Government and Public Sector Digital Transformation Road and Practice Sharing
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Part 01

Drivers and Practice of Digital Government Development

- Core Driver
- Evolution Process
- Global Practices
- Challenges and Pain Points
- Promotion strategy
Basic Principles

A requirement brought by IT-oriented social development and governance

ICT has fundamentally impacted economic and social development, changing our lives, behaviors, and values.

• reconstruct management, service, technical architecture with ICT
• build new data-based service mechanisms, platforms, modes
• further improve the organizational structure, operating process
• fulfill its responsibilities, advancing modern national governance.

Characteristics of digital government:
• Governance body
• Power hierarchy
• Information transparency
• Regulation and control mechanism

Digital government is...

Evolving government models
Promoting data-driven organizational models
An open-source platform for social innovation
Evolvement of social needs drives the transformation of government governance; The value of public services shows intergenerational evolution.
Global Digital Government Development Practices

Tasks
- Develop the digital economy to drive digital government ecosystem development.
- Promote data sharing and openness to multiply the effect of Internet-based government reform.
- Improve digital literacy and continuously promote the soft power of digital government development.

UK: Government as a platform
- Focus on improving digital literacy.
- Implement "Government as a Platform."
- Pay attention to third-party participation.

Singapore: Collaborative government
- Information transparency, open government data, and public participation.

UAE: More cost-effective Digital Government
- Promote responsible, refined, innovative, and forward-looking governments.
- By 2031, UAE will become a global leader in AI.

Fully implement the development concept of "digital government as a platform." Indisputable leader in the digital government field.
In the Intelligent Governance Era, public services face escalating challenges

- Growing environmental, health, education challenges of rapid urbanization
- How to build a data governance system when data assets turn to be major productivity element
- Cybersecurity, data protection and individual privacy become the new national sovereignty
- How to transform and innovate the service system model with the government's new concern of digital economy improvement
Build a next-generation public service platform and realize the transformation of platform as a service.

Digital strategy:
- Data sovereignty
- Technology sovereignty
- Trust and security

Vision and goals:
- Service People oriented
- Economic Empower innovation
- Society Harmony and prosperity
- Education Inclusive and fair
- Health Care Survival fair
- Environment Green earth

Dual drivers:
- Unified platform
- Digital governance and operations
- Digital service and experience

Unified platform:
- Big Data
- Artificial Intelligence
- IoT
- Block Chain

Digital Infrastructure:
- Hybrid cloud-based infrastructure and Pan 5G achieves full connectivity
- 5G

Next-generation integrated public service platform
Leverage open public service digital ecosystem to enable improvement of public governance and services

**Digital governance and operations**
- silo governance to shared governance
- single-led to diversified socialized

**Digital service and experience**
- function-driven to social demand-driven
- services to meet demand to focusing on experience

**Development** ← Integration

**Diversification** ← Openness

**Evolution** ← Inclusiveness
A Systematic Approach To Digital Government

- Vision Objectives and Construction Strategy
- Solution and Service Application
- Enforcement Policy
Strategies for Building Digital Government Solutions

Cognition

Collaborate with governments, take digital strategy as a priority, Draw the (development of) digital transformation goal and Implementation Path(s).

Governance

Based on the principle of intensified infrastructure construction, Cloud First digital base is to be realized.

Transformation

Drive digital transformation with the goal of improving service experience.

Development

Take data governance as the core to ensure data security and utilize the data value.

Develop ecological resources and continuously create value through continuous governance and operation.

- Vision Objectives
- Trend analysis
- Value Proposition
- Promotional Initiatives
- Key Capabilities
- Solution

Challenges of Digitalization of Urbanization

Security and Privacy Protection Frontier

extract data asset elements

Construct the Innovative Development of Public Service Model

Digital Education

Digital Healthcare

Digital Customs

Digital Tax

Digital Government

Digital traffic police

Converged command
Digital Government Overall Vision

- Efficient
- Security
- Intelligent
- Openness

Scenario-based digital government solution

Unified service channel

Digital Government cloud platform

Digital Government network

Government sensing devices and terminals

Data enablement
Application enablement
Integration enablement
Command collaboration
Development enablement
Security assurance
ICT resource capability

Smart Government affair
Smart public facilities
Smart healthcare
Smart education
Smart customs
Smart tax

Efficient
Security
Intelligent
Openness

Digital Government network
Government sensing devices and terminals

Scenario-based digital government solution
Unified service channel
Digital Government cloud platform

Efficient
Security
Intelligent
Openness

Smart Government affair
Smart public facilities
Smart healthcare
Smart education
Smart customs
Smart tax
Digital Government Network - Intent-driven Digital Government network solution for fully-connected Digital government services at your fingertips

**Goals**
- Boosting the working efficiency of civil servants
- Enhancing government service collaboration
- Improving public information services

**Network layer**
- Network Cloud Engine
- Intent engine
- Intelligence engine
- Automation engine
- Analytics engine
- Telemetry
- Agile & automatic
- Real-time & intelligent

**Management and control layer**
- Digital Government
- Campus
- Digital Government private network
- Data center
- Government cloud DC
- Physical network

**Network layer**
- Campus
- Digital Government
- Private network
- Data center
- Government cloud DC
- Physical network

**Network layer**
- Finance VPN
- Social security VPN
- Healthcare VPN
- XX VPN

**Goals**
- Simplified
- Resilient
- High-quality
- Security
- Intelligent
Digital Government Cloud as Base, Build Intensive Infrastructure Platform

- **Public Service Cloud**: Open and Public
  - Open and agile deployment
  - Service Resources Socialization

- **Governance Cloud**: Restricted
  - Data Overall Collaborative
  - In-Connection Governance Resource

- **National Safe Cloud**: Top Security
  - Strong Security and Confidentiality
  - Autonomous control

**Cloud Services**
- Compute Pool
- Storage Pool
- Network Pool
- Internet

**Service Openness**
- Collaborative connection
- On-demand sharing

**Network**
- One-network unified management
- Intelligence Decision Support
- Economic regulation

**Public Utilities**
- Public Services
- Education
- Healthcare
- All-in-One Network Office

**Infrastructure**
- Compute Pool
- Storage Pool
- Network Pool
- Internet
Reconstruction (Digital Government Big Data Platform): Building a New Big Platform to Comprehensively Integrate Existing Systems

**Advantage**

- Comprehensively sorts out requirements and performs top-level design to unify architecture, ensuring efficient decision and standard compliance.

- Eliminates data fragmentation and information silo issues, for example, constructing a data sharing and exchange platform and city big data center.

Unified construction mode, simplifying comprehensive integration.
Industry-Leading Development Mode (AI + New Technologies): Using Applications to Promote Government Intelligence

Without interfering with the original service logic, the mobile portal is used to unify service interfaces, provide AI capabilities, and integrate existing systems and projects.
Government Transformation Requires More Digital, Mobile and Intelligent Government Office -- Collaborative office

Increasing business requirements and reduced government budgets

- Popularization of online services: 88%
- Proportion of online services supported by EU Digital government in 2017
- Urgent need for mobile office: 72%
- Proportion of mobile terminals for work by 2020: 2015: 37.2%

Government Construction Goals

- Paperless government services: 100%
- Paperless government of public services to be achieved in France by 2022
- Government deficit close to the alert level: 2.7%
- Global government deficit-to-GDP ratio: 2.7%

Government Construction Goals

- Instant messaging
- Video Conferencing Management
- Information Release
- Knowledge management

New Requirements of Government Office

- Digitalized
  - Information sharing and collaborative communication, improving efficiency
  - Refined and process-based management, reducing costs
- Mobile
  - Obtain information anytime and anywhere, improving efficiency
- Intelligent
  - Organization efficiency analysis and management optimization
  - Intelligent data analysis and efficient decision-making

Source: Digital Government Benchmark 2018  European Commission
Digital GOVERNMENT SURVEY 2018  UNITED NATIONS
Smart Government affair--One-Stop Public Service Integrated, efficient, and convenient service for a better user experience

The government public service hall (website) provides one-stop service handling and converges online and offline service processes to achieve proactive, intelligent, and precise government services.

All-in-one network service

One-stop converged service

**One-time notification**
**One-form application**
**One-stop handling**
**One-network processing**
**Unified certificate issuance**
**Integrated management**
Municipalities have essential role to play in national government achieving digitalization goals

- Protection of digital & public infrastructure in jurisdiction
- Improved service delivery to residents, businesses
- Intelligent budget management, exploring new revenue opportunities

Key policy interventions will speed up digital transformation across government, felt at citizen interface locally

- Policies for construction, deployment of digital infrastructure
  - Cloud & Data
  - Fibre Pre-Provisioning
  - Telecoms Masts
- Policies for streamlining, optimizing, automating processes
  - Applications for services, billing, termination etc.
  - Applications for RoW for telecoms sites, PoPs etc.
  - Availing resources for digital infra. co-deployment
- Policies for upskilling municipality, government workforce to use digital tools
  - Training, upskilling, reskilling, retooling workforce

Residents will increasingly demand one-stop shop experience; online and on demand, digital transformation is crucial

Ultimately, digitally transformed government departments build resilience in South Africa countries to withstand external or internal shocks city level up
Follow a Phased Approach to Construct Digital Government

**Step 1:** Improve the efficiency of government digital services
- Digital Government network
- Digital Government Cloud
- Migrate Old Applications
- Digital office
- One-Stop Public Service
- ICT talent popularization

**Step 2:** Develop Government Applications
- Digital Online Services
- Digital Tax
- Digital Customs
- Digital Education
- Digital Healthcare
- Data exchange and sharing
- ICT talent professional development

**Step 3:** Intelligent Innovative Interaction
- IoT application
- Big Data Platform
- AI-enabled decision-making
- RPA (Robot Process Automation)
- ICT high-end talent development

Phased Approach Digital Transformation
Part 03

How was it done!
Digital Government Success Cases

- Saudi Arabia Yanbu Smart City
- China's Story of Digital Economy
Deepen understanding and work together to promote the construction of national informatization in Saudi Arabia

**Country Overview**
- Location: Arabian Peninsula in Southwest Asia
- System: Monarchy
- Pillar industry: Petroleum and its products
- Population: 32.28 million
- GDP: $752.5 billion, one of the rich countries
- Annual GDP growth rate: 3.59%

**Project Background**
- In 2015, Huawei cooperated with Saudi Arabia in ICT infrastructure construction in Yanbu City.
- In 2016, Saudi Arabia officially issued Saudi Arabia Vision2030 and National Transformation Program 2020, which took Yanbu City as a benchmark city and started the construction of Smart City projects.
Decompose, refine and implement technical planning based on overall strategic planning

Strategic planning: "Saudi Arabia National Transformation Program 2020"
Focus on core values and sort out key technical plans to be implemented step by step

**Smart City Construction Architecture in Yanbu**

**Smart APP**
- Smart Municipal Administration
- Digital Government
- Smart Industry

**Platform**
- Operation Mgmt. Platform (IOC)
- Big Data Service Support Platform
- ICT Application Enablement Platform

**Cloud**
- Cloud DC

**Network**
- City Communication Network
- City IoT

**Project Value**
- Over cost of public lighting reduced by 30%
- Garbage clearing efficiency improved by 30%
- Growth rate of external investments reaches 16%
- Road maintenance cost reduced by 20%
- Satisfaction rate of residents reaches 90%
- Utilization of public parking spaces increased by 30%

**EMPLOYMENT**
- City Economically Supported population: 98,266 to 117,936, an increase of 20.01%
- Employees: 37,622 to 55,030, an increase of 46.32%

**Investor/Community satisfaction index**
- From 2014, annual researches from professional institutional questionnaires have a satisfaction index over 90%

*Note: The contents of smart industry will be gradually deployed in the future smart construction project.*
Implementing the National Big Data Strategy to Accelerate Digital Transformation in China

“The new generation of information technology, represented by the Internet, Big Data, and artificial intelligence, is changing with each day, bringing a significant and far-reaching impact on economic and social development, national management, social governance, and people’s lives,” General Secretary Xi said.

At the same time, the Fourth Plenary Session of the 19th CPC Central Committee clearly called for "establishing and perfecting the rules for administrative management by means of Internet, big data, artificial intelligence and other technical means." Promote digital government construction and enhance orderly data sharing.

In recent years, provinces and municipalities have formulated plans for the development of the digital economy to accelerate the development of the digital economy.

- Guangxi Digital Economy Development Plan (2018-2025), August 29, 2018; August 30, 2018, Digital Guangxi Construction Conference
- Digital Zhejiang 2.0 Development Plan, August 4, 2016; In 2017, the Digital Economy Project No. 1;
- Guidelines for Digital Economy Development in Jiangsu Province
- Guidance on Digital Economy Development in Jiangxi Province
- Digital Longjiang Planning is about to launch
- Beijing Platform for Action to Promote Innovative Development of the Digital Economy (2020-2022)
- Digital Shandong Development Plan (2018-2022) underway
- Digital China Summit was held in Fuzhou on April 21, 2018; Fuzhou issued the Seven Measures for Accelerating the Development of the Digital Economy. In April 2021, Digital China Summit was held in Fuzhou
- Digital Economy Development Plan for Guizhou Province (2017-2020), February 6, 2017
- Publicly released the digital economy development plan
- Digital economy development plan will be released publicly.
Digital Government Architecture Model Of China: Cloud Network Foundation, Supporting Digitalization

Digital government

Platform ministries (Ministries of Communications, Science and Technology...)

Value ministries (tax, customs...)

- Collaboration office
  - Digital office platform
  - digital archive management
  - Government Portal

- Digital Post
  - digital postal network
  - Postal delivery automation
  - Business Letter
  - Business System

- Digital Granary
  - Intelligent food situation
  - Intelligent inbound and outbound

- Digital Taxation
  - Core Collection and Management
  - Invoice Management

- Smart customs
  - Core customs
  - Electronic goods management
  - Smart card port

- Smart municipal
  - Information-guided release
  - Urban Parking Operations
  - Urban street

- Smart Education
  - Education cloud platform
  - Smart Classroom

Unified entrance to national government affairs

- Public service resource pool
  - Government service hall, government website/APP

- Shared/collaborative resource pool
  - Unified management, comprehensive processing, and collaborative sharing

- Exclusive/Security resource pool
  - National defense, justice, internal affairs, public security, etc.

National unified government network

- National backbone network
- MAN
- Last mile extension
- Rural network coverage

- WAN private network
- MAN private network
- Campus network
- Branch access
- data center network

National unified cloud

National Digital Base
Huawei Experiences and Witnesses the Development of China's Digital Economy

- **600+** Project
- **38** State-level Projects
- **40** Provincial/Municipal-level Projects
- **530+** Municipal/County-level Projects

Huawei is a firm Experience and Witness
Huawei Is Committed to Serving the Government Industry as a Trusted Long-Term Partner

Diversified cooperation with partners in government affairs, customs, taxation, medical care, and education to jointly build industry competitiveness

- Solution joint innovation
- Business model innovation
- Integrated/Be integrated
Huawei Is Committed to Serving the Government Industry as a Trusted Long-Term Partner

Customer-centric
Corporate culture with customers at the center
Agile customer services

Continuous innovation
79,000 R&D employees
R&D investment to sales revenue > 10%

Trusted
Verified by 3.5 billion customers worldwide
F500, stable growth for 20 years

Criteria
Actively participated in the formulation of standards for the Digital Government cloud public platform, cloud service cyber security review, and graded protection of cloud security

Leadership
Full-stack cloud, and IT and IP product and solution series

Focus
Maximizing the value of developing information infrastructure

Full-stack product technology, full-ecosystem integration, full-lifecycle service, and all-scenario coverage
Thank you.

把数字世界带入每个人、每个家庭、每个组织，构建万物互联的智能世界。
Bring digital to every person, home and organization for a fully connected, intelligent world.

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