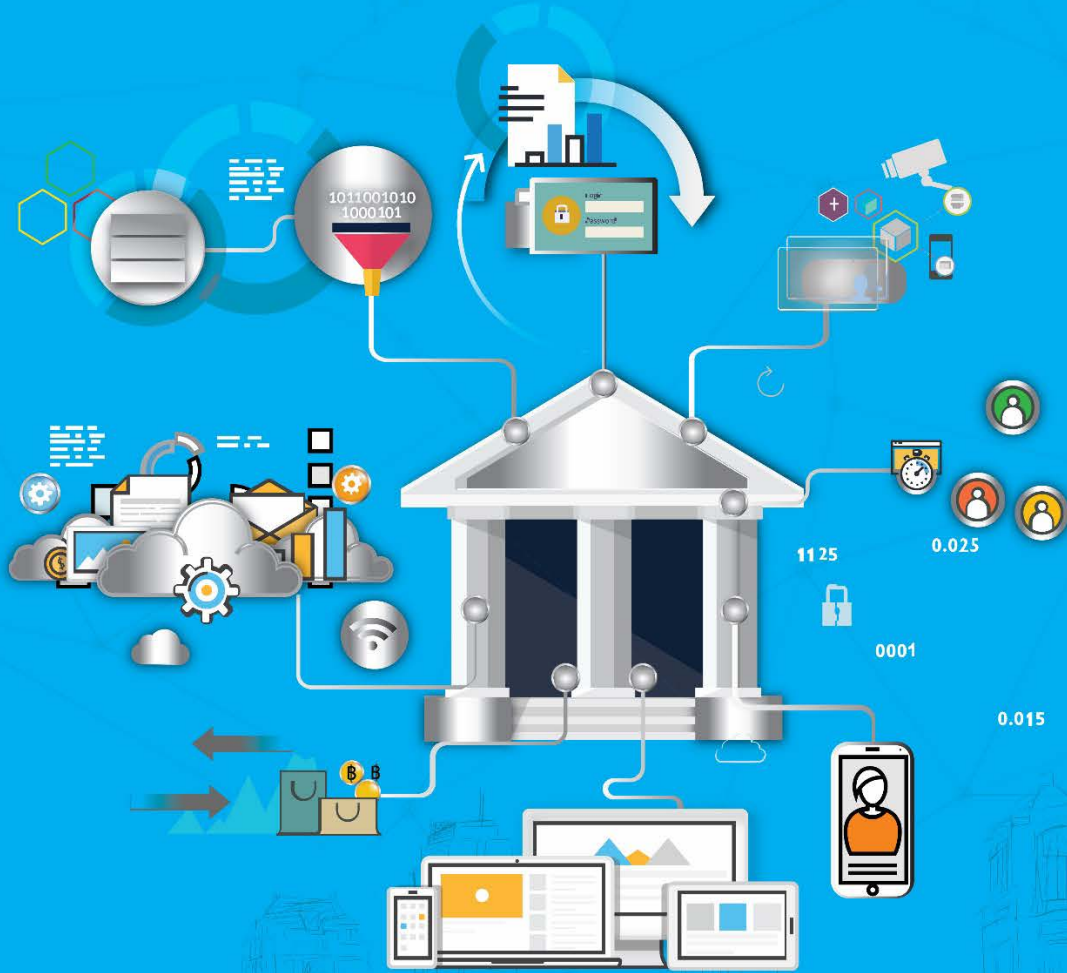




Thailand  
DIGITAL  
GOVERNMENT  
Development Plan



Draft

# THAILAND

## DIGITAL GOVERNMENT DEVELOPMENT PLAN

2017 - 2021

## Strategic Technology Trends for Digital Government

### Strategic Technology Trends for Digital Government



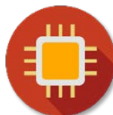
#### Virtual Reality / Augmented Reality

Application of Virtual Reality (VR) and Augmented Reality (AR) technologies in simulating environment or situations for the purpose of public safety management, telemedicine, and new formats of education and tourism



#### Advanced Geographic Information System

Application of Advanced Geographic Information System technology in geographical data management, as well as its applications in management of agricultural resources, transportation system and other areas



#### Big Data

Processing big data and make forecasts and estimations in business environment, using Internet of Things (IoT) and Smart Machine technologies to perform real time analysis and responses with users



#### Open Any Data

Disclose informative data to users through refurbishment of database and website to allow wider public access and promote linkage of those disclosed data with other entities



#### Smart Machine / Artificial Intelligence

Application of Smart Machine technology to enable management and responses of automated services - the Smart Machine system will gradually evolve and consequently be able to evaluate and address problems throughout the service supply chain



### **Cloud Computing**

Application of Cloud Computing technology for data storage to reduce complication in system installation, reduce system maintenance cost, and save network establishment investment



### **Cyber Security**

Addressing cyber security issues by setting cyber security standards, revising related regulations to make them more updated and flexible, as well as reforming the mindsets in handling cyber security issues



### **Internet of Things**

Using the Internet of Things (IoT) technology to facilitate the transformation of government services into digital formats, and at the same time, the IoT technology can also support government's works in communication, utilization of mobile technology, analyzing big data, and cooperation with private business sector



### **Block Chain / Distributed Ledger Technology**

Application of Block Chain technology in data storage and utilization of the network for the purpose of verification and reduction of intermediaries under reliable security environment

Regarding the prominent technology trends of digital government mentioned earlier, the Cabinet approved the Thailand Digital Economic and Society Development Plan in April 2016. The plan is a guideline endorsing the use of technology and innovation as the main engine of Thai economy. Electronic Government Agency (Public Organization) or EGA, as a pivotal promoter under the plan, has developed the Thailand Digital Government Development Plan. The objective of the Thailand Digital Government Development Plan is to strategically digitalize Thai government agencies, to deliver best citizen-centric services, with a high level of efficiency and transparency

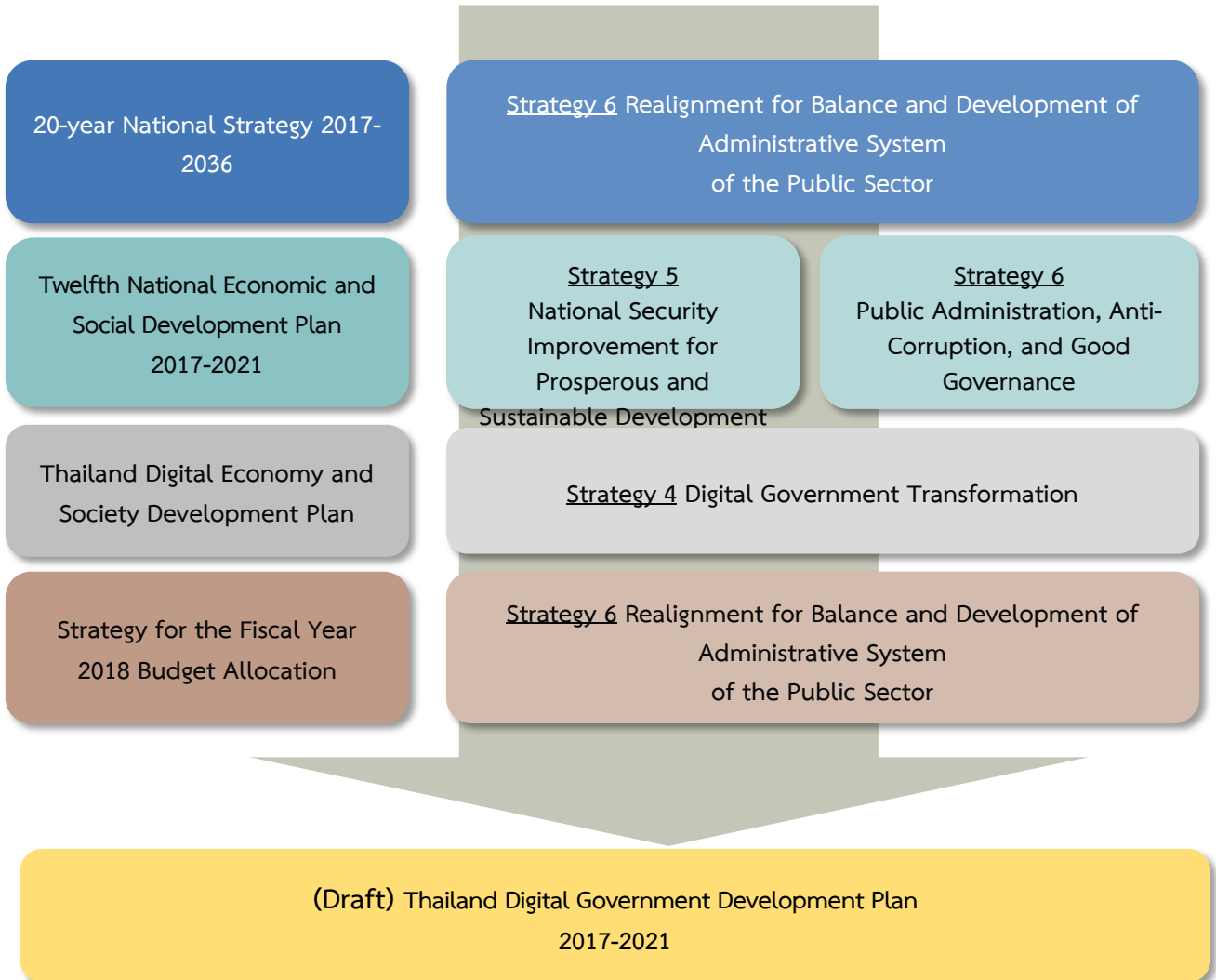
Source: Focus group for drafting the Thailand's Digital Government Technology Roadmap, in cooperation with the APEC centre for Technology Foresight under the auspices of the National Science Technology and Innovation Policy Office (STI), Ministry of Science

Regarding the prominent technology trends of digital government mentioned earlier, the Cabinet approved the Thailand Digital Economic and Society Development Plan in April 2016. The plan is a guideline endorsing the use of technology and innovation as the main engine of Thai economy. Electronic Government Agency (Public Organization) or EGA, as a pivotal promoter under the plan, has developed the Thailand Digital Government (TDG) Plan. The objective of the TGD Plan is to strategically digitalize Thai government agencies, to deliver best citizen-centric services, with a high level of efficiency and transparency.

The TDG Plan is composed of 2 phases. The first phase, so called the Three-year Digital Government Development Plan (2016-2018), includes 18 capacities while the second, covering from 2017 to 2021, includes 8 more capacities. "the Digital Government Infrastructure and Public Personnel Capabilities", a review of 2 capacities from the Three-year Plan, is also included in the latter.

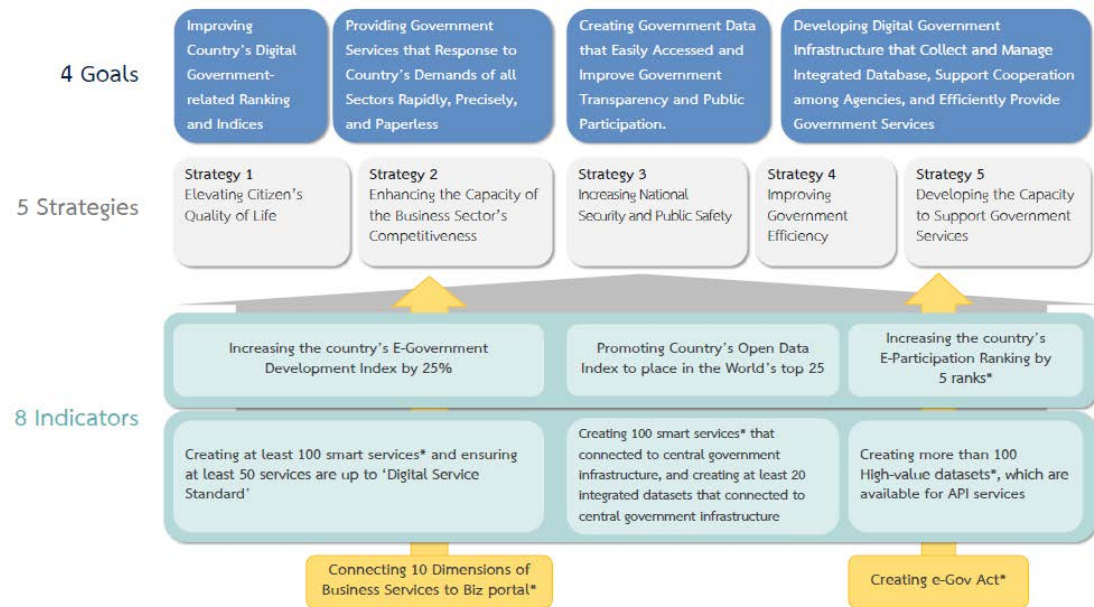
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Connectivity of Thailand  
Digital Government Development Plan and National Plan



## Development Goals and Indicators

### (Draft) Five-year Digital Government Development Plan 2017-2021



Note: The indicators with \* are consistent with the development indicators under Thailand Digital Economy and Society Development Plan

#### 4 Goals

1. Improving Country's Digital Government-related Ranking and Indice
2. Providing Government Services that Response to Country's Demands of all Sectors Rapidly, Precisely, and Paperless
3. Creating Government Data that Easily Accessed and Improve Government Transparency and Public Participation.
4. Developing Digital Government Infrastructure that Collect and Manage Integrated Database, Support Cooperation among Agencies, and Efficiently Provide Government Services

#### 5 Strategies

Strategy 1 : Elevating Citizen's Quality of Life

Strategy 2 : Enhancing the Capacity of the Business Sector's Competitiveness

Strategy 3 : Increasing National Security and Public Safety

Strategy 4 : Improving Government Efficiency

Strategy 5 : Developing the Capacity to Support Government Services

## 8 Indicators

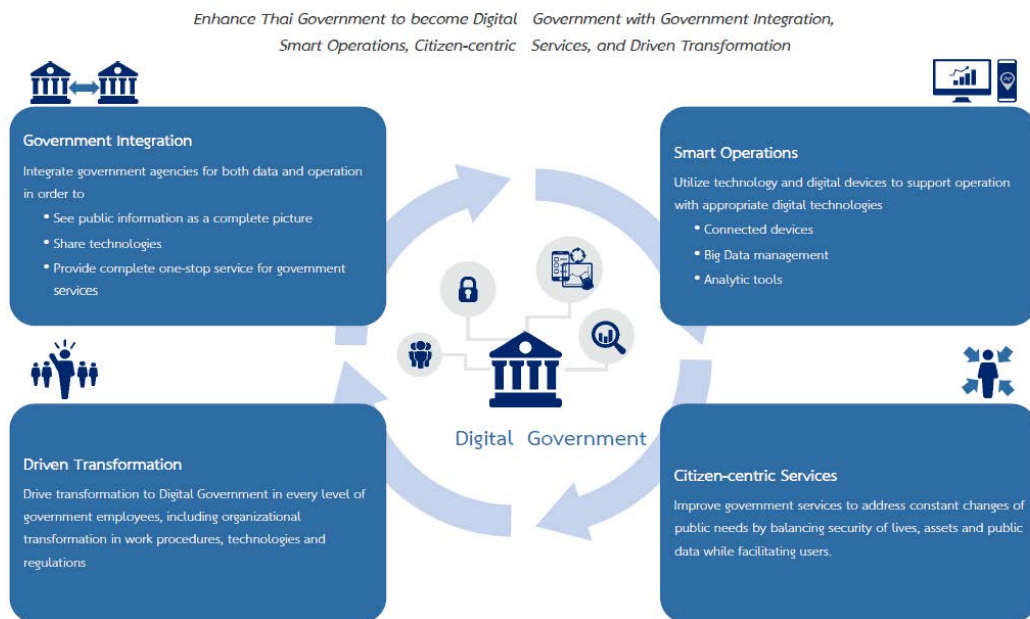
1. Increasing the country's E-Government Development Index by 25%
2. Promoting Country's Open Data Index to place in the World's top 25
3. Increasing the country's E-Participation Ranking by 5 ranks\*
4. Creating at least 100 smart services\* and ensuring at least 50 services are up to 'Digital Service Standard'
5. Creating 100 smart services\* that connected to central government infrastructure, and creating at least 20 integrated datasets that connected to central government infrastructure
6. Creating more than 100 High-value datasets\*, which are available for API services
7. Connecting 10 Dimensions of Business Services to Biz portal\*
8. Creating e-Gov Act\*

Note: The indicators with \* are consistent with the development indicators under Thailand Digital Economy and Society Development Plan

Furthermore, vision of Thailand Digital Government Development Plan (2017 – 2021) is to *“enhance Thai Government to become Digital Government with Government Integration, Smart Operations, Citizen-centric Services, and Driven Transformation.”*

The details of this vision are described as follows:

### Vision of Digital Government



### **Government Integration**

Integrate government agencies for both data and operation in order to

- See public information as a complete picture
- Share technologies
- Provide complete one-stop service for government services

### **Smart Operations**

Utilize technology and digital devices to support operation with suitable digital technology.

- Connected devices
- Big Data management
- Analytic tools

### **Driven Transformation**

Drive transformation to Digital Government in every level of government officers, including organizational transformation in work procedures, technologies and regulations

### **Citizen-centric Services**

Improve government services to address constant changes of public needs by balancing security of lives, assets and public data while facilitating users.

The Thailand Digital Government Development Plan (2017 – 2021) has 5 strategies: Quality of Life Enhancement, Business Competitiveness Improvement, Public Stability and Security Reinforcement, Government Efficiency Promotion, and Digital Government Infrastructure Integration and Building.







## (Draft) Thailand Digital Government Development Plan 2017-2021

Vision of Thailand Digital Government Development Plan (2017 – 2021)

*“Enhance Thai Government to become Digital Government with Government Integration, Smart Operations, Citizen-centric Services, and Driven Transformation.”*



### Strategy 1: Elevating Citizen's Quality of Life

-  **Public Welfare:** Proactively manage and integrate public welfare
-  **Labor :** Fully integrate labor market
-  **Education:** Increase education opportunities and quality for all
-  **Health:** Increase access to public health services with good quality and strengthen efficiency of health service providers



### Strategy 2: Enhancing the Capacity of the Business Sector's Competitiveness

-  **Agriculture:** Fully integrate agriculture for individual farmers
-  **Tourism:** Fully integrate tourism
-  **Investment:** Integrate investment services across related agencies
-  **Trade (Imports & Exports):** Fully integrate import/export system
-  **SMEs:** Integrate data to support SME's growth
-  **Tax and Revenue:** Integrate taxation system across agencies
-  **Transportation:** Integrate multimodal transportation data
-  **Public Utility:** Enhance efficiency of public utility providers and related services



### Strategy 3: Increasing National Security and Public Safety



**Public Safety:** Proactively manage public stability and security using analytic tools



**Border Management:** Advance risk assessment and authentication through automated channels



**Natural Disaster :** Integrate data for natural disaster prevention



**Crisis Management:** Integrate data across agencies to manage crises



### Strategy 4: Improving Government Efficiency



**Finance:** Centralize electronic finance system to increase efficiency, transparency and benefit maximization



**Procurement:** Develop electronic procurement system for all processes to increase efficiency, transparency, convenience and accessibility



**Asset Management:** Centralize, electronic asset management system to increase efficiency, transparency and benefit maximization



**Human Resource and Payroll:** Integrate human resource information system with acceptable standard developing the Capacity to Support



### Strategy 5: Developing the Capacity to Support Government Services



**Data Integration:** Integrate and centralized government data



**Data Authentication and Verification:** Develop Smart Card for individual or central electronic account for business



**Information:** Develop One-stop service for government data with Citizen-centric services



**Feedback:** Enhance and proactively manage government complaint channels



**Digital Government Infrastructure:** Increase efficiency of government operation through utilizing central digital infrastructure



**Digital Government Capacity Building:** Enhance digital skills of government officers

\* Relevant laws, regulation and measure amendment is operated under Strategy 6 of Thailand Digital Economy and Society Development Plan

The Thailand Digital Government Development Plan (2017 – 2021) has 5 strategies: Quality of Life Enhancement, Business Competitiveness Improvement, Public Stability and Security Reinforcement, Government Efficiency Promotion, and Digital Government Infrastructure Integration and Building.

## **Strategy 1 Elevation of Citizen's Quality of Life**

### **1. Public Welfare:**

Proactively manage and integrate public welfare

#### **Key Responsible Agencies:**

- 1) The Comptroller General's Department
- 2) Department of Provincial Administration
- 3) Office of the Public Sector Development Commission
- 4) Agencies responsible of related welfare
- 5) Bank of Thailand
- 6) The Thai Bankers' Association

#### **Flagship Projects:**

- 1) e-Social Welfare
- 2) PromptPay

### **2. Labor :**

Fully integrate labor market

#### **Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Labor
- 2) Department of Employment
- 3) Department of Skill Development

#### **Flagship Projects:**

- 1) National Labour Market Data Centre
- 2) Smart Job Smart Worker

### **3. Education:**

Increase education opportunities and quality for all

#### **Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Education

- 2) Department of Provincial Administration
- 3) Office of the Permanent Secretary, Ministry of Labor
- 4) Office of the Higher Education Commission
- 5) Bangkok Metropolitan Administration,

**Flagship Projects:**

- 1) Teachers and Students Record Integration
- 2) Student Dropout Follow-Up System
- 3) Education Data Integration
- 4) e-Education Hub

**4. Health:**

Increase access to public health services with good quality and strengthen efficiency of health service providers

**Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Public Health and Affiliated Agencies
- 2) Department of Health Service Support
- 3) Department of Provincial Administration
- 4) The Food and Drug Administration of Thailand
- 5) Health Agencies/Organizations such as the Medical Council of Thailand, etc. and Bangkok Metropolitan Administration, National Health Security Office (NHSO), Health Systems Research Institute (HSRI)
- 6) Department of Science Service
- 7) Public Agencies under Ministry of Education

**Flagship Projects:**

- 1) National Health Information Technology System (NHIS)
- 2) Pharmaceutical and Medical Inventory Management System
- 3) Health Information Exchange (HIE)
- 4) Personal Health Record

- 5) Health Data Integration
- 6) Health Information for Public

## **Strategy 2: Enhancing the Capacity of the Business Sector's Competitiveness**

### **5. Agriculture:**

Fully integrate agriculture for individual farmers

#### **Key Responsible Agencies:**

- 1) Office of Agricultural Economics
- 2) Department of Agricultural Extension
- 3) National Electronics and Computer Technology Centre (NECTEC)
- 4) Electronic Government Agency (Public Organization)
- 5) Agriculture-data-storing Agencies

#### **Flagship Projects:**

- 1) Farmer One
- 2) Digital Service System for Farmers

### **6. Tourism:**

Fully integrate tourism

#### **Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Tourism and Sports
- 2) Department of Consular Affairs

#### **Flagship Projects:**

- 1) Tourism Intelligence Centre
- 2) Thailand Tourism Gateway
- 3) Electronic Visa System

## 7. Investment:

Integrate investment services across related agencies

### Key Responsible Agencies:

- 1) Office of the Public Sector Development Commission
- 2) Electronic Government Agency (Public Organization)
- 3) Business Facilitating Agencies

### Flagship Projects:

- 1) Biz Portal

## 8. SMEs:

Integrate data to support SME's growth

### Key Responsible Agencies:

- 1) Office of Small and Medium Enterprises Promotion (OSMEP)

### Flagship Projects:

- 1) SME Information Portal

## 9. Trade (Imports & Exports):

Fully integrate import/export system

### Key Responsible Agencies:

- 1) Customs Department

### Flagship Projects:

- 1) National Single Window (NSW)

## 10. Tax and Revenue:

Integrate taxation system across agencies

### Key Responsible Agencies:

- 1) Revenue Department

### Flagship Projects:

- 1) Electronic Tax Information and Receipt Data Service System (National E-Payment)

- 2) Electronic Payment Data Import and Sorting System (National E-Payment)
- 3) Electronic Payment Database for Tax Collection Service (National E-Payment)

## **11. Transportation:**

Integrate multimodal transportation data

### **Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Transport
- 2) Public Agencies under Ministry of Transport

### **Flagship Projects:**

- 1) National Road Infrastructure Data Centre
- 2) Intelligence Transport System (ITS)
- 3) Transportation Intelligence Centre
- 4) National Multimodal Transport Integration Centre (NMTIC)

## **12. Public Utility:**

Enhance efficiency of public utility providers and related services

### **Key Responsible Agencies:**

- 1) Office of the Permanent Secretary, Ministry of Interior
- 2) Electricity, Waterworks and Telephone Authorities
- 3) Department of Provincial Administration
- 4) Department of Public Works and Town & Country Planning
- 5) Bangkok Metropolitan Administration
- 6) National Broadcasting and Telecommunication Commission

### **Flagship Projects:**

- 1) e-Document System for Electricity and Waterworks
- 2) Electronic System for Meter Installation and Electricity Usage Extension
- 3) Information Technology System for Qportal
- 4) Smart Grid Pilot Project



- 5) Public Utility One Stop Service
- 6) 3D Geo-Information Technology System (3D-GIS)
- 7) Smart Meter

### **Strategy 3: Increasing National Security and Public Safety**

#### **13. Border Management:**

Advance risk assessment and authentication through automated channels

##### **Key Responsible Agencies:**

- 1) Immigration Bureau

##### **Flagship Projects:**

- 1) Advance Passenger Processing System (APPS)
- 2) Automated Gate Expansion

#### **14. Public Safety:**

Proactively manage public stability and security using analytic tools

##### **Key Responsible Agencies:**

- 1) Royal Thai Police

##### **Flagship Projects:**

- 1) Information Technology for Public Safety Integration of Life and Property (Phuket: City of Peace and Happiness)
- 2) Connected and Computerized Patrol Vehicles

#### **15. Natural Disaster:**

Integrate data for natural disaster prevention

##### **Key Responsible Agencies:**

- 1) Department of Disaster Prevention and Mitigation

##### **Flagship Projects:**

- 1) Water Disaster Management By Area
- 2) E-Stock for Management of Relief Items

## 16. Crisis Management:

Integrate data across agencies to manage crises

### Key Responsible Agencies:

- 1) Department of Disaster Prevention and Mitigation

### Flagship Projects:

- 1) "DPM Reporter" Mobile Application
- 2) Rescue Alerts

## Strategy 4: Improving Government Efficiency

## 17. Finance:

Centralize electronic finance system to increase efficiency, transparency and benefit maximization

### Key Responsible Agencies:

- 1) The Comptroller General's Department
- 2) Bureau of the Budget
- 3) Public Debt Management Office

### Flagship Projects:

- 1) New GFMS Thai System
- 2) Smart e-Budgeting
- 3) Integrated Debt Management System

## 18. Procurement:

Develop electronic procurement system for all processes to increase efficiency, transparency, convenience and accessibility

### Key Responsible Agencies:

- 1) The Comptroller General's Department

### Flagship Projects:

- 1) e-GP for Government Procurement Act
- 2) Procurement Card Payment System
- 3) Procurement Data Integration through Web Service

- 4) Mobile Application for Procurement
- 5) Construction Project Management System

#### **19. Asset Management:**

Centralize, electronic asset management system to increase efficiency, transparency and benefit maximization

##### **Key Responsible Agencies:**

- 1) Treasury Department
- 2) The Comptroller General's Department
- 3) Office of the Permanent Secretary, Ministry of Finance
- 4) Office of the Auditor General of Thailand

##### **Flagship Projects:**

- 1) Tax Database for Land and Building Tax Collection
- 2) National Property Value Data Centre
- 3) Thailand Smart e-Audit System Phase 1
- 4) New GFMS Thai System for Property Management

#### **20. Human Resource and Payroll:**

Integrate human resource information system with acceptable standard developing the Capacity to Support

##### **Key Responsible Agencies:**

- 1) Office of The Civil Service Commission
- 2) Department of Provincial Administration
- 3) The Comptroller General's Department

##### **Flagship Projects:**

- 1) DPIS 5.0
- 2) Thai Government Integrated HR Management system (ThaiGov iHRMS)

## Strategy 5: Developing the Capacity to Support Government Services

### 21. Data Integration:

Integrate and centralized government data

#### Key Responsible Agencies:

- 1) Electronic Government Agency (Public Organization)
- 2) Department of Provincial Administration
- 3) Office of the Public Sector Development Commission

#### Flagship Projects:

- 1) Linkage Center
- 2) Smart Card Reader
- 3) Digital Government Act
- 4) Smart Service
- 5) Business Data Integration
- 6) Data Exchange Center (DXC)

### 22. Data Authentication and Verification:

Develop Smart Card for individual or central electronic account for business

#### Key Responsible Agencies:

- 1) Electronic Government Agency (Public Organization)
- 2) Department of Provincial Administration
- 3) Office of the Public Sector Development Commission

#### Flagship Projects:

- 1) Gov ID, E-Citizen and E-Business Single Sign on

### 23. Information:

Develop One-stop service for government data with Citizen-centric services

#### Key Responsible Agencies:

- 1) Electronic Government Agency (Public Organization)

#### Flagship Projects:

- 1) GovChannel

## 24. Feedback:

Enhance and proactively manage government complaint channels

### Key Responsible Agencies:

- 1) Office of the Permanent Secretary, The Prime Minister's Office
- 2) Office of the Permanent Secretary, Ministry of Interior
- 3) Office of the Auditor General of Thailand
- 4) Electronic Government Agency (Public Organization)

### Flagship Projects:

- 1) Extension of 1111 Centre for Complaints
- 2) Proactive Needs Analysis

## 25. Digital Government Infrastructure:

Increase efficiency of government operation through utilizing central digital infrastructure

### Key Responsible Agencies:

- 1) Electronic Government Agency (Public Organization)
- 2) Electronic Transactions Development Agency (Public Organization)
- 3) Geo-Informatics and Space Technology Development Agency (Public Organization)
- 4) Ministry of Digital Economy and Society
- 5) Office of the National Broadcasting and Telecommunications Commission
- 6) National Electronics and Computer Technology Centre (NECTEC)

### Flagship Projects:

- 1) Government Secured Intranet (GSI)
- 2) G-Cloud Extension
- 3) G-CERT Extension
- 4) Data Centre Modernization
- 5) Government IoT Network
- 6) Government Data Analytics Centre
- 7) Government Shared Services

## 26. Digital Government Capacity Building:

Enhance digital skills of government officers

### Key Responsible Agencies:

- 1) Office of The Civil Service Commission
- 2) Electronic Government Agency (Public Organization)
- 3) Thailand Professional Qualification Institute

### Flagship Projects:

- 1) Thailand Digital Government Academy