

行政院及所屬各機關出國報告

(出國類別：會議)

出席中東電子化政府會議(GOVTEC)報告

服務機關：行政院研考會

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行政院研考會 編號欄

出國地點：巴林

出國期間：95 年 2 月 12 日至 16 日

報告日期：95 年 4 月 10 日

行政院及所屬各機關出國報告提要

出國報告名稱：出席中東地區電子化政府會議(GOVTEC)報告

頁數：18 含附件：否

出國計畫主辦機關/聯絡人/電話：

行政院研考會/林裕權/02-23419066 轉 802

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出國類別：其他（出席會議）

出國期間：95 年 2 月 12 日至 16 日 出國地區：巴林

報告日期：95 年 4 月 10 日

分類號/目：

關鍵詞：電子化政府

內容摘要：

行政院研考會受邀派員出席於巴林舉行之中東電子化政府會議，報告我國電子化政府推動情形。

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壹、目的

為增進我國電子化政府國際能見度，行政院研考會受邀派員出席於巴林舉行之中東電子化政府會議，報告我國電子化政府推動情形，並與各國交換相關經驗。

貳、會議內容

- 一、 本次會議內容主軸有三項，分別為：構建下一代的電子化政府；電子化政府的全球典範；中東電子化政府的發展，會議議程如附錄。
- 二、 2月13日上午舉行開幕儀式後，依序展開各項報告，分別有：阿拉伯國家電子化政府的發展差距；電子化政府計畫評估與績效評比；安全的身分識別管理；政府流程自動化；發展電子化政府夥伴關係。
- 三、 2月14日相關報告內容有：利用資通訊科技創新政府服務；政府資通訊應用發展趨勢；電子化政府創造競爭優勢；以電子化政府促進政府效能；2020年電子化政府展望；馬來西亞電子化政府；電子採購。
- 四、 2月15日相關報告內容有：巴林電子化政府開放標準；從電子化政府到行動政府；新加坡電子化政府；安全、簡單、整合的電子化政府資通訊應用；埃及電子化政府；台灣電子化政府。
- 五、 行政院研考會林副處長報告內容如附件。

參、心得建議

掌握國際電子化政府會議邀請機會，出席報告我國電子化政府發展情形，有助於我國電子化政府國際能見度提升，促進與各國之經驗交流，爾後應加強推動。

肆、附錄：

一、 會議議程



Conference programme

MONDAY 13 FEBRUARY

Welcome to the GOVTEC 2006 conference, the inaugural Middle East e-government conference convened under the theme 'e-government in the Middle East: vision, new initiatives and opportunities'. GOVTEC is a packed, thought-provoking three-day conference featuring internationally recognised e-government experts and executives discussing the whole spectrum of the application of ICT in the government sector and dealing with the broad range of issues, demands, opportunities and solutions confronting e-government decision makers in the Middle East today.

The importance and rapid development of e-government facilities and services in the region has been driven by the rapidly expanding and changing populations and economies of the area. It is driven by an agenda to radically transform the delivery of public services through the adoption of advanced information and communications technology (ICT) to make the whole process of government more effective and efficient.

The conference has been split into three specific streams with detailed discussions within each theme taking place on each day of the event, namely:

- **building the next-generation e-government: critical success factors**
- **e-government: global perspectives and best practice**
- **e-government in the Middle East: achievements and prospects**

Building the next-generation e-government: critical success factors

The opening day of the conference focuses on three strategic dimensions of e-government - vision, planning and implementation. Dr Simon Moses will provide the vision in his keynote presentation, while Christine Lattner will discuss key issues in e-government strategic framework and the implementation roadmap. Public-private partnerships are considered to be the future of e-government, so the last presentation of the day will be delivered by Microsoft, whose core focus in the public sector is on building PPPs.

08:30 Registration

09:00 Opening address

H.E. Sheikh Ahmed bin Abayyash Al Khalfi, Minister of State for Cabinet Affairs and Head of the Central Information Organisation, Kingdom of Bahrain

09:40 Welcome message

Ali Faruqi, Vice President, Europe Middle East and Africa (EMEA), Microsoft Corporation

09:45 VIP preview of exhibition and morning coffee

10:25 Chairman's opening comments

Dr Carlo Terego, President (previous), Public Technology Institute, USA

10:30 Keynote address: Mind the gap - the e-government revolution in the Arab world

Dr Simon Moses will offer his view on the progress of electronic government initiatives in the Arab world. He will ask whether bridging the gap between aspiration and delivery still eludes many countries and will present his own 'revolutionary theory' of government as one that he believes best reflects the broader demands of emerging information societies in the region.

Dr Simon Moses, Vice Chairman, Conservative Technology Forum and Managing Director, Zamelgema Private Ltd

11:00 Project assessment framework and benchmarking tools for e-government

Dr Christine Lattner will provide a comprehensive overview of the project assessment framework and benchmarking tools for e-government projects. Dr Lattner will draw on her considerable experience as Head of e-Government Projects Management Secretariat in advising a number of UN agencies and countries.

Dr Christine Lattner, Head of e-Government Projects Management Secretariat, European Institute for Public Administration (EIPA), The Netherlands

11:30 The need for secure identity management

Chris Madden, Strategic Consultant and Project 2 Practitioner, Office of the Deputy Prime Minister (United Kingdom Award Ltd)

12:00 Workflow automation in government

Seemey Chakrabarty, Vice President and Head, Global Government Industry Group, Tata Consultancy Services Ltd

12:30 Making partnership work: the future of PPP in e-government

This presentation will offer an overview of the critical factors involved in creating successful partnerships between the private and public sectors for the delivery of a variety of e-government services and solutions.

Yasser ZeinEldin, Director, Enterprise and Partner Group, Microsoft Gulf

12:30 Chairman's closing remarks, networking lunch and close of day one

18:30 Gala dinner reception, Gulf Hotel

TUESDAY 14 FEBRUARY

e-government: global perspectives and best practice

The second day of the conference highlights the experiences of Asian and European governments. The day will begin with an inspiring keynote address by Dr Gertis Tempaq, Vice-Chairman of the Government Technology Forum and Managing Director, Digitalgence Research, UK. Dr Tempaq will outline how ICT can do far more than register data and improve transactions. It can help launch new organisational forms of government and help empower a citizen-centric form of service delivery. The following day's events will then be considered:

08:25 **Chairman's opening comments**

Dr Simon Morgan, Vice-Chairman of the Government Technology Forum and Managing Director, Digitalgence Research, UK

08:30 **Keynote address: Using information and communications technologies (ICT) to bring innovation to government practices**

Dr Tempaq will outline how ICT can do far more than register data and improve transactions. It can help launch new organisational forms of government and help empower a citizen-centric form of service delivery. The following day's events will then be considered:

- What are the current ICT innovations that are changing the parameters and tools for e-government?
- What are the incentives and cross-boundary leadership issues that are key to the success of private and public sector partnerships?
- What are the essential elements to successful e-government?
- What are the leadership paths found in successful e-gov programmes?

Dr Gertis Tempaq, President Director, Public Technology Institute, USA

08:40 **e-government and beyond: a look into government IT adoption trends**

This presentation will highlight the latest IT trends and compare the European and MEA government sectors. The magnitude of IT spending and overall policy priorities will set the stage for a deeper look into IT solution priorities and into IT consumption models. IDC will present highlights from its latest research on central and local government in EMEA and anticipate the business needs for the next year, as well as describe what governments are doing to optimize procurement and management of their IT systems.

Philip van Heerden, Programme Manager for IT Services and Networks, IDC Middle East & Africa, UAE

09:30 **Governments as role models for ICT adoption: e-government as a tool for competitiveness**

- policy issues
- impact
- governance
- ICT as catalyst for the reform process
- capacity building

Peter Fritzsche, Director of the Services Infrastructure for Development and Trade Efficiency Division, UNCTAD, Switzerland

10:00 **e-government for better government**

OECD country experience shows that the implementation of ICT techniques and particularly the use of the internet as a delivery channel for services is becoming an important means for changing what governments do and how they do it. OECD countries have identified five areas for achieving improved governance with the help of ICTs:

- user focused e-government: making electronic service more responsive to the needs of citizens and businesses
- multi-channel service delivery: improving links between traditional electronic services in order to promote service innovation and ensure access for all users
- approaches to customer business processes: identifying core processes within government in order to achieve economies of scale, reduce duplication and provide seamless service
- the business case for e-government: measuring and demonstrating the costs and benefits of ICT investments in order to promote and better manage government projects
- e-government co-ordination: bringing a whole-of-government perspective to government initiatives and their management, while taking into account existing structures and cultures of government institutions

Christian Vergès, Head of Delivery – Innovation and Integrity (DS), Public Governance and Services Development Directorate, OECD

10:30 **Exhibition and morning coffee**11:00 **e-government challenges: looking forward to 2009 – a European perspective**

- where are we now in e-government and where do we need to be?
- what do we want e-government to be and to do by 2009?
- how to get there
- opportunities, challenges, and choices

Jensby Mikkelsen, Senior Consultant, Centre for Competence, Analysis and IT Danish Technological Institute, Denmark

11:00 **Case study: Architecting the customer-centric government – the experience of Ireland**

This presentation will review the role and utilisation of technology as an enabler of transformation in the evolution of government in Ireland. The presentation will review the challenges of collaboration and interoperability across complex bureaucracies where the concept of citizen centricity has profound implications for the way governments and public administrations work together.

Gáire Doolan, Director of Information Society Policy, Department of the Taoiseach (Prime Minister), Ireland

12:00 **Case study: Improved governance for efficient delivery of government services – the Malaysian experience**

In this paper Dr Ismail will outline the strategies employed by the Malaysian e-government initiatives to deliver a wide range of services. The significant benefits obtained from the delivery strategies will be outlined and reviewed in light of their experience as well as an outline of the lessons learned, future plans and direction of service delivery in Malaysia.

Dr Muhammad Ghazali bin Ismail, Senior Vice President, Socio-Economic Development Division, Multimedia Development Corporation, Malaysia

12:30 **Delivering cost savings and efficient government through e-procurement**

- reduced transaction costs
- improved purchase-to-pay process efficiencies
- automated/paperless purchase-to-pay solutions
- reduction of payment timing
- reduced cycle times
- developing a standard e-procurement platform that all public sector organisations can use to facilitate change in public sector business

Don Wilson, Programme Director, eProcurement Scotland, Home and Central Services Department, Scottish Executive, Scotland

13:00 **Chairman's closing remarks, networking lunch and close of day two**

WEDNESDAY 15 FEBRUARY

e-government in the Middle East: achievements and prospects

The final day of the conference will present both international and regional experience and perspectives on e-government. The featured case studies of best practice will include presentations from senior government representatives from Bahrain, Dubai, Egypt, Singapore, Malaysia, Egypt and Taiwan. The final item in the programme is a Power Table panel discussion, which brings together international representatives of e-government to discuss an action agenda for the future of Middle Eastern e-government.

08:25 Chairman's opening comments

08:30 Case study: Building e-government on open standards: the Bahraini experience

In this presentation Mr Al-Anser will outline the experience of the Central Informatics Organisation in Bahrain in the implementation of an e-government solution based on open standards. The paper will outline how an effective information technology infrastructure based on open standards meets the government's business goals and objectives.

Mr Mohammed A. Al-Anser, Director General of Information Technology, Central Informatics Organisation, Kingdom of Bahrain

09:00 Case study: The transition from e-government to m-government

- exploring mobile government initiatives
- discussing the application and benefits of wireless technology
- what are the challenges when deploying mobile and wireless technologies?
- integrating an 'm' strategy with an existing 'e' strategy

Salim Alkhamis Al Shahr, Director of Services, Dubai e-government, UAE

09:30 Case study: The Singaporean e-government experience

In this presentation, Mr Tan will outline the implementation and development of Singapore's e-government. He will consider the success and innovative strategies applied in the development of Singapore's e-government solution as well as the challenges, pitfalls and the significant benefits a successful e-government strategy can create.

Wong Suan Tan, Deputy Director, e-government Policies and Programmes Division, Government Chief Information Officer, Information Development Authority, Singapore

10:00 Case study: The role of e-government in raising a nation's competitiveness - the Malaysian experience

- global trends towards e-commerce e-government
- Malaysia e-government experience (past and present)
- how e-government raised Malaysia's competitiveness
- lessons learned and future developments

Mohamad Subhani Mohamad Yusoff, Chief Executive Officer, MISC Technology Centre Sdn Bhd (MISC TC), Malaysia

10:30 Exhibitions and morning coffee

11:00 'Secure, simplify and unify the management of IT for e-government'

Marie Mbevede, Consulting Director, Computer Associates, Middle East and Africa

11:30 Case study: Egyptian e-government - Alexandria

The presentation will focus on the Alexandria project from the following perspectives:

- the importance of local entities involved in services delivery
- workflow monitoring
- business process documentation and enhancement
- local capacity building and human resource development
- work environment enhancement
- institutional face-lifting
- achievements
- metrics: qualitative and quantitative

Dr Hadeen Zikadi, Programme Director - Local Government Modernisation Programme, Ministry of State for Administrative Development, Egypt

12:00 Case study: e-government in Taiwan - status and relevant experiences

- e-government roadmap and plans
- major e-government projects
- development of shared services
- lessons learned and outlook

Michael Yu-chuan Lin, Deputy Director, Department of Information Management, Research Development and Evaluation Commission, The Executive Yuan, Taiwan

12:30 The Middle East e-government Power Table

- What lessons can Middle Eastern governments learn from their global counterparts?
- What are the key issues and trends in Middle Eastern e-government?
- How can regional government agencies work together to develop an efficient model of e-government that puts them in the top league?

13:00 Chairman's closing remarks, networking lunch and close of conference

12 Speaker biographies



Michael Yu-chuan Lin
Deputy Director, Department of Information Management, Research Development and Evaluation Commission, The Executive Yuan, Taiwan

Michael Yu-chuan Lin is the Deputy Director of the Information Management Department under the Research, Development and Evaluation Commission (RDEC). RDEC is a ministerial agency that is responsible for e-government policy, planning and development in Taiwan. Since Michael started to work for RDEC in 1999, he has been engaged in a variety of e-government projects. Some major projects to which he has contributed

- planned and promoted the first and second phase e-government programmes (1998-2004)
- established a government internet backbone network-GSN, which has offered government-wide internet services since 1997

- developed e-government gateway systems, which have provided cross-agency information exchange services since 1999
- promoted electronic official document exchange
- built a system to evaluate government web sites annually since 1999
- in an attempt to alleviate the digital divide, Michael has promoted the establishment of telecentres in rural areas since 1999
- assessed the status of information systems development and evaluated the major information systems plans of government agencies
- developed an e-government Common Platform and promoted shared services

In addition, in recent years, Michael also made efforts in the field of digital divide and e-government international cooperation. In September 2001, he finished the implementation of an APEC Telecenter Program, which was an 18-month project aiming to bridge the digital divide in APEC region.

二、 行政院研考會林副處長報告內容

e-Government in Taiwan: Status and Relevant Experiences **(Slides Transcript)**

Michael Yu-Chuan Lin

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Deputy Director, Department of Information Management

Research, Development, and Evaluation Commission

Executive Yuan, Taiwan

Slide 3: About Taiwan

Taiwan is located in Eastern Asia at 23°30'N, 121°00'E, the main island of Taiwan, totaling to nearly 35,980 sq. km, is the largest land between Japan and the Philippines in the west side of the Pacific Ocean, with the Taiwan Strait separating it from mainland China, about 220 km at its widest point. The climate is subtropical while 24 percent of the land area is arable, with the eastern two-thirds of the land being mostly rugged forest mountains, sharply sloped to gently rolling rich alluvial plains in the west where communities, farming activities, and industries are concentrated. As for demographics, the population totaled 22.7 million as of December 2004; median age: 33.7 years; life expectancy: 77 years; literacy rate: 96.1 percent; and major languages: Mandarin (official), Taiwanese, and Hakka.

Turning to government structure, the Taiwanese government is a multiparty democratic regime headed by a popularly-elected president and unicameral legislature (the Legislative Yuan). The Executive Yuan (a.k.a. the Cabinet) is the executive branch headed by the Premier, appointed by the President based on recommendations. The capital is Taipei City.

Taiwan is a modern industrialized megalopolis clinging to the fringes of an ancient culture. It is one of East Asia's four tiger economies due to its industrial strength and economic prosperity, characterized by a dynamic capitalist economy, coupled with gradually decreasing government guidance for investment and foreign trade. Taiwan is famous for dominating world market shares of computer products and electrical equipment. In 2004, the economy grew at a rate of 4.1 percent in addition to a per capita GDP of USD14,032 in the same year.

Slide 6: e-Government Implementation Mechanism

Taiwan's central government consists of the Office of the President, and five branches (called "yuans"). The Executive Yuan is the highest level executive authority. Under the Executive Yuan, the Research, Development and Evaluation Commission (RDEC) is a ministerial agency responsible for e-government policy. The Information

Management Department under the RDEC is responsible for e-government related affairs, including overall planning, program and budget review, and coordination among government agencies. In addition, the National Information and Communication Initiative Committee (NICI) is a task force. It mainly coordinates among e-government, e-industry and e-infrastructure. In other words, the NICI plays the role of a CIO office in the government. A minister chairs it, which consists of deputy heads of major ministries and commissions. Under the NICI, several steering groups (SG) are established as well, such as e-government SG, infrastructure SG, standardization SG, etc.

Slide 7: e-Government Action Plan (1998~2000)

To promote the widespread development of ICT applications, Taiwan established the NII Task Force in 1994. Then in 1997, the *NII Promotion Program* (1997 ~ 2001) was established for NII related strategies, measures, and implementation schedules. In 1998, the Research, Development and Evaluation Commission (RDEC) launched a three-year *e-Government Action Plan*, which highlighted the focus on Internet application development and relevant infrastructure establishment in government. There were ten major subprojects under this e-government plan, as illustrated here. Under such a Plan, some subprojects were successful, while some were not. Those successful subprojects include,

- Building a government Internet backbone—named as Government Service Network (GSN), which adopted a most cost effective way and dramatically finished the promotion for connecting all government agencies onto Internet in four years;
- Establishing a Government CA to provide network identification services for a variety of e-government online services;
- Developing several important killer applications such as e-procurement, e-official document exchange, online tax filing, online motor vehicle service, etc.;
- Developing a gateway system to promote information/data dissemination and sharing among government agencies.

Contrast to the success of above mentioned subprojects, the Integrated Smart IC Card Project was unfortunately not successful. This project tried to adopt a BOT model letting the contractor run a business/service both for national identification system and national health insurance system. Through such a project, two different cards—national identification card and national health insurance card were supposed to be integrated into one smart IC card. Eventually, due to the concern of privacy from civil society, the project was unlimitedly postponed. Instead, the government allotted NT\$4 billion—US\$120 million to implement an IC card project solely for national health insurance since 2002.

Slide 8: e-Government Program (2001~2004)

To continue the ongoing implementation of e-government work, the government enacted an Electronic Government Program in April 2001 (2001 to 2004). Based on the foundation laid by the previous three-year e-Government Action Plan, the new four-year Program was able to proceed onto a larger scale fulfillment of e-government. There were total 132 measures implemented under the Program, which are illustrated as the diagram here.

Accompanying with a larger scale of implementation, in its first two year, the new e-government Program encountered with the difficulty to get sufficient budgeting support. To solve the problem, the government eventually established a new funding mechanism, which shared the budget originally allocated for public construction. From 2003 to 2007, the government allots NT\$3 billion—US\$85 million for the implementation of e-Government Program each year.

Slide 9: e-Taiwan Program

While reviewing and evaluating the implementation of the Program, the RDEC addressed a problem that the majority of efforts were located on infrastructure, MIS, OA, and online service development, in the diagram of framework of measures above. Meanwhile, the efforts on cross agency information sharing/dissemination, policy planning and decision support were comparably low. To solve the problem and improve such situation, under an *e-Taiwan Project* and coordinating with other ministries, the RDEC launched several important innovative projects that focused the development of cross agency information sharing/dissemination and policy planning support. The most fundamental and important one is the project named *e-Government Common Platform*. Accompanying this project, a variety of cluster services have been under development.

Slide 11: Government Service Network (GSN)

The Government Service Network (GSN) has been developed to link all government organizations/agencies. It is an Internet service provider dedicated for governmental usage. The RDEC is responsible for GSN's annual budget, and it was outsourced for operation and services. The establishment of GSN is a very successful strategy for e-government development in Taiwan. GSN not only effectively lowers down Internet usage threshold to speed up the progress of Internet application promotion but also provides high quality Internet services for government agencies. Since 2001, all government organizations, including local governments, have been connected to the Internet. The GSN provides very high bandwidth Internet services that enable government agencies to conveniently develop and use a variety of e-government multimedia applications on it, including videoconferences and VOIP.

Due to the unified and centralized implementation method, compared to using ordinary commercial ISP services, the cost savings from GSN is tremendous, around USD 35 million a year.

Slide 12: E-Government PKI

The Government Root Certification Authority (GRCA) is designed as the single trust anchor for all CAs. It certifies the lower set of subordinate CAs. According to the government's different administrative functions, there are five different CAs under the GRCA. First, the Ministry of the Interior (MOI) established a MOICA for citizen certificate services. Second, the Ministry of Economic Affairs (MOEA) established the MOEACA for business and company certificate services. Third, the Research, Development and Evaluation Commission (RDEC) established three CAs, including a GCA for government agencies, a XCA for non-government organizations, and a TestCA for PKI related applications development. These CAs provide public key certification services needed in various types of application procedures.

Slide 13: E-Government Killer Application-- Official Document Exchange

The electronic exchange of official documents began on a trial basis in July 2000, and today all government agencies, including local governments, have implemented electronic official document exchange. The promotion of electronic official document exchange has raised the widespread use of groupware applications in government. This step has not only drastically reduced document transmission time and raised the level of office automation; it was also regarded as a very important e-government killer application which effectively enhanced the information literacy inside government. As of November 2005, 78% and 63% of official documents were exchanged electronically in the central and local governments, respectively. According to statistics from the RDEC, about 100 thousand documents every day are exchanged electronically, a total reduction in annual postage costs of around USD 3.5 million.

Slide 14: e-Government Online Services-- The Case of e-Tax Filing

The government has developed an online tax filing service to provide businesses and individuals faster and better tax services. (<http://www.itax.com.tw/>) Such a service was launched in 1998, accompanied by the establishment of the Government Certification Authority. The progress of online tax filing promotion was slow in the first five years. In 2003, in addition to using electronic certificates, the government alternatively allowed taxpayers to use their national ID numbers and household registration codes to file their income tax online. However, downloading personal income data is not allowed without using electronic certificate. This change brought

about a big breakthrough in online tax filing as illustrated in the diagram below, and revealed the difficulties in the promotion of PKI. In 2005, 34.59 percent of taxpayers filed income tax via the Internet, with 13.85 percent of them using electronic certificates. In 2005, the cost saving for taxation agencies and taxpayers is around USD 15 million.

Slide 15: Citizens' Perspective

The gap between the Internet penetration rate in Taiwan, 64.78%, and online e-government services utilization rate, 23.9%, shows that the government needs to continue marketing e-government online services or to develop much better/valuable services to attract more users.

Slide 16: International Recognition

In the surveys of e-government in 198 nations published by Brown University, Taiwan ranked first both in 2002, 2004 and 2005. In the Global Information Technology Report 2004-2005 published by the World Economic Forum, Taiwan ranked third in Government Readiness and fifth in Government Usage. The surveys by Brown University primarily assessed the service content and functionality of government websites. Taiwan was one of the few nations that use electronic certificates in e-government services.

Slide 18: Gateway Systems

To lessen the need for redundant copies of official documents and to improve the efficiency of administrative procedures, in its first three-year e-government plan, the RDEC deployed a "Gateway System" to integrate interdepartmental information and simplify operating processes.

The gateway system has the disadvantage that it will bring up a messed connection environment when the number of joined parties grows, as the diagram illustrated below. Such situation definitely also causes the down of cost effectiveness of ICT investment.

Slide 20: Integrated e-Government Service Framework

To improve the disadvantage of gateway system, the e-Government Common Platform plays as a single window dealing with a variety of requirement of information/data exchange from different parties, as the diagram shown here. The main objectives of the *e-Government Common Platform* are to provide a more cost effective way for cross agency information sharing/dissemination, and pave a good way for the development of innovative cluster services.

The Government Service Platform is used as a gateway to integrate and exchange needed information for the various agencies in order to provide innovative

one-stop service. This project plans to develop various innovative services which are classified into 12 categories: e-travel, e-business, e-care, e-health, e-employment, e-household, e-taxation, e-military service, e-housing, e-public safety, e-foreigner service, e-mainland policy service. Using the service platform, two pilot cluster services—*Business Registration Service* and *Travel Service*—were launched in 2004. By the end of 2005, four more innovative cluster services will be added: *Sightseeing Service*, *Medical Service*, *Household Registration* and *Government Employment Service*.

Slide 22: The Roadmap for E-Government Common Platform

To develop each cluster service, a working group was formed and comprises representatives from different ministries/departments. The cluster services need to deal with not only information/data flow but also process integration/reengineering among government agencies. Beyond technology issue, the good communication and coordination among government agencies/departments during the development of cluster services are critical successful factors. Meanwhile, the impact on relevant regulations has been also seen.

Slide 31: Barriers of e-Government

1. Legislative and regulatory issues

Through an Electronic Signature Law, Taiwan has enacted legislation on electronic identification and authentication. The Personal Information Protection Law has also enhanced privacy protection. However, the existing guidance helps more on providing technical “how to” support for ministries and agencies already engaged in new initiatives, but still helps less on providing many incentives or a “push” to launch initiatives.

2. Government IT professional and organization issues

Due to the good performance of IT professionals inside government, the e-government in Taiwan has made good progress in the past years. However, the establishment of a formal IT unit inside an agency has yet been a priority for government, which tells that most of IT units of ministries and commissions are still task forces. A disadvantage due to such situation is the aging IT professionals inside government. How to establish a mechanism with incentives that could recruit new IT professionals into government should be a priority for advance e-government.

3. Budgetary barriers

In Taiwan, a tight fiscal environment and a decentralized system of IT spending with central monitoring of resources characterize the budgetary context for e-government. Central one-time funds from e-Taiwan Program have been crucial

for developing electronic service delivery frameworks and may provide a model for setting up new incentive funds to foster innovation. An important challenge is the use of budgetary processes to enhance the availability of cross-agency funding in support of integrated online services.

4. Technological barriers

Technical issues regarding privacy and security, the need to account for rapid technological change, the lack of standards and internal integration have all been recognized as important challenges for ministries and agencies. Taiwan has established an e-Government Service Platform, which adopts new technologies, such as XML and web services, for developing cross-agency information and service integration. To enable ministries and agencies to use this common system, the government needs to plans to promote accompanying services.

5. The digital divide

Although Taiwan is doing well in terms of providing access to Internet, access to and possession of information technology still differ markedly across generations, family types and regions in Taiwan. E-government needs to deliver its services across the digital divide that its performance and benefit could be further raised.

Slide 33: e-Gov Partners with Business

1. Spreading risk

Due to the very rapid development of ICT, e-government needs continuous investments to renew its various information systems, which is expensive. It is difficult and risky for government to fulfill such a requirement by itself. Partnerships can bring in needed expertise and help to spread the risk of e-government-related initiatives.

2. Cost saving

Innovative partnerships can simplify administrative processes for both the administration and users at a relatively low start-up cost to the administration. In the *Government IT Outsourcing Guideline* of Taiwan, there are three different outsourcing models which bring cost saving.

3. Accelerating the development of e- government

The lack of budget and new ICT expertise used to slow down the development of e-government. Since government owns a lot of valuable raw data, many information systems could be developed with self-funded or cost shared through value adding by partnerships. This would effectively solve the budgetary problem and accelerate the development of e-government.

4. Fostering the growth of local ICT industry

Government's investments used to share an important part for the economic development. More government investments will bring more business opportunities.

When government investments are constrained by its budget, partnerships can effectively help to increase the investments, which will foster the growth of local ICT industry.

Slide 34: Main Drivers of the Partnerships of e-Government and Business

1. Publics' demand for a better government

The development of Internet not only creates new opportunities but also brings challenges for e-government. The convenience that the publics enjoy from Internet causes their stronger demand for better services from government. To respond to the publics' demand, and to efficiently and effectively tackle the rapid development of ICT, government cannot succeed by itself without partnering with private sector.

2. Policies create the environment

Good leadership built in relevant ICT policies can effectively help to create a good environment for e-government and business partnerships, such as the outsourcing policy.

3. Business response changed policies and generate new opportunities

Government's policies sometimes cannot reflect the rapid development of ICT. In Taiwan, the government used to take the suggestions and advice made by private sector to formulate relevant ICT policies. The private sector needs to play an active role keeping participating in policy making.

Slide 35: Developed the Partnerships of e-Government and Business

1. Implementation of e-government programs through IT outsourcing

Responding to the rapid ICT development, government agencies have adopted outsourcing strategy for e-government implementation. Instead of doing the system programming and maintenance by themselves, government IT personnel have shifted their works into managing their private sector contractors.

2. Established the *Government IT Outsourcing Guideline* (2002)

The *Government IT Outsourcing Guideline* (2002) was established to enhance the promotion of government IT outsourcing. This Guideline raises its objectives for building a mechanism with incentives to encourage the private sector to participate in major e-government projects; accelerating the development of e-government; enhancing the improvement of administrative efficiency and effectiveness; helping to raise the level of local IT software industry and to promote the development of IT service industry. It clearly defines the scope of government IT outsourcing, as a mandatory requirement to government agencies. It also set outsourcing as a baseline, which urges government agencies should adopt outsourcing unless the private sector cannot provide such services or the outsourcing cannot provide better

performance. To ensure the success and quality of outsourcing, the Guideline also set some principles, such as rightsizing outsourcing; doing *Request for Information (RFI)* or *Request for Comment (RFC)* for the *Request for Proposal (RFP)*; separating the bid into consultation, planning, implementation, and Independent Verification and Validation (IV&V); adopting software quality assurance, etc. The Guideline urges government agencies should refer five strategies for their IT outsourcing, as below:

- Adopt IT service procurement instead of hardware/software procurement
- Adopt service level requirement instead of hardware/software requirement
- Develop long-term partnership instead of one-time procurement relationship
- Focus the value instead of price
- Adopt total solution instead of partial problem solving

The Guideline also provides five IT outsourcing models as below for reference.

- Share-in-saving: The contractor shares the profit resulted from the cost saving of the implementation of information systems in government.
- Self-funded:
 - Government provides data to the contractor to build up IT services, and the contractor charges transaction fee.
 - Government licenses specific services to the contractor and charge the license fee.
- Self-funded-hybrid: The contractor build and provide the IT services with self-funded. Government helps the promotion and guarantees the minimum amount of usage.
- Operation outsourcing: Government builds the IT system, and contract out its management and maintenance. The contractor shares the revenue with government from the service.
- Application-service-provider (ASP): Traditional IT system development outsourcing.

3. Vast IT investments of *E-Taiwan Program*

The E-Taiwan Program invests NT\$ 6 billion (US\$ 180 million) a year since 2003, which has created more ICT business opportunities and build better partnerships with private sector.

Slide 38: Challenges for e-Government

1. Vision and planning

Taiwan has formulated its e-government vision in relevant programs. However, the government has been less successful in effectively informing and mobilizing government employees around its central vision. The lack of wide ownership of the e-government vision has resulted in confusion at the agency level over their role

and the actions required to move forward the overall government agenda. Planning for e-government at the ministerial and organizational level needs be required, in order to increase the taking of responsibility and encouraging organizations' commitment to the e-government vision.

2. Online services

Taiwan was ranked first on its government website services in the global e-government surveys conducted by Brown University in 2002, 2004, and 2005, respectively. As of November 2005, more than 800 online transaction services have been provided. Rather than focusing the overall number of online services available, the government needs to focus more on service quality, relevance and access in its e-government program, although an e-Government Service Platform has been launched since October 2004.

3. E-Engagement

Improving online access to information and citizen consultation and participation in policy-making is an important dimension of e-government. According to a survey on citizens' usage of government websites in Taiwan, there were only 11% citizens who submitted feedback or comments via government websites in 2004. This represents that the government still need to make more efforts on the openness and citizen' participation in public affairs via Internet.

4. Back-office changes

In Taiwan, back office changes related to e-government have been slow to take place. Further cultural change in the administration is required to maximize e-government benefits. This includes the willingness to collaborate across agencies. The next stage of e-government implementation demands a broader, whole-of-government perspective in order to deliver seamless services. Enhancing leadership at all organizational levels is a priority for the development of e-government. In addition, ensuring co-ordination to promote cross-agency collaboration and managing public-private partnerships are also very important aspects of back-office changes related to e-government implementation.