through the internet by the Excise Department (e-Excise). At present, e-Revenue of the Revenue Department has opened for service, while e-Customs will open for services in September of 2545, and e-Excise will open for service in January of 2546. The service of submitting and paying the 3 types of taxes through the internet will be done within the e-Taxation system, with payment transactions through the internet done within the e-Payment system.

4. The service of giving information for procurement (e-Procurement) – this is the service of giving information about competitive prices, the presentation of

prices for competition through the procurement of labor and materials by governmental units through the internet in order to encourage transparency in price competitions and to operate conveniently and quickly, decreasing the steps in processing in order to increase the effectiveness of procurement by government office. At present, the government is trying to develop an e-Procurement system, with this responsibility being given to the Secretary of the Prime Minister for further process.

5. The service of giving information in the form of e-Office – this is the receiving and sending of information through electronic means in the form of email. There is a use of document imaging and work flows in the reception and sending of government documents in a convenient and quick way in work operations, and is a way to increase the effectiveness of government offices. At present, many offices have begun to use e-Office, such as the Ministry of Finance and the Ministry of Interior.

CHAPTER 3: CURRENT EXISTING OF e- GOVERNMENT IN THAILAND

3.1 e-Government in the Ministry of Interior: e-Registration

There are governmental policies in place that support and promote the development of the management and administration of government sectors, by way of guiding its transition into an electronic government (e-Government). This is especially true of services that the government provides for the public, which would be available through electronic means (e-Services) in the form of 4-faceted service: one place, one time, throughout Thailand, anytime.

The Department of Local Administration organized a project giving services to the public in regards to registration and cards with a computer system, under the name "e-Registration." The system used information and communication technology (ICT) for servicing the public as well as in the management of various governmental units, which was consistent to the policies set forth for creating an e-Government.

IT Vision of the Registration Office, the Department of Local Administration

There are six focal points in the vision of the Registration Office, which are as follows:

1. Improve the registration system for more accuracy and stability through the use of information technology (IT) in the entire system nation-wide, which would also decrease government expenses.
2. Improve the system for servicing the people so that they would receive better and faster convenience through the use of information technology (IT) in the registration and card system throughout the country, along with resolving laws and regulations that obstruct this system in a transparent way.

3. Prevent and control registration and card fraud through the use of information technology in inspections before authorization is given, along with modifying methods of management used to control and evaluate work operations.
4. Improve the work management system for increased effectiveness in operations, along with creating motivation for officers at all levels (of the registration office in the district or municipality) in order to result in high-quality service to the public and to other governmental units.
5. Modify relevant laws and regulations as well as management methods, so that the organization will have permanent technical, legal, and financial (in regards to budgets) management and administration systems that are self-sufficient concerning management expenses and systematically sustainable operations.
6. Modify the database of registration and card system so that it could benefit both the government as well as private sectors, making it a dependable source of information and part of Thai society.

e-Registration

e-Registration is a transformation of the registration system through the use of information technology in the system's management and by organizing the documents electronically, in order to solve the problem of paper usage, the use of storage space, and operational expenses. It can be considered as a new dimension to giving services to the public; the people are now able to receive services at various registration offices in a faster and more convenient way – the adaptation of the re-engineering process to improve the system so that it works quicker, more conveniently, and gives more

choices to the people. The people can receive services anywhere they are, from any registration office in the network, through the system of e-Registration [6].

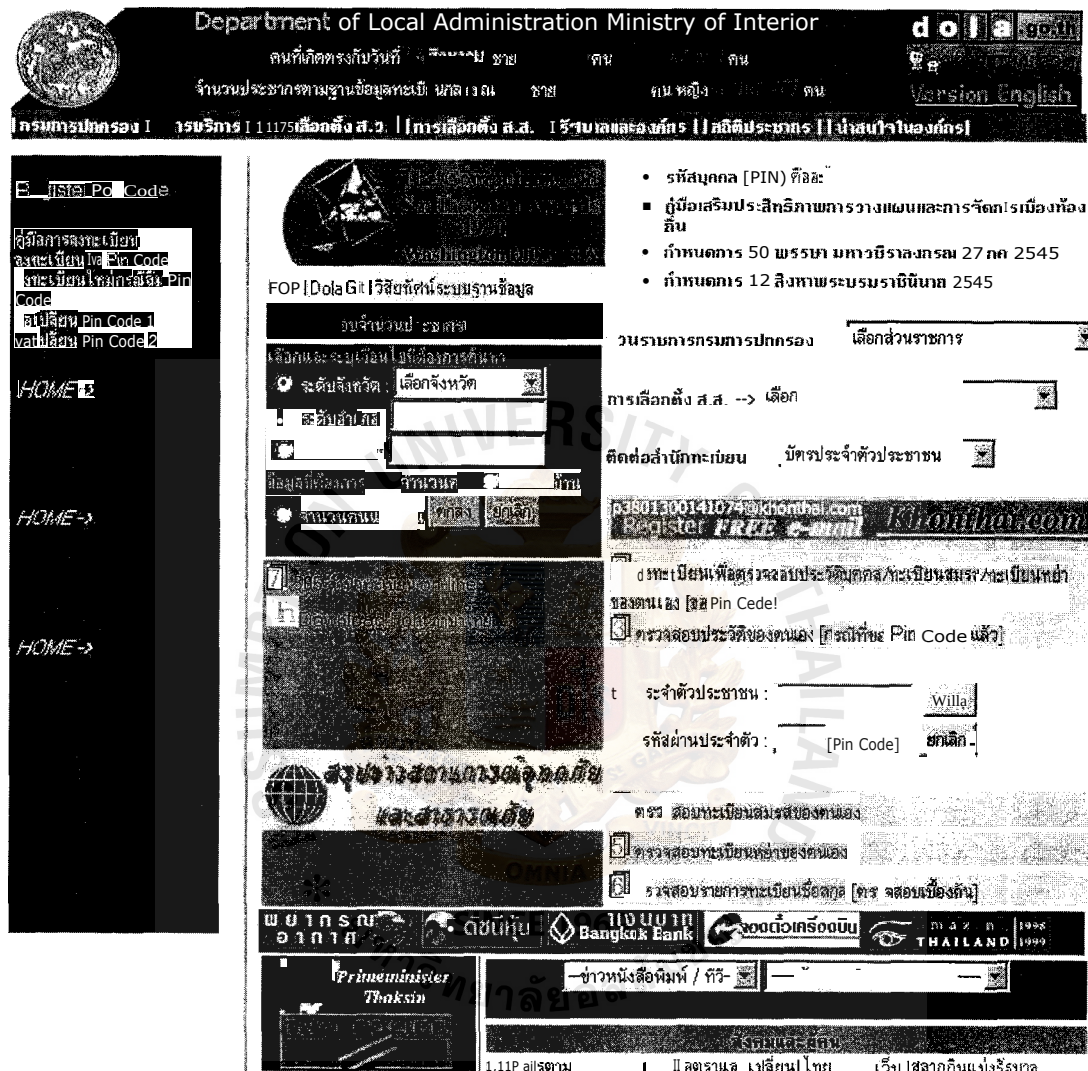


Figure 3-1: Picture of e-Registration Website

Rationale and Justification: Origins

Public registration work in Thailand started through the storage and arrangement of information in the form of documents from the Buddhist year 2499 onwards. These were copies of residential registrations – the information collected had details regarding the place of residence and people who lived there, such as their

full names, gender, birth dates, nationalities, parents' names and their nationalities. The aforementioned information was put to use continuously until the year 2515, when residential registrations were made-over for the first time, to be more accurate and up-to-date. Nevertheless, a part of the make-over process was still full of problems and obstacles in regards to mistakes and missing information.

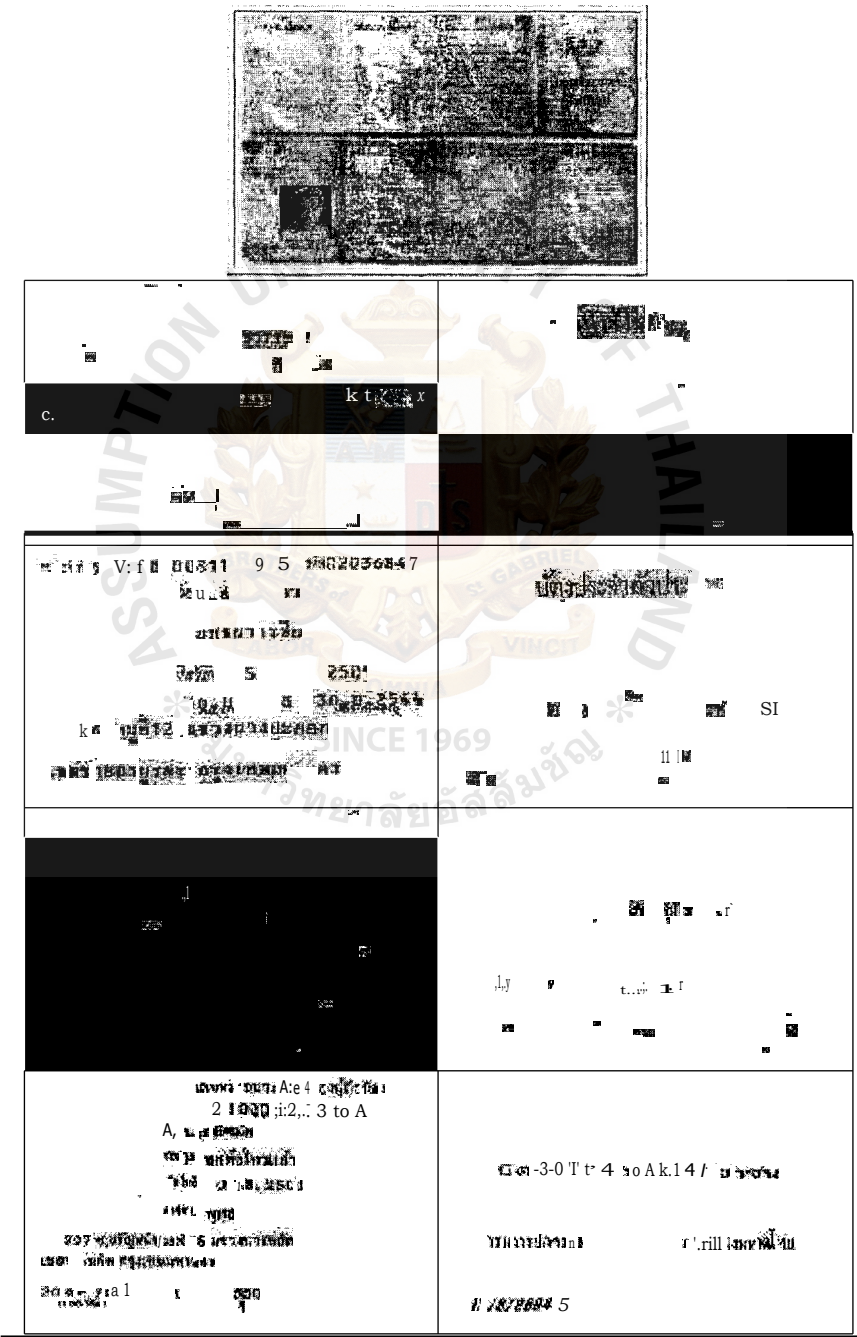


Figure 3-2: Picture of Past & Present Identification Card

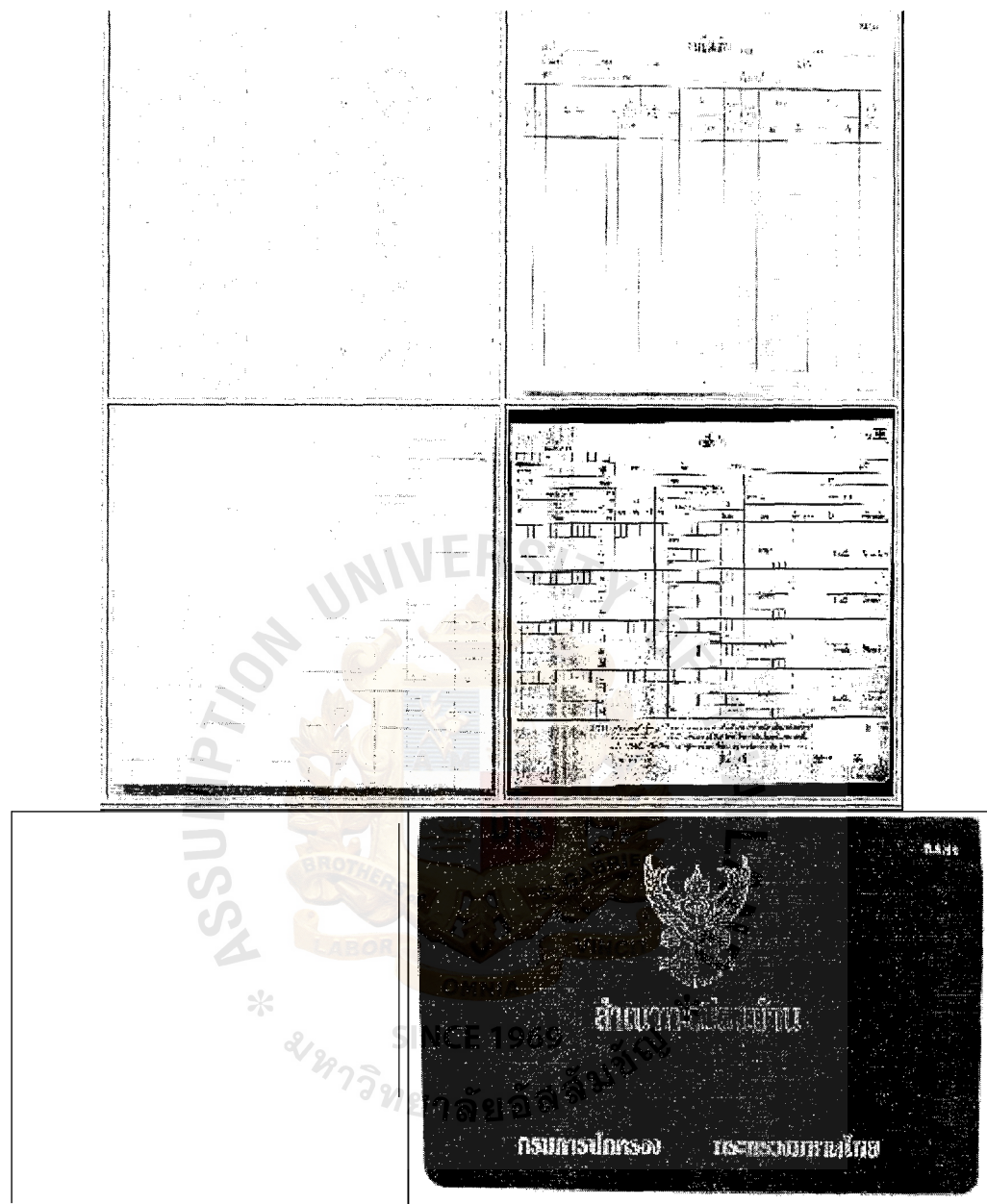


Figure 3-3: Picture of Past & Present Residential Registration

It was because of the reasons stated above that the Department of Local Administration in the Ministry of Interior, responsible for the various registration processes, began to make use of computer technology to help in the storage of registration information that was within its jurisdiction, and one of its projects was the arrangement of numbers for identification cards. In the year 2525, there was a

principle to arrange for a central storage system for the registration it was responsible for, officially to be called the Central Registration Database and located at the Central Registration Office within the Department of Local Administration, in the Ministry of Interior. In addition, there would also be standards for the central system that would give out identification card numbers to people throughout the entire country, with each person having his own unique identification number from the time of his birth until his death. This number could be referred to and used to prove the individual's identity in contacting governmental offices. Besides this, the central standards would give both the government and private sectors a chance to benefit from the Central Registration Database, which would help government budgets and eliminate repetition in the storage of individual information on computer.

Phase 1 (the years 2526 – 2531)

The Central Registration Office recopied the residential registrations of the year 2515 for the first time in 2526, by giving out 11-figure residential registration codes to each residence and giving out a 13-figure identification number to each person residing in the registered residence. Each number has a special meaning, which can be shown as follows:

A – BBCC – DDDDD – EE – F

This 13-figured number is divided 5 parts:

- Part 1 – 1 number that defines one of 8 categories of individuals
- Part 2 – 4 numbers that specify the registration office which gave the number

- Part 3 and Part 4 – a total of 7 numbers that define the rank of the individual in each category of each registration office
- Part 5 – 1 number that is used to verify the preceding numbers of the identification card

The recopying of residential registrations and giving out identification numbers in the 2526 issue was finished in the year 2528. The government then proceeded to collect information and arrange a database of all residential houses, and then later on began to arrange for a database of identification card numbers, a database for individual information, a database for family registration consisting of marriage and divorce licenses, a database for weaponry, and a database for individuals who are eligible for voting rights. All of these databases together make up the "Central Registration Database," and has given the people a chance to receive service at the Central Registration Office in order to copy and to verify their registration history by computer.

Phase 2 (the years 2536 – 2539)

The benefits of a central registration database were expanded by connecting information in the central registration database to databases in districts and local areas that give registration services. The Department of Local Administration established the local registration office at Bangkhen, Bangkok would be the experiment office, to test the system of online information with the central registration database, in order to service the people. In addition, a system was arranged to record face photographs and fingerprints of the right thumb of the people who come for their identification card, to be recorded into the identification card information database. This would benefit tests and proving the identity of said individuals.

In 2539, the Department of Local Administration started testing an expansion to Muang Pathumthani District, Pathumthani Province, for an e-Registration system. It also began to give out a new type of identification card that was similar to an ATM for the first time on December 5, 2539. Once the cards had been used effectively, the new cards were further expanded to all the local registration offices of various districts in Bangkok from January 1, 2540 onwards.

Phase 3 (the years 2539 – 2540)

From the decree of the parliament on June 27, 2538, it was stated that the Department of Local Administration would arrange systems servicing the people in regards to e-Registration, as well as develop an information system for management through centers for assessing registration information.

The Registration Office was responsible for proceeding with the mentioned project. The operational steps included the construction of 9 regional registration processing centers to take care of the registration offices for each district and region, as well as the various local offices within Bangkok that total 1,077 places. The centers for each region were established as follows:

- Region 1 Center – Bangkok
- Region 2 Center – Chonburi
- Region 3 Center – Nakorn Ratchasima
- Region 4 Center – Udon Thani
- Region 5 Center – Chiang Mai
- Region 6 Center – Pitsanulok
- Region 7 Center – Nakorn Pathom
- Region 8 Center – Surat Thani

- Region 9 Center – Songkhla

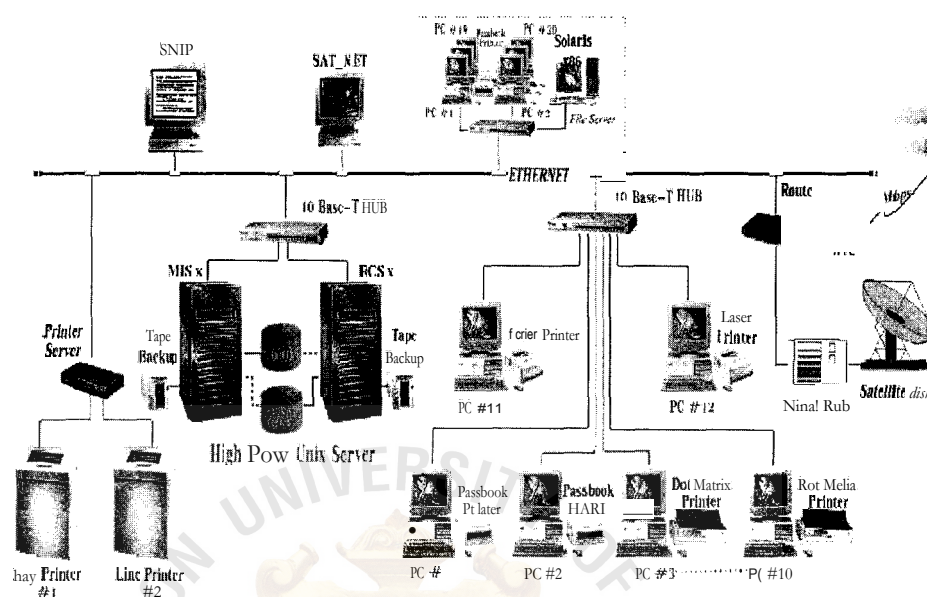


Figure 3-4: Computer Systems at the 9 Regional
Registration-Process Centers

The initial operations of the regional centers will be to take care of the operations of the district and local registration offices within their own jurisdiction for a total of 211 places, which will later expand to cover all provinces of the country.

1. The Department of Local Administration discontinued the recording of right thumb prints since the year 2540, in accordance with the parliamentary decree of June of that year.
2. The number of registration offices that were uplifted from the status of public health offices to that of **tambol** municipalities in 2542 totaled another 980 places.

Phase 4 (from the year 2543 onwards)

After Thailand hit its economic crisis in the year 2541, the project for the development of a system to service the public in regards to e-Registration did not receive any supporting budget from the government, which resulted in a halt in the project's expansion.

The year 2543 can be thought of as an important election year. The election committee saw the importance of arranging a list of people who had the right to vote, which would have to be made from the residential registration system. Therefore, a budget was given to the Department of Local Administration, to print the list of voters for the 294 district government registration offices in the remaining 67 provinces (which did not have a regional office), so that all 400 districts nation-wide would be covered.

It is with this reason that in the present time (2544 onwards), the Department of Local Administration has proceeded with servicing the public in regards to e-Registration, covering a total of 505 registration offices nation-wide that can be divided as follows:

- 1) A total of 211 places would provide services for both residential registration and the new-type of identification cards
- 2) A total of 294 places would provide services only for residential registration

Centers of e-Registration Service

The e-Registration service from the Department of Local Administration in the Ministry of Interior is a service that makes use of computers and an online network

system of information interconnecting various operational offices, which are all collectively within the system, including:

- 1) The Central Registration Office (which the president of the Department of Local Administration, in the position of the administrator of the Central Registration Office, has given the assessment center technical responsibility of)
- 2) Provincial government registration offices (located at the Provincial Administration building)
- 3) District / sub-district / municipality registration offices (located in their respective district / sub-district / municipality)
- 4) Regional registration processing centers are operational centers separate from the registration processing centers, responsible for taking care of, administering, and helping provincial and district / sub-district / municipality registration offices in their jurisdiction and divided into the 9 places as previously mentioned.

The characteristics and format of the assessment would be as follows: the computer system of the district / sub-district / municipality registration offices that service the public will be connected to the computer system of the responsible regional registration processing centers, by way of 2 communication systems: satellite and high-speed internet access.

- 1) The computer systems at the district / sub-district / municipality registration offices will be connected to the computer system of the responsible regional registration processing centers by satellite and high-speed internet access.

- 2) The computer systems at the provincial government registration offices will be connected to the computer system of the responsible regional registration processing centers by way of high-speed internet access.
- 3) The computer systems at the regional registration processing centers will be connected to the computer system of the registration processing centers by satellite and high-speed internet access.

Modifying the Information Database for e-Registration

The central registration database used in service consists of 3 levels, which will have their databases modified, as follows:

- 1) The database systems at the district / sub-district / municipality registration offices will be modified immediately when servicing the public, and will send modified information daily to the regional registration processing centers after working hours
- 2) The database systems at the regional registration processing centers will be modified daily through the modified information sent in by the database systems at the district / sub-district / municipality registration offices in their area of jurisdiction, and the information of each district / sub-district / municipality registration office will be stored.
- 3) The database systems at the registration processing centers will store information about each individual and each residential place in each registration office throughout the country and will be modified when modified information is sent in by the 9 regional registration processing centers after each workday.

At present, there still are 1,552 registration offices that have not received financial support for the establishment of e-Registration systems (572 are original

registration offices and 980 are the newly appointed offices that were uplifted from public health offices to being municipalities), which has resulted in the fact that these registration offices send paperwork with the modified information to the regional registration processing centers once every month, which makes their information about 2 months behind on being truly up-to-date.

Types of e-Registration

At present, there has been a classification of the e-Registration service of the Department of Local Administration (registration processing centers) available at registration offices as follows:

1. Services at the Central Registration Office (located at Wang Chaiya Registration, Nakorn Sawan Rd., Nangluerng, Dusit, Bangkok 10300) from 08:30 – 16:30, which include:
 - a. Checking and verification of residential registration, identification cards, name registration, marital registration, weapons registration, and statistical systems of registration at the information service center, at the registration office
 - b. Answering questions and solving problems of registration through the telephone number 1548
 - c. Giving knowledge about the e-Registration, with a tour of the process and the operating methods of the officials as well as demonstrations for other offices or educational institutions
2. Services at the Provincial government registration office (located at the central *sala* of every province at the provincial administration building). During work hours, services include:

- a. Checking and verification of residential registration
 - b. Checking and verification of identification cards
 - c. Checking and verification of general registration (name registration, marital registration, weapons registration)
3. Services at District / Sub-District / Municipality Registration Offices (which at present – from the year 2544 – a total of 505 offices have established computer systems and a communication network). These are divided into 2 groups of services, as follows:
- a. Automated services that include both the residential registration and the identification card registration, which includes all registration offices within the jurisdiction of the following 9 provinces: Bangkok, Chonburi, Nakorn Ratchasima, Udon Thani, Chiang Mai, Pitsanulok, Nakorn Pathom, Surat Thani, and Songkhla, as well as Muang Pathumthani District, totaling 211 offices.
 - b. Automated service that includes only residential registration (the identification card registration used is still the old system), which includes the 294 district / municipality registration offices established in voting districts in 67 provinces throughout the country.
 - c. The automat Automated services that include both the residential registration and the identification card registration can be divided further:
 - i. Services that include information reception on births, deaths, moving in-out, changes in individual records, changes in residential information, construction/destruction of residences, and the creation of identification cards

- ii. Checking and verification of residential registration (including marital registration and weapons registration) and identification card registration
- iii. Giving service to people who come to receive out-of-locality residential registration, as well as automatic identification card services (receiving identification cards immediately after requesting them) for those living within the 9 provinces mentioned in (a).

4. Electronic Services

The Central Registration Office (by the registration processing centers) has developed a service system for people who use the internet, as follows:

- a. Services for checking individual information through the internet, in order to give everyone the opportunity and ability to check the accuracy of each individual's record at any time, as well as the ability to print out documents for further processes
- b. Services for preparing registration documents via the internet, so that people are able to prepare documents and various printed materials that are needed for contacting the registration office by themselves at any time; the service includes printing documents for convenience in preparing / filling out / finding evidence to include in the request for service at registration offices.
- c. E-mail services at the website <http://www.khonthai.com> in order to give every Thai person a chance to have the opportunity and the tools in preparing himself to enter into the electronic information age. People who request electronic mail service through the internet need to ask for a PIN

code (Personal Identification Number Code), which the Central Registration Office (by the registration processing centers) has developed so that everyone is able to set his own code and use the mentioned code to verify their right in the reception of registration services by computer. In asking for a PIN code, there are 2 methods that can be used:

- i. Requesting through the computer at the website of Department of Local Administration located at <http://www.dola.go.th>, or go to <http://www.khonthai.com>
- ii. Requesting individually at all registration offices that have computer services, such as the central *sala* in each province or at all regional registration processing centers

In expanding the benefits that governmental units, various organizations, as well as registration processing centers receive, the information in the Central Registration Database need to be information collected from residential registration documents and identification card documents, which is the primary source of proof of an individual's identity and place of residence. These are, therefore, important basic information that every office wants in order to use them in order to give services to the people who go to receive them at those organizations. With today's information technology, every office is connected through their computer systems in order to set up a remote on-line processing system effectively.

Therefore, in order to support the operational benefits to be gained and the support in effectiveness in the development of the country collectively, the Department of Local Administration (registration processing centers) has developed system programs, system capabilities, and computer equipment for remote on-line processing in order to support each office's needs.

Using e-Registration to Support e-Government

The e-Registration system that the Department of Local Administration is responsible for, in accordance to the project for implementing identification numbers and the project for the creation of a service system for the people, consists of a system for registration and identification cards by computer as well as a system for information management for work operations. Besides being a solution to the existing problems, it is also a development of the country's registration system by the introduction of computers and a more modern system. This enables the service system of the people to be more modern, more effective, complete, accurate, convenient, fast, and consistent with present living conditions of the Thai people. It is also beneficial to creating a foundation to develop a new kind of management – a management information system, where managers and administrators in the Department of Local Administration and other departments within the Ministry of Interior can learn how to use and modify their operations until a new kind of governmental system occurs. This would lead to paperless management by using computers as tools in management.

In addition, the Department of Local Administration has proceeded with the development of an expansion system to let other regional and local departmental units benefit in working with the Central Registration Database, by way of computer systems integration and the use of remote online processing so that each department can use the e-Registration system in their operations, both in the form of verification of individual information to service people or in the form of statistical registration information, and statistical information on people's movements. These would be beneficial to setting policies, planning operations, and setting plans for governmental operations, especially in the case of national security and the prevention and control

of crime, the maintenance of safety for people and possessions, and planning public utilities systems and other service systems so they are appropriate/consistent with the people who live in various localities throughout the country.

At present, the government, under the control of Dr. Thaksin Shinawatra, has set management policies to solve the problems of and to develop the country's economic system by establishing further policies and plans with various government departments, in order to quickly receive results from all the projects put in place, such as the village fund project, public health insurance project, tambol internet project, and the project for the prevention and control of drugs. The success of these projects depends on their foundation from the registration database system as well as e-Registration computer systems. The information databases within the e-Registration system can be used as a part of the Central Registration Database to help make e-Government management complete.

Consideration must be given to the importance of e-Registration towards being an important foundation of e-Government, such as through the population identification number system that integrates a 13-figured number as the main index for the Department of Local Administration to use in the Central Registration Database. This results in a central index for all governmental units, departments, and ministries that use a computer system to process information that can be placed within the information database, thus resulting in all-around, permanent benefits.

At present, the Department of Local Administration – a governmental unit — has developed an e-Registration system that can support electronic services in order to expand the boundaries of its service area, thus responding to the service needs of the people through the internet. This would result in global services offered, and the Thai

embassies and consulates abroad will receive the e-Registration system in order to help successfully shape the system of e-Government of the country.

Direction of e-Registration Development

The Department of Local Administration, a governmental unit responsible for the registration of the country, has set the direction/trend at present of the development of the country's e-Registration as follows:

- 1) Proceed with system expansion for automatic registration and identification card services in every registration office. Because of economic problems, there is still a lack of funding to proceed with the establishment of computer and communications systems for 1,552 registration offices (at present – the year 2544 – a total of 505 registration offices have been computerized).
- 2) Proceed with expanding the benefits from the identification card of the people to be able to support the needs of various units/departments through integrated operations (in improving the identification card used at present – the ATM card – which has information recorded at the metal band at the back of the card) with other units in order to be able to get the identification cards to record more information on their metal strips. The result of the integration would be a development of a newer type of card that has a memory unit right on the card, or what is called the chip card or smart card, and can be used to verify the individual's identity immediately. This would enable the people to be able to use just one card when contacting the various governmental units/departments conveniently. Using just one card will decrease the expenses and problems inherent in having to use many cards.

- 3) Proceed with developing and expanding the Central Registration Database as an information database as well as integrate operations with other departments to develop a geographic information system (GIS) together, in order to support the operations of the various administrative organizations, bureaus, and civil servants in local areas. The Department of Local Administration has settled on the agreements between other departments as follows:
- a. The agreement of developing a geographic information system (GIS) between the Department of Local Administration of Chonburi Province (Sriracha district, Sriracha municipality) with the tambol administrative organization of Bangpra on May 4, 2543.
 - b. The agreement of using the Central Registration Database in the development of a geographic information system (GIS) between the Department of Local Administration and the Laemchabang municipality office on January 31, 2544.
- 4) Develop the e-Registration system to be able to give services through the internet, in order to expand its capability of service without boundaries through the internet. This would make the database system up-to-date and modern as well as consistent with the service needs of the people as well as other departments continuously, without any time or place limitations.
- 5) Develop the e-Registration system so that it can be modified to become a basic information database for setting policies, planning operations, and establishing management guidelines of the country for the government, in the form of an information center to support country management. This would be done by establishing the operating processes with the various

types of information databases that are the responsibility of every ministry and department.

E-Registration in an e-Thailand

E-Registration, or an electronic registration system, is an important tool within Thailand's electronic system (e-Thailand), which is governed by an e-Government, or a government that uses management systems that incorporate various computer systems and equipment, and a communication system of information of e-Registration in e-Thailand.

The components of an e-Registration system consist of the following 2 important computer systems/communication and database systems:

1. The National Electronic Registration System (NERS), which uses the Central Registration Database (CRD) as its main database system in operations.
 2. The National Information System (NIS), which uses the Central Information Database (CI) as its main database system in operations.
- Development in e-Registration also exists to result in the highest possible benefits in the following ways:

a. The expansion of services for registration offices, such as:

- i. *District Government Registration Office (DGOV)*, which consists of a total of 795 district registration offices and 81 sub-district offices
- ii. *Provincial Government Registration Office (PGOV)*, consisting of 75 registration offices
- iii. *Local Government Offices (LGOV)*, consisting of 75 provincial administration offices, 1,031 municipalities,

6,746 tambol administration offices, and 2 special administrative units.

- b. The expansion of services for other governmental departments, such as:
 - i. Government Authorities (GAMOU)
 - ii. Provincial Authorities (PAMOU)
 - iii. Independent Organizations (ORG MOU)
 - iv. Various Community Governments (CGOV)

At present, the Department of Local Administration has expanded the use of the database to more than 40 government offices, with a memorandum of understanding (MOU) from each in order to establish a plan of cooperation among the various offices.

- 3. Developing and expanding the e-Registration system through the internet; the Department of Local Administration has proceeded with the following steps:

- a. The development of a system to service Thai embassies/consulates (THAI AMB) abroad, with services in regards to registration for Thai people, such as processing the announcements of birth and death through the internet.
- b. The development of a system to service organizations, institutes, and various communities (X MOU) that have been given a memorandum of understanding regarding the communal use of the information database from the Department of Local Administration through the internet.

- c. Giving services to people who use the internet (internet users) so they are able to receive services such as the verification of information or the reception of other services through the internet.
- d. The development of a website of the Department of Local Administration to give registration services and information to the people through 3 websites, as follows:

- i. <http://www.dola.go.th>
- ii. <http://www.khonthai.com>
- iii. <http://www.khonthai.org>

At the same time, these websites will be developed to be able to support processing in the form of portal sites, in order to make the e-Registration system more effectively consistent with the needs of the people, society, and the development of information technology.

Benefits of e-Registration

The benefits of e-Registration can be categorized into the following 3 parts:

1. Benefits to government units – It would lead to a transformation of the government system to be up-to-date with the times. In regards to management, the system will make it more effective, reduce costs, and prevent registration and identification card fraud and document forgery.
2. Benefits to society – The information is used for distribution in society for the development of service, the decrease of risk in establishing business, the decrease in expenses for clients' supporting documents, and can be a dimension wherein the government can avoid itself in the establishment of

such a business, thus decreasing the nation's need for a budget to support the associated expenses.

3. Benefits to the people – Because the Department of Local Administration has established the use of a computer system to improve the system for servicing the people for registration and identification cards, the people have received the following benefits:

- a. The people are able to receive registration and identification card services conveniently and quickly, and can save the time and expenses they must pay in going to receive services.
- b. The people are able to receive various services that are relevant to their life, such as residential registration services through the announcements of birth, death, moving, and receiving new identification cards without having to use an official yellow form.
- c. The people are able to receive various services through the internet, such as asking registration questions, the verification of individual information, the verification of marital documents and names, the verification of population and housing statistics, and the preparation of documents and other registration papers.
- d. The people are able to receive various services from other government departments that have signed onto the memorandum of understanding with the Department of Local Administration. The people receive the services through the website <http://www.khonthai.com>. When there, they can search for information all the way until the tambol administration level

throughout the country. This is another way of reinforcing the country's economic strength to the people.

3.2 e-Government in the Ministry of Finance

e-Government in the Ministry of Finance, especially the e-Taxation system, is a use of the IT system for the 3 types of taxes (revenue taxes, customs taxes, and excise taxes), in order for there to be a use of IT in work operations and management, as well as giving tax services through the internet by the Revenue Department (e-Revenue), Customs Department (e-Customs or Internet EDI) and Excise Department (e-Excise).

The e-Taxation system of the Ministry of Finance is divided into 2 systems:

1) An integrated information system of the 3 tax departments for communal use through the MOF's IT Center system, for use in operations of the Revenue, Customs, and Excise Departments in order for there to be a use and exchange of information among them conveniently and quickly, decreasing process steps, redundancy in work, and expenses.

The integrated information system of the 3 tax departments will be capable of information exchange and the communal use of information, as well as having the ability to search and verify taxes in order to increase effectiveness in tax collection services of the country.

Therefore, the integration of the information systems of all 3 taxation departments includes the following objectives:

1. Develop the system and support the integration of tax collection information of all 3 tax departments together

2. Organize the information system of all 3 tax departments that need to be used together in order to exchange information and lessen redundancy of information
3. Proceed in order to let the information be used together in such things as searches and the verification of tax collection, in order to increase the effectiveness of the management and collection of taxes.

The Integrated Information System of the 3 Tax Departments

There are 2 types of systems in the integrated information system of the 3 tax departments, as follows:

1. Integrated information system of the 3 tax departments for communal use through MOF's IT Center system

The MOF's IT Center system is a web application that was developed to be used as a center in the exchange of information and the communal use of information among the 3 tax departments. The objective in the information exchange is to further process related information, with the Ministry of Finance's computer center acting as central storage in order to establish a Central Information Database that the 3 tax departments can use together, as well as proceed with security measures to keep the information intact.

2. Integrated information system of the 3 tax departments to search and verify taxes through the Revenue Intranet system

The tax search and verification system is a web application that managers or authorized officers can use to search and verify tax information in the Revenue, Customs, and Excise Departments. The information from the Revenue Department will include only the juristic taxes (Phor Ngor Dor 50) and value-added taxes (Phor Ngor Dor 30).

Benefits Gained

1. **All 3** tax departments are able to use the same information system, decreasing redundancy and increasing effectiveness in operations through the exchange of pertinent information in the communications network.
2. Effectiveness in collecting taxes is increased for all 3 departments, as there is a tax search and verification function that can check, by way of "one stop service", the entire IT system of all 3 departments at once.
3. Makes the Ministry of Finance able to use the integrated system of all 3 departments to analyze and use the information for managing tax collections more quickly and conveniently.

In summary, the integrated information system of the 3 tax departments include:

1. Information from the **Customs Department** includes:
 - Details about import
 - Details about export
 - Summary of imports
Summary of exports
 - Details about daily imports
 - Details about daily exports
 - Tax cards
 - Results of tax collection and statistical information thereof
2. Information from the **Excise Department** includes:
 - Summary of tax collection
 - Results of tax collection

Monthly reports of tax collection

- Details of monthly tax collection
- Details of daily initial collection
- Details of monthly tax earnings
- Details of tax registration
- Product codes through the EDI system

3. Information from the **Revenue Department** includes:

Juristic taxes (Phor Ngor Dor 50)

Value-added taxes (Phor Ngor Dor 30)

2) Tax submission and tax services for all 3 taxes through the internet, which is a service system for customs, excise, and revenue taxes through the internet in order to increase service options for people in paying their taxes conveniently and quickly. The system includes e-Revenue and e-Customs. Details of both follow.

2.1 e-Revenue

This system serves the submission of tax forms for paying value added tax (Phor Por 30, 36), business-specific tax (Phor Thor 40), and taxes inherent in profits (Phor Ngor Dor 54).

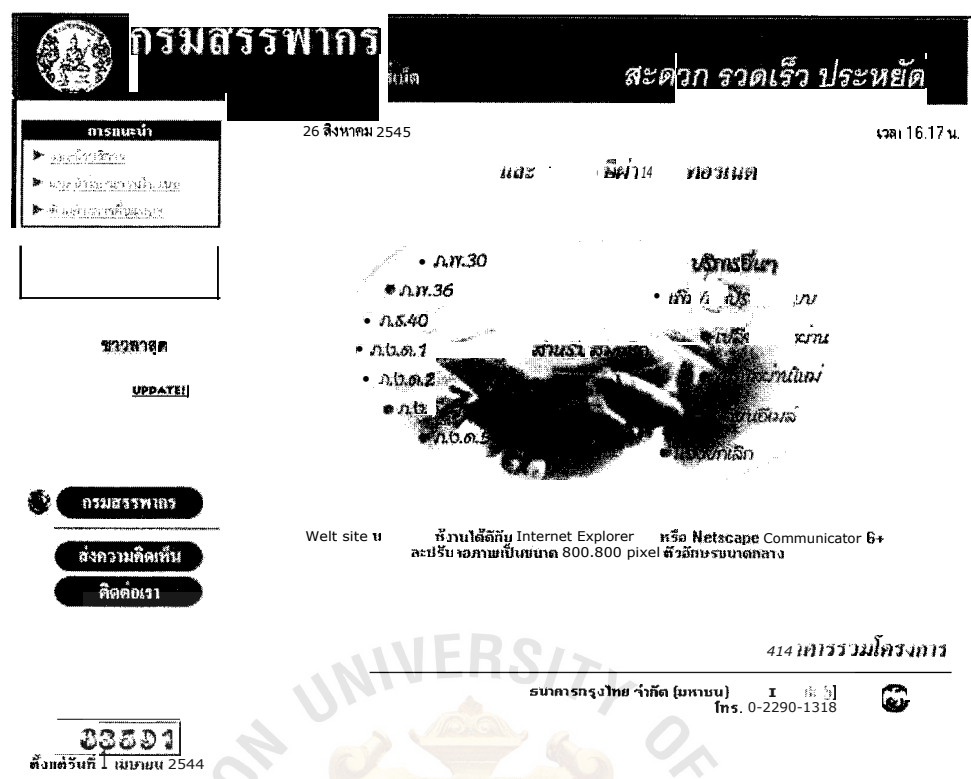


Figure3-5: Picture of e-Revenue Website

The Revenue Department has begun services of e-Revenue from the internet through <http://www.rd.go.th>, with the following details:

Tax Submission and Payment through the Internet

Service Objectives

1. The service includes submitting and paying for taxes through the internet, with the tax-payer being the one to input data into the required forms that have been authorized for use through the internet instead of manually writing and submitting the paper forms, as well as paying taxes through electronic means through bank transfers to the Revenue Department (in the case of submitting the Phor Por 30 form where there is no tax to pay or in the case of tax returns, this service is still available).

2. This is a new option that does not force but helps tax-payers who are interested in choosing services for more convenience in submitting and paying taxes at the district revenue office.

- Every tax-payer has the right to use the service of submitting and paying for taxes through the internet that the Revenue Department has opened. For submitting and paying for value-added taxes or business-specific taxes through the internet, the person submitting must be the person who registered for value-added tax or the person who registered for the business-specific tax only

- There must be prior agreement made with the Revenue Department, by signing the contract documents in the request for submitting and paying taxes through the internet. When the user ID and password has been received from the Revenue Department, it is then possible to enter into the system in order to submit and pay taxes through the internet.

- There must be prior arrangements made with the bank that participates in the project for submitting and paying taxes through electronic bank transfers (e-Payment)

Benefits Received

1. The Revenue Department does not charge any fees for applying for or requesting this service
2. It saves time and money in traveling to the district revenue office to submit and pay for taxes
3. There is a special privilege of submitting documents from 16.30 to 22.00 every day, without holidays

4. There is a program available to help verify initial information that is inputted into the form; should there be mistakes found, the system will send immediate warnings so that the person can edit the information correctly. For confirmation that the Revenue Department has received the form and tax payments, there will be the following 3 levels of evidence:
- a. Immediate confirmation of receipt once the transaction is over
 - b. Confirmation of receipt of the form and tax payment (if any) through email on the next day
 - c. Confirmation of receipt of the form and tax payment (if any) through registered postal mail

Application for Submitting and Paying Tax through the Internet

People Eligible for Application

Case of Application for Submitting Value-Added Tax Forms

1. The proprietor who registered value-added tax must submit the Phor Por 30 and 36 forms, both in Bangkok and other provinces, and must receive authorization from the Revenue Department in having eligibility to use the service
2. Normally the proprietor interested in using the service of submitting the Phor Por 30 form through the interne must submit a request per establishment or branch, except when authorized to submit the Phor Por 30 form collectively, which then precipitates the request for authorization for those collective establishments or branches.

Case of Application for Submitting Business-Specific Tax Forms

- 1 The proprietor who registered value-added tax must submit the Phor Tor 40 form, both in Bangkok and other provinces, and must receive authorization from the Revenue Department in having eligibility to use the service
2. Normally the proprietor interested in using the service of submitting the Phor Tor 40 form through the internet must submit a request per establishment or branch, except when authorized to submit the Phor Tor 40 form collectively, which then precipitates the request for authorization for those collective establishments or branches.

Case of Other Service Requests

The tax-payer is responsible for submitting all tax forms.

Steps in Applying For Service

Request for service:

1. To request the form for applying for the submission and payment of taxes through the internet (Phor Or 01), contact the Center for Internet Transactions, 1st floor of the Computer Center Building, Revenue Department, 90 Soi Paholyothin 7, Paholyothin Rd., Payathai, Bangkok 10400 and all provincial revenue offices in every province.
2. The form for applying for the submission and payment of taxes through the internet (Phor Or 01) can be downloaded from the Revenue Department's website (<http://www.rd.go.th>), by clicking "Electronic Services," then "e-Taxation," then "Service Information," and finally "Various Forms."

Entering Information in the Phor Por 01 Form

The tax-payer must input relevant information onto the Phor Or 01 form, such as the tax-payer identification number, the number of the branch registered for value-added taxes and/or the number of the branch registered for business-specific taxes, the name of the tax-payer, the place of business, telephone and fax numbers for contact, correct email addresses on the internet, and the signature of the authorized tax-payer, board of directors, or partners of the juristic entity along with the company seal (if any).

Besides this, the tax-payer can submit the Phor Or 01 form through the Revenue Department's website (<http://www.rd.go.th>), by clicking "Electronic Services," then "e-Taxation," then "Member Registration," and finally "Phor Or 01 Form." The Phor Or 01 form will appear on the screen, and once the relevant information as mentioned should be inputted completely, the button "Submit" should be clicked. The information will be recorded into the system automatically; then, the system will send a message of receipt as well as a reference number to the tax-payer at the email address provided.

Processing the filled-in Phor Or 01 form through the internet will not be complete until the tax-payer signs the agreement contract with the Revenue Department.

Supplementary Documents for Phor Or 01 Application Through the Internet

1. The e-Taxation contract (agreement form)
2. In the case of normal persons, there must be a signed photocopy of the tax-payer's identification card submitted as well.

3. In the case of juristic entities, there must be a photocopy of the current company registration by the registrar and company partners that is not over 6 months counting from the day that the registrar and company partners signed their names, as well as photocopies of the identification cards or other important alien papers of persons associated with the juristic entity, with all the mentioned persons signing their own relevant documents.
4. In the case of authorizing a representative, there needs to be a power of authorization / power of attorney form along with signed copies of the identification card of the authorizer and the authorized person.

In cases where the tax-payer wants to request e-Taxation services for the main headquarters as well as a company branch at the same time, only one set of documents is needed.

Submitting the Phor Or 01 Form

1. Manual submission – The Phor Or 01 form that has been completely filled, along with supporting documents, can be submitted at the same time at the Center for Internet Transactions, 1st floor of the Computer Center Building, Revenue Department, 90 Soi Paholyothin 7, Paholyothin Rd., Payathai, Bangkok 10400 and all provincial revenue offices in every province.

2. Electronic submission – The Phor Or 01 form can be submitted through the Revenue Department's website. All supporting documents must be submitted at the Center for Internet Transactions within 15 days from the day of submission; the reference number of the Phor Or 01 form or a printed copy of the Phor Or 01 form must be given to the officer as well.

Entering into the System

Once an officer has considered the Phor Or 01 application form and the supplementary documents, if all is complete and correct the Revenue Department will issue a user ID and password for use in entering into the e-Taxation system. The Revenue Department will inform the user through email which month the user has the right to use the e-Taxation system.

Conditions of Use

The submission and payment of taxes must be done within the allotted time only. If there is submission after the time allotted or more documents to be submitted, these submissions and the payment of taxes must be done at the district revenue office as normal. For example, the submission of the Phor Por 30 or the Phor Tor 40 form for the January 2545 tax month that needs to be in by February 15, 2545, the submission and payment of value-added and business-specific taxes through the internet must be done within the 1st- 15th of February 2545. If it is a submission of the Phor Por 30 or Phor Tor 40 forms of December 2544 or any month before this, the forms must be submitted at the district revenue office only. Users eligible for e-Taxation services can use the system everyday in the timeframe for submission, unless the last day for submission is a weekend; in which case, the user is eligible to submit the documents 1 day afterwards. Each day, submissions can be sent from 06.00 to 22.00.

Steps of e-Taxation

Steps in Submission

After the Revenue Department has emailed a confirmation that the tax-payer is authorized to use the e-Taxation system, the steps in e-Taxation submission are as follows:

Step 1 Go to the Revenue Department's website at <http://www.rd.go.th>

Step 2 Click "Electronic Services," then "e-Taxation"

Step 3 Choose the type of form for submission through the internet

Step 4 Input the user ID and password received from the Revenue Department. The screen will display the chosen option; the form will show information about the situation of the tax-payer in accordance to the information given to the Department. There would be a display for inputting relevant numbers, similar to paper forms.

Step 5 Input information in accordance to the form completely, similar to inputting information in paper forms.

If the user is authorized to submit the value-added tax form together, he must download the program for recording information in the Phor Por 30 form in order to record and input information in the form, similar to the Phor Por 30 paper form. When information recording is finished, the user must click the "Attach File" button in order to send the Phor Por 30 attachment. (Note: If the number for data input does not correlate, such as if the tax number is more than or less than 7% of what was calculated from the inputted data, the program will give out a warning that the data does not correlate and to please verify the inputted information once more.)

If the user is authorized to submit the value-added tax form together, he must download the program for recording information in the Phor Tor 40 form in order to

record and input information in the form, similar to the Phor Tor 40 paper form. When information recording is finished, the user must click the "Attach File" button in order to send the Phor Tor 40 attachment. (Note: If the number for data input does not correlate, such as if the tax number is more than or less than 7% of what was calculated from the inputted data, the program will give out a warning that the data does not correlate and to please verify the inputted information once more.)

Step 6 Once the inputted information is verified for accuracy, the user needs to confirm this by clicking "Submit." If the user is unsure or wants to input new information, the user must click "Cancel."

Step 7 Once the user verifies information and clicks "Submit":

If there are no taxes to pay or for tax returns as per Phor Por 30, the system will confirm the submission of the form by informing the user of receiving the Phor Por 30 form as well as giving the reference number. If there are taxes to pay, the user must choose the bank that he has made an agreement with; once the bank is chosen, the screen will change to the bank's screen for e-Payments. When the bank transfers money into the Revenue Department's account, the system will confirm the submission and payment of the taxes by immediately informing the user of their receipt. In addition, the Revenue Department will confirm again by email on the next day and will send a tax payment receipt to the user through registered mail to the address specified.

(Note: If the money transfer of the bank has any problems or if the amount of money is insufficient for the payment of tax, this would mean that the transaction is incomplete. The Revenue Department will take it as not yet having received submissions or payments of tax through the internet and for the user to do the transaction again or to manually submit and pay taxes at the district revenue office.)

Step 8 For e-Taxation reference benefits, the user is encouraged to print the transaction for future use.

Notification of Changes

Notification of Increase/Decrease in the Item Display

For notification of increase/decrease in item displays, the request form (Phor Or 02) can be gotten from Center for Internet Transactions, 1st floor of the Computer Center Building, Revenue Department, 90 Soi Paholyothin 7, Paholyothin Rd., Payathai, Bangkok 10400 and all provincial revenue offices in every province. It can also be requested from the Revenue Department's website (<http://www.rd.go.th>) by clicking "Electronic Services," then "e-Taxation," then "Service Information," and finally "Various Forms."

Filling in the Phor Or 02 Form

The tax-payer must input relevant information onto the Phor Or 02 form, such as the tax-payer identification number, the number of the branch registered for value-added taxes and/or the number of the branch registered for business-specific taxes, the name of the tax-payer, the place of business, telephone and fax numbers for contact, correct email addresses on the internet, and the signature of the authorized tax-payer, board of directors, or partners of the juristic entity along with the company seal (if any).

Besides this, the tax-payer can submit the Phor Or 02 form through the Revenue Department's website (<http://www.rd.go.th>), by clicking "Electronic Services," then "e-Taxation," and finally "Increase/Decrease Item Display," which is in the members' table. The tax-payer must input his user ID and password from the Revenue Department. The Phor Or 02 form will appear on the screen, and once the

relevant information as mentioned should be inputted completely, the button "Submit" should be clicked. The information will be recorded into the system automatically; then, the system will send a message of receipt as well as a reference number to the tax-payer at the email address provided.

The tax-payer will be able to submit documents for the increased item or will lose his right to submit documents for the decreased item immediately after the increase/decrease item display is completed.

Notification of Email Address Changes or Requesting Passwords

For notification of email address changes or requesting passwords, the request form (Phor Or 03) can be gotten from Center for Internet Transactions, 1 floor of the Computer Center Building, Revenue Department, 90 Soi Paholyothin 7, Paholyothin Rd., Payathai, Bangkok 10400 and all provincial revenue offices in every province. It can also be requested from the Revenue Department's website (<http://www.rd.go.th>) by clicking "Electronic Services," then "e-Taxation," then "Service Information," and finally "Various Forms."

Filling in the Phor Or 03 Form

The tax-payer must input relevant information onto the Phor Or 03 form, such as the tax-payer identification number, the number of the branch registered for value-added taxes and/or the number of the branch registered for business-specific taxes, the name of the tax-payer, the place of business, telephone and fax numbers for contact, correct email addresses on the internet, and the signature of the authorized tax-payer, board of directors, or partners of the juristic entity along with the company seal (if any).

Besides this, the tax-payer can submit the Phor Or 03 form through the Revenue Department's website (<http://www.rd.go.th>), by clicking "Electronic Services," then "e-Taxation," and finally "Change Email Address" or "Request Password" as per intention. The tax-payer must input his user ID and password from the Revenue Department. The Phor Or 03 form will appear on the screen, and once the relevant information as mentioned should be inputted completely, the button "Submit" should be clicked. The information will be recorded into the system automatically; then, the system will send a message of receipt as well as a reference number to the tax-payer at the email address provided.

Notification of e-Taxation Service Cancellation

For notification of e-Taxation service cancellation, the request form (Phor Or 04) can be gotten from Center for Internet Transactions, 1 floor of the Computer Center Building, Revenue Department, 90 Soi Paholyothin 7, Paholyothin Rd., Payathai, Bangkok 10400 and all provincial revenue offices in every province. It can also be requested from the Revenue Department's website (<http://www.rd.go.th>) by clicking "Electronic Services," then "e-Taxation," then "Service Information," and finally "Various Forms."

Filling in the Phor Or 04 Form

The tax-payer must input relevant information onto the Phor Or 04 form, such as the tax-payer identification number, the number of the branch registered for value-added taxes and/or the number of the branch registered for business-specific taxes, the name of the tax-payer, the place of business, telephone and fax numbers for contact, correct email addresses on the internet, and the signature of the authorized tax-payer,

board of directors, or partners of the juristic entity along with the company seal (if any).

Besides this, the tax-payer can submit the Phor Or 04 form through the Revenue Department's website (<http://www.rd.go.th>), by clicking "Electronic Services," then "e-Taxation," and finally "Cancellation." The tax-payer must input his user ID and password from the Revenue Department. The Phor Or 04 form will appear on the screen, and once the relevant information as mentioned should be inputted completely, the button "Submit" should be clicked. The information will be recorded into the system automatically; then, the system will send a message of receipt as well as a reference number to the tax-payer at the email address provided.

Paying Taxes through the Internet

Tax Payments

The proprietor pays taxes by ordering the bank to transfer money into the account of the Revenue Department through electronic means (e-Payment) through the bank that the Revenue Department has set. There are 6 banks open for e-Payment, as follows:

- Krung Thai Bank Public Co., Ltd.
- Thai Farmers Bank Public Co., Ltd.
- Siam Commercial Bank Public Co., Ltd.
- Asia Bank Public Co., Ltd.
- Krungsri Ayuddhaya Bank Public Co., Ltd.
- Citibank Co., Ltd.

The system will show the bank symbol for the proprietor to choose through which bank that he wants the transfer to be made. When the bank transfers money into the Revenue Department account, the system will send a notification of tax payment receipt to the proprietor immediately. If there are insufficient funds in the account for tax payment, the Revenue Department will reject the submission and the proprietor must then manually submit and pay for taxes at the district revenue office.

The e-Taxation service of the Revenue Department has been successful. Many of the juristic entities, companies, and partnerships use the e-Taxation system, thus enabling an increased collection of taxes.

2.2 e-Customs or Internet EDI

At present, the Customs Department is giving EDI (Electronic Data Interchange) services, which include an exchange of electronic information for the reception/sending of information and information verification through the use of EDI UN / EDIFACT standards. The proprietor can send information about import/export documents through the EDI Gateway, which is processed through Trade Siam and the Communications Authority of Thailand (CAT) in order to send/receive information for the Customs Department to verify [5]. When the information is verified and passes customs, it is further processed so that merchandise imported from the cargo and merchandise exported out will be processed. AT the moment, EDI service is composed of the reception/sending of information in the X-400 system, where users must pay 25 baht per form. Almost 80% of the importers/exporters use this system.

The EDI system is a customs duties system that uses the reception/sending technology of the X-400 information system in accordance to EDI UN / EDIFACT standards. It is an old technology and has high expenses. The Ministry of Finance

therefore has increased options to proprietors by creating an e-Customs or Internet EDI system, which has lower expenses.

At present, almost 80% of all proprietors are users of the Customs Department's EDI system. The rest of that number use Interactive Data Entry or Counter Service. When the Customs Department canceled Direct Data Entry and Manual services, small importers/exporters and shipping agents tried to avoid using EDI by saying that there is a high cost of investment, thus rendering the customs system unable to be fully beneficial. This therefore has made it necessary for customs officers to offer services in many forms instead of having only one computerized service system. This has resulted in lowered effectiveness and slowed-down operations.

In order to let proprietors have a choice in using the EDI system and to eliminate the mentioned problem, the Ministry of Finance and the Customs Department used the Internet as a medium for customs services through the EDI system by adhering to EDI UN / EDIFACT standards, and supplementing XML (Extensible Markup Language) standards in the reception/sending of information. At the same time, previous EDI system services are still available, which is suitable for proprietors of large businesses.

The Internet EDI (e-Customs) System

The Internet EDI system is used to send/receive information about imports/exports with the Customs Department in adherence with EDI standards of UN / EDIFACT through the use of the internet instead of through VAN (Value Added Networks). This decreased service fees; therefore, small importers, exporters, and

shipping agents are able to use the service from all places in Bangkok and other provinces.

The Internet EDI system is a shared responsibility of the Ministry of Finance and the Customs Department by establishing a computer Web Application Server (SUN SF V880) at the Computer Center of the Ministry of Finance, and connections are made with a fiber optic system that has a speed of 155 Mbps from the Ministry of Finance to the Customs Department through the establishment of an XML Gateway Server (SUN E450) at the Customs Department to integrate the system with the customs system on the UNISYS IX 5600/2200.



Figure 3-6: Picture of e-Customs Website

Operations with Internet EDI

Importers/Exports who have computers connected with the internet through web browsers are able to input import/export information in the bill of lading and

invoice through an **internet** account from various existing Internet Service Providers (ISPs).

For convenience and ease of use, the preparation of the bill of lading will use the same method as preparation of information within the previous EDI system, but it will be an input of information through the **internet** into the Web Application Server at the Computer Center in the Ministry of Finance, where there would be EDIT, information verification with various reference files on the Application Server such as the customs tax category, exchange rate, and the date of shipping or other Customs Department announcements.

When the bill of lading is prepared, the Web Application Server will verify that the information adheres to EDI standards of UN/EDIFACT; then, the information on the bill of lading will be transformed into XML Format. The information will be sent by using Simple Mail Transfer Protocol (SMTP) with the XML information code and the importer/exporter details. The entire thing will be sent from the Web Application Server at the Computer Center in the Ministry of Finance through fiber optic cables with speeds of 155 Mbps through the system to the XML Gateway Server, which is at the Customs Department.

The XML Gateway Server at the Customs Department will pull the information of the importer/exporter and decode the bill of lading information in the XML format into a format that the customs system can further process on its Unisys Host System.

When the Unisys Host System has processed the information, if there are no mistakes in the bill of lading, the Unisys Host System will send the information confirming the reception of the bill of lading by setting a bill of lading number to the

importer/exporter. The confirmation message is called CUSRES (Customs Response), and it is in the EDI Message Format.

When the CUSRES Message from the Unisys Host System goes to the XML Gateway Server of the Customs Department, the XML Gateway Server will change the CUSRES into the XML Format, enter the code, and send it back to the importer/exporter in the form of a mail message, which will be stored on the Web Application Server at the Computer Center in the Ministry of Finance. The importer/exporter can check in on the status of their bill of lading through the internet.

When the confirmation and a number for the bill of lading is received, the importer/exporter will then place that number onto his prepared bill of lading as well as store it at the Web Application Server at the Computer Center in the Ministry of Finance.

Afterwards, the importer/exporter is able to print the bill of lading out in the form of a hard copy and use that for further processes in the customs system.

Benefits Received

1. Expenses are decreased and it is not a burden to small-sized importers/exporters or shipping agents in accessing the customs system through Internet EDI
2. Able to use the system throughout Bangkok and other provinces immediately
3. Gives importers/exporters a choice in using the EDI system by choosing between EDI VAN and Internet EDI
4. Motivates small importers/exporters and shipping agents to use the EDI system of the Customs Department, which will increase the number of users from the

present 80%, thus enabling wide-spread service, making the computerized customs system complete, decreasing processes and decreasing redundancy of work for customs officers, which will make the operation of the Customs Department more effective.

The e-Customs or Internet EDI system of the Customs Department will be open for service from September 2545 onwards. In the initial stages, services will be given for exports only; once the system is more effective, import services will be offered.

2.3 e-Excise

The e-Excise system is one that gives services for the 17 types of excise taxes, which consists of oil, oil products, cars, electric devices (air conditioners and light fixtures for ceilings), drinks, perfumes, perfume extracts, yachts, crystal glass, rugs, motorcycles, batteries, marble, alcohol, cigarettes, cards, and service establishments.

This system will service juristic entities and individual people who pay taxes for the 17 types of merchandise mentioned. The majority are juristic entities such as companies, totaling about 5,000 entities. They will be able to submit and pay excise taxes through the internet (e-Excise) to the Excise Department.

The e-Excise system of the Excise Department is in the stages of design and development. The system will be ready for use from January 2546 onwards.

The e-Revenue, e-Customs, and e-Excise systems are all service systems for the submission and payment of taxes through the internet. These systems will increase the alternatives that tax-payers have for paying taxes in a convenient and quick way, thus facilitating more effective tax collections and increasing the said tax collections.

Problems and Obstacles

1. The problem and obstacles of the computer system structure

From a study of the structure of the computer system and the development of the computer system for use in government operations within the Ministry of Finance, it can be seen that each government unit focuses on using its computer system for operations only. No one uses the management information system, and the information that could be integrated has no means of exchange. The work situation is "each man for himself," thus making the operations slow and creates redundancy in work. In addition, the computer systems of each department within the Ministry of Finance still are not completely interconnected in an online system. Therefore, there can be no use of modern technology yet. Computerized operations have been done only within the central bureau; there has not been any distribution of work to each region of each province of the country, even when the information of the Ministry of Finance itself is distributed all throughout the country.

2. The problem and obstacles of the information system network

At present, the integration of networks from the central region to each region is still not complete. Also, it is an integration that comes from the ideal of "each man for himself" and the integration does not cover the entire area, making it impossible to collect information from all sources. The use of information management therefore is not effective or efficient. Thus, the structure of the computer system of every department needs to receive development along with the development of the information system network, both in the central region as well as the other regions, in order to be able to collect original data from all over the country in a timely way. There needs to be integration of networks in every department of every region with a high-speed, nation-wide network, as well as an integration of all those networks into a

single network with the Ministry of Finance's computer center turning into the central connection.

3. The problem and obstacles of the work system and information system

Work and information systems, the heart of a computer system, must be developed in order to create an economic and financial information database for the Ministry of Finance in a complete and up-to-date manner. Besides the use of information in the daily operations and responsibilities of each department, the information must also be connected with a network into the economic and financial information database in the computer center of the Ministry of Finance as well. This is to enable each department to be able to use the information together, calling up information as needed as well as using the service in the "one stop service" system with other departments. This will give managers information for analysis, setting policies, and decision-making, thus resulting in a management information system (MIS), an Executive Information System (EIS), and a Decision Support System (DSS) respectively. The use of the information system in managers' decision making not only contains internal data but also contains external data that is relevant to the economies both in- and outside the country. An internet system needs to be set up as well, in order to facilitate global searching, following up, and distributing information. A system for office automation must also be used in operations, such as systems for email, document image processing, and other multimedia systems, which can make the operations in the departments faster and more convenient.

CHAPTER 4

CRITICAL SUCCESS FACTORS OF e-GOVERNMENT IN THAILAND

Critical Success Factor Definition

- Critical success factor means the factor that is necessary in helping to achieve the established goals of an organization or a process at a desired level. Therefore, in the establishment of any process, there should be an analysis of the critical success factors that will help that process in its implementation.

In this study, after researching and analyzing the critical success factors from documents, websites, and interviews, it was found that the critical success factors of the e-Government project are related to the factors of necessary resources, such as human resources, budget, tools, equipment, the communication infrastructure such as telephone lines and networks that connect government networks, as well as other factors such as management, relevant regulations, and human resources development. The critical success factors can be summarized as follows:

1. Network and Communication Infrastructure

For the government to service the people through the use of computer technology and communication tools, the infrastructure is considered as an important factor. This is because if there is a lack of network and communication infrastructure, the e-Services of the government will lack effectiveness. At present, there is still a lack of development and a lack of distribution to all areas. This can be seen from the information from the National Statistics Center; the network and communication

infrastructure information in the year 2544 shows that the infrastructure is still not yet distributed to all areas but are mostly concentrated within Bangkok (See Table).

Technology and infrastructure	1996	1999	2000
Fixed lines and mobile telephones (per 1,000 people)	103.2	125.9	142.6
Telephone average cost of local call (US\$ per three minutes)	0.1	0.1	0.1
Personal computers (per 1,000 people)	17.2	23.0	24.3
Internet users	135.0 thousand	1.3 million	2.3 million

Table 4-1: Thailand Technology and Infrastructure

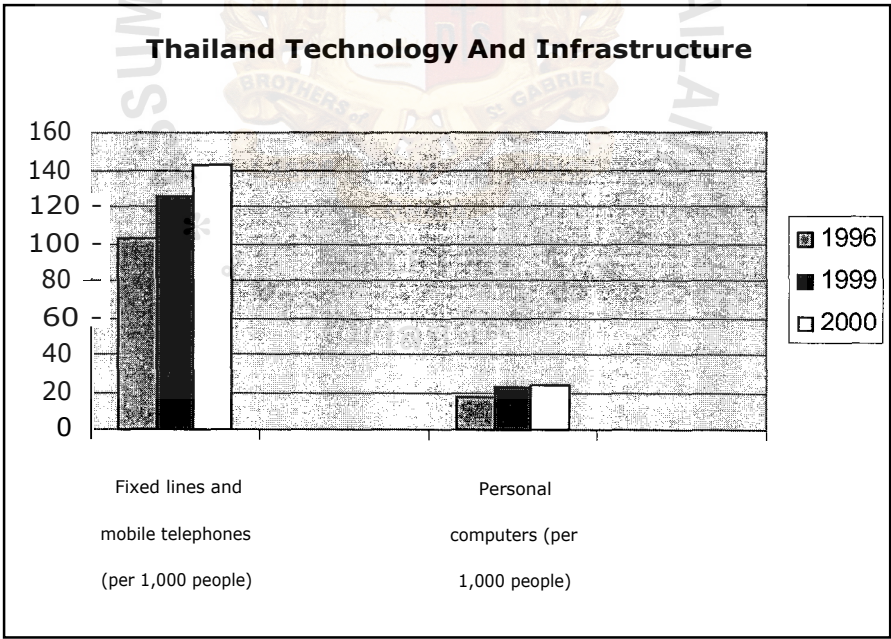


Figure 4-1: Graph representing Thailand Technology and Infrastructure

Region	Households that Have and Use Computers							Households
	Number of Households				Percentage			Households
	Total	Desktops	Notebooks	Desktops and Notebooks	Total	Desktops	Notebooks	
Whole Kingdom	81 565	22 135	1 957	22 2	10 .0	100.0	100.0	5.0
In municipalities	64 822	613,288	8 782	18 85	289	189	67.8	1.1
Outside municipalities	12 713	163,977	4 125	3.2	211	21.1	16.1	1.5
Bangladesh	39 188	32 077	5 582	13, 8	482	47.9	43.1	10.1
Central region	181,533	175,438	4 525	4,580	22.7	22.6	35.3	5.0
Northeast region	10 044	98,94	1 350	2,768	12.7	27	10.4	1.1
Southern region	45,705	44,928	18	459	5.6	5.8	2.5	2.1

Region	Households that Use the Internet						Individuals that Use the Internet					
	Number of Households			Percentage			% total House-holds	o se a Ho ne	% Use at Other Places	Number	Pe centage	% Total Individuals
	Total	At Home	At Other Places	Total	At Home	At Other Places						
Whole Kingdom	2,277,046	490,158	1,786,888	100.0	100.0	100.0	14.11	3.4	1.02	36,001	100.0	5.64
In municipalities	404,054	41,799	990,255	61.2	84.5	55.4	26.90	7.3	8.2	2,341,433	8.2	11.50
Outside municipalities	1,872,992	1,561,961	260,443	38.3	15.5	44.6	9.0	0.70	7.30	9,568	33.8	2.82
Base of	1,880,292	1,590,098	290,194	29.9	5.2	2.9	34.39	4.66	10.72	1,234,542	34.9	16.00
Central region	506,295	96,201	470,594	24.9	1.8	2.3	1.5	2.64	12.82	830,389	23.5	5.85
Northeast region	384,169	40,998	343,171	16.9	8.4	19.2	7.36	0.79	.8	559,13	15.8	2.64
Southern region	265,518	20,233	244,745	11.6	4.2	13.7	12.54	0.98	1.6	395,73	11.2	4.72

Table 4-3– Number and Percentage of Households and Individuals that Use the Internet at Home and Other Places,

Categorized by Region (2545)

Source: Survey of Usage of Computer/Information Technology Tools, year 2544

National Statistics Center, Office of the Prime Minister

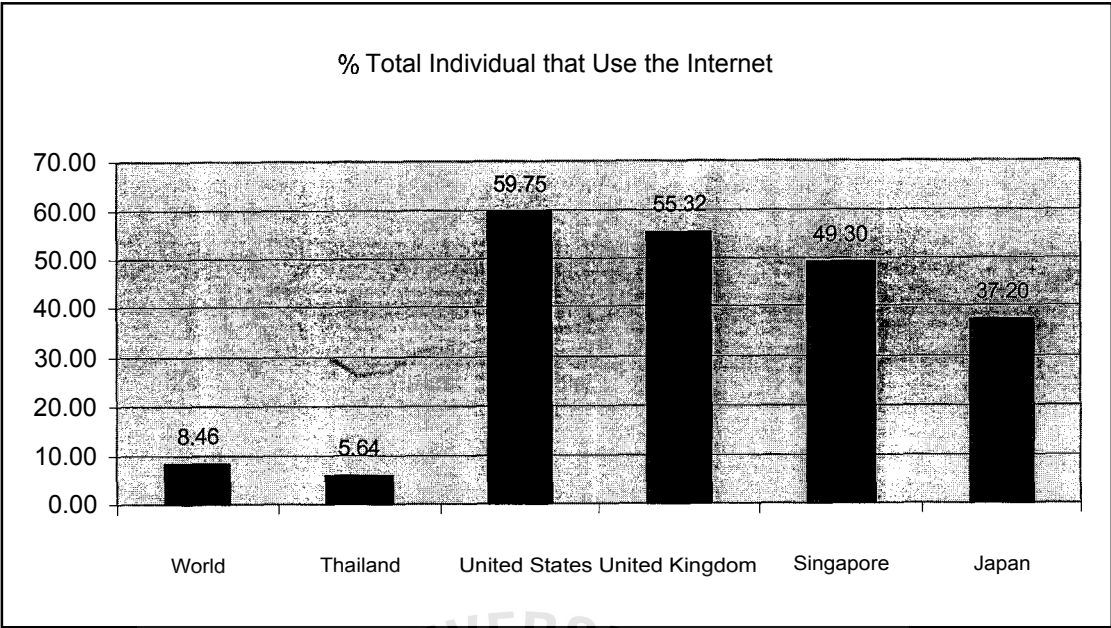


Figure 4-2: Graph representing % Total Individual that Use the Internet

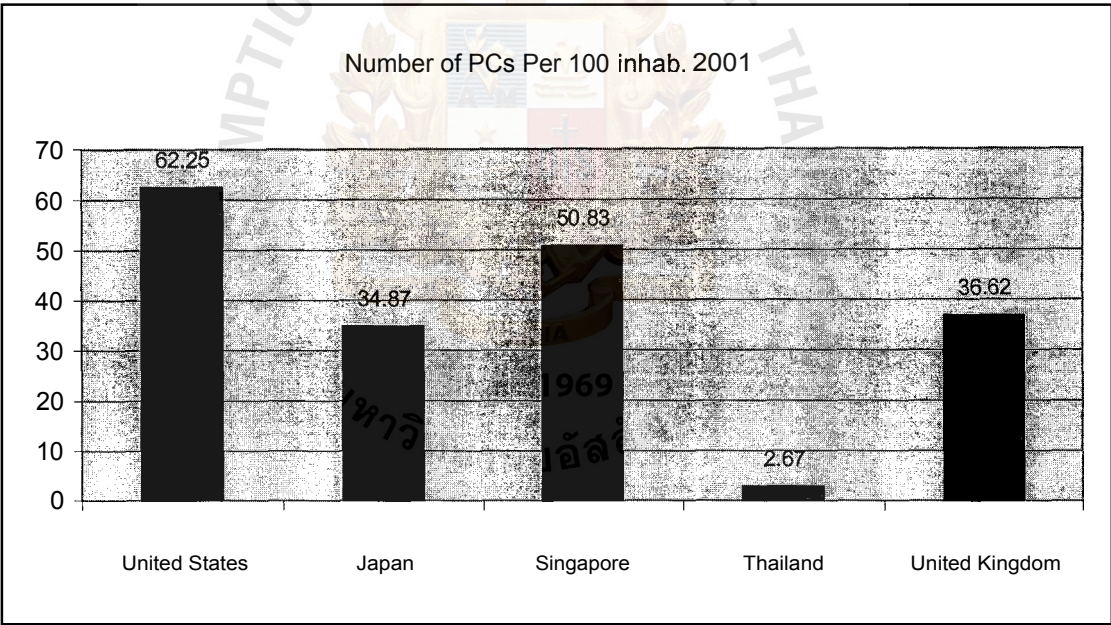


Figure 4-3: Graph representing Number of PCs per 100 inhabitants Year 2001

Problem-Solving Guidelines

One of the issues involved with the subject of building a network and communication infrastructure is that the government should distribute the foundation equally throughout the nation. This would give people the chance to try out and receive services from government offices more frequently. For every office, the

government needs to arrange an effective network system that lessens repetition by organizing a central office that would take care of everything involving the network system so the system will be up to standard throughout each office. This would create an integrated foundation of network and communication that can be communally beneficial, which would help save the national budget since all offices would be equally responsible for planning and setting clear targets on the same level.

At this point, there exists a law in the constitution that supports an information infrastructure and states the following:

- The current constitution, section 78, states that it is the responsibility of the government to develop a "National Information Infrastructure (NII)" that is all-encompassing and equal throughout the country, similar to the public utilities system. This resulted in the necessity of thrusting the law clearly in order for the system to proceed as established.

Therefore, the government should hasten to create equality in the network and communications infrastructure of all regions, so that they could benefit from its use together and to enable them to service the people thoroughly and effectively.

2. The Group Directly Responsible for e-Government

At present, the Thai government does not have a group or office that is directly responsible for proceeding with the e-Government project, thus making the project lack true, integrated coordination and cooperation. The e-Government project is proceeding only as a pilot project with a life of 2 years, starting from March 2001 to March 2003. Therefore, no group has taken action in the establishment of the project's direction or objectives; it is only within the overall picture of the national

information technology policies, as per the following structure of Thailand's e-Government:

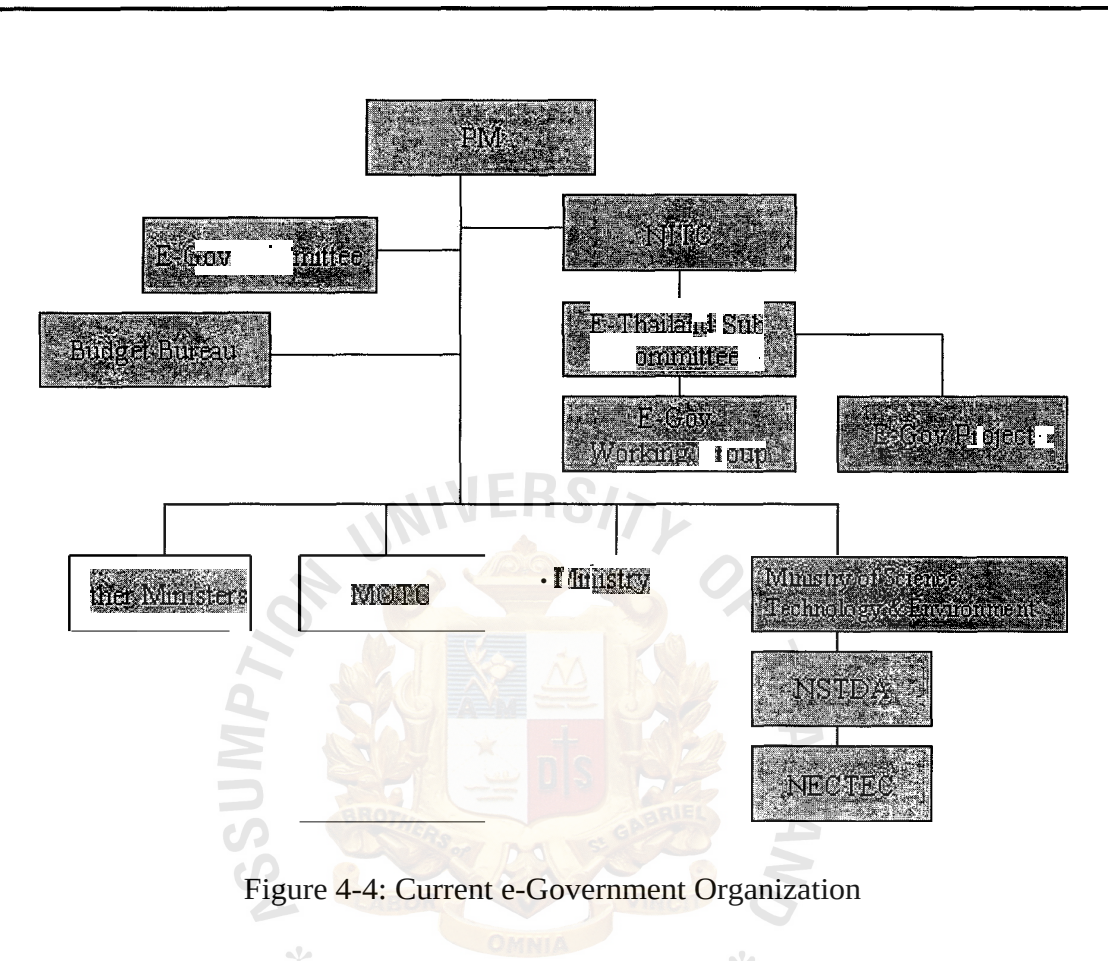


Figure 4-4: Current e-Government Organization

E-GO R NANCE STRUCTURE

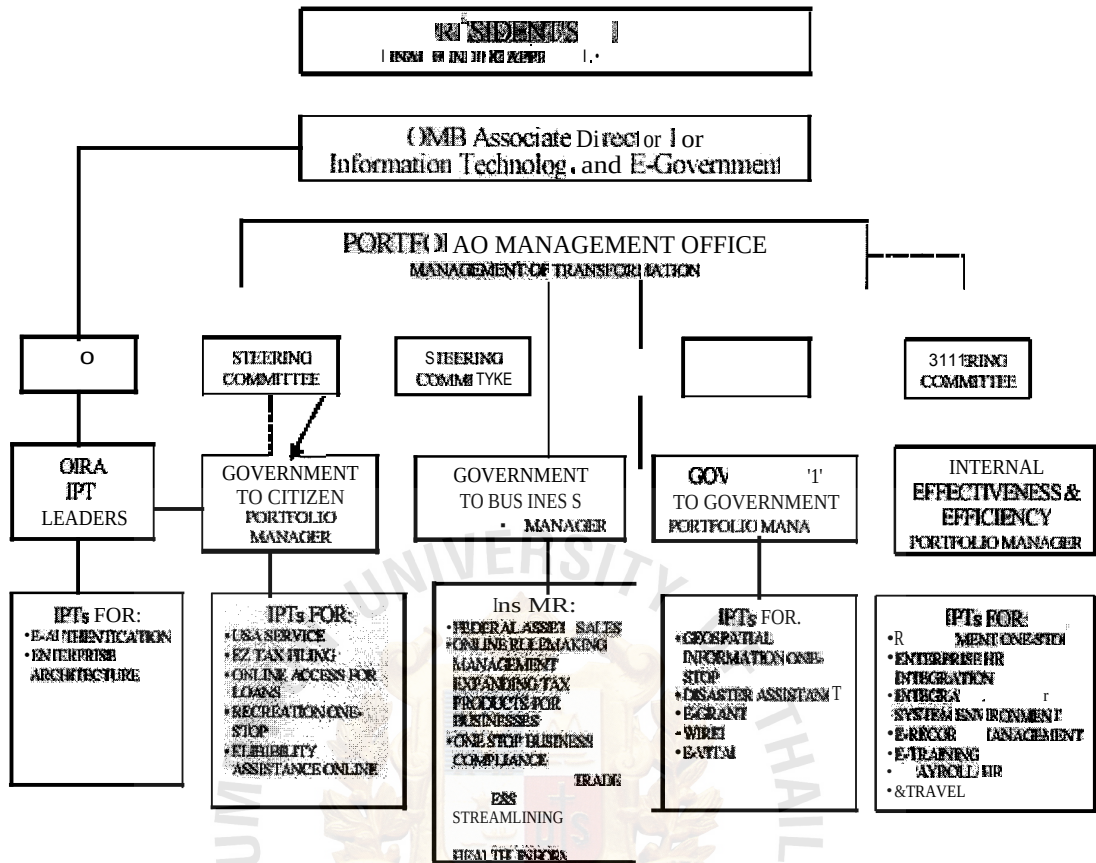


Figure 4-5: U.S.A e-Government Structure

Key to acronyms: OMB- Office and Management and Budget, HR- Human Resources, IPT- Integrated Project Team

Problem-Solving Guidelines

As stated, the current e-Government project is only a pilot project that has a life of 2 years. The government has not yet appointed any governmental body directly responsible for the project, but it has begun a transformation of the governmental system. The parliament has agreed with establishing a Ministry of ICT, which shows that the government sees the importance of IT and modifying itself to become an e-Government. Therefore, after transforming the governmental system the government will appoint a body to come in and take direct responsibility for the project, thus enabling the work to proceed in such a way as to meet established goals.

3. Knowledge Development of People

Knowledge, understanding, and readiness of the people in the use of e-Services are also important factors. If the people understand the benefits of using information technology in government services as well as possess knowledge of how to use information technology, these 2 factors will help effectively support the success of the policy implementation of the government's usage of information technology. At present, the government is encouraging the education of people, by dissemination through the Internet Tambol project.

Project officers, both in the government and private sectors, must possess knowledge and the ability to use information and the internet through computers, which must be learned through training in computer and internet usage. Training is done both inside the classroom and in actual operations.

Problem-Solving Guidelines

The government must take the following actions:

1. Support the development of IT at all levels (operational, technical, and conceptual) as well as integrate the development of human resources in IT with educational institutions, ensuring a balance of quality and quantity accordingly in order to be able to truly support the e-Government project continuously.
2. The government must establish a human resources development plan clearly, both in the education of youth all the way to individuals working in governmental organizations.
3. The government must establish policies promoting the learning of IT by setting it within the educational curriculum so as to prepare the readiness of future employees in the future.

Examples of Important Procedures Implemented

- The transformation of the educational system by issuing a national decree in the year 2542 had the goal of making students become more proficient in thinking and analyzing and to make the educational system be learner-centered or child-centered. This was stated in section 4 of the National Education Decree of 2542, which stated the following:

"Section 22 – Education must focus on the principle of letting each student have the ability to learn and develop himself and to consider that the student is the most important factor. The process of education must support the student and let him develop naturally and fully.

"Section 23 – Education, both inside and outside the system, as well as home education must give importance to both knowledge and morality. The process of education and learning must follow the suitability of each educational level, as follows:

- (1) Impart knowledge about the person himself and the relationships of each person with society, such as with family, community, nation, and the global world, as well as knowledge about history, the origins of Thai society, and methods of governance including the present one of a constitutional monarchy.
- (2) Impart scientific, technological knowledge and skills as well as knowledge, understanding, and experience in managing, maintaining, and making use of natural and environmental resources in a sustainable, balanced way.

(³) Impart knowledge about religion, art, culture, sports, local knowledge, and methods of modifying and using local knowledge."

- The implementation of a computer network system for Thai schools (called SchoolNet) is one that prepares the youth of the nation to take on education in a new form, which would become life-long learning that would enable the student to access a massive source of information from all over the world through the Internet. It would give schools across the country an equal opportunity to become connected to the Internet and paying only local telephone fees (3 baht), which was done in response to the goal in section 78 of the constitution.

4. Confidence in Technology

Confidence in technology is an important matter; information users still lack confidence in the security system, which is a crucial factor in the implementation of an online system. There needs to be a creation of an IT system that has good security so that users can be confident that their information is safe.

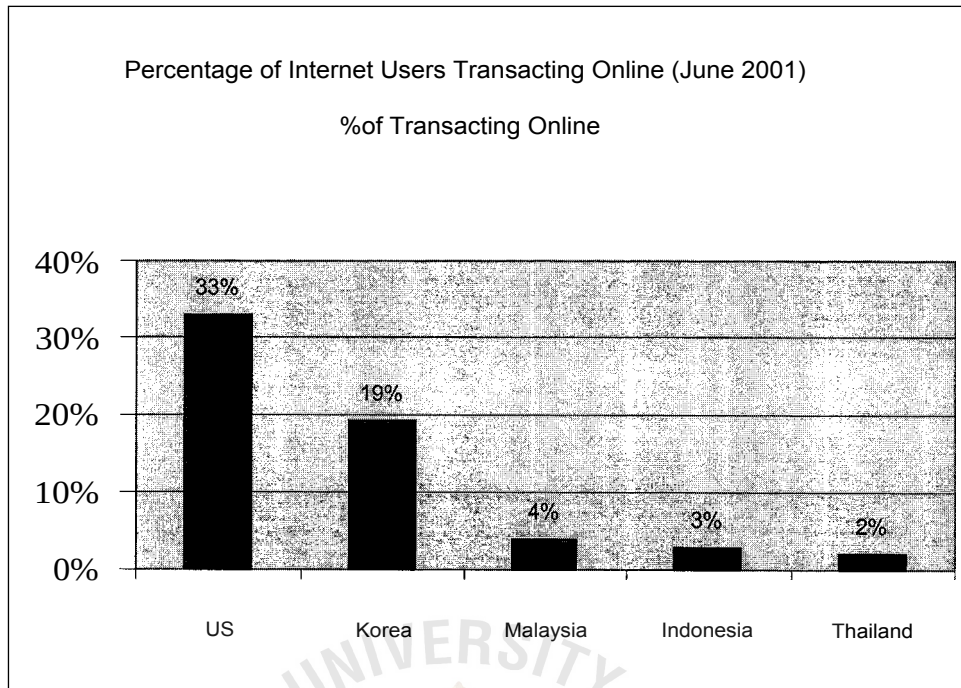


Figure 4-6: Graph representing Percentage of Internet Users Transaction Online

Problem-Solving Guidelines

The government should implement the following actions as soon as possible:

1. The government needs to establish standards, regulations, and procedures in exchanging information, which need to be clearly set.
2. The government needs to promote the PKI system and other systems as appropriate for the safety of information and the system.

The government needs to promote and establish points that are relevant to individual information in order to prevent infringement, as well as create and promote awareness in individual rights and safety.

5. Vision and Condition of Government Leader

The vision and condition of the government leader is crucial and important in leading the government into becoming an e-Government. The leader must support and understand the importance of using information technology in developing the

potential of the country, as well as in responding to the needs of the people through the creation of understanding in the various departments and instilling in them their roles and responsibilities. All the departments must also cooperate with each other in order to result in benefits and meeting objectives.

The Vision of the Prime Minister

"I want this government to be called an **e-Government**— to truly become an electronic government that uses an internet system as much as possible in order to give services to the people more quickly and conveniently. To facilitate this, there may be a need to change some laws in order to service the people more easily.”[P.M. Thaksin Shinawatra, Thailand Radio Broadcasting System, F.M. 92.5 MHz; June 16, 2544]

"All levels of government officials must adjust themselves in order to enter into a system of e-Government.”[Orientation and seminar, Office of the Prime Minister, Santi Maitree Building, House of Parliament; June 28, 2544]

6. Budget Considerations

For the government to become an e-Government, there needs to be additional investments made in infrastructure and in the training of governmental human resources, as well as improvements and changes made to the old operations system, from a manual system to becoming an electronic system. The government must use a high amount of budget; however, Thailand is still feeling the impact of the 1997 economic crisis, creating problems for the government in terms of money. Because of the problems of budgeting, the investing in and development of ICT has slowed. (See Table 4-4)

Sector (In Million Baht)	FY 2540	FY2541	FY2542	FY2543	FY2544	FY2545
Science, Technology, Energy, And Environment	18,190.9	13,891.50	12,624.1	15,227.0	6,000.5	5,498.5

Table 4-4: Budget Expenditure: Program Classification of Expenditures

Source: Budget of Bureau

Problem-Solving Guidelines

The government experienced an economic crisis that decreased the national budget for developing IT. At present, Thailand is in the recovery stage in its economy, and therefore planning and arranging an appropriate budget that is effective in supporting an e-Government. The government needs to establish a budget that is suitable for each department, as well as one that integrates the process of transforming services for the people in a timely manner. There should be a ranking of importance with the results that are to be received, and a system for following up that makes effective assessments. In addition, the government must evaluate the use of capital in the investment of IT in order to confirm the worth of investment.

7. Legal Problems

On February 28, 2539, the parliament agreed to issue out information technology policies (IT 2000) to develop society and create industrial strength and

trade during the country's entrance into the next century. One of the important policies was the transformation of information technology laws.

On December 15, 2541, the parliament agreed to let the national information technology board proceed with a project for developing information technology laws that were proposed by the Ministry of Science, Technology, and Environment. The board was to be the center for proceedings and integration of work between different departments that were arranging IT and other relevant laws. The National Center for Technology, Electronics, and Computers, the National Department for Developing Science and Technology, had the job of secretary to the board.

The National Department for Developing Science and Technology, through the National Center for Technology, Electronics, and Computers (NECTEC), in the position of secretary to the national information technology board proceeded with the project of developing information technology laws that consisted of 6 laws. These laws included electronic administration laws (which used to be called "laws for electronic information exchange"), laws for electronic signature (which later on got combined with the electronic administration laws and became "laws for electronic administration and related issues"), laws about the development of an information technology foundation equally across the country (which used to be called "supporting laws of section 78 of the constitution"), laws about the protection of individual information, laws about computer crimes, and laws about electronic money transfer.

Principles of Electronic Information Technology Laws

1. Electronic Administration Laws

In order to verify the legal status of electronic information, the use of paper was used for juristic relations that were created in the form of a book, the new form of

juristic relations could do the same with electronic information as well as electronic signatures, and listening to witnesses electronically.

2. Electronic Signature Laws

To verify the use of electronic signatures with any technological process, signatures would have to be the same, which would impact confidence in electronic administration and the establishment of methods for managing electronic signatures.

3. Development of Information Technology Foundation Laws

("Supporting laws of section 78 of the constitution")

To promote, support, and develop information technology foundation projects such as a telecommunications network, telecommunications information, information, human resources, and other projects that would be important in developing society and communities through government measures. These should support government policies in regards to section 78 of the constitution in the distribution of information technology equally. This is important in supporting local potential for self-governance, economic development within the community, and development towards an intellectual society.

4. Individual Information Laws

To support the rights and to protect individual information, which may be assessed, opened, or distributed to many individuals in a very short time frame by using technological developments. This can lead to the information being used in wrong ways that would violate the owner. There should be a balance between basic private rights, freedom in communication, and national security.

5. Computer Crime Laws

To establish laws about crimes and punishing those who do wrong with computer, information, and network systems, which at present are not available to

establish what is right or wrong. These should be issued for the effectiveness, freedom, and control in society.

6. Electronic Money Transfer Laws

To establish the importance of laws in supporting the system for electronic money transfer, including transfers between banks and systems for depositing cash electronically in order to create confidence in the system for money administration, as well as in the electronic administration itself.

In order to have rules and regulations that support the use of IT in operations, it is necessary for there to be changes in the rules and regulations.

At present, laws have been drawn up that include Electronic Transactions law, Electronic Signatures law, Data Protection law, Computer Crime law, Electronic Fund Transfer law, and National Information Infrastructure laws for the constitution in Section 78. But now there has been only Electronic Transactions law affected since April 4, 2545.

In addition, there must also be changes to other relevant laws and regulations in order to support the implementation of an e-Government system, such as changes in postal regulations, procurement laws of the government, changes in the laws regarding registration, the sending/reception of government documents, and changes in laws regarding the payment of revenue taxes, customs taxes, and excise taxes in order to support the e-Taxation system of the Ministry of Finance. Therefore, the government needs to push for improvements to be made to laws and regulations relevant to the operations and obstacles in the use of IT systems so that its use can be implemented as quickly as possible.

Problem-Solving Guidelines

From what has been said above, only electronic transactions laws were announced for use on April 4, 2545. Other laws are still within its consideration phase. Therefore, the government needs to quickly proceed with the consideration and the issuing of laws in order to support the change and development of an electronic system, no matter whether it is for the government or for the private sector. Once the laws are in place, the people and those who receive services will feel more confident in using electronic services.



CHAPTER 5: CONCLUSION

From the 7 factors mentioned in the project entitled "Critical Success Factors of e-Government in Thailand," this study was a study of the information about the e-Government in Thailand, and the main objective was to study and find the critical success factors of Thailand's e-Government. The Thai government has issued policies and seen the importance of the need for changing and revolutionizing its service system in order to become an electronic government, so as to benefit the country's governance and to offer better services to the people, as well as to compete with other countries both in Asia and around the world.

This research study found that the critical success factors of e-Government in Thailand – such as network and communication infrastructure, the group directly responsible for e-Government, knowledge development of people, confidence in technology, vision and condition of government leader, budget considerations, and legal problems – all can be improved, developed, or changed from obstacles into supporting factors for the Thai government to become an electronic government as per the established objectives and goals.

The Thai government, as the unit responsible or the unit for establishing the direction of change in the previous methods of management into electronic management, must implement these changes continuously and must truly support them. The process may have to begin with high-level managers, such as having a prime minister with a good vision who supports all the relevant departments in the intensive implementation. The prime minister may study the example of governments from other countries that have achieved success in becoming e-Governments and modify their processes to suit the economic and social conditions of Thailand. The most important issue is that there must be a study of the actual present situation of the

management and operations of every department in order to use those situations to come up with operating policies, as well as to create understanding and readiness of the individuals in seeing the necessity and importance of operating within the new system. The new electronic system of management of the government will result in more effectiveness.



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ฉบับที่ 3 ประจำเดือนมีนาคม 2545 หน้า 11-15

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2545



APPENDIX A: TECHNOLOGICAL ACHIEVEMENT INDEX

The technological achievement index (TAI), which aims to capture how well a country is creating and diffusing technology and building a human skill base.

The TAI focuses on four dimensions of technological capacity.

1. Creation of technology. The TAI uses two indicators to capture the level of innovation in a society. The first is the number of patents granted per capita, to reflect the current level of invention activities. The second is receipts of royalty and license fees from abroad per capita, to reflect the stock of successful innovations of the past that are still useful and hence have market value.
2. Diffusion of recent innovations. All countries must adopt innovations to benefit from the opportunities of the network age. This is measured by diffusion of the Internet-indispensable to participation-and by exports of high—and medium—technology products as a share of all exports.
3. Diffusion of old innovations. Two indicators used here- telephones and electricity- are especially important because they are needed to use newer technologies and are also pervasive inputs to a multitude of human activities.
4. Human skills. Two indicators are used to reflect the human skills needed to create and absorb innovations: mean years of schooling and gross enrolment ratio of tertiary students enrolled in science, mathematics and engineering.

The TAI can be considered leaders, potential leaders, and dynamic adopter or marginalized:

- Leader (TAI above 0.5) – this group is at the cutting edge of technological innovation. Technological innovation is self-sustaining,

and these countries have high achievements in technology creation, diffusion and skills.

- Potential Leader (0.35-0.49) - most of these countries have invested in high levels of human skills and have diffused old technologies widely but innovating little.
- Dynamic adopters (0.20-0.34) – these countries are dynamic in the use of new technology. Most are developing countries with significantly higher human skills than the fourth group. Many of these countries have important high-technology industries and technology hubs, but the diffusion of old inventions is slow and incomplete.
- Marginalized (below 0.20) - technology diffusion and skill building have a long way to go in these countries. Large parts of the population have not benefited from the diffusion of old technology.

[illegible]

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 สำนักงานคณะกรรมการ การประถมศึกษาแห่งชาติ	4	สำหรับเจ้าหน้าที่ เลขระบุเอกสาร เลขทะเบียนครูเอกสาร วันที่ขึ้นแบบ
ต้นชื่อ ฉันทิการพรพรพรพร เลขประจำตัวผู้เสีย ภาษีมูลค่าเพิ่มเป็นลาวV111 ภาษีธุรกิจเฉพาะเป็นลาวขย		
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ตั้งชื่อ ตำแหน่ง ตลค วันที่	หน้าหน้าที่ 1140 ตลค วันที่
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INTERNET EDI REGISTRATION EXAMPLE

สมาชิกระบบการปฏิบัติพิธีการศุลกากร โดยการแลกเปลี่ยนข้อมูลอิเล็กทรอนิกส์

รหัสประจำตัว (Login) _____
รหัสลับ (Password) _____
ยืนยันรหัสลับอีกครั้ง _____

โปรดอ่านและทำความเข้าใจหลักเกณฑ์และเงื่อนไขทุกข้อ เกี่ยวกับการปฏิบัติพิธีการศุลกากรด้วยระบบ Internet EDI ดังนี้

ยอมรับ	เลข
ไม่ยอมรับ	
๙	1. ท่านรับรองว่าจะกรอกข้อมูลค่า ความความเป็นจริงทุกประการ 2. ท่านรับรองว่าเป็นหน่วยงานหรือผู้ที่มีส่วนเกี่ยวข้องกับการนำเข้า และหรือ การส่งของออก 3. ท่านรับรองว่ามีความรู้ความเข้าใจเกี่ยวกับการใช้ระบบ internet EDI สำหรับการจัดเตรียมและการ มศุลกากรเป็นอย่างดีแล้ว 4. ้องว่ามีความรู้ความเข้าใจเกี่ยวกับการ มศุลกากรทุกขั้นตอนเป็นอย่างดี 5. ท่านรับรองว่ามีความรู้ความเข้าใจเกี่ยวกับพิธีศุลกากร และการ กักขังใบขนสินค้าเป็นอย่างดี 6. ้องว่าจะตรวจสอบและรับรองความถูกต้องของข้อมูลทั้งหมดที่ มศุลกากร 7. ท่านยอมรับว่า จะไม่แก้ไขข้อมูลที่มีการ มศุลกากร ได้ออกเลขที่ใบขนสินค้า Y15 ๓ เลขชำระอากร หรือใบขนสินค้าที่ผ่านการ ตรวจสอบปล่อยจาก มศุลกากร 8. กรณีที่ท่านส่งข้อมูลให้แก่ มศุลกากร ไม่ถูกต้องบางส่วนหรือทั้งหมด ท่านยินยอมรับผิดชอบตามกฎหมายศุลกากร และกฎหมายอื่นๆ ที่เกี่ยวข้อง โดยไม่มีเงื่อนไข ท่านยอมรับว่าการจัดเตรียมและส่งข้อมูลผ่าน Internet นั้น ข้อมูลของท่านอาจสูญหาย หรือถูกโจรกรรมได้ โดยอาจไม่สามารถติดตามนำ

		กลับคืนมา และอาจไม่สามารถหาผู้กระทำความผิดได้ ท่านรับทราบ ยอมรับความเสี่ยง และยอมรับความเสียหายที่อาจจะเกิดขึ้นได้เอง โดยไม่มีสิทธิร้องเรียน หรือเรียกร้องค่าเสียหายจากกระทรวงการคลัง และกระทรวงใดๆทั้งสิ้น
*	✓	10. กร วมการคลัง และท รมศุลกากร อารจะรับสิทธิการ บบ Internet EDI โดยไม่ต้องแจ้งให้ท่านทราบล่วงหน้า หากท่านละเมิดหลักเกณฑ์และเงื่อนไข ข้อหนึ่งข้อใด หรือทั้งหมด
*	✓	11. ท่านจะยกเลิกการใช้ระบบ Internet EDI ทันทีเมื่อท่านไม่ต้องการ ใน สมาชิกในระบบ Internet EDI ต่อไป
*	✓	12. หากท่านไม่ได้ใช้ระบบ Internet EDI ติดต่อกันนานกว่า 2 ัน กระทรวงการคลัง 1 1W/ มศุลกากร สงวนสิทธิ์ในการเพิกถอนสมาชิกของท่าน โดยไม่ต้องแจ้งให้ท่านทราบล่วงหน้า หากท่านต้องการใช้ Internet EDI 'Thai ท่าน ึ่งลงทะเบียน 1 ึ้น ักใหม่
*	✓	13. ท่านจะไม่โอนสิทธิการใช้ Internet EDI ่ คัดร ื่นหรือหน่วยงาน DU
*	✓	14. ท่านยอมรับว่าจะแจ้งให้กรมศุลกากรทราบทันทีที่สิทธิการใช้ระบบ Internet EDI ของท่านถูกละเมิด โดยบุคคลอื่นหรือวิธีการ ื่นใด
*	✓	15. ท่านยอมรับว่าจะไม่ใช้ระบบ Internet EDI มากกว่าสิทธิที่ได้รับ รวมถึงไม่ละเมิดสิทธิของบุคคลอื่นด้วย
*	✓	16. ท่านรับรองว่าเต็มใจปฏิบัติตามหลักเกณฑ์แ เงื่อนไขใดๆข้อ เกี่ยวกับการใช้ ระบบ Internet EDI โดยไม่มีเงื่อนไขใดๆ
*	✓	17. ท่านยอมรับว่าไ านทำความเข้าใจ และสามารถปฏิบัติตามหลักเกณฑ์และเงื่อนไขใดๆข้อ เกี่ยวกับการใช้ บบ Internet EDI แล้ว



APPENDIX D:TECHNOLOGY AND INFRASTRUCTURE

INDICATOR DEFINITION

Fixed lines and mobile telephones (per 1,000 people)

Definition: Fixed lines are telephone lines connecting a customer's equipment to the public switched telephone network. Mobile phones refer to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology that provides access to the public switched telephone network.

Telephone average cost of local call (US\$ per three minutes)

Definition: Cost of local call is the cost of a three-minute call within the same exchange area using the subscriber's equipment (that is, not from a public phone).

Personal computers (per 1,000 people)

Definition: Personal computers are self-contained computers designed to be used by a single individual, per 1,000 people.

Internet users

Definition: Internet users are people with access to the worldwide network.

Source: <http://www.worldbank.org/data/dataquery.html>

