

海外戦略まとめ（デジタルガバメント）

2019年7月5日

内閣官房IT総合戦略室

海外の共通的なポイント （■は我が国のデジタル・ガバメント推進方針（2017年5月）の柱建て）

■ 利用者中心の行政サービス

- シンプルで直感的なサービス
- 感じさせないサービス（見えないサービス）
- オールデジタル&ゼロストップ
- 利用者が提出した情報は再利用（ワンスオンリー）
- 持続性のあるサービス（エコシステム）で、皆が使えるサービス（インクルーシブ）
- モバイル/マルチデバイス対応

■ 官民協働を実現するプラットフォーム

- デジタルを前提とした制度設計・業務設計
- オープン・官民協働ができる
- アーキテクチャー思考での検討（データ/プラットフォーム/サービス/ルール）
- サービスはマイクロサービス化して共用、連携、再利用（認証、支払、通知等）
- データの力で行政サービスと意思決定のスピードを改善、AIドリブン行政
- 信頼性を担保する透明性・セキュリティ
- 脱レガシーシステム（IT Modernization）、クラウドベースの行政システム

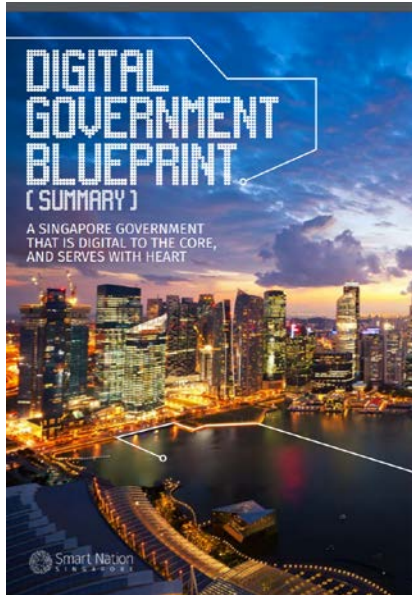
■ 価値を生み出すITガバナンス

- 政府の人材（スキル、リーダーシップとカルチャー（マインドセット））
- スタートアップのようなアジャイル改革、アジリティと実験がDXを可能とする
- 調達改革、調達方式の現代化

海外戰略一覽

- Digital Government Blueprint (June 2018 Singapore)
- Vision 2025 (2018, Australia)
- Digital Government Strategy (Draft) (Sep 2018, NZ)
- The Digital Inclusion Blueprint(March 2019, NZ)
- Digital Operations Strategic Plan:2018-2022(2018, Canada)
- UK Digital Strategy(March 2017) & Government Transformation Strategy 2017 to 2020 (Feb 2017)
- A Stronger and More Secure Digital Denmark; Digital Strategy 2016-2020 (2016, Denmark)
- Korea e-Government Master Plan 2020(March 2017)
- Federal Data Strategy & Action Plan (June 2019, USA)
- Future e-governance trends (2019, Estonia)
- Digital India –Power to Empower

Digital Government Blueprint (June 2018 Singapore)



A government that is “Digital to the core, and services with heart”

Services for citizens and businesses:

- Digital services: **intuitive, easy-to-use, and relevant**
- Completing government transactions in a **paperless, presence-less manner from start to finish**, anytime, anywhere and on any device
- **Only need to give information for help once**, as the relevant data will be shared with the right public agencies; and
- Feel confident that **their data is secure**.

The Singapore Government Technology Stack(SGTS)

- A **collection of common digital services and infrastructure** available to all Gov. agencies
- **Vertical to Horizontal**
- 4 layers: **Data**(e.g. data hubs), **Infrastructure**(e.g. data centers and hosting infrastructure), **Application infrastructure**(e.g. PaaS) and **Library of Micro-Services**(e.g. common authentication, payment services)

<https://www.tech.gov.sg/digital-government-blueprint/>

<https://www.tech.gov.sg/products-and-services/singapore-government-tech-stack/>



Structure of SGTS

Vertical to Horizontal - Reinventing the approach to government technology

The Tech Stack has matured into a complete platform

	Agency	Government	Commercial	
Library of Micro-services	Agency Specific services	Authentication <i>SingPass, CorpPass</i> Profile <i>MyInfo, EDH</i> Access Mgmt	Notifications Advisors Consent Payments Grants Licenses	Commercial Software-as-a-service
Application Infrastructure	API Gateway <i>NTP API Gateway, GeoSpace API</i> Platform-as-a-service <i>NTP PaaS, GeoSpace PaaS</i>	Middleware <i>SNSP</i>	App Analytics <i>SN Analytics, WOGAA</i> API Gateway <i>APEX</i>	Commercial PaaS
Infrastructure	Agency Hosting	Platform-as-a-service (<i>NECTAR</i>) Cybersecurity-as-a-service (<i>SOCAS, GSOC</i>) Compute Storage Network Managed Hosting <i>GDCs 1 and 2</i> Virtual Hosting <i>G-Cloud, GPC</i>		Commercial Cloud and Hosting
Data	Agency Data	Sensor & IoT Data	Government Data	Private Sector Data <i>(e.g. B2B)</i>

SGTS Tech Stack

その他の動画

8:54 / 17:59

YouTube

Vision 2025 (2018, Australia)



We live in an age driven by the digital revolution and we thrive in it (foreword by the minister)

3 strategic priorities:

- Gov. that's easy to deal with: you need **simple and intuitive services that support your needs and life events**, while **eliminating the need to deal with multiple agencies** or layers of government.
- Gov. that's informed by you: we will harness **the power of data** to improve services and make better and faster decisions.
- **Gov. that's fit for the digital age**: gov. to be easy to deal with and to provide smart and convenient services.

Whole-of-government(WofG) digital platforms

- a **collection of reusable business services** that can be accessed by consumers (such as departments and agencies)
- **support government and market-driven innovation by providing open frameworks, standards and tools** (where relevant) allowing producers to create new digital services
- Platforms currently in development; **myGov, Digital identity, Tell Us Once, Inbox and notify, and Digital humans**
- In the future; **myGov Dashboard, Payments In, End user services, and Business Registers**

<https://www.dta.gov.au/digital-transformation-strategy>

<https://www.dta.gov.au/our-projects/digital-service-platforms-strategy/overview>

Digital Government Strategy (Draft) (Sep 2018, NZ)

Vision: All NZers are thriving in a digital age

Purpose: Enable government to respond to **the rapid societal and economic changes presented in the digital age**

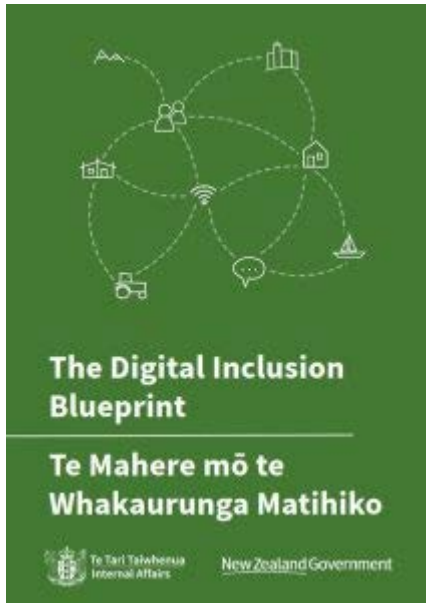
Government needs to respond to:

- The pace of change
- People's expectations
- System constraints
- Inclusive government

Intervention areas:

1. Making **personal and business interactions with government**
2. Driving a digital policy agenda
3. Equipping leaders and building new workforce skills
4. Mainstreaming innovative practices
5. Accelerating the **exposure of government rules, transactions and data**
6. Reframing investment, sourcing and delivery
7. Helping **agencies become digital enterprises**
8. Supporting **cross-agency collaboration**

The Digital Inclusion Blueprint (March 2019, NZ)



The vision: that all of us have what we need to participate in, contribute to, and benefit from the digital world

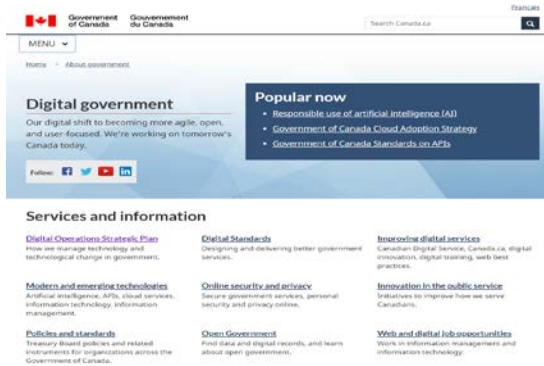
4 elements of digital inclusion



Timeline for action



Digital Operations Strategic Plan:2018-2022(2018, Canada)



The Vision is:

Gov. of Canada is an **open and service-oriented** organization that operates and delivers programs and services to people and businesses **in simple, modern and effective ways** that are **optimized for digital and available anytime, anywhere, and from any device**

6 themes:

1. A government with a **user-centred, service orientation**;

1.1 Service improvement, 1.2 New approaches to service

2. An open, collaborative and accessible government;

2.1 Open government, 2.2 Collaborating with Canadians, 2.3 Accessibility and inclusion

3. **Digital-first** and digitally enabled by design;

3.1 Digitally enabled by design and **easy-to-find information**, 3.2 **Any-platform, any-device connectivity**

4. Modern tech, technology practices and information stewardship;

4.1 **Network and infrastructure**, 4.2 **Secure and trusted**, 4.3 **Procurement modernization**,
4.4 **IT modernization**, 4.5 **IM modernization and data stewardship**,
4.6 Innovative and responsible use of **new technologies**

5. A digitally enabled public service;

5.1 Giving public servants the tools they need, 5.2 Giving public servant the skills they need,
5.3 Recruitment

6. Good digital governance;

6.1 Digital leaders, 6.2 Management of digital investments and results,
6.3 leadership in the digital ecosystem

UK Digital Strategy(March 2017) & Government Transformation Strategy 2017 to 2020 (Feb 2017)

UK Digital Strategy

◆ Maintaining the UK government as a world leader in serving the citizens online

- Continue to develop **single cross-government platform services**, including by working towards 25 million **GOV.UK verify** users by 2020 and adopting new services onto the government's **GOV.UK Pay** and **GOV.UK Notify** platforms.
- "Government as a Platform" concept, ensuring we make greater **reuse of platforms and components across government**. We also continue to move towards common tech, commodity hardware or cloud-based software instead of building something that is needlessly government specific.



The screenshot shows the GOV.UK website header with a search bar and navigation links for Departments, Worldwide, How government works, Consultations, Statistics, and News and communications. Below the header, the breadcrumb trail reads: Home > Government > Government efficiency, transparency and accountability > Government. The main content area features a 'Policy paper' section for the 'Government Transformation Strategy 2017 to 2020'. A sub-headline states: 'This strategy sets out how the government will use digital to transform the relationship between the citizen and state.' Below this, it is noted that the strategy was published on 9 February 2017 and is from the Cabinet Office, Government Digital Service, and The Rt Hon Ben Gummer. A 'Documents' section is visible at the bottom, with a link to the 'Government Transformation Strategy' document in HTML format.

Digital Transformation Strategy

5 Objectives:

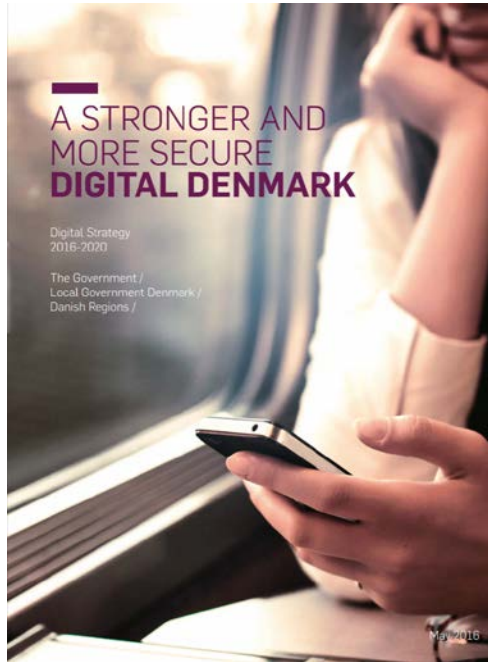
- Business transformation
- Grow the right people, skills and culture
- Build better tools, processes and governance for public servants
- Make better use of data
- Create shared platforms, components and reusable business capabilities

<https://www.gov.uk/government/publications/uk-digital-strategy/executive-summary>

<https://www.gov.uk/government/publications/government-transformation-strategy-2017-to-2020>

A Strong and More Secure Digital Denmark

Digital Strategy 2016-2020 (May 2016, Denmark)



We must seize the digital opportunities:

- **The internet is the primary gateway** to public administration.
- Digital solutions are an **integral part of many public services; care-workers and teachers**
- Local and regional governments are playing an active role in **ensuring that citizens and businesses are guided through the many changes**
- Focus on **user centricity, sense of security and public trust**
- **Public-sector data must be shared and reused**
- New business opportunities
- Continuous modernization necessary
- Expenditure and revenues will come under pressure

Three ambitions but realistic goals:

- Digital solutions must be **easy-to-use, quick and ensure high quality**
- Public sector digitalization must provide **good conditions for growth**
- **Security and confidence** must be in focus at all times

Korea e-Government Master Plan 2020 (March 2017)



Directions for e-government

- Sustainable development
- Expanded partnership in policies and society
- Integrated personalized services
- Use of intelligent information technologies

New digital experiences

- **Enhancing digital experiences**

“All digital, Zero-stop” government services

Integrated, customized services

- **New-building intelligent Gov.**

Mobile administration in the field

On-time, intelligent decision-making based on data

- **Joining e-Gov. ecosystem**

New e-Government industries and jobs

- **Organizing Trust-based Infrastructure**

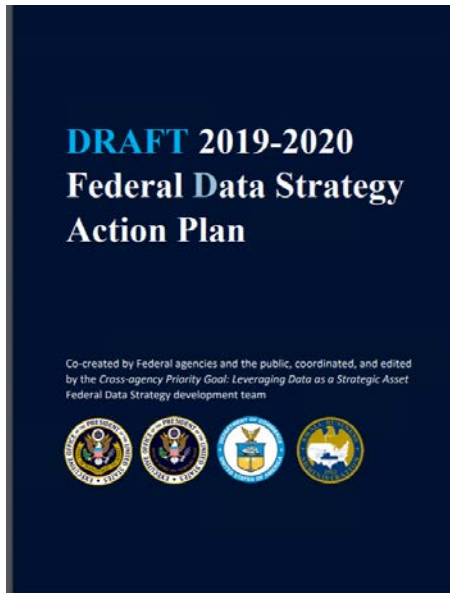
Establish a cloud-based administrative information infrastructure

- **Yes! Korea e-Gov.**

Global e-Government forerunner

[file:///kvrdf99002v.ring.meti.go.jp/MShare\\$/NMAB3490/Downloads/Korea%20e-Government%20Master%20Plan%202020%20\(1\).pdf](file:///kvrdf99002v.ring.meti.go.jp/MShare$/NMAB3490/Downloads/Korea%20e-Government%20Master%20Plan%202020%20(1).pdf)

Federal Data Strategy & Action Plan (June 2019, USA)



<https://strategy.data.gov/>
<https://strategy.data.gov/action-plan/>

Federal data enables the government to carry out its mission and programs effectively. The mission of the Federal Data Strategy is to fully leverage the value of federal data for mission, service and the public good.

Principles:

- **Ethical Governance**
Uphold Ethics, Exercise Responsibility, Promote Accountability
- **Conscious Design**
Ensure Relevance, Harness Existing Data, Anticipate Future Uses
- **Learning Culture**
Invest in Learning, Develop Data Leaders, Practice Accountability

Major Actions:

- **Shared Actions: Government-wide Data Services**
Develop a **data ethics framework** and a repository of data strategy resources and tools
- **Community Actions: Cross-Agency Collaboration**
Improve **data resources for AI research, financial management data standards, and geospatial data standards**
- **Agency-Specific Actions: Agency Activities**
Identify **data needs to answer key agency questions/priority datasets for agency**

Future e-governance trends (Estonia)

E-governance conference (March 2019)

The conference didn't only look at what's been done in the past, however, but also to the future applications of e-governance solutions. Siim Sikkut, the Estonian government CIO, introduced **invisible services**. These are services that work **as seamlessly as possible around life events and require no action from citizens**. "It's **AI-driven governance**. This is not theory, these are practical solutions that we have already started to apply," said Sikkut. This type of services allow a government to save time. Sikkut illustrated the point: "If we can employ machines, we can only grow and be more effective as an economy."

Linnar Viik, Programme Director of Smart Government at the e-Governance Academy and Ravi Shankar Chaturvedi, discussed **what happens when governments start thinking like startups. Agility and experimentation are necessary to achieve digital transformation**.

Lastly, Liselotte Lyngsø, who holds the title of Chief Futurist at Future Navigator, drove home some hard truths about what it takes to be a futurist. According to her, **the main issue we must address is what it takes to be a human in future societies**. To find the answer, the number one rule is to go into a space of exploration and approach everything with **the mindset of "interesting, exciting"**. "It is important not to have a distant relationship with the future. You cannot handle the future alone and we mustn't make it our enemy," said Lyngsø. She highlighted that **in the future digital methods can be used to create empathy**.

Digital India –Power to Empower

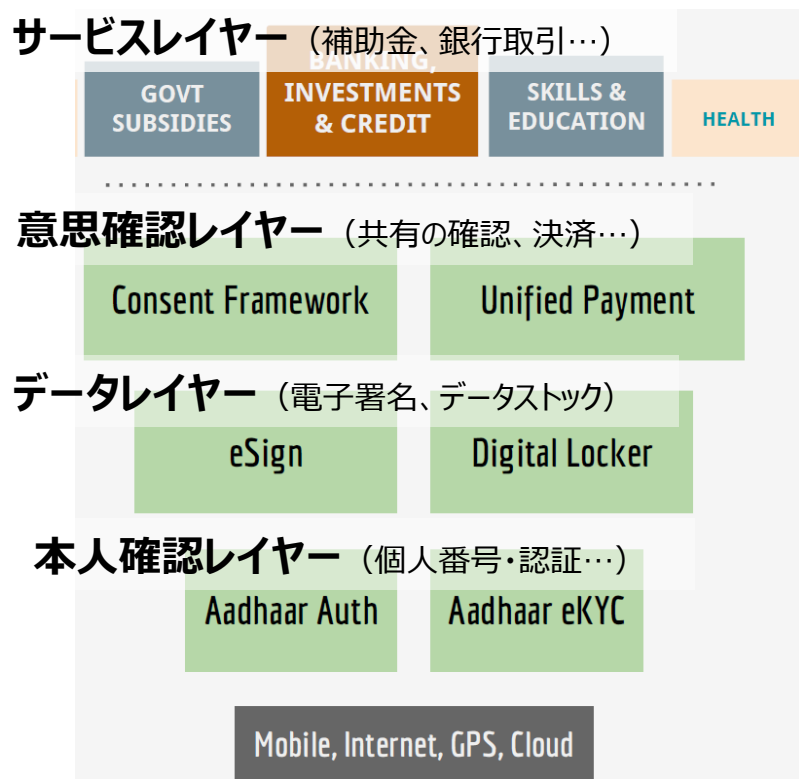
E-governance –Reforming government through technology

The guiding principles:

- **Form simplification and field reduction** – Forms should be made simple and user friendly and only minimum and necessary information should be collected.
- **Online applications and tracking** - Online applications and tracking of their status should be provided.
- **Online repositories** - Use of online repositories e.g. for **certificates, educational degrees, identity documents**, etc. should be mandated so that citizens are not required to submit these documents in physical form.
- **Integration of services and platforms** – Integration of services and platforms e.g. Aadhaar platform of **Unique Identity Authority** of India (UIDAI), **payment gateway, Mobile Seva platform, sharing of data** through open Application Programming Interfaces (API) and **middleware such as National and State Service Delivery Gateways (NSDG/SSDG)** should be mandated to facilitate **integrated and interoperable service** delivery to citizens and businesses.
- **All databases and information should be in electronic** form and not manual. The workflow inside government departments and agencies should be automated to enable efficient government processes and also to allow visibility of these processes to citizens. IT should be used to **automate, respond and analyze data to identify and resolve persistent problems**. These would be largely process improvements.

- インドでは個人のデジタルID、認証、決済等のデジタル公共財を整備し、民間に開放 (India Stack)。貧困層の金融包摂や新ビジネス創出など、新たな成長モデルを実現。
- アイスピリット民間の非営利団体“iSpirt”が主導し、サービス構造のアーキテクチャを設計。Stackを軸に様々なブレイヤーが水平分業可能に。中国やGAFAと異なるオープンで民主的な新しいガバナンスを実現。

India Stackの概要



India Stackの特徴

1. 政府から国民へのサービスが効率化

13億人にデジタルIDを付与、ほぼ全世帯に銀行口座普及。国民への直接給付額は4.1兆円 (2018年度)。効率化、不正受給防止により、受給者に届く金額は2倍に (元々金額の55%が流出)。

2. 民間サービスでも広く拡大

銀行が個人と新規取引するコストは600ルピーから0.5ルピーに。個人間決済市場は800億ドルに拡大。3億件/日。貧困層を含むあらゆる者が小口決済のサービスにアクセス可能に。アリペイ・Google pay・銀行などが同一基盤上でサービス提供。

3. 中立・オープンな公共インフラ

民間の非営利団体 (エンジニア等のボランティア) が中立・オープンな基盤を整備。ベンチャー等がGAFAに搾取されない仕組みに。