Progress in Taiwan

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Outline

• National Cyber Security Program of Taiwan
• Smart Government Plan
• Cybersecurity Management Act
• Progress for eID Planning
• Progress Taiwan FidO Deployment and Promotion
National Cyber Security Program of Taiwan
Cybersecurity enhancement process

Phase I
- security protection system and complete the classification mechanism of government agencies
- Improve the security protection capability and establish a national security operating center

2001-2004

Phase II
- Redefining grading standards, extending the scope of implementation to the education system
- Establish a national security protection management platform to provide monitoring and early warning services
- CISO assignment

2005-2008

Phase III
- Strengthen the second-line monitoring mechanism of security protection management and share information
- Constructing a national united defense system in cyber security

2009-2012

Phase IV
- Complete the SOC platform for second-line security monitoring services
- Complete the "Regulations on the Classification of Government Responsibility Levels of Government Agencies"

2013-2016

Phase V
- Improve the completeness of capital security regulations eg. Personal Data Protection Act
- Increase the self-development energy of cyber security
- Nurture excellent talents in the filed of cyber security

2017-2020
National Cyber Security Program of Taiwan (2017-2020)

**Vision**
Build Taiwan as a safe and reliable digital country

**Goals**
- Constructing a national united defense system in cyber security
- Upgrading the overall protection mechanism in cyber security
- Enhancing the development of self-managed industries in cyber security

**Promotional strategies**
- Complete the cyber security infrastructure
- Construct national united defense system in cyber security
- Increase the self-development energy of cyber security
- Nurture excellent talents in the field of cyber security

**Tactical approaches**
1. Establish regulations and standards related to national cyber security
2. Enhance the resilience and safety of basic communication networks
3. Establish a government’s cyber security governance model
4. Reinforce the cyber security protection of critical infrastructure
5. Establish a cross-regional united cyber security defense system
6. Recharge the energy for the prevention and control of cyber-crimes
7. Promote the emerging cyber security industries
8. Divert cyber security industries to upgrade
9. Apply the research energy of industries and schools to develop innovative cyber security technology
10. Increase the manpower supply of cyber security talents
11. Improve the professional capabilities of government cyber security personnel
Smart Government Plan
Process of E-Government promotion in Taiwan

1998-2000
1. Adopt Government Service Network thoroughly
2. Establish an Electronic Certificate Center

2001-2007
1. E-Taxation
2. Online tuition and fee payments
3. E-document
4. Horizontal document system
5. E-gazette
6. On-line declaration

2008-2011
1. Widely install iTaiwan mobile internet
2. Promote e-invoice

2012-2016
1. Open Data
2. My Health Record Bank
3. Cloud medical records, cloud invoices

2017-2020
1. DIGI+Service-oriented Smart government by program

Goal:
- Provide convenient service
- Implement transparent governance

Strategy:
1. Develop cross domain one-stop integrated services
   - Professional decision making
   - Integrated services
   - Data activation
2. Create a diverse-collaborative environment
   - Data governance
   - Open collaboration
   - Citizen participation

(Authorized by the Executive Yuan in May 2017)
Digital country, innovative economic development plan (2017-2025)

Extraordinary country
Innovative economy
Intelligent governance

Digital economy

Intelligent cities
Innovative application
Digital infrastructure

Remark: Authorized by Executive Yuan on 24 Nov 2016

Digital Innovation & Governance Initiative Committee
- Digital Nation Group
  - Digital government (National Development Council (NDC))
  - Open data (NDC)
  - Legal environment (NDC)
  - Information Security (Department of for Cyber Security)
- Digital economic Group
- Technology talent Group
- Infrastructure Development Group
- Coordination and promotion Group
A trusted Smart government

—the next stage public-private co-governance model

Electronic government

Provide government services with digitalized business and onlinized procedure based on internet technologies.

Using information as the backbone, apply IoT and blockchain to matching government services with people's needs, combine AI and cloud computing, to optimize decision-making quality and construct the next stage of public-private co-governance model for Smart Government.

1996 2019 2025
Goals: Convenient, efficient, 24/7 services

Basic framework

• New eID as a key to access entire government services
• Build secured-trust T-Road

Three major goals

• Open and transparent data, maximize added value
• Chained governance network, optimize the quality of decision making
• Integrated services functions, create innovative smart services

Three supporting measures

• Build regulatory adjustment platform
• Implement supervision on privacy protection
• Strengthen cyber security protection
New eID as a key to access entire government services

The main function of eID is to identify individuals (identity verification); it works as the key for people to access digital government services, not a device for personal data saving.

- Planning and implementation
- Full replacement

- Ministry of the Interior

- 2019
- 2020
- 2021

- √ Identity verification
- √ Signature effectiveness and non-repudiation
Convenient, private, highly secured, and information-autonomous

- **The strictest identity binding**
  - Apply at service of Household Registration Office in person

- **Most popularized**
  - Gradually adopt the functions such as NHI IC Card and Driving license

- **Highest level of identity verification**
  - Meet the digital authentication level 4 (LoA4)

- **Most secure digital signature**
  - Ensure online transaction integrity and non-repudiation

New eID = Identity Card

Citizen Digital Certificate
Keep up with international trends

- **128 countries** had launched eID by 2017.

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<thead>
<tr>
<th>Country</th>
<th>Year of Issue</th>
<th>Material</th>
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<td>Germany</td>
<td>2010</td>
<td>PC</td>
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<td>Indonesia</td>
<td>2012</td>
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Build secured-trust T-Road

Government Service Network (GSN) (Central + local) (blockchain + coding technology) connect to government agency databases at all levels

Fundamental Infrastructure

New eID

Ministry of Finance
Tax and customs clearance

Ministry of Transportation and Communications
Highway and vehicle Services

Ministry of Foreign Affairs
Passport and visa

Council of Agriculture
Agricultural information

Ministry of Economic Affairs
Trade and industry

Ministry of the Interior
Disaster prevention information

Ministry of Science and Technology

Ministry of Health and Welfare
Health insurance and social welfare

Ministry of Education
Educational assistance and teaching

Ministry of Labor
Employment and vocational training

Ministry of the Interior
Household registration, land administration and national geographic information
Milestones

Goals by 2020

• Full issue of New eID
• All-dimensional smart services, shorten administrative procedures, and paperless reimbursement
• 80% of applications for government services can be completed online
• Launch referendum electronic voting (not online voting)
Cyber Security Management Act
Framework of Cyber Security Management Act

- Executive Yuan, Outsourced or Outsourced unit, Government agencies
- National Competent Authorities for Business Objectives
- Authorized outsourced

- Classification of security responsibility
- Formulation and implementation of Security maintenance plan
- Yearly implementation situation of Security maintenance plan
- Security Audit
- Security incident reporting and handling
- Correction report
- Announcement
- Periodically publish national information communication and security plan/ National Cyber Security Program
- Establishment of security information sharing mechanism
- Government personnel reward and punishment standards
- Notification obligation
- Implementation of Security maintenance plan
- Correction report
- Response mechanism

- Classification of security responsibility
- Formulation and implementation of Security maintenance plan
- CISO designation
- Yearly implementation situation of Security maintenance plan
- Security Audit
- Correction report
- Security incident reporting and handling
- Government personnel reward and punishment standards

- Penal Provisions

Legislative purpose and Terms/definition

National security/Social public interest

Authority(Executive Yuan) To Do

Security management Of Government agencies

Security management Of Specific Non-Government agencies

Department of Cyber Security, Executive Yuan
Architecture of Cyber Security Management Act

Objectives
- Security management of Government agencies
- Security management of specific Non-Government agencies

Implementation of Security maintenance plan
- Take audit
- Propose implementation situation
- Report corrective report

Implementation of Security incident reporting and handling mechanism
- Report security incident
- Report investigation, handing and corrective report

Risk Management
- beforehand
- In the matter
- afterwards

Issue in 2018
Framework of Cyber Security Management Act Sub-Act

- Report the Classification of security responsibility
- Set security maintenance plan
- Report audit corrective report
- Intelligence sharing
- Reward and punishment of personnel

Regulations of Classification of security responsibility
Enforcement Rules of Cyber Security Management Act

Preparation
Risk management
Operation
Incident handling
Continuous improvement

- Report the implementation situation of Security maintenance plan
- Perform audit

Regulation of audit corrective report
Regulation of security maintenance plan audit for specific Non-Government agencies

- Set security incident reporting and handling mechanism
- Report security incident
- Propose incident investigation report

Regulation of information security incident reporting and handling
Regulation of information security intelligence sharing
Regulation of Reward and punishment of government officers in information security and communication matters
Progress for eID Planning
eID will be postponed

• Due to the influence from COVID-19, the related schedule will be impact for:
  ➢ Imported equipment
  ➢ Setting up machines
  ➢ Getting the sample card
  ➢ Printing cards
• This will cause the delay of eID issued.
Against the digital identity card

More than 100 experts signed against the eID card in April 2020.

• “There is no absolutely safe security system in the world”, but what are the specific security enhancement measures?

• Multi-card integration is a “single point of vulnerability” for eID cards

• The chips produce and printing equipment cannot be self-sufficient, and the risk of data hacking is high

• There is no specified agency to respond
Government response

Multiple choose for Citizen

- The citizen will be free to choose whether to attach “Citizen Digital Certificate”. If they are not attached, there is no relevant electronic signature function, which can avoid some doubts.
- If you choose to attach a “Citizen Digital Certificate”, you can also decide to stop (reuse) or cancel the certificate function at any time in the future.
- People can pay if they need it, and then apply for an additional “Citizen Digital Certificate”.

Ensure for information security

- take duel-backup mechanism, the chip will be certified by international standards, include chip foundry TSMC company
- There are 6 major functions in the chip and 5 of them had passed for CC certification (Common Criteria), the security assessment level reaches EAL5+ or above, and reaches military secret level.
Progress Taiwan FidO Deployment and Promotion
Citizen Tax Filling with TAIWAN FidO
Have a Good Day!
Out of COVID-19