



Public Key Infrastructure (PKI) Training Program

Section 1 Overview of PKI & e-Government

Institute for Information Industry

Jerry Wang

2015.04.16



Agenda

Part A: Training Program Overview and Self-Introduction

Part B : Overview of PKI & e-Government

- 1. E-Government Overview and E-Government Service**
- 2. E-Government Development Roadmap and Model**
- 3. The Purpose and Role of Government PKI (GPKI)**
- 4. Stakeholders of GPKI**
- 5. Conclusion & Discussion**





Training Program Overview

	Day1 15 Apr. (Wed.)	Day2 16 Apr. (Thu.)	Day3 17 Apr. (Fri.)	Day4 20 Apr. (Mon.)	Day5 21 Apr. (Tue.)
10:00 13:00 (A)	(1-A) Arrival	(2-A) [Opening] PKI in e-Government (Workshop)	(3-A) PKI Foundation & Establishment (II) (Workshop)	(4-A) Peru PKI Management Review (Onsite visit and Discussion)	(5-A) Peru PKI Application Review (Onsite visit and Discussion)
14:30 17:00 (B)	(1-B) PKI Assessment in Peru (Meeting)	(2-B) PKI Foundation & Establishment (I) (Workshop)	(3-B) PKI-Enabled Applications (Workshop)	(4-B) Peru PKI Implementation Review (Onsite visit and Discussion)	(5-B) [Ending] Wrap-Up Meeting (Meeting)



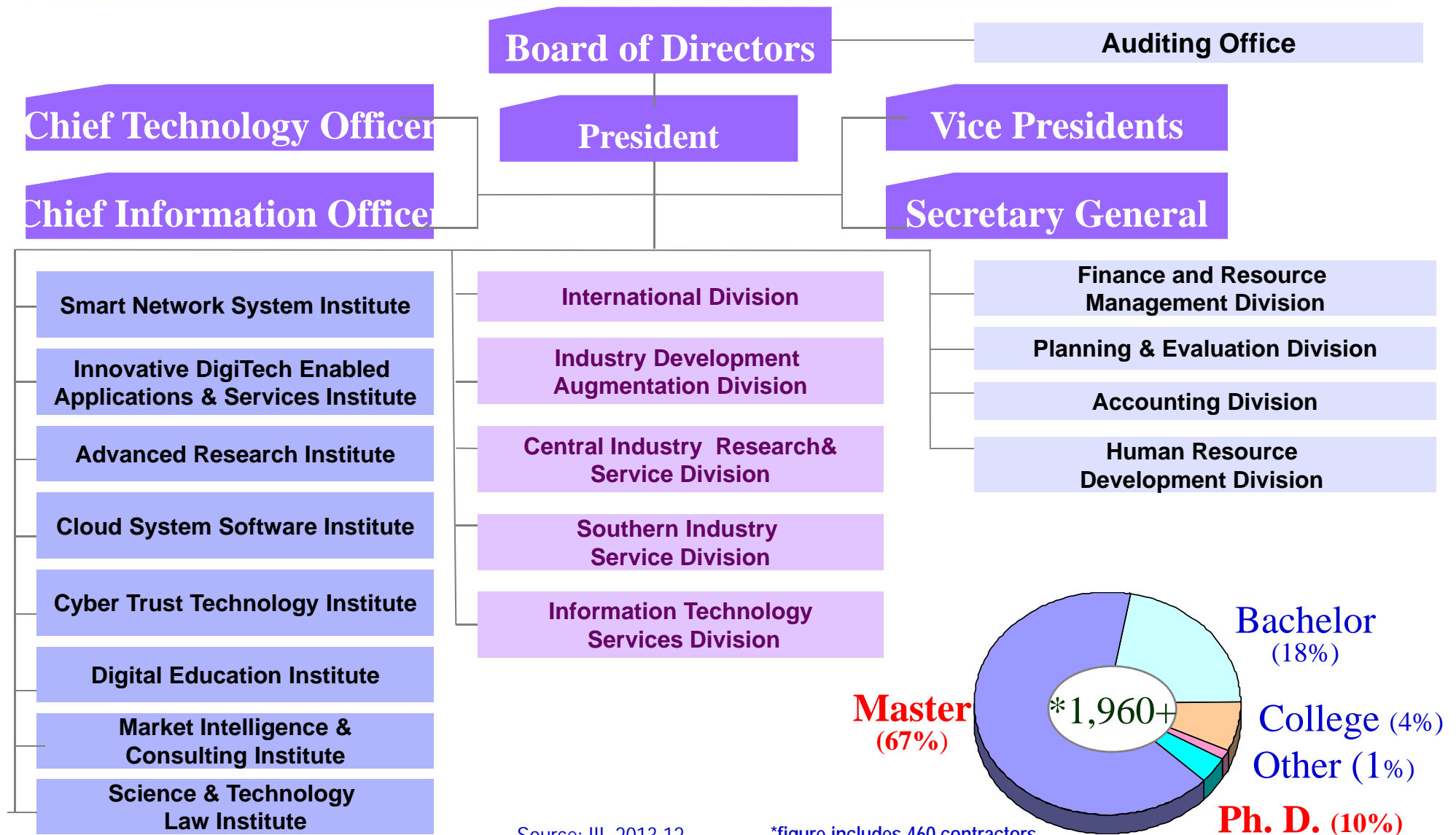
A Glance at III

- ❖ Founded in **1979** as a Government Sponsored **Not-for-profit Organization**
- ❖ HQ in Taipei, with Goal to Develop a World-class Information Industry in Taiwan
 - **Facilitate the Development of Taiwan's ICT Industry**
 - **Promote the Deployment of ICT in Public & Private Sectors**
- ❖ 36 years of Continuous Growth
 - Pivotal Contribution to the Development of Taiwan's ICT Industry & Information Society





Organization & HR Profile

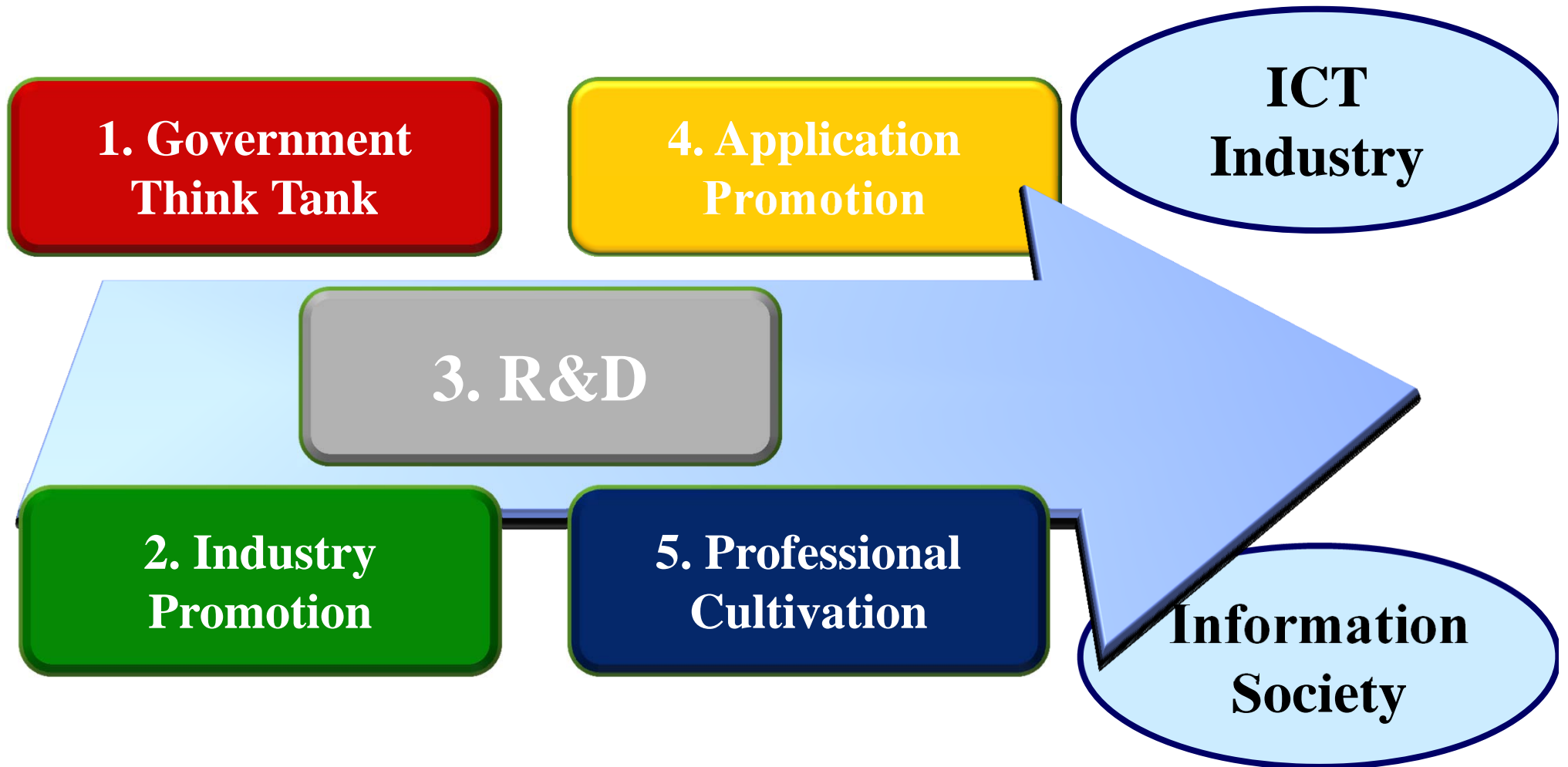


Source: III, 2013.12

*figure includes 460 contractors

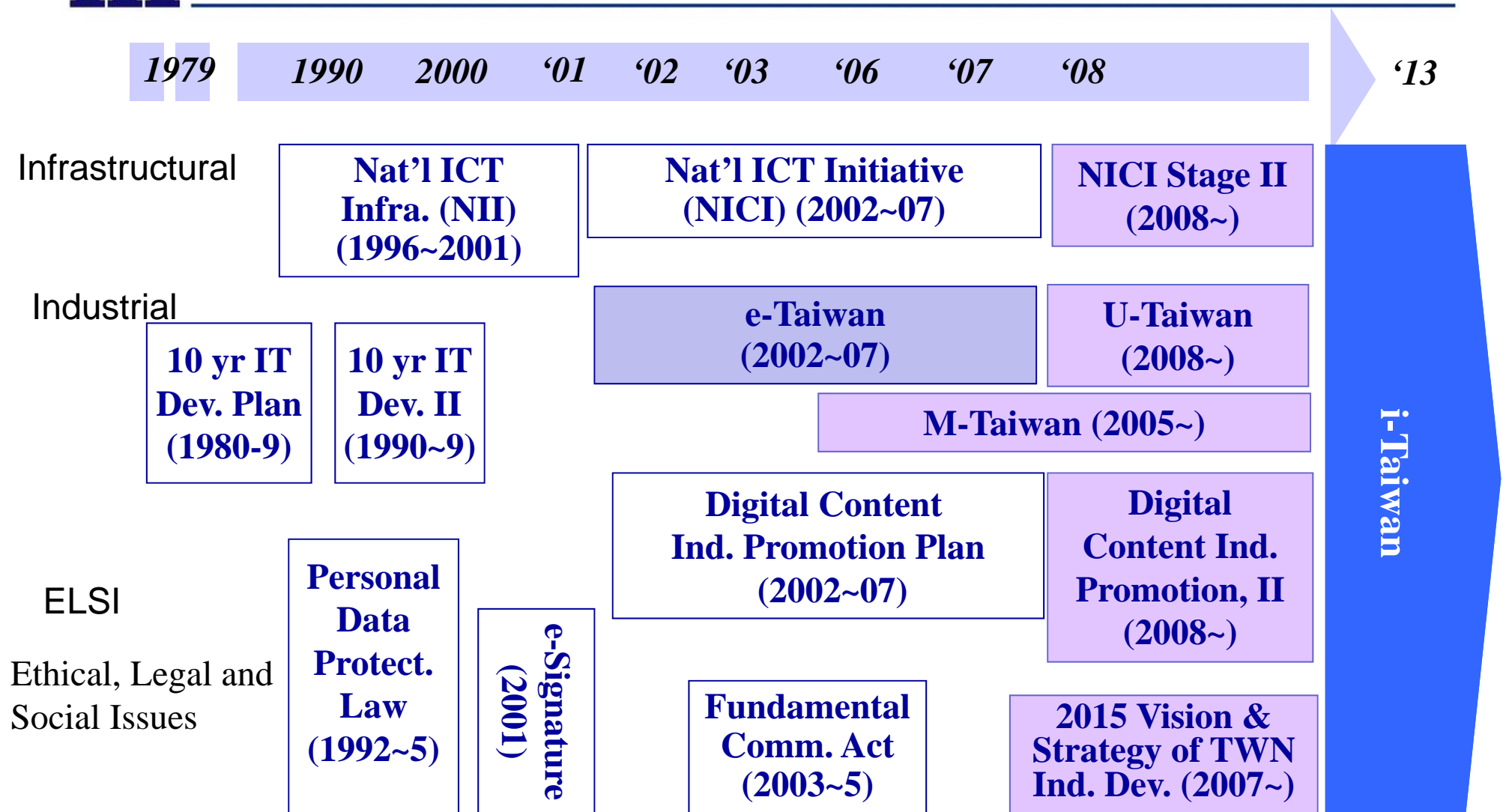


Operation & Business Focus





Think tank (to name a few)...





ADOC International Operation

101 Centers Among **10** Countries Across **3** Continents





International Cooperation Project and Experience (1/2)

Country	Service
Burkina Faso	ICT / Information Security Training
Sao Tome	E-Gov Training and Consulting; Government Network Implementation
Swaziland	Police Network Forensics System; Mobile Commerce System
Malaysia	Green Energy Consulting
Thailand	E-Gov Training and Workshops
Singapore	ATE (Auto Test Equipment) Station for SMRT (Singapore Mass Rapid Transit)
Vietnam (World Bank)	E-Gov Consulting for Ministry of Communication and Hanoi City Gov
Czech Republic	Hospital Appointment / Registration System; Smart Museum Guide System
Poland	Smart Museum Guide System
Bahrain	E-Gov Training and Workshop
Saudi Arabia	National Healthcare Program Training
Kuwait	ICT & Science Park Consulting, GIS Training, Attendance System
Oman	National Virtual Innovation Center Consulting



- H.Q. ● Liaison Offices
- Project/Service Experience



International Cooperation Project and Experience (2/2)



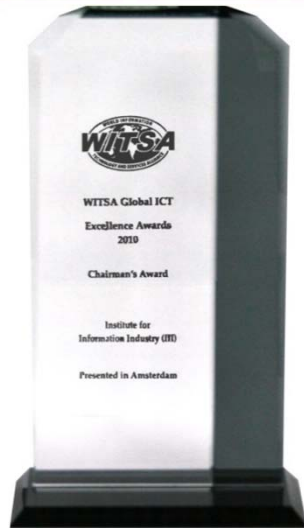
Country	Service
St. Lucia	<ul style="list-style-type: none">• Government E-Document Management System• E-Government Master Plan Consulting Project• E-Government PKI Planning
St. Vincent	<ul style="list-style-type: none">• E-Document Archiving Management System• ICT Capacity Building (Training)• Information Security Consultancy Project (ISO27001:2013)



Driving Force of Taiwan's Information Society

World Information Technology
and Service Alliance (WITSA)

2010 WITSA Global ICT Excellence Awards



“It should be noted that the Institute for Information Industry (III) stands out above and beyond any other nominee as it has been ranked among the top two in both the Public Sector and Digital Opportunity categories. In the latter category, it received more than twice as many votes as any other candidate. I therefore recommend that we consider III for the Chairman's Award” .



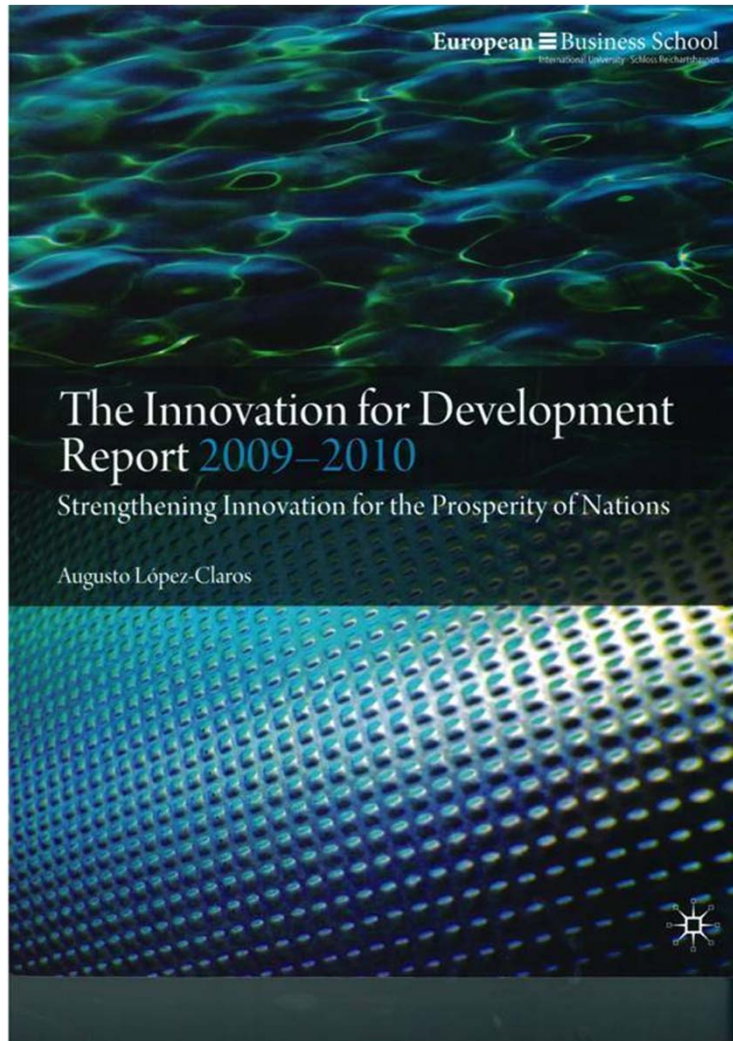
by Dr. Jim Poisant

WITSA Secretary General

2010 WITSA Global ICT Excellence Awards Selection Committee
Chairman



At the Heart of Taiwan's ICT Revolution



*“At the heart of Taiwan’s ICT revolution is the **Institute for Information Industry (III)**, a joint government-private sector **think tank** and management consultancy, promoting the development of the ICT industry and deploying the information society.”*

**Excerpts from
European Business School
The Innovation For Development
Report 2009-2010**



Agenda

Part A: Training Program Overview and Self-Introduction

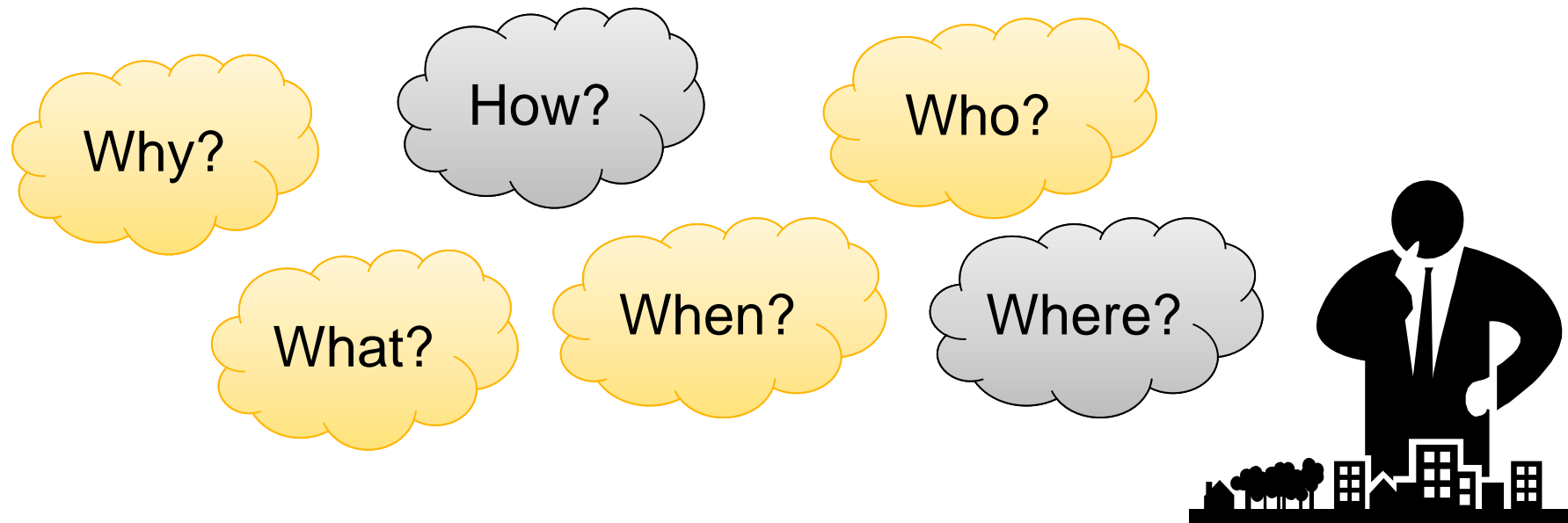
Part B : Overview of PKI & e-Government

- 1. E-Government Overview and E-Government Service**
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1. E-Government Overview and E-Government Service





Background

Definition of e-Government

*“E-Government is defined as utilizing the **Internet** and the **world-wide-web** for delivering **government information and services to citizens.**”*

Benchmarking E-government: A Global Perspective, United Nations – DPEPA, 2002

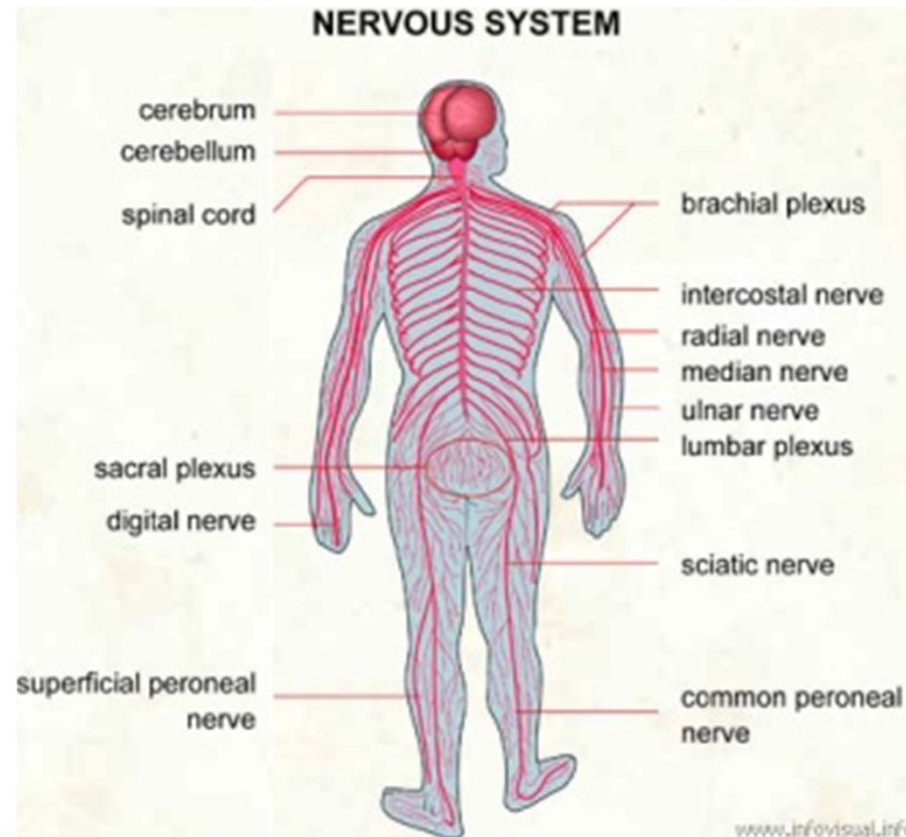
*“The **utilization of IT, ICTs, and other web-based telecommunication technologies to improve and/or enhance** on the efficiency and effectiveness of service delivery in the **public sector.**”*



Why IT? Why e-Government?

- ❖ IT to the organization is like the **Nervous System** to the body to drive the body to move (faster).
(??? to the organization is like the blood to the body).

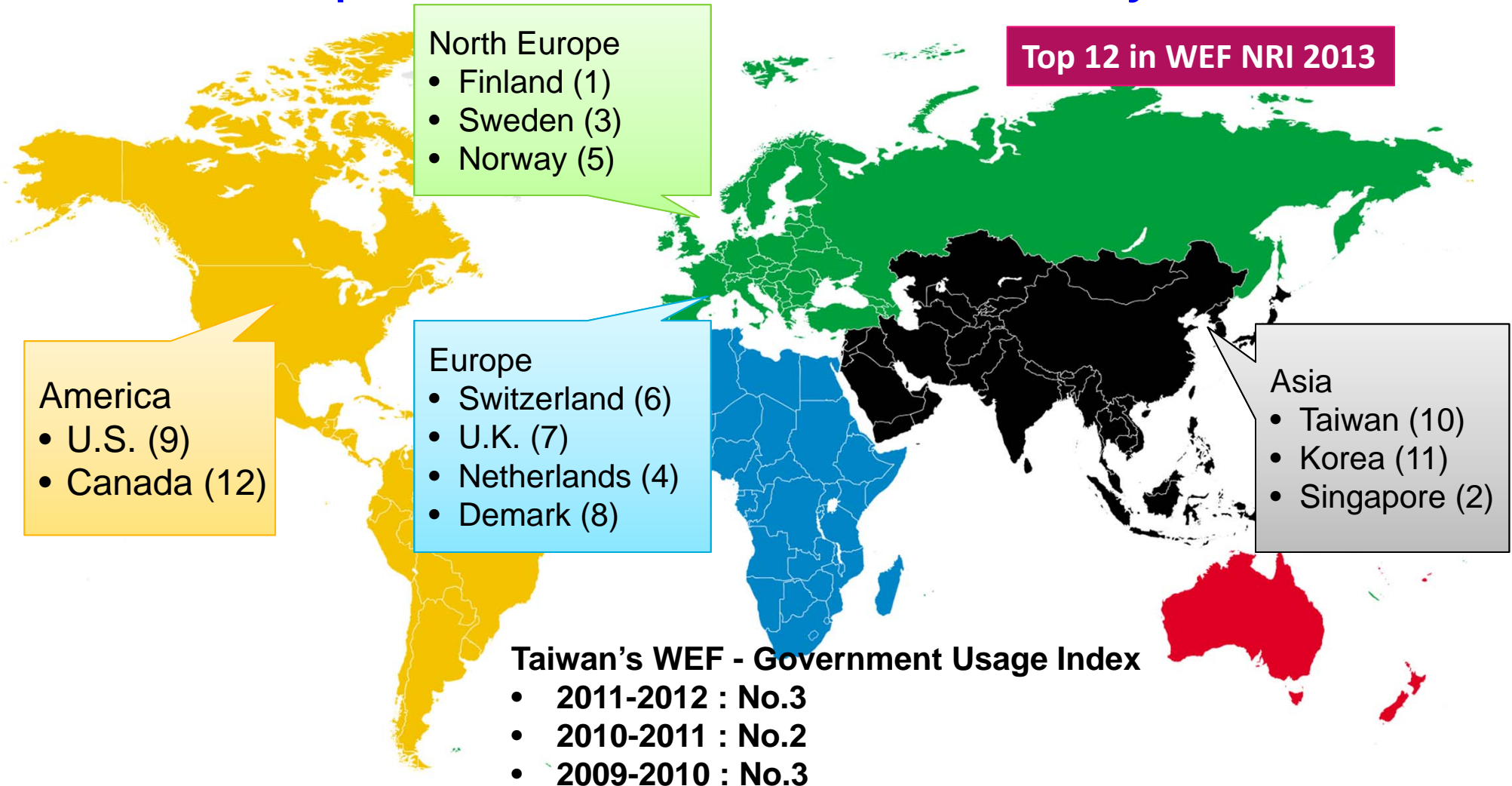
**e-Government =
ICT + Government**





Who are the leaders in e-Gov?

❖ From Reports of WEF, UN, Brown University etc.





Taiwan's e-Government

E-Gov Ranking by Brown University

Year	Number of Countries	Taiwan Ranking
2008	198	2
2007	198	3
2006	198	2
2005	198	1
2004	198	1
2003	198	5
2002	198	1

Table 4: Usage subindex

USAGE SUBINDEX			Individual usage		Business usage		Government usage	
Rank	Country/Economy	Score	Rank	Score	Rank	Score	Rank	Score
1	Korea, Rep.	5.78	4	5.90	2	5.20	1	6.25
2	Taiwan, China	5.49	15	5.40	1	5.29	2	5.76

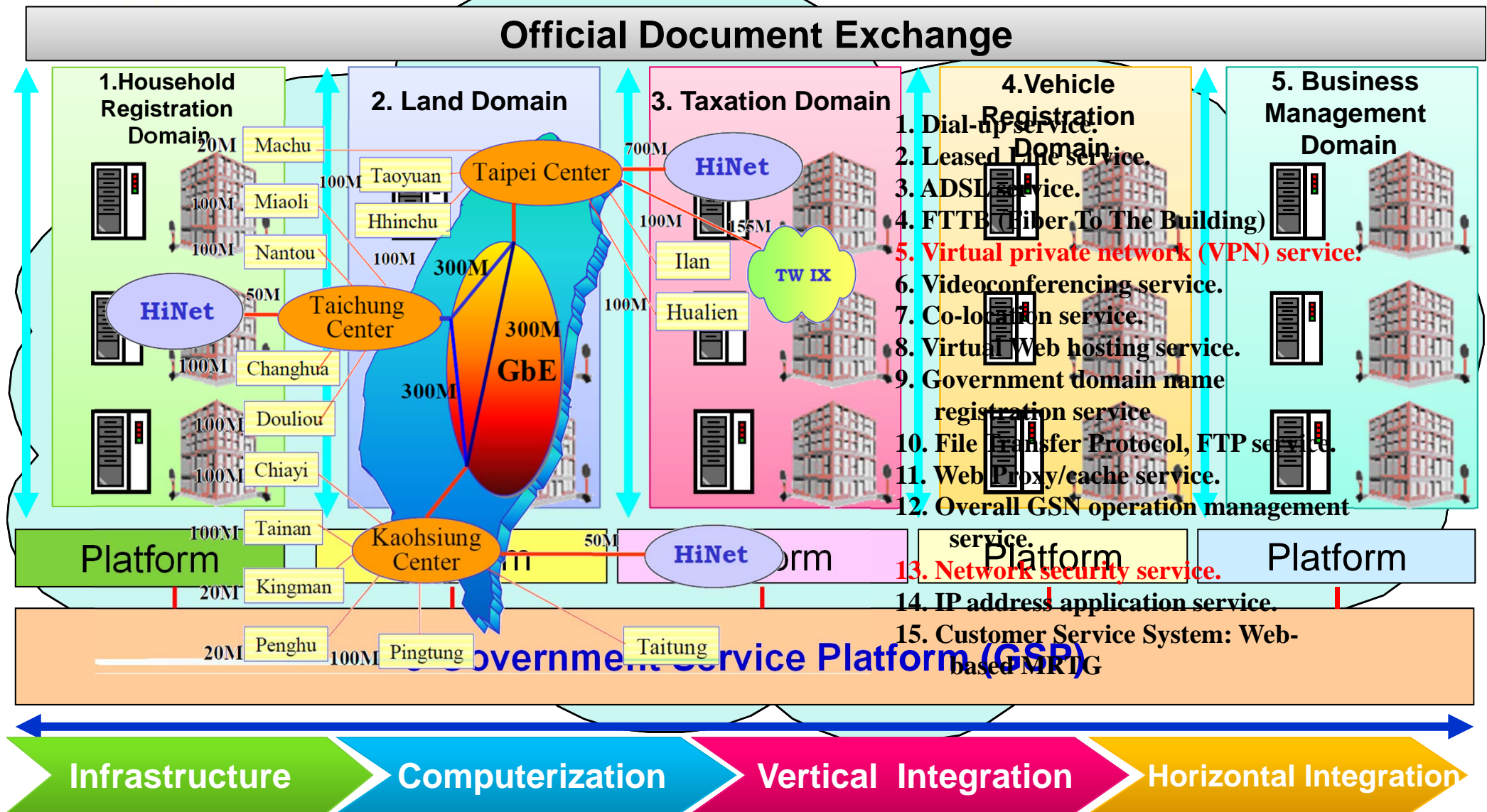
Table 3: Readiness subindex

READINESS SUBINDEX			Individual readiness		Business readiness		Government readiness	
Rank	Country/Economy	Score	Rank	Score	Rank	Score	Rank	Score
1	Singapore	5.79	1	6.13	5	5.26	1	5.98
2	Finland	5.52	3	5.80	3	5.52	10	5.24
3	Sweden	5.48	23	5.44	2	5.69	8	5.32
4	Qatar	5.47	10	5.70	21	4.84	2	5.88
5	Switzerland	5.39	12	5.65	1	5.70	23	4.83
6	United Arab Emirates	5.37	5	5.77	24	4.75	3	5.57
7	Taiwan, China	5.32	13	5.64	12	4.97	5	5.36
8	United States	5.30	11	5.66	6	5.23	17	5.02
9	Denmark	5.30	9	5.72	9	5.14	16	5.05
10	Malaysia	5.23	14	5.63	19	4.88	11	5.18
11	France	5.22	15	5.62	18	4.88	12	5.18
12	Japan	5.21	16	5.61	20	4.88	13	5.18
13	United Kingdom	5.20	17	5.60	21	4.88	14	5.18
14	Canada	5.19	18	5.59	22	4.88	15	5.18
15	China	5.18	19	5.58	23	4.88	16	5.18
16	Korea, Rep.	5.17	20	5.57	24	4.88	17	5.18
17	Taiwan, China	5.16	21	5.56	25	4.88	18	5.18
18	United States	5.15	22	5.55	26	4.88	19	5.18
19	Denmark	5.14	23	5.54	27	4.88	20	5.18
20	Malaysia	5.13	24	5.53	28	4.88	21	5.18
21	France	5.12	25	5.52	29	4.88	22	5.18
22	Japan	5.11	26	5.51	30	4.88	23	5.18
23	United Kingdom	5.10	27	5.50	31	4.88	24	5.18
24	Canada	5.09	28	5.49	32	4.88	25	5.18
25	China	5.08	29	5.48	33	4.88	26	5.18
26	Korea, Rep.	5.07	30	5.47	34	4.88	27	5.18
27	Taiwan, China	5.06	31	5.46	35	4.88	28	5.18
28	United States	5.05	32	5.45	36	4.88	29	5.18
29	Denmark	5.04	33	5.44	37	4.88	30	5.18
30	Malaysia	5.03	34	5.43	38	4.88	31	5.18
31	France	5.02	35	5.42	39	4.88	32	5.18
32	Japan	5.01	36	5.41	40	4.88	33	5.18
33	United Kingdom	5.00	37	5.40	41	4.88	34	5.18
34	Canada	4.99	38	5.39	42	4.88	35	5.18
35	China	4.98	39	5.38	43	4.88	36	5.18
36	Korea, Rep.	4.97	40	5.37	44	4.88	37	5.18
37	Taiwan, China	4.96	41	5.36	45	4.88	38	5.18
38	United States	4.95	42	5.35	46	4.88	39	5.18
39	Denmark	4.94	43	5.34	47	4.88	40	5.18
40	Malaysia	4.93	44	5.33	48	4.88	41	5.18
41	France	4.92	45	5.32	49	4.88	42	5.18
42	Japan	4.91	46	5.31	50	4.88	43	5.18
43	United Kingdom	4.90	47	5.30	51	4.88	44	5.18
44	Canada	4.89	48	5.29	52	4.88	45	5.18
45	China	4.88	49	5.28	53	4.88	46	5.18
46	Korea, Rep.	4.87	50	5.27	54	4.88	47	5.18
47	Taiwan, China	4.86	51	5.26	55	4.88	48	5.18
48	United States	4.85	52	5.25	56	4.88	49	5.18
49	Denmark	4.84	53	5.24	57	4.88	50	5.18
50	Malaysia	4.83	54	5.23	58	4.88	51	5.18

World Economic Forum (WEF) The Global Information Technology Report 2010–2011

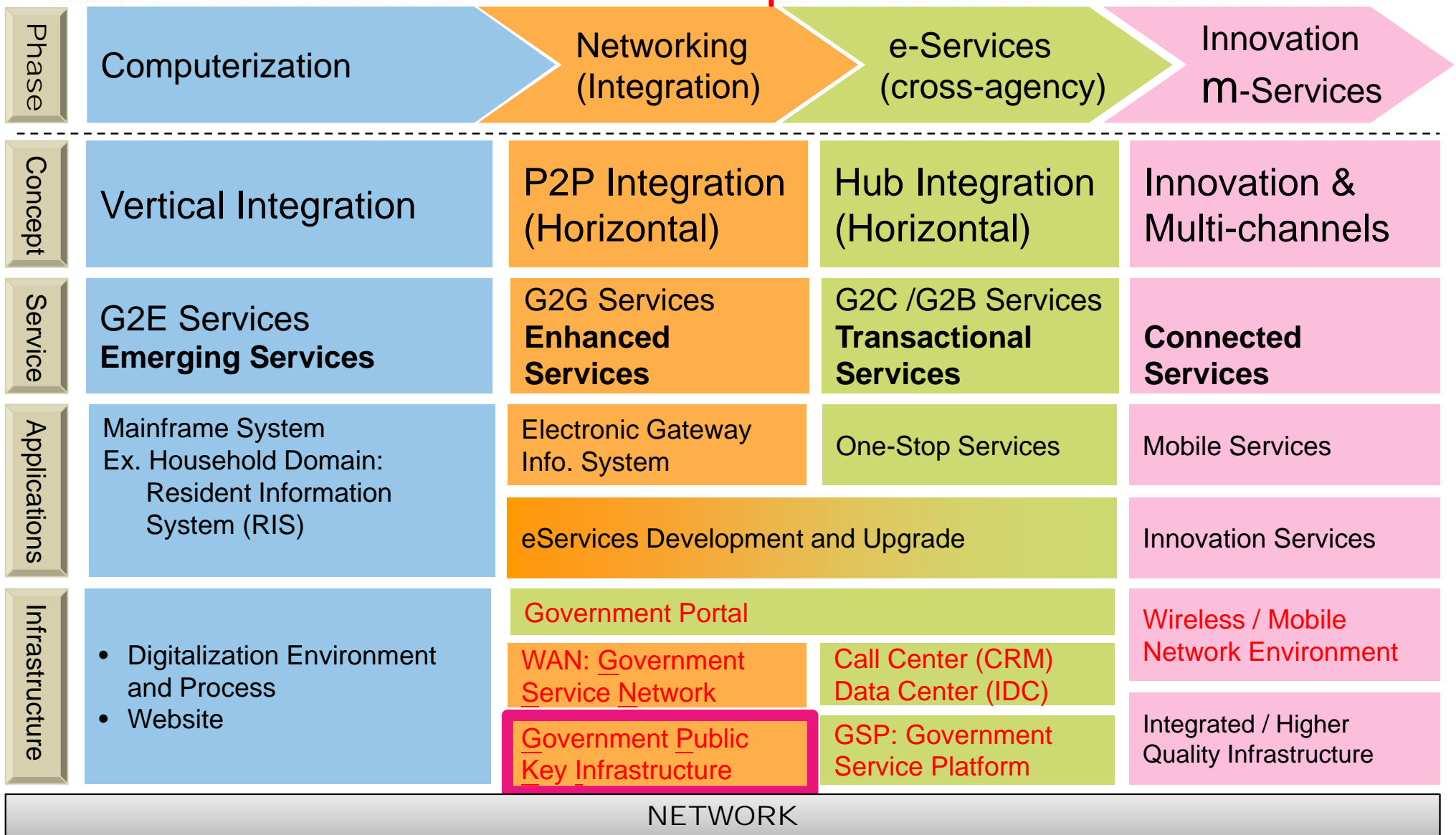


e-Government Program Evolution





The Concept of e-Government Development





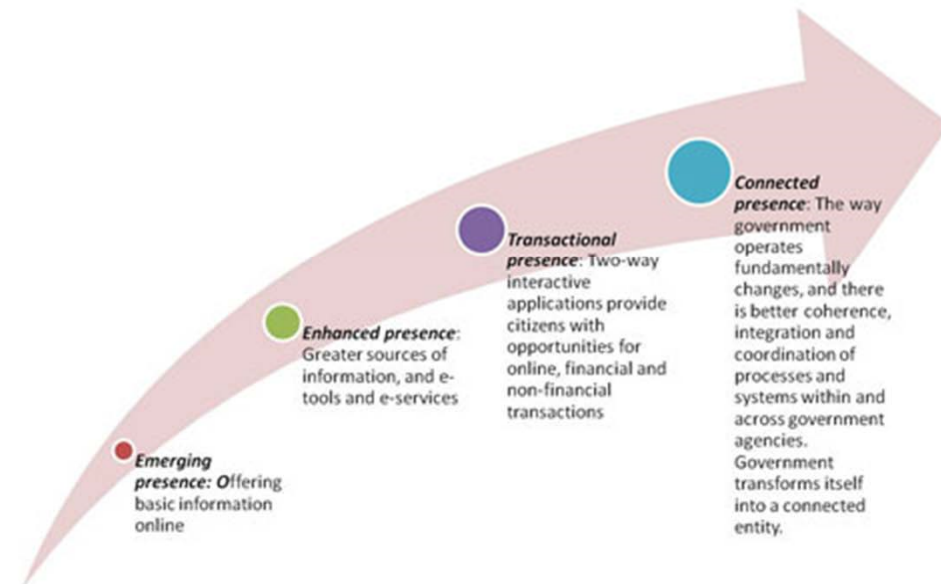
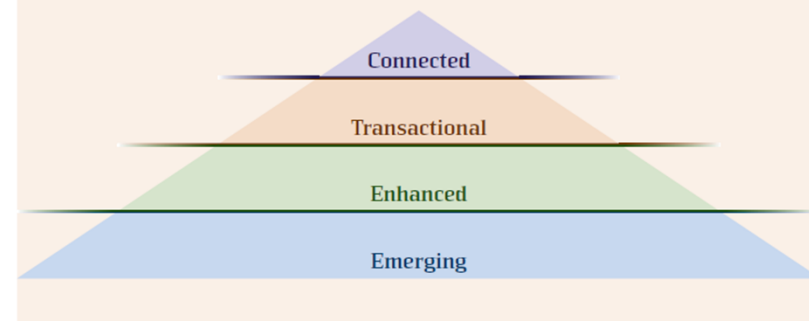
2. E-Government Services and E-Government Model



E-Government Service Stages (UN)



Box 7.1 The four stages of online service development





Stage 1- Emerging Information Services

❖ Emerging information services

- Government websites provide **public information** on policy, governance, laws, regulations, relevant documentation and **types of government services** provided.
- They have **web-links** to ministries, departments and other branches of government.
- Citizens are easily able to obtain information on **what is new** in the national government and ministries and can follow links to archived information.



Basic Information Online
(Static Information)





Stage 2 - Enhanced Information Services

❖ Enhanced information services

- Government websites deliver enhanced **one-way** or **simple two-way** e-communication between government and citizen, such as **downloadable forms** for government services and applications.
- The sites have **audio and video** capabilities and are **multi-lingual**, among others.



Greater Information Online
(e-Forms, Multimedia, Multi-Lingual)



Stage 3 - Transactional Services

❖ Transactional services

- Government websites engage in **two-way communication** with their citizens, including **requesting and receiving inputs** on government policies, programs, regulations, etc.
- Some form of **electronic authentication** of the **citizen's identity** is required to successfully complete the exchange.
- Government websites process **non-financial transactions**, e.g. e-voting, downloading and uploading forms, filing taxes online or applying for certificates, licenses and permits.
- They also handle **financial transactions**, i.e. where money is transferred on a secure network to government.



**Two-way Interactive
(Non-financial / financial transactions)**





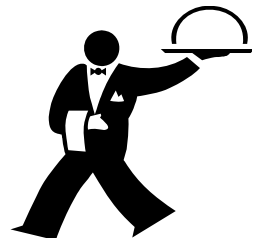
Stage 4 - Connected Services

❖ Connected services

- Government websites have changed the way governments communicate with their citizens.
- They are proactive in requesting information and opinions from the citizens using Web 2.0 and other interactive tools.
- E-services and e-solutions cut across the departments and ministries in a seamless manner. Information, data and knowledge are transferred from government agencies through integrated applications.
- Governments have moved from a government-centric to a citizen-centric approach, where eservices are targeted to citizens through life cycle events and segmented groups to provide tailor-made services.
- Governments create an environment that empowers citizens to be more involved with government activities so as to have a voice in decision-making.

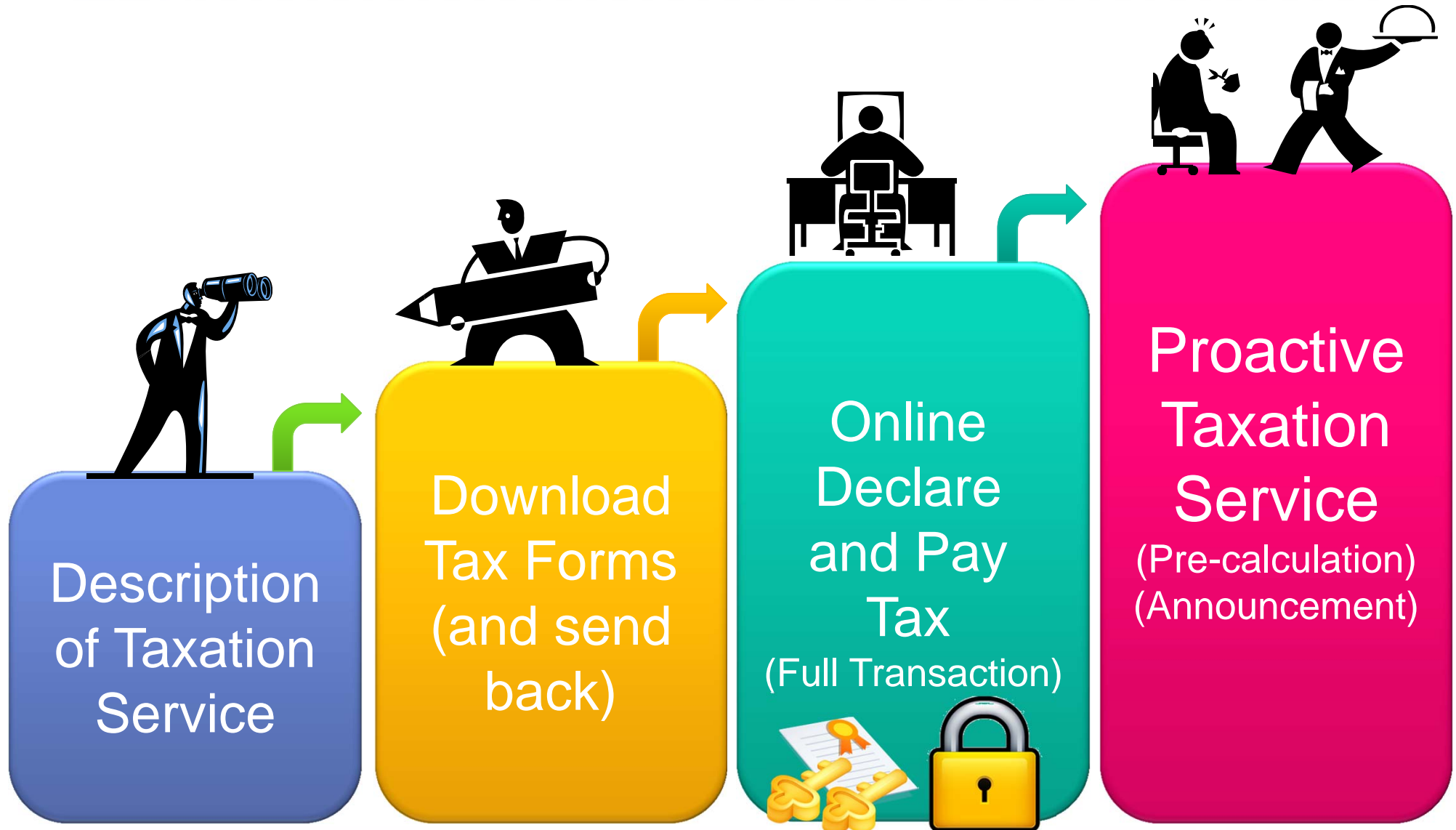


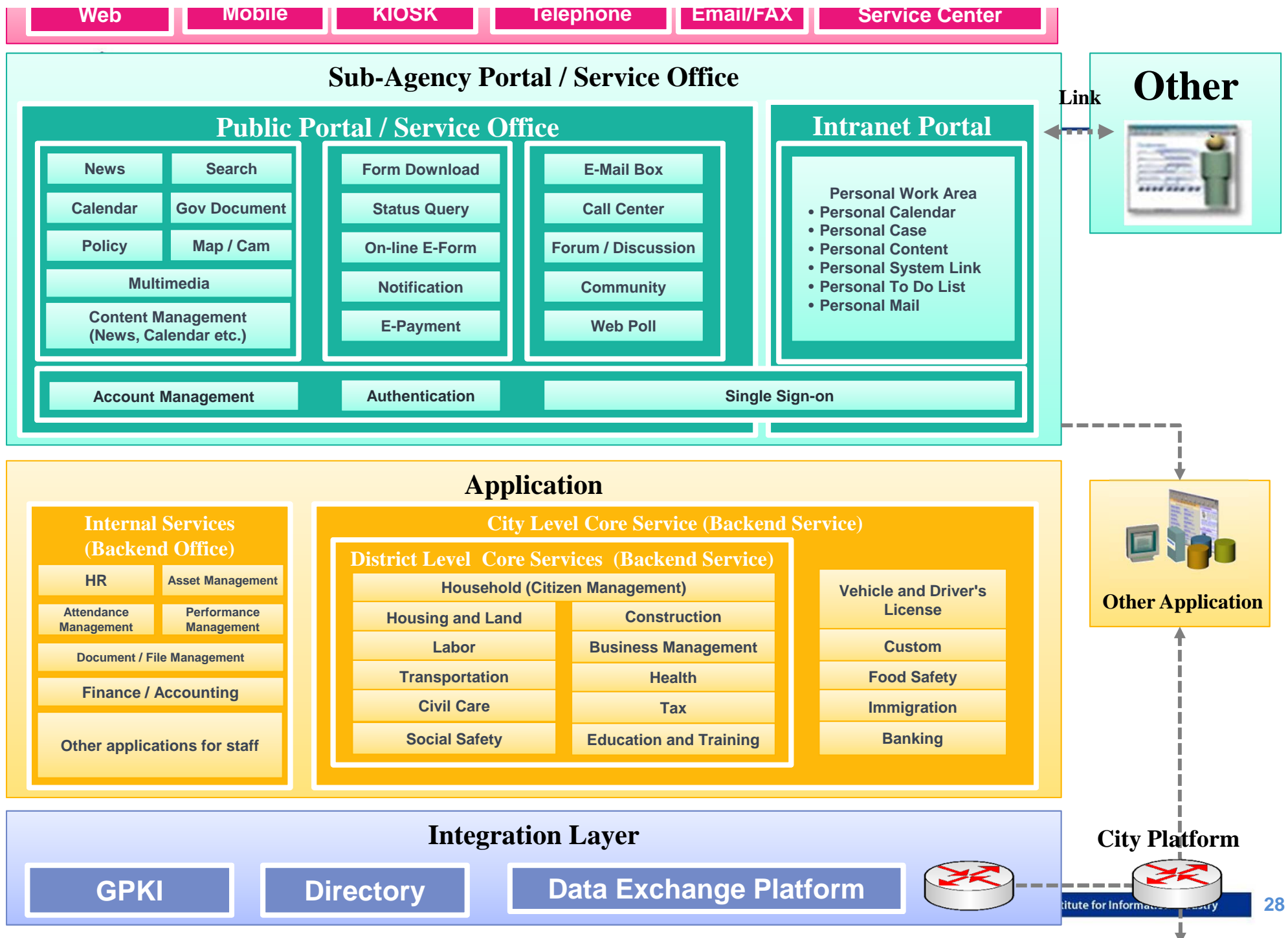
**Mobile / Active /
Citizen Participation Services**





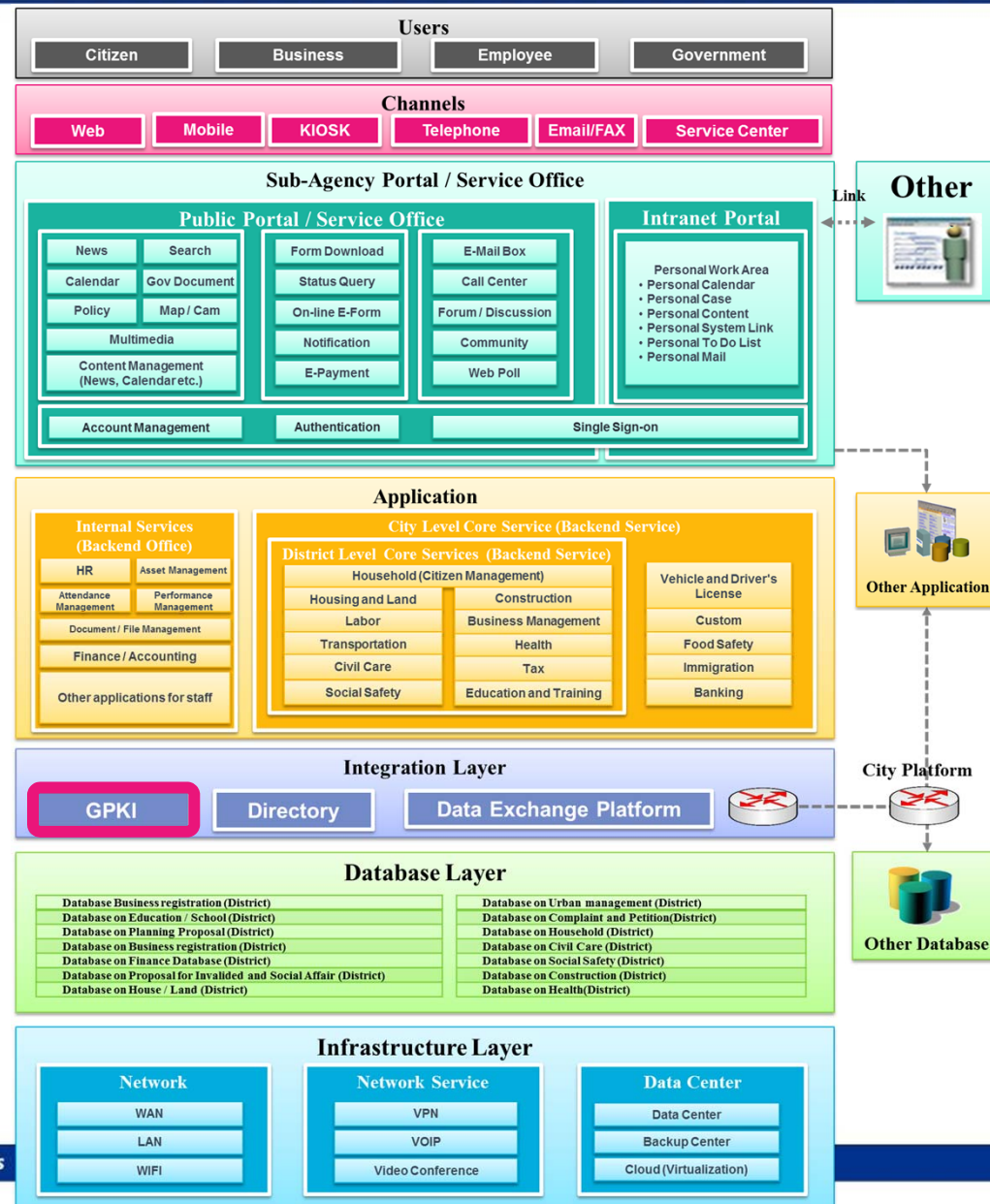
Example of E-Service Evolution







E-Government Model (Example)





Stage 1: Computerization

❖ Digitalized data and introduce computer process to five major administration domains



- Household Domain
- Land Administration
- Taxation Domain
- Vehicle Registration Domain
- Commerce and Industry Domain

❖ Provide G2E Services

❖ Vertical integration in each domain

- Increase the efficiency of government officers
- Digitalize the government information





Example: RIS (Household) System

❖ Resident Information System

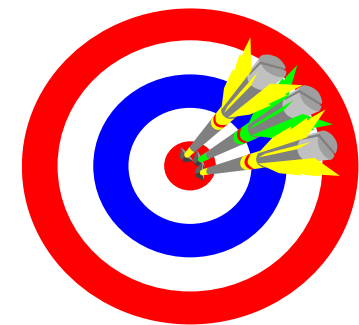
❖ Objectives

- Computerized the household registration and conscription affairs.
- Established the population database of 23 millions of people.
- Provided the population, household and conscription information for government administration and decision.
- Provided e-Government services to the public and other governmental units.

❖ System development History

- Idea introduced in 1984.
- Drafted an implementation plan in 1986.

- RIS is the basic system for e-gov services
Ex. Tax, Land, Vehicle, education etc.





Example: RIS (Household) System

- 795 household registration and conscription administration units in Taiwan
- 54 Servers / Around 5,000 workstations / Around 800 network links
- 38,000 of application programs / Around 6.6 million lines of source program codes

From 1980s ~ Now



Ministry of the Interior

25 Cities' and Counties'
Household
Administration Offices

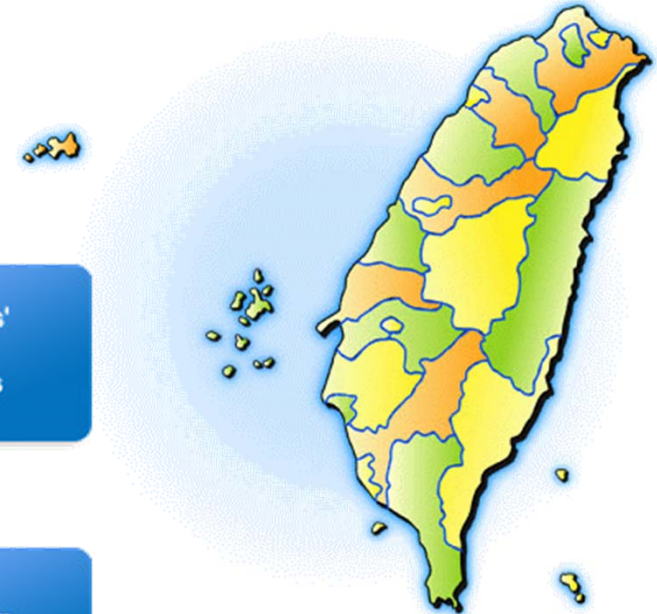


25 Cities' and Counties'
Conscription
Administration Offices

375 Towns' Household
Registration Offices



369 Towns' Conscription
Offices





Example: RIS (Household) System

Citizen's life cycle and household administration



Services

- Birth/Death registration
- Address change registration
- Marriage/Divorce registration
- Name change registration
- Personal ID Card issuing
- Domicile transcripts application
- Household registration / population statistics and reporting
- Voter list generation
- Etc.

Benefits

- Manpower US \$49M / year
- Waiting Time US \$88M / year



RIS for Government Policy Decision

❖ How to set correct policies for the multi-dimension world?

- Education
- Taxing
- Social Secur
- Conscriptior
- Election
- Health care
- ...

Figure 3-3 Crude Birth Rate and Crude Death Rate in Taiwan-Fuchien Area

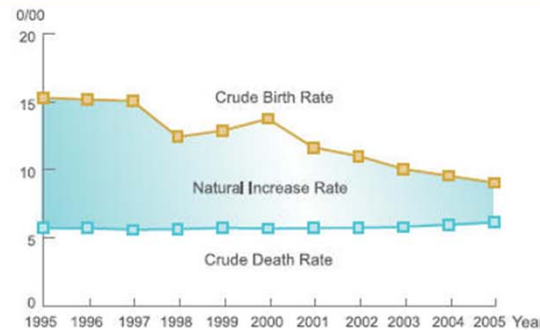
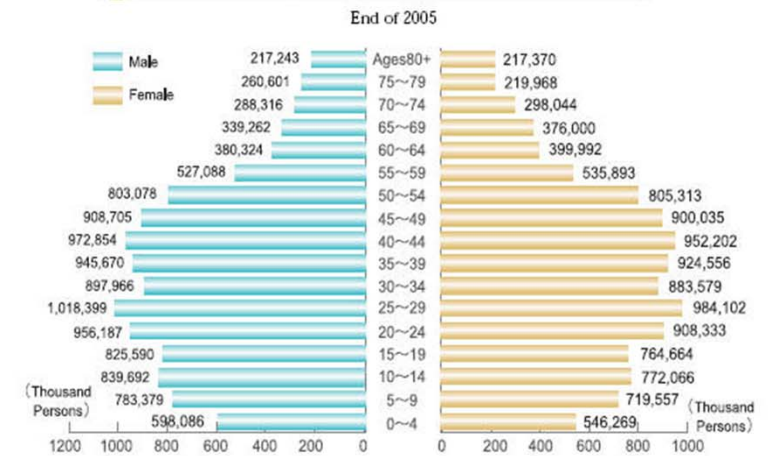


Figure 3-2 The Age Distribution in Taiwan-Fuchien Area



❖ All these information are based on

- Resident and household information

Table 3-1 Population Registrations in Taiwan-Fuchien Area

Item of Registration	2005		
	Total	Male	Female
Population of End of Year	22 770 383	11 562 440	11 207 943
Immigration	1 442 018	659 375	782 643
Emigration	1 427 213	659 120	768 093
Birth	205 854	107 378	98 476
Death	139 398	86 778	52 620
Legitimization of Child Born	5 028	2 576	2 452
Adoption	2 658	1 342	1 316
Termination of Adoption	895	491	404
Marriage (Couple)	141 140	-	-
Divorce (Couple)	62 571	-	-

Table 3-3 Households and Population in Taiwan-Fuchien Area

Locality	No. of Townships, Cities & Districts	No. of Villages	No. of Neighborhoods	No. of Households (1 000 Households)	No. of Population (1 000 Persons)		
					Total	Male	Female
Total	368	7 833	146 967	7 293	22 770	11 562	11 208
Taiwan Area	358	7 774	146 074	7 264	22 690	11 519	11 171
Taiwan Prov.	335	6 862	128 137	5 787	18 563	9 484	9 079
Taipei City	12	449	9 461	933	2 616	1 279	1 337
Kaohsiung City	11	463	8 476	544	1 511	756	755
Fuchien Prov.	10	59	893	29	80	43	37



Stage 2: Networking



❖ Build up government network infrastructure (Government Service Network) and connect all government agencies into network



❖ Build up Electronic Gateway to share data across agencies in five major administration domains



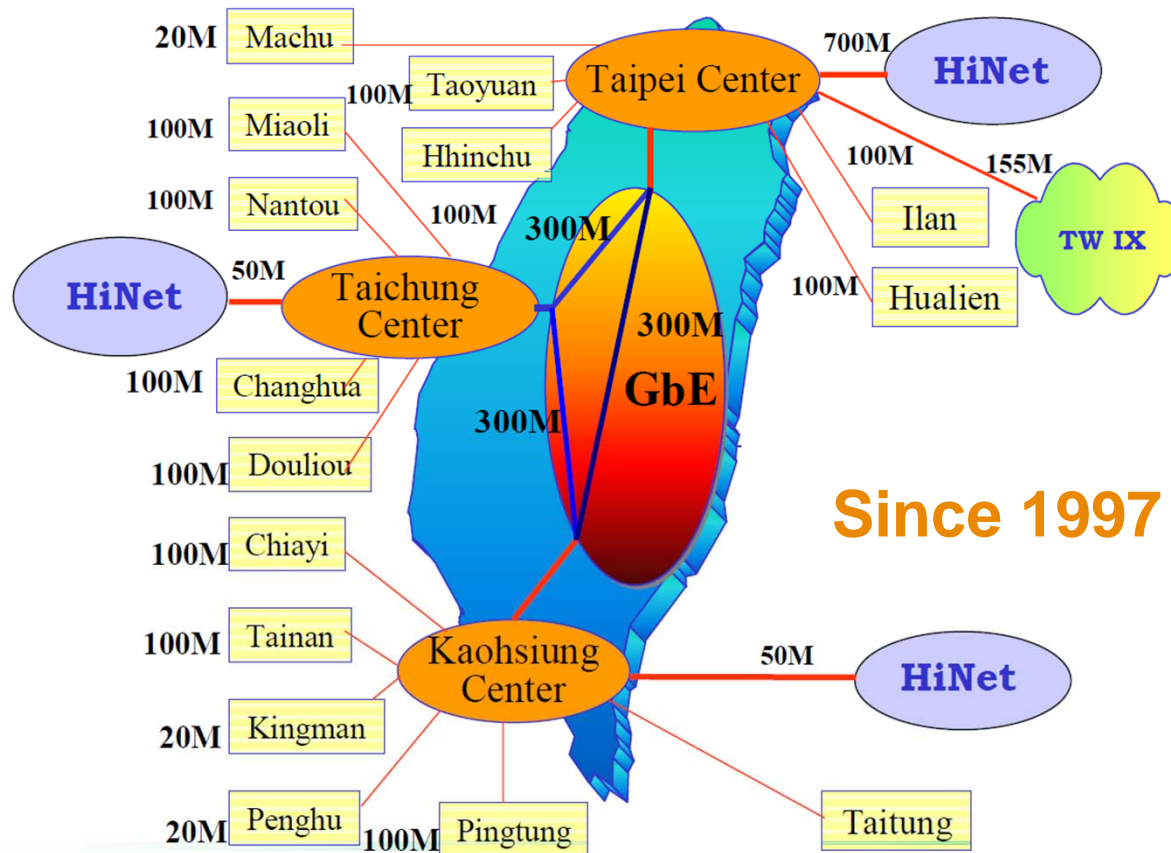
❖ Build up Government Public Key Infrastructure to ensure service security (GPKI)

❖ Provide G2G Services

❖ Horizontal integration between major domains



Government Network Service



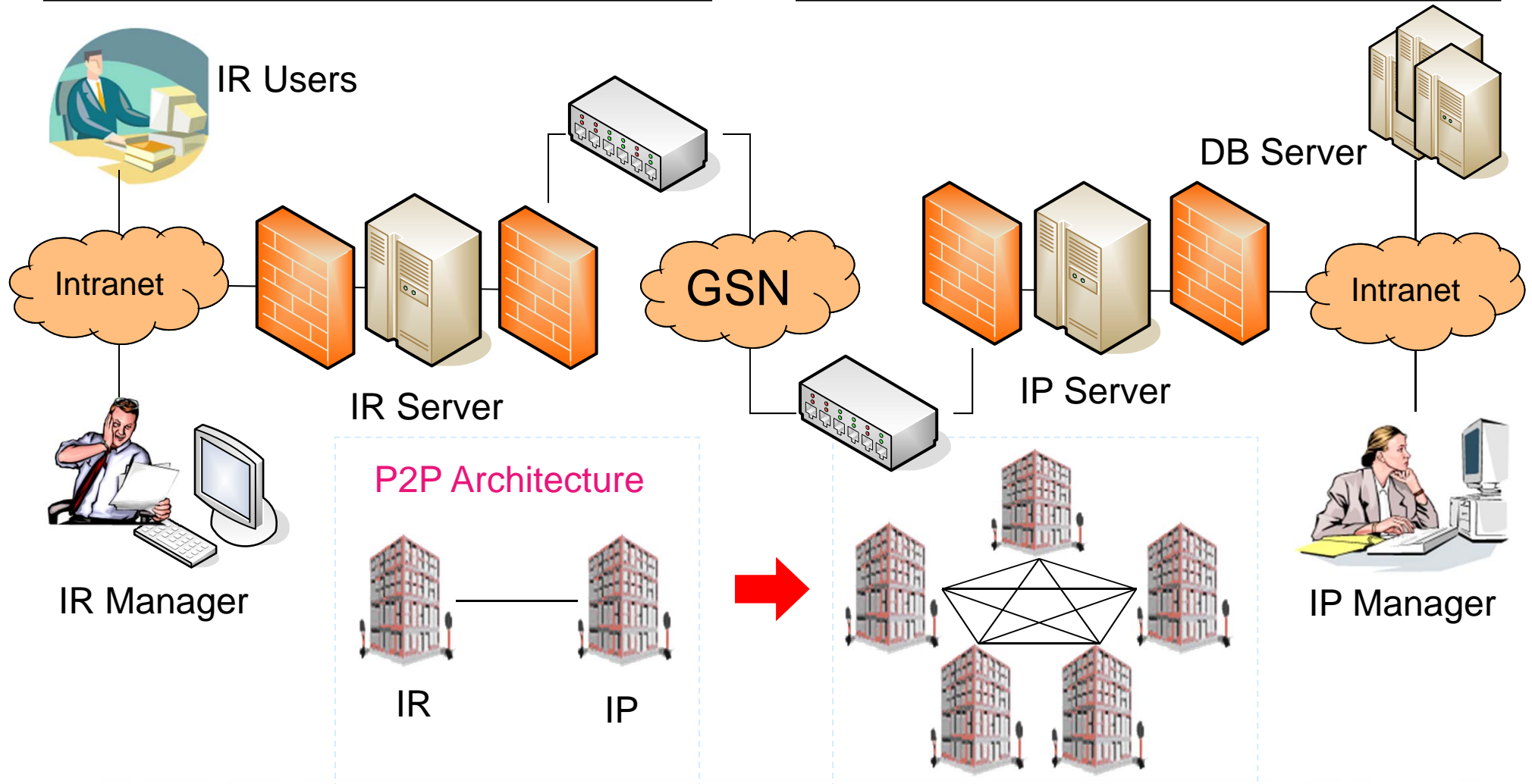
1. Dial-up service.
2. Leased Line service.
3. ADSL service.
4. FTTB (Fiber To The Building)
5. **Virtual private network (VPN) service.**
6. Videoconferencing service.
7. Co-location service.
8. Virtual Web hosting service.
9. Government domain name registration service
10. File Transfer Protocol, FTP service.
11. Web Proxy/cache service.
12. Overall GSN operation management service.
13. **Network security service.**
14. IP address application service.
15. Customer Service System: Web-based MRTG



Electronic Gateway

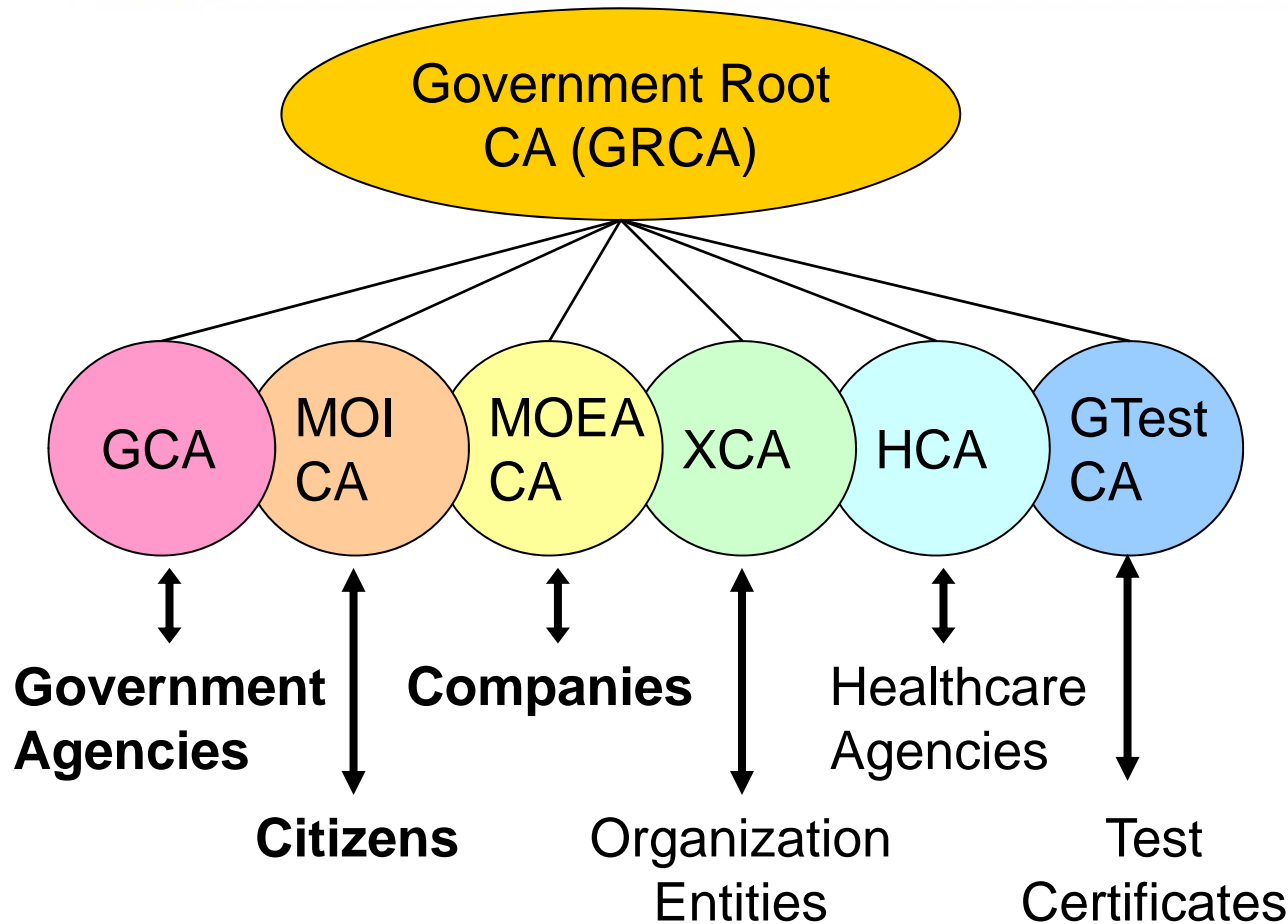
Information Requester

Information Provider





Government Public Key Infrastructure



Encryption / Decryption

Digital Signature

Identification

The Electronic Signature Act

Until 16th Oct. 2013, 3.75 million **Citizen Digital Certificate** issued, 1000+ services launched

Innovation, Compassion, Effectiveness



Business Digital Certificate in Taiwan



Citizen Digital Certificate in Taiwan



PKI Usage in Taiwan

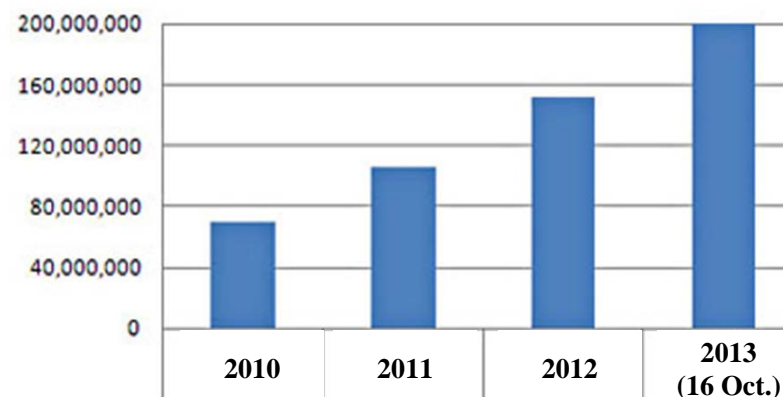
of Citizen Digital Certificate issued



of Citizen Digital Certificate issued

2,144,129	2,549,284	3,129,816	3,758,736
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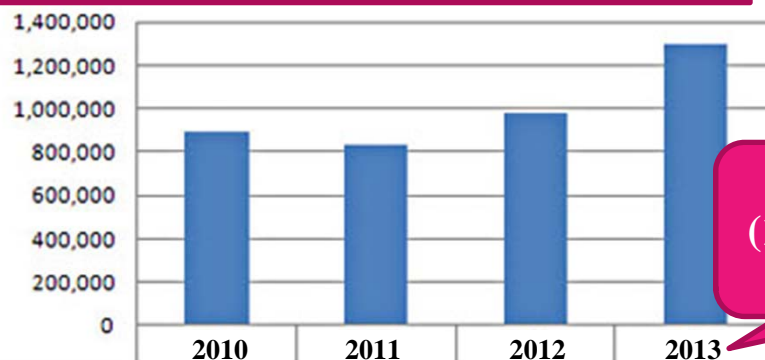
Times of Application used with Citizen Digital Certificate



of Application used with Citizen Digital Certificate

69,818,142	105,783,306	151,670,433	229,835,818
------------	-------------	-------------	-------------

of household using Digital Certificate to declare tax



of household using Digital Certificate to declare tax

892,058	832,814	980,085	1,296,538
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Citizen Digital Certificate in Taiwan



Stage 3 : Cross Agency e-Services

- ❖ Build up diverse e-Services to public in every domain
- ❖ Integrate government e-Services
 -  ■ Government Portal (From Website -> Portal)
 -  ■ Government Service Platform
 -  ■ Government e-Payment Gateway
 -  ■ Government Data Center
 -  ■ Government Call Center
- ❖ Provide G2B, G2C online services
- ❖ Horizontal integration between every domain



Taiwan e-Government Portal

MyEGov

<http://www.gov.tw/>

2002 Mar. ~ Now

1.4 Million+ Members

8800+ e-Forms

2400+ Online Services

11 Million+ Page View / M

1.5M Gov Doc Search

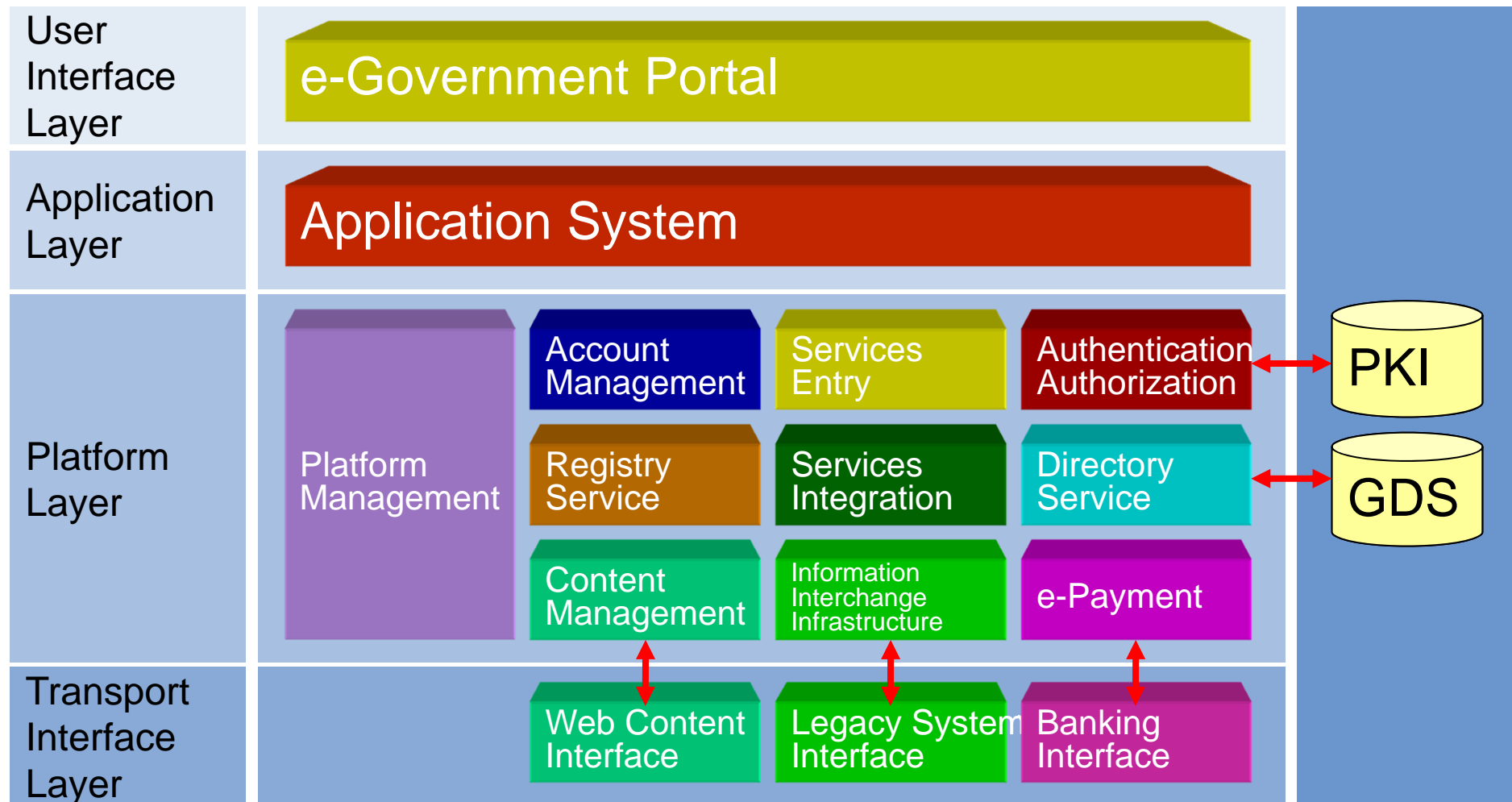
e-Paper / 2 weeks

Personalized Layout

The screenshot displays the Taiwan e-Government Portal (www.gov.tw) interface. At the top, there's a navigation bar with links for '我的E政府' (My e-Government), '政府資訊' (Government Information), '影音' (Audio/Video), '申辦表單' (Application Forms), '機關名錄' (Agency List), and '地圖' (Map). A search bar is also present. Below the navigation bar, there's a '分類列表' (Classification List) on the left, listing various services like '中辦表單' (Online Forms), '生育保健' (Maternal and Child Health), '出生及收養' (Birth and Adoption), etc. The main content area features '焦點訊息' (Focus News) with articles like '檢舉偽車獎勵300元' (Reward for reporting fake cars) and '台灣燈會移師宜蘭' (Taiwan Light Festival moves to Yilan). There's also a '個人化服務' (Personalized Services) section with links for '我的e管家' (My e-Manager), '我的專區' (My Zone), and '我的公務' (My Public Service). A '電子地圖' (Electronic Map) section is visible on the right. The bottom of the page includes a '熱門運轉' (Popular Operations) section with links for '通用分類' (General Classification), '機關分類' (Agency Classification), '地區分類' (Regional Classification), and '政府組織' (Government Organization).



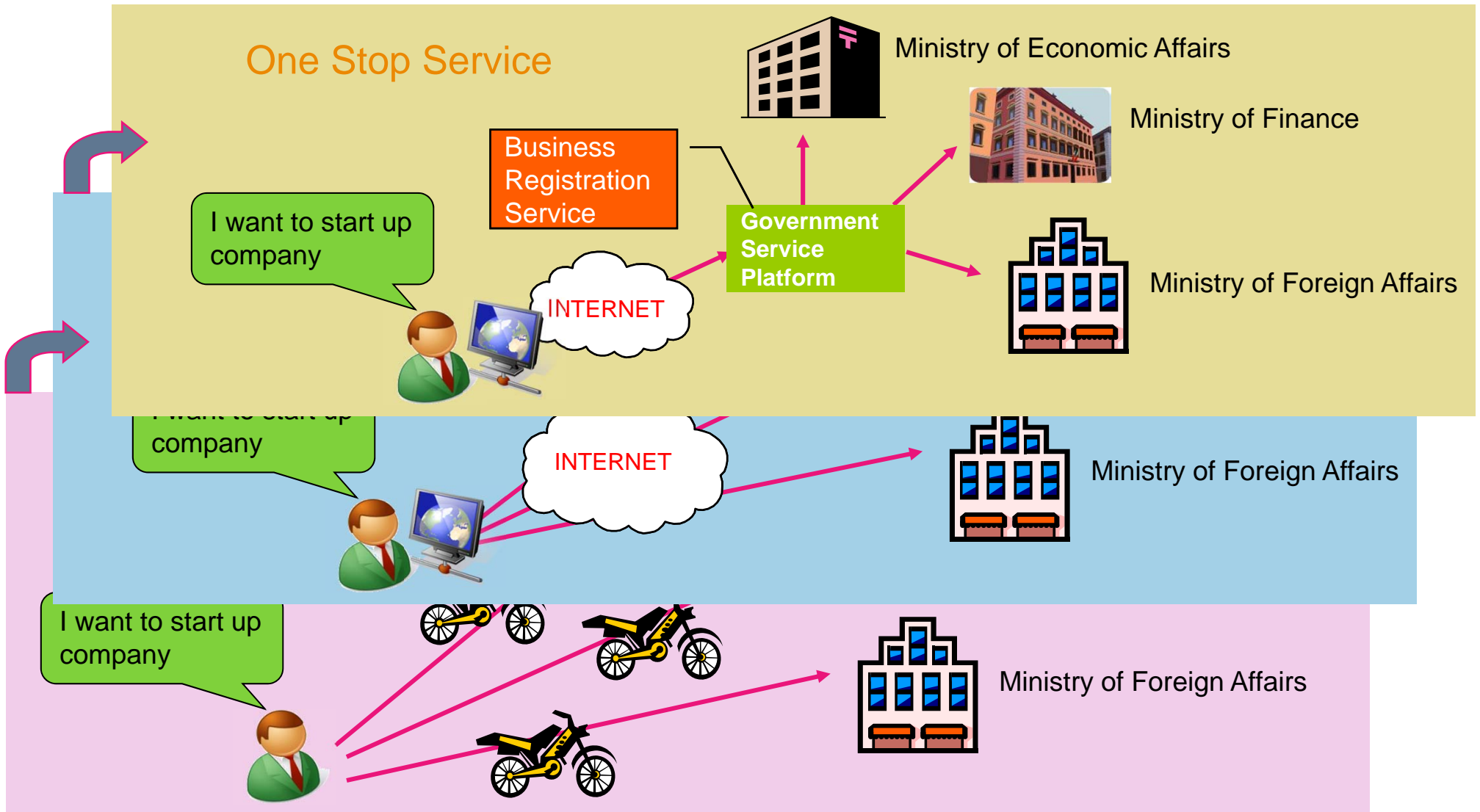
Government Service Platform Architecture



Infrastructure (Government WAN, Data Center, GPKI, Message Standard etc.)



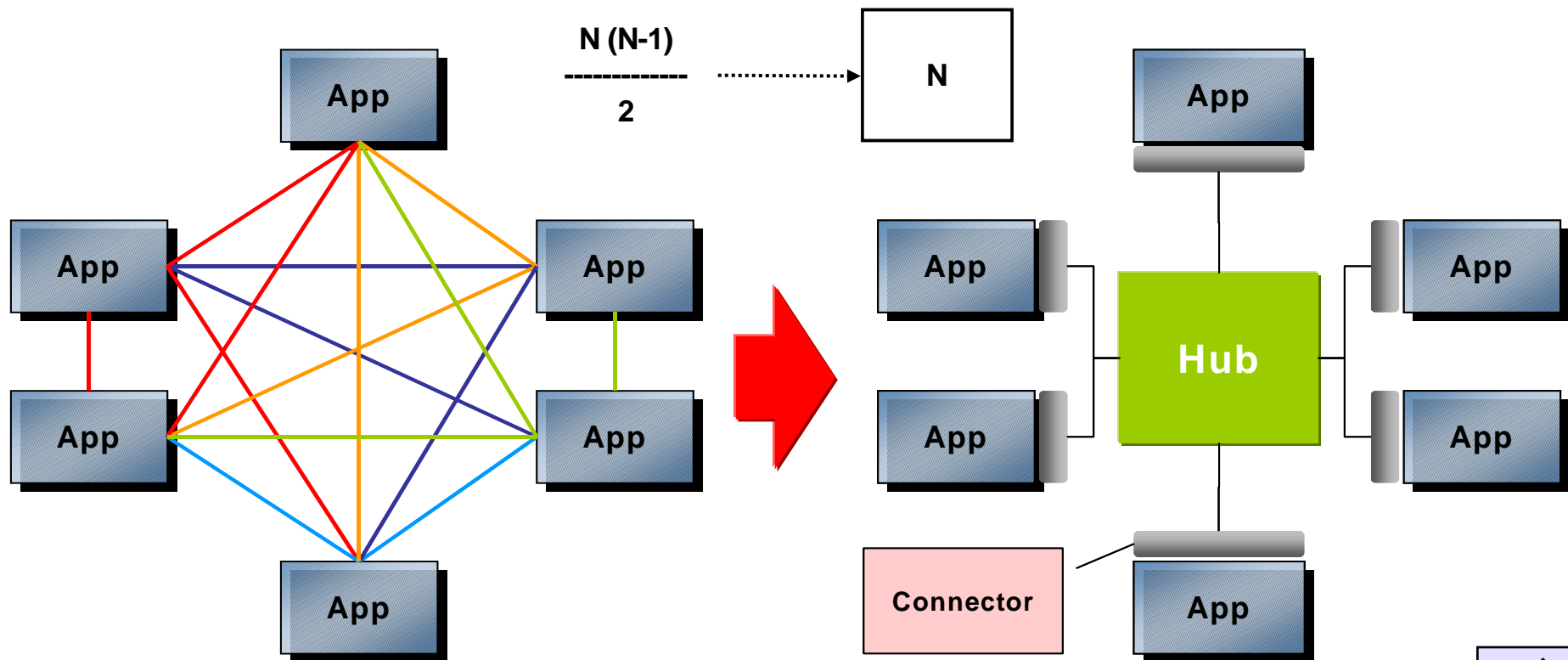
Government Service Platform





Government Service Platform

- ❖ Realize One Stop Service
- ❖ Reduce the Connections

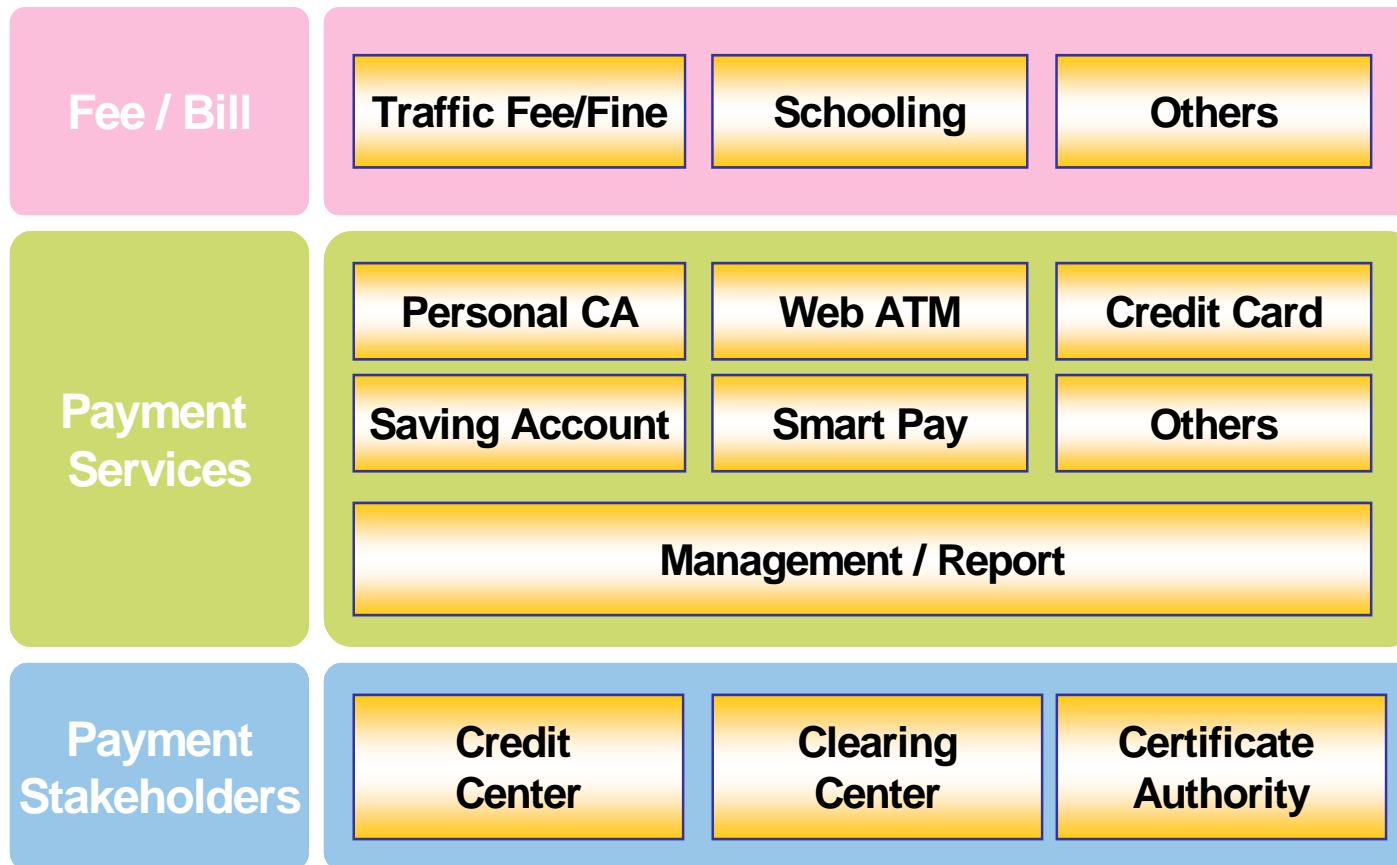




Government e-Payment Gateway



User





- Remote Backup & Disaster Recovery
- BCP, Business Continuity Planning

- Security Management
- SOC, Security Operating Center



Hardware
(Servers, Storage Area Network etc.)

Networking (Switch, LAN, WAN)

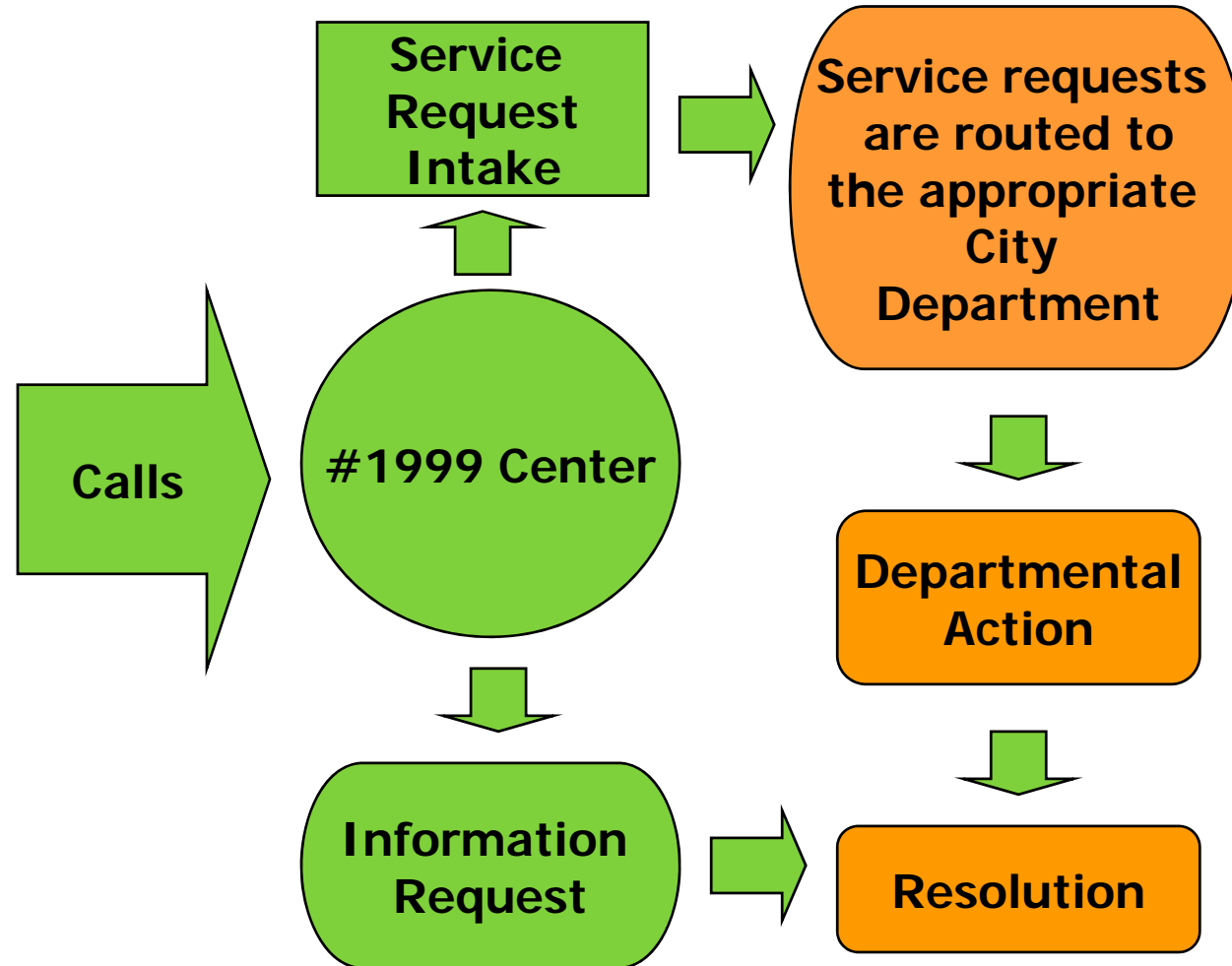
Environment
(Power, Air Cooler, Fire Control etc.)





E-Service Call Center (CRM)

Total answer calls more than 150,000 calls



To get answer, get action and get satisfaction



e-Tax Application Example

1. Download and Setup the e-Tax Application

2. Use “Citizen Digital Certificate”(IC Card) to Download the **Personal Income Data and Expense Data** form Ministry of Finance

3. Entering the Data to have Discount of Tax (optional)

4. Use “Citizen Digital Certificate“ to **Sign** the data and send to Ministry of Finance

5. Choose the payment tool to pay the Tax (including Web ATM, Saving Account, Credit Card...)

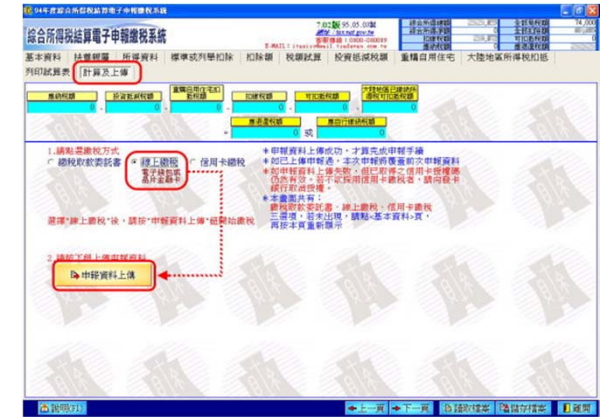
Citizen Digital Certificate



Citizen Digital Certificate

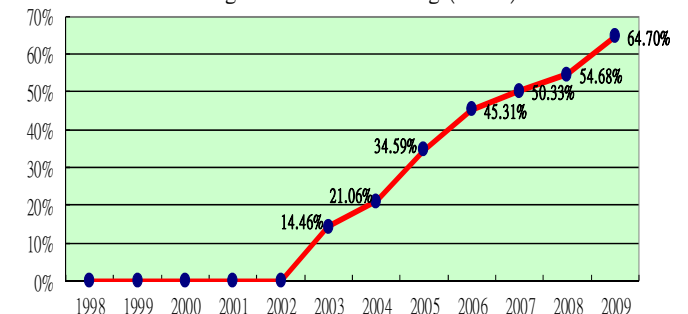


Bank Card



From 0.2% to 80+%
What's the Key
Success Factor?

Percentage of Online Tax Filing (OLTF)



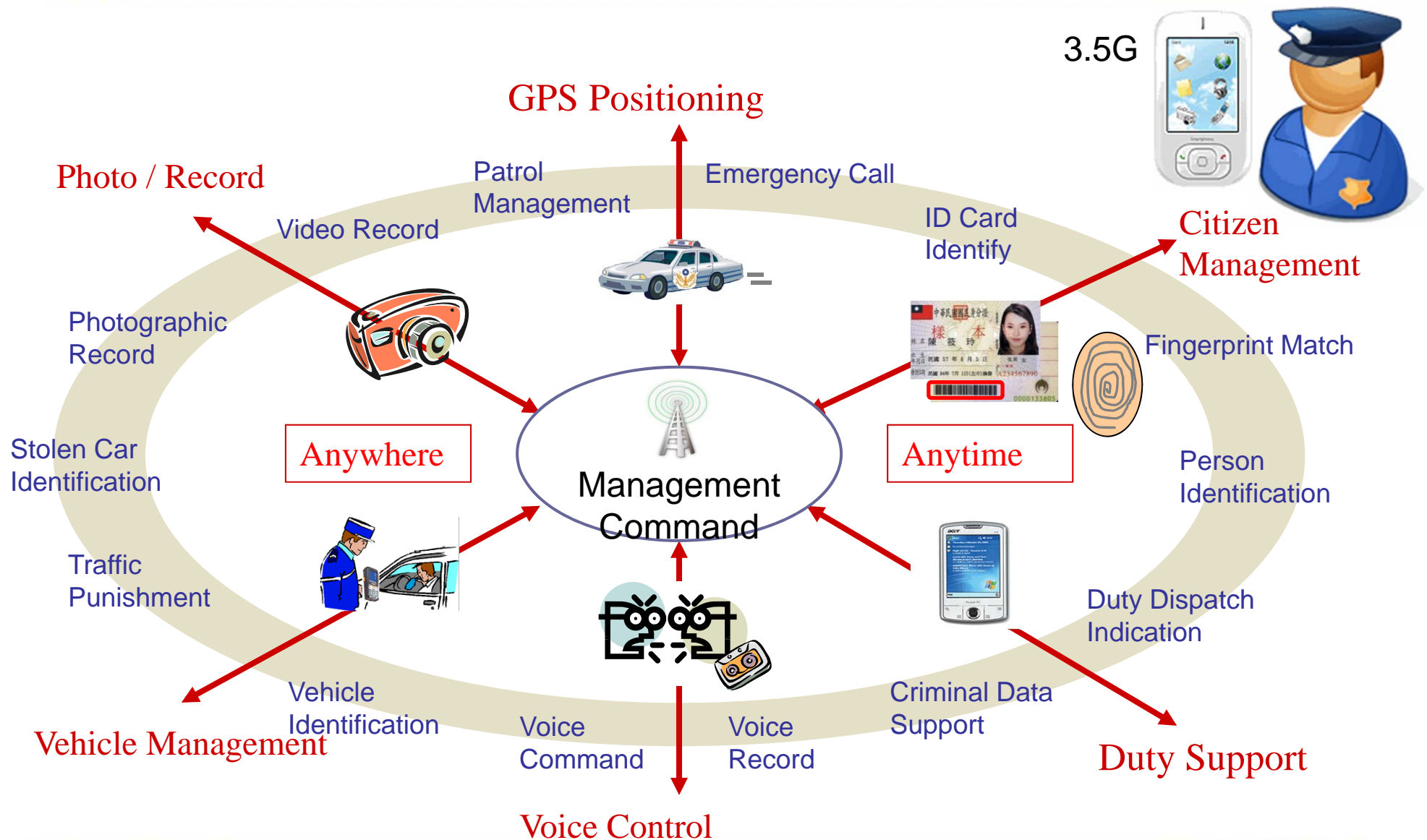


Stage 4: Innovation / m-Services

- ❖ E-Services becomes popular and wireless environment becomes mature
- ❖ Provide
 - Multi-Channel Devices Services
 - Innovation Services



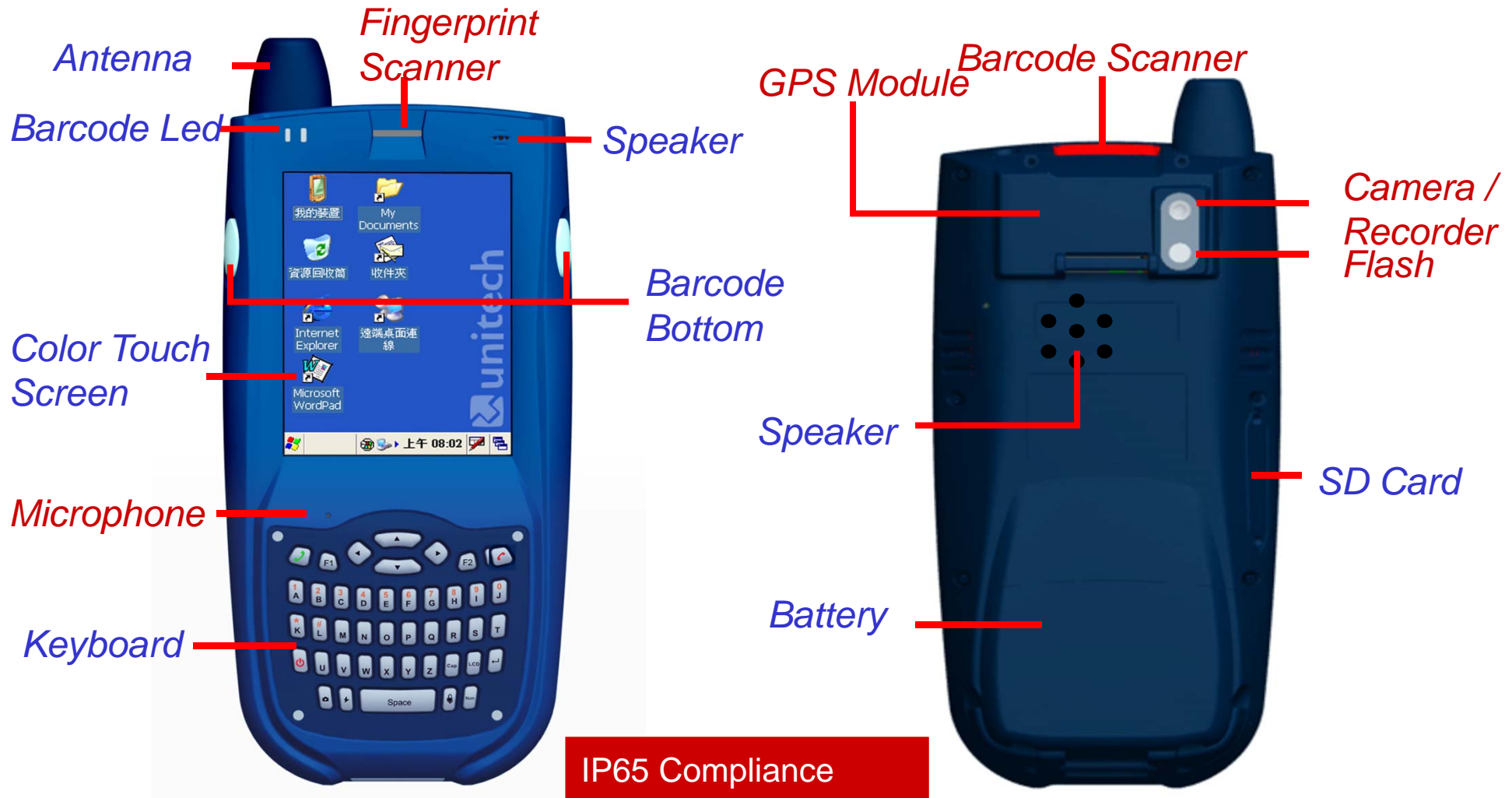
mService Example : M-Police





Mobile Police Device

Dedicated Design for Police





3. The Purpose and Role of Government PKI (GPKI)

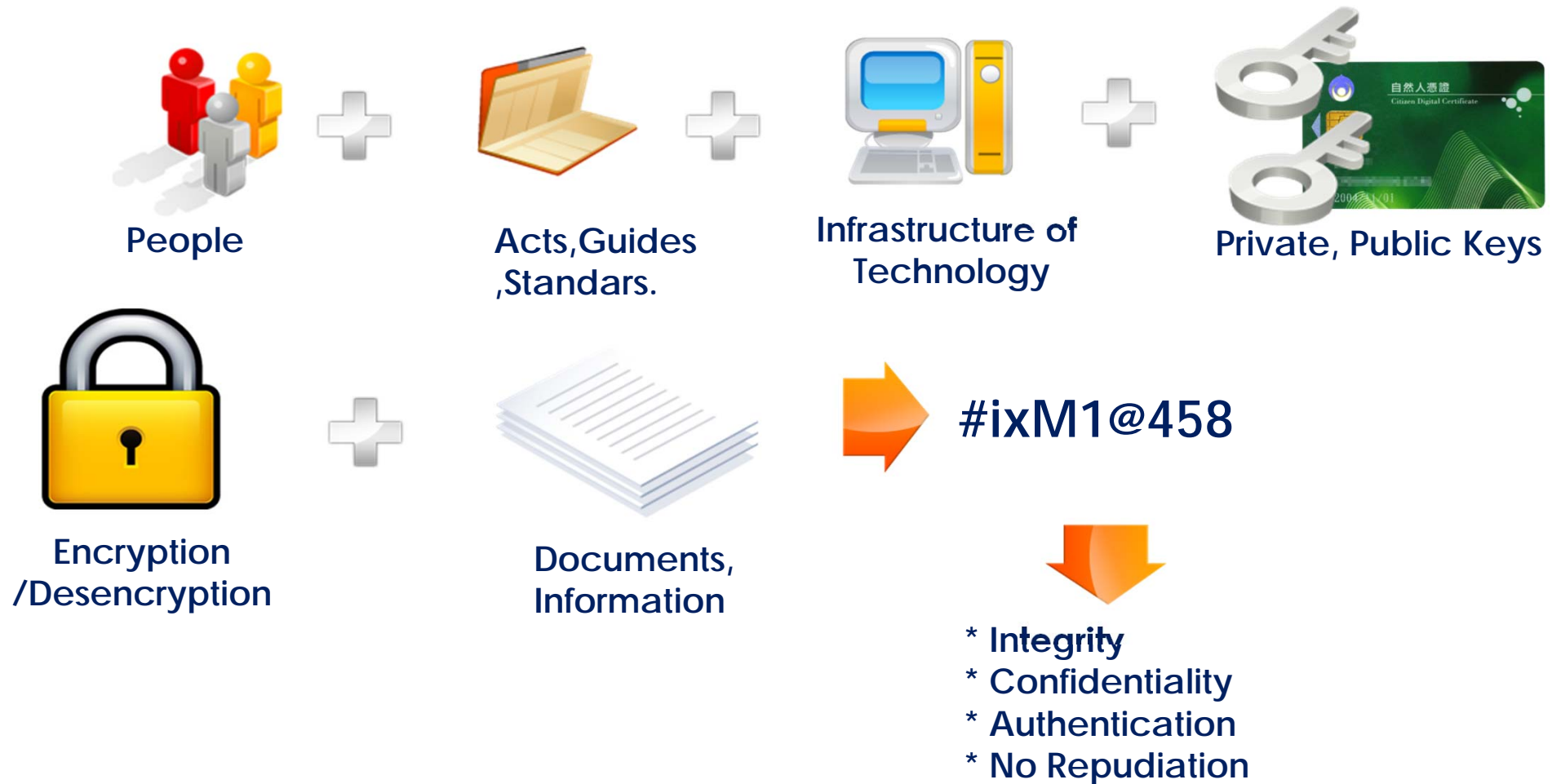


Public Key Infrastructure (PKI)

- ❖ A public-key infrastructure (PKI) is a set of hardware, software, people, policies, and procedures needed to create, manage, distribute, use, store, and revoke digital certificates.



PKI Components



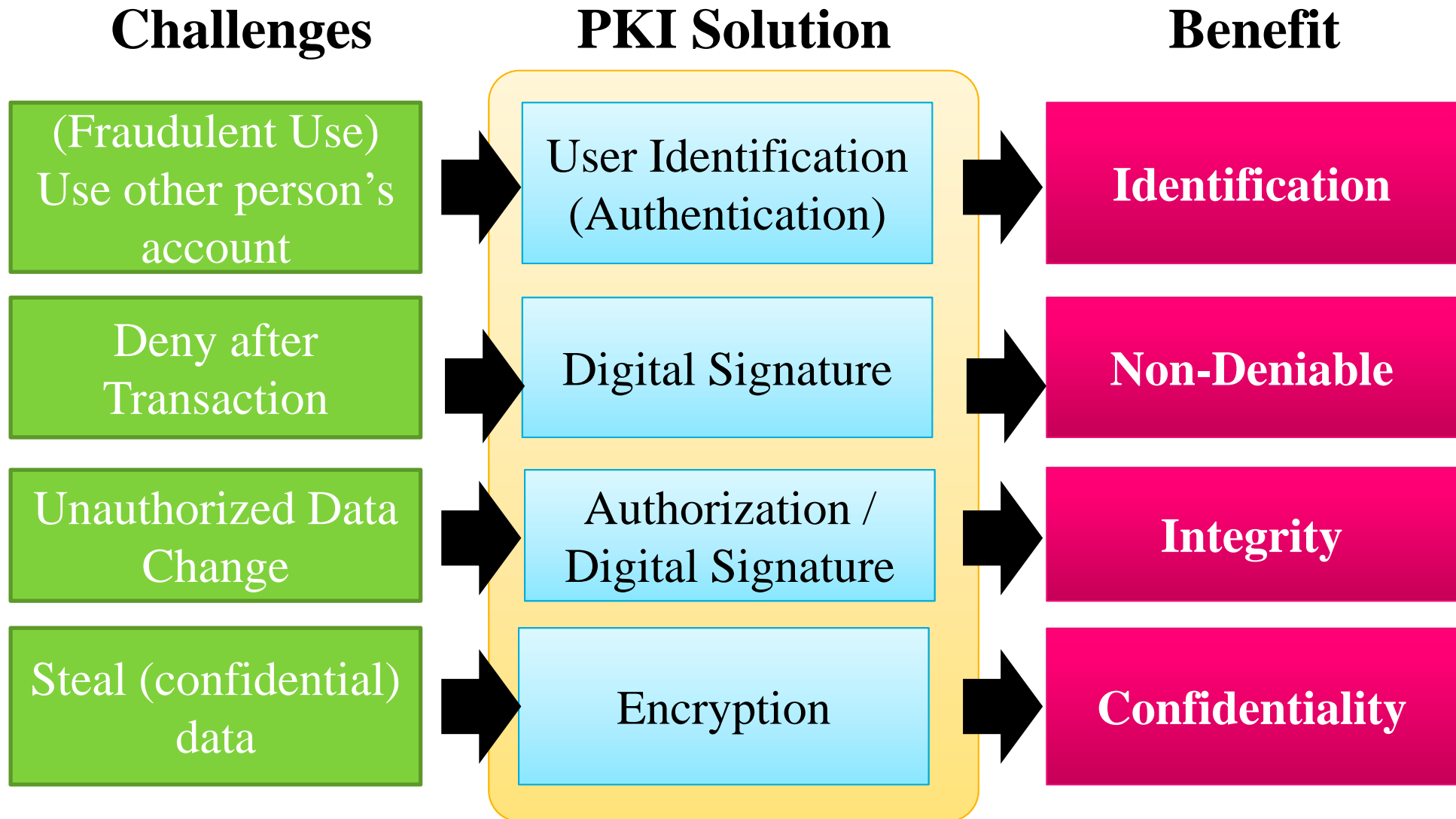


Roles of PKI in E-Government

- ❖ PKI is one of the Key Component for E-Government services.
- ❖ Challenges of E-Government Services
 - Identify users (Authentication & Authorization)
 - Data encryption for confidential message
 - Ensure the integrity of message
- ❖ Typical Uses of PKI in E-Government
 - A. Identification / Log-in (Authentication/ Authorization)
 - B. Encryption / Decryption (Confidentiality)
 - C. Digital Signature (Integrity) (Non-Repudiation)



Value of PKI





A. Identification

What is the Secure Digital Identity on the Internet Today?

From ID/Password → OTP (One Time Password) → PKI



Digital Certificates

+ Personal Data =



Secure Digital Identity



Example for Identification

❖ For High Security / Confidential Websites & Services, use PKI as a login tool to identify users.

(e.g. Intranet Portal / VPN/ Inquire personal pension, apply household /land certificate, Income Tax Declaration, etc.)

The screenshot shows the MyEGov website interface. At the top, there is a header with the logo "我的e政府" and the URL "WWW.GOV.TW". To the right of the header are links for "會員登入" (Member Login) and "加入會員" (Join Member). Below the header is a large banner with the title "會員帳號管理功能強化 忘記密碼不煩惱" (Member Account Management Function Enhanced, Forget Password No Worry). The banner features three main options for account management, each with a wizard icon and a star:

- 以自然人憑證啟用帳號** (Activate account with Natural Person Certificate): 帳號未啟用或被鎖定? 使用個人之自然人憑證, 即可啟用帳號。 (詳細說明請點選此處)
- 以密碼提示問題重設密碼** (Reset password with password hint question): 設定密碼提示問題後, 忘記密碼時正確回答預設答案, 即可重設密碼。 (詳細說明請點選此處)
- 以自然人憑證重設密碼** (Reset password with Natural Person Certificate): 忘記密碼時, 使用個人之自然人憑證, 即可重設密碼。 (詳細說明請點選此處)

Below the banner is a section titled "e政府服務平台公告" (e-Government Service Platform Announcement) with two items:

- 因應Java更新(版本7更新51), 使用本服務之相關注意事項【請點選這裡下載文件說明】。
- 配合我國個人資料保護法實行, 政府入口網及電子化政府服務平臺(以下簡稱本服務)已完成隱私權政策 (<http://www.gov.tw/privacy.htm>)修訂, 為讓您了解本服務如何蒐集、應用及保護您所提供的個人資料, 請詳細

On the right side of the page, there are two login sections:

- 帳號登入** (Account Login): Includes fields for "帳號:" (Account) and "密碼:" (Password), and buttons for "登入" (Login) and "忘記密碼" (Forgot Password).
- 憑證登入** (Certificate Login): Includes a field for "PIN:" and a button for "登入" (Login). Below this, there is a note: "初次使用憑證登入, 請安裝HID元件, 安裝元件與登入問題, 請點選" (For first-time use of certificate login, please install the HID component. For installation of the component and login issues, please click).

At the bottom of the login section, there are buttons for "忘記密碼" (Forgot Password) and "加入" (Join).

Use ID / Password to Login MyEGov

Use Digital Certificate to Login MyEGov

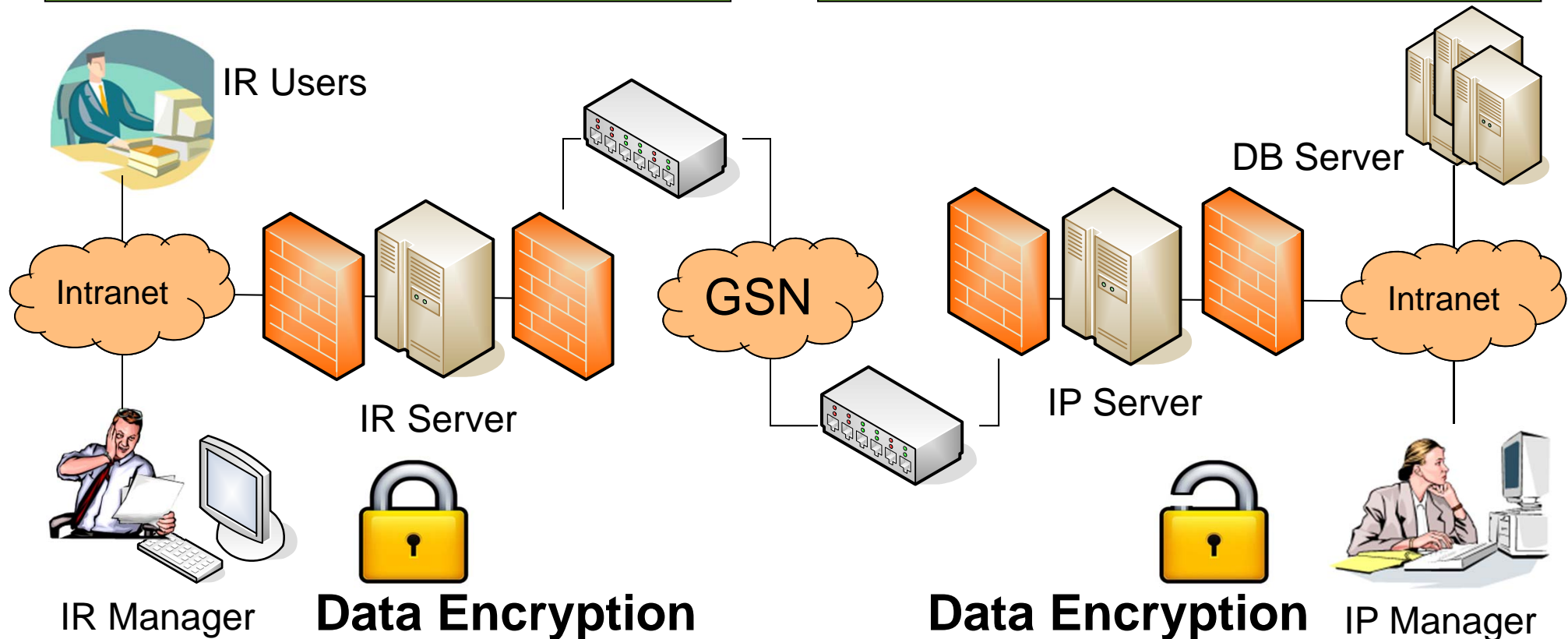


B. Encryption / Decryption

For **Confidential Data Exchange**, use PKI to encrypt / decrypt the data to ensure the Confidentiality

Information Requester

Information Provider

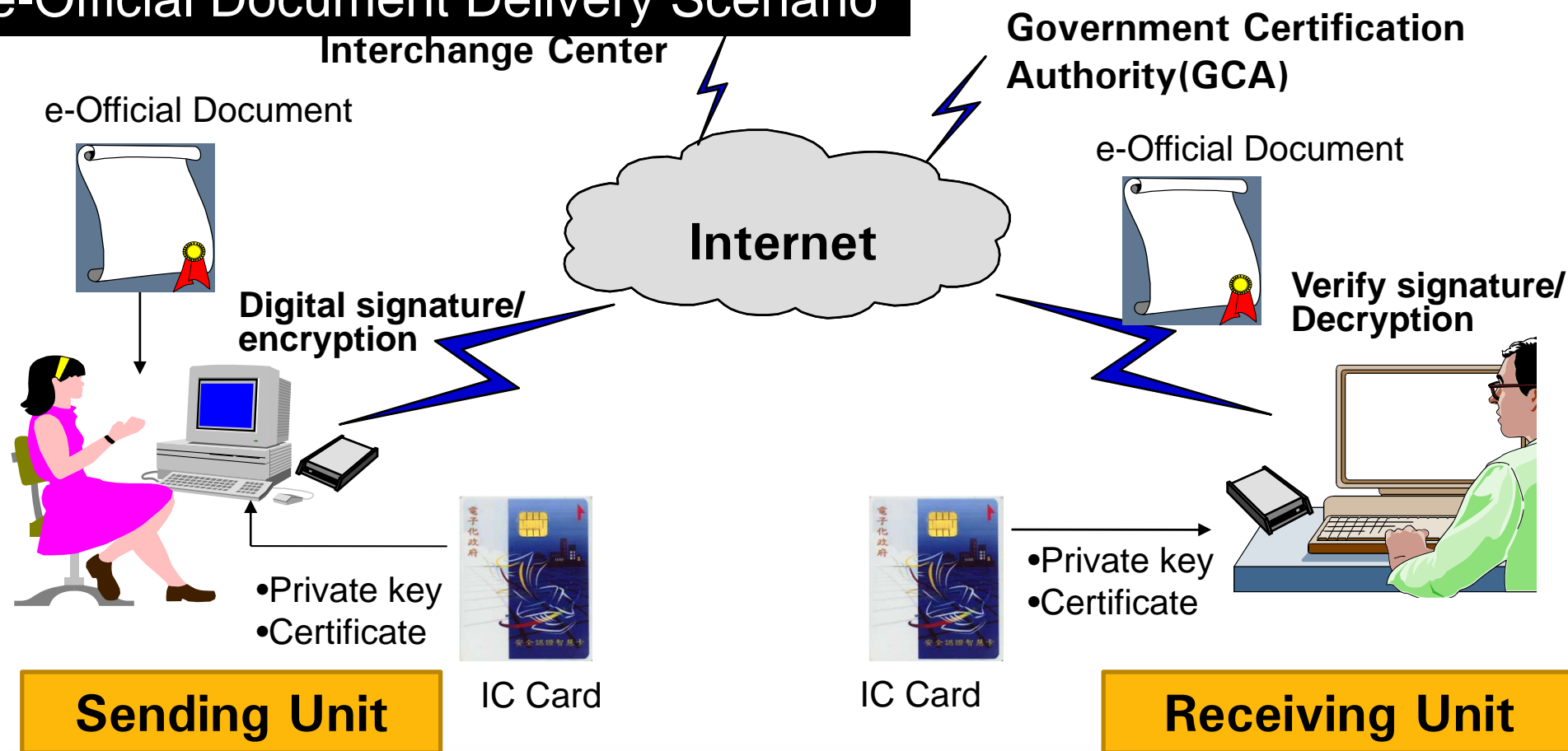




C. Digital Signature (Integrity)

For **Transaction with responsibility**, use PKI to do Digital Signature to ensure the Integrity of data (and non-deniable)

e-Official Document Delivery Scenario

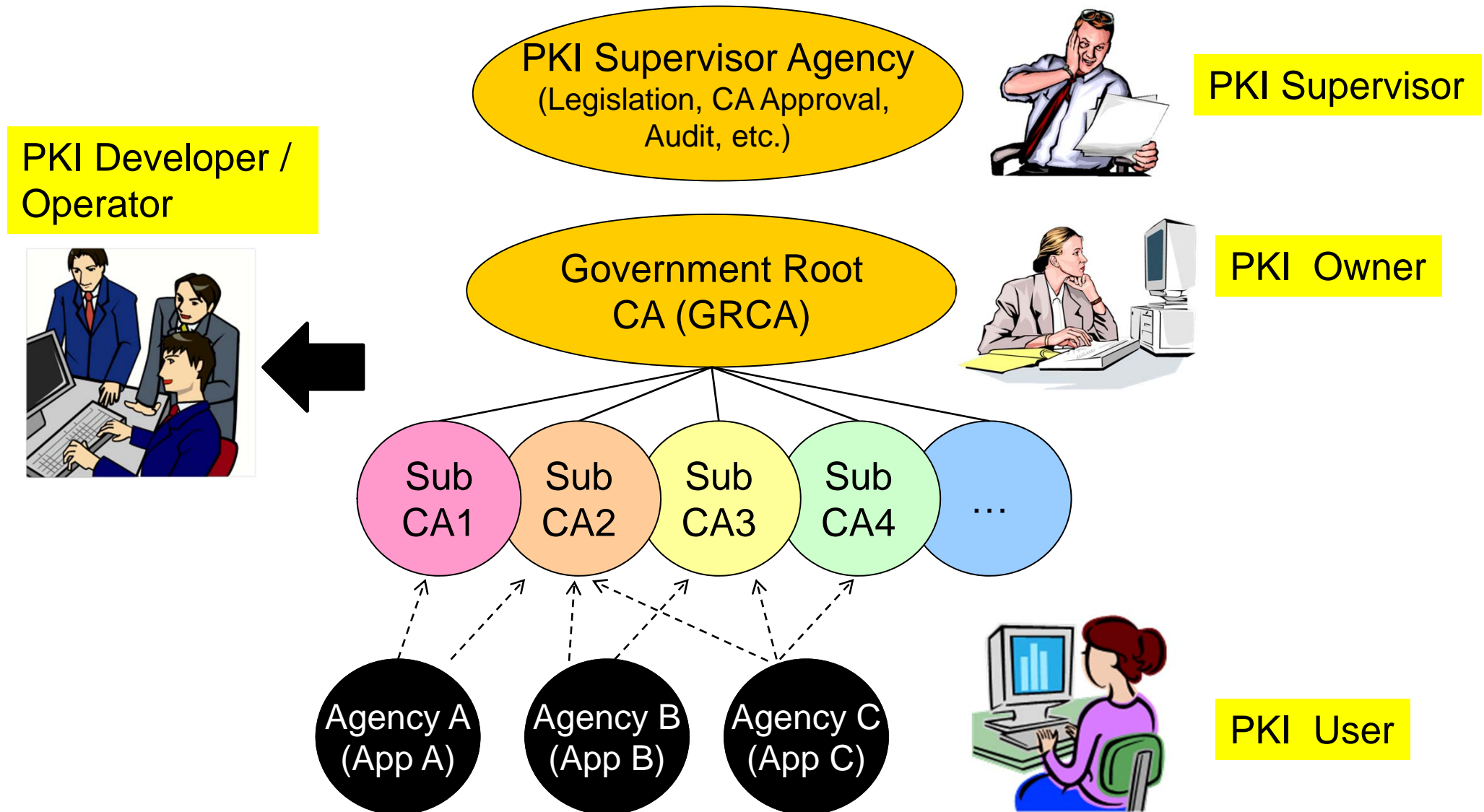




4. Stakeholders of GPKI



Stakeholders of Government PKI



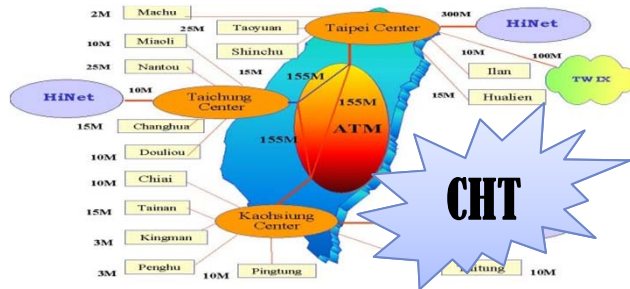


5. Conclusion & Discussion

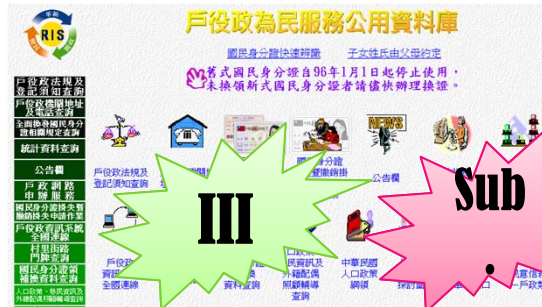


Taiwan- Key e-Gov Services

Government Service Network



e-Household Registration Service



e-Taxation Service



e-Commerce & Industry service



The e-Government Portal (MyEGOV+GSP)



Official Document Interchange



e-Procurement Service



Government Certification Authority



e-Motor Vehicle & Driver System





Public / Private Partnership

❑ Leveraging the power of private sectors : to get e-Gov projects implemented and to get benefits from stimulating industry development.

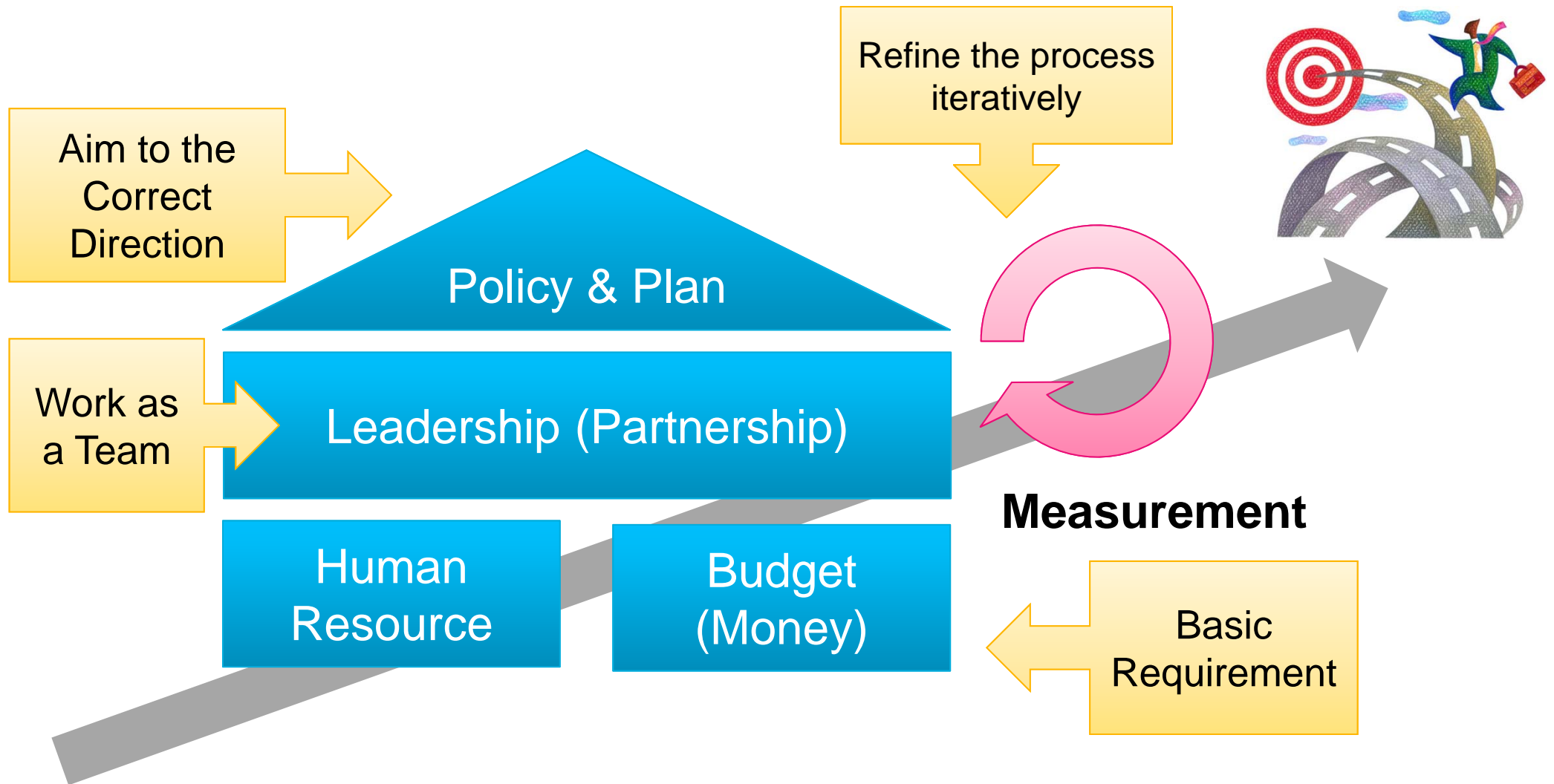
❑ Key Guidelines :

- Except for technical and performance concern, governmental information management systems should be outsourced.
- Plan big, Start Small and Scale Up





Key Success Factor





Conclusion

- ❖ **E-Government development must be planned with overview and local environment (and put into practice with PDCA cycle and project management)**
- ❖ **To build e-Government better, it's better to stand upon the shoulders of giants.**
- ❖ **It's never too late to do E-Government and Integration work.**





~Thank you~
Q&A

