Week 2

Introduction

Outline

- E-Government in Different Countries

- E-Government in Singapore

- Singapore eGov Masterplan

- Guest Speaker (delayed till next week)
  - Mr. Tan Sian Lip (VP Domains & Technology, CrimsonLogic)

Adoption of e-Government

"IT'S NOT THAT I DON'T WANT to TRY WEB 2.0 TECHNOLOGY.
IT'S JUST THAT I'M STILL GETTING USED to the FAX MACHINE."

E-Government in Different Countries

Waseda University World e-Government Ranking 2012

- 8th consecutive year of monitoring development of e-Government worldwide
  - Undertaken by Institute of e-Government @ Waseda University

  - Surveys e-Government development in 55 countries

  - Assessment based on
    - Relevant web pages & reports
    - Interviews of Institute member who attended e-Government conferences
    - Meetings with government & research institutions in major countries

7 Indicators

1. **Network Preparedness**

2. **Management Optimization**

3. **Require Interface – Functioning Applications**

4. **National Portal**

5. **Government CIO**

6. **e-Government Promotion**

7. **e-Participation**

Waseda University World e-Government Ranking 2012

No	Final Rankings	Score	No	Final Rankings	Score	No	Final Rankings	Score
1	Singapore	93.8	20	Netherlands	69.0	38	Brunei	52.1
1	USA	93.8	21	Portugal	68.8	40	UAE	48.3
3	Korea	91.5	22	Spain	67.5	41	Chile	48.1
4	Finland	88.7	23	Thailand	67.1	42	Pakistan	47.5
5	Denmark	86.5	23	Malaysia	67.1	43	Venezuela	47.0
6	Sweden	84.1	25	Mexico	66.3	44	Peru	46.9
7	Australia	82.8	26	Israel	65.3	45	Romania	46.2
8	Japan	81.5	27	Hong Kong	63.2	46	Argentina	45.5
9	UK	81.0	28	Czech Republic	62.1	47	Kazakhstan	44.5
10	Taiwan	80.1	29	China	61.5	48	Tunisia	44.1
10	Canada	80.1	30	Turkey	61.0	49	Fiji	43.6
12	Germany	79.2	31	Philippines	58.2	50	Egypt	42.1
13	New Zealand	76.7	32	South Africa	57.5	51	Cambodia	40.4
14	Belgium	75.2	33	Indonesia	56.2	52	Iran	39.0
15	Switzerland	73.5	34	Brazil	55.6	53	Nigeria	38.4
15	Norway	73.5	35	India	54.7	54	Uzbekistan	37.1
17	France	71.9	36	Macau	54.4	55	Georgia	36.8
18	Italy	71.3	37	Russia	53.4			
19	Estonia	70.8	38	Vietnam	52.1			

Table 1: Waseda University Institute of e-Government Rankings 2012

Waseda University World e-Government Ranking - Top 10 (2005 - 2012)

	2005		2006		2007		2008		2009		2010		2011		2012
1	USA	1	USA	1	USA	1	USA	1	Singapore	1	Singapore	1	Singapore	1	Singapore
2	Canada	2	Canada	2	Singapore	2	Singapore	2	USA	2	UK	2	USA	1	USA
3	Singapore	3	Singapore	3	Canada	3	Canada	3	Sweden	2	USA	3	Sweden	3	Korea
4	Finland	4	Japan	4	Japan	4	Korea	4	UK	4	Canada	4	Korea	4	Finland
5	Sweden	5	Korea	4	Korea	5	Japan	5	Japan	5	Australia	5	Finland	5	Denmark
6	Australia	6	Germany	6	Australia	6	Hong Kong	5	Korea	6	Japan	6	Japan	6	Sweden
7	Japan	7	Taiwan	7	Finland	7	Australia	7	Canada	7	Korea	7	Canada	7	Australia
8	Hong Kong	8	Australia	8	Taiwan	8	Finland	8	Taiwan	8	Germany	8	Estonia	8	Japan
9	Malaysia	9	UK	9	UK	9	Sweden	9	Finland	9	Sweden	9	Belgium	9	UK
10	UK	10	Finland	10	Sweden	9	Taiwan	10	Germany Italy	10	Taiwan, Italy	10	UK Denmark	10	Taiwan Canada

Table 2: Historical trends of ranking for 2005-2012

New Trends in e-Government Development (2012) – 1/4

1. Cloud Computing

- Helps government reduce duplicate effort & increase effective utilization of resources
- In turn helps government to reduce pollution & manage waste effectively
- e-Government can rapidly deploy applications

2. Social Media

- Has substantially changed way that organizations, communities, & individuals communicate
- Provides a powerful platform to help government communicate directly with constituents & be more visible on the Web

New Trends in e-Government Development (2012) – 2/4

3. Big Data

- Leverages 3 trends (mobile, social media & cloud computing) to offer best services to people

4. BCP for Disaster Management

- In aftermath of terrorism & recent natural disasters e.g., earthquake in Japan & flooding in Bangkok in 2011, government have recognized need of preparedness for disasters
- With growth of e-Commerce, e-Government & other factors, system availability expectations are driven toward 24x365
- Necessary to prepare BCP for disaster management to recover all activities & databases

New Trends in e-Government Development (2012) – 3/4

5. Digital Inclusion

- Means both inclusive ICT & use of ICT to achieve wider inclusion objectives

- Focuses on participation of all individuals & communities in all aspects of information society

6. Cyber Security

- E-Government operations are increasing with citizen demand for timely & cost effective services

New Trends in e-Government Development (2012) – 4/4

7. Mobile Government

- About how governments can provide a better social infrastructure through mobile applications & services
- Is an indispensable asset for public sector in meeting demands of citizens

8. ICT Applications for Ageing Society

- An aging population requires bigger funds for social welfare & support of government
- ICT can help in providing new & flexible learning opportunities, which connect senior people to each other & to younger generations

New Trends in e-Government Development (2011)

- Continued increase in Government 2.0 apps (e.g., social media) will improve e-participation
- Growing interest in green & smart-grid technology
- Increased interest in cloud computing, DC virtualization, & all-IP network
- Increased m-Government apps
- Review of BCP & disaster reduction
- E-Inclusion (inclusive ICT & use of ICT) to ensure participation of all citizens & communities
- Digital Divide – inequality of access remains high
- One-Stop Service – More diverse, advanced & comprehensive e-services
- Coordination & collaboration between central & local governments for better delivery of services
- Citizen-centric e-Participation –Re-connecting citizens with politics & policy-& decision making

E-Government in Singapore

e-Government Governance

MOF
MINISTRY OF FINANCE
SINGAPORE

iDA
SINGAPORE

MOF is the e-Government owner

Sets the policy direction on use of ICT in Government

Provides funding for whole-of-government programmes and projects

Champions whole of the government ICT initiatives

IDA is the Government CIO

Provides technology advice, masterplanning and projects management service to MOF & government agencies

Identifies and conceptualizes e-Gov programmes and projects

Drives the development and implementation of e-Gov programmes and projects

Singapore's Infocomm Journey since 1980

Leveraging Infocomm for Innovation, Integration and Internationalisation

Unleashing potential of Infocomm to create new values, realise possibilities & enrich lives

Developing Singapore as global Infocomm Capital, e-Economy and e-Society

Transforming Singapore into an Intelligent Island

Extending government systems to private sector e.g. TradeNet, MediNet, LawNet

Civil Service Computerisation Programme Developing IT industry & IT manpower

	National Infocomm Plans	Government Infocomm Plans
2010 – 2015	iN2015	eGov2015
2006 – 2010		iGov2010
2003 – 2006	Connected Singapore	e-Government Action Plan II
2000 – 2003	Infocomm 21	e-Government Action Plan
1992 – 1999	IT2000	
1986 – 1991	The National IT Plan	Civil Service Computerisation Programme
1980 – 1985	The National Computerisation Plan	
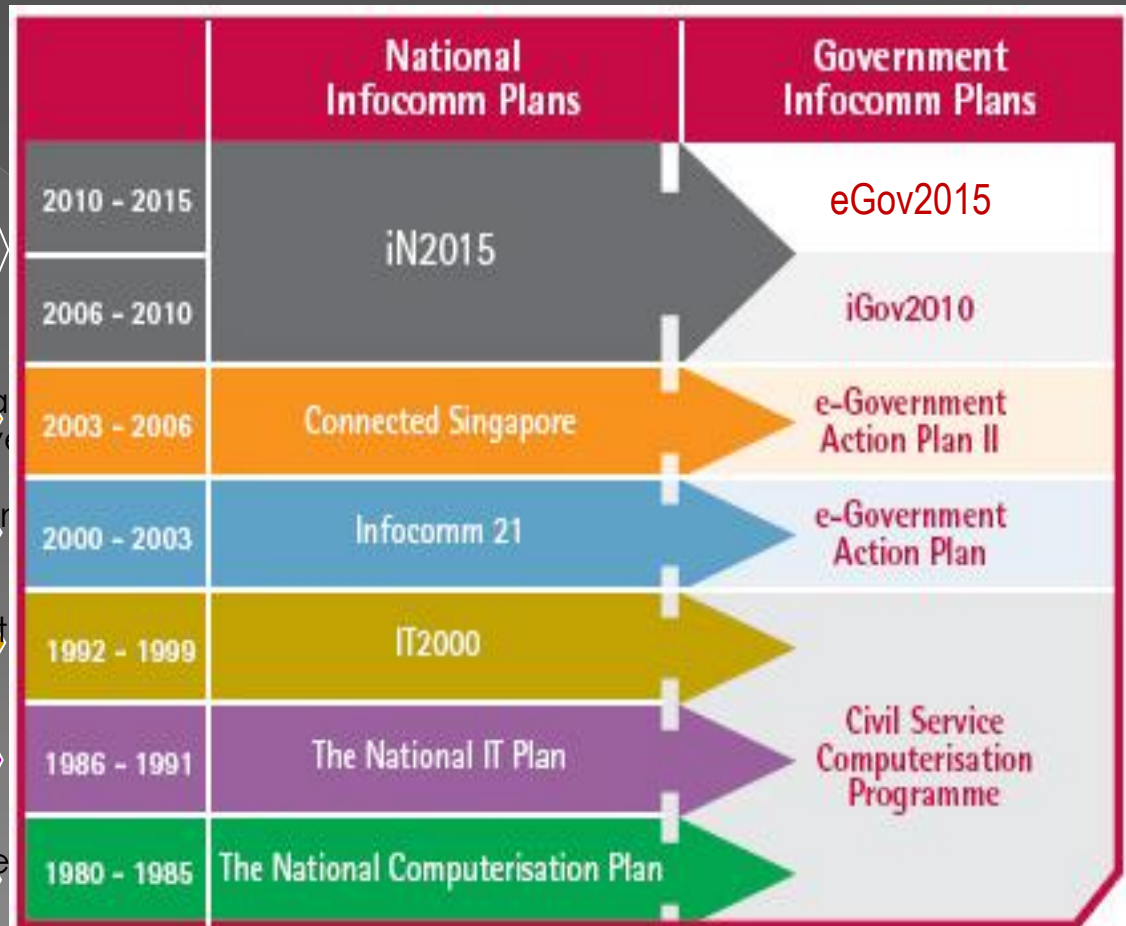
A Closer Look at Singapore's eGov Strategy

ICT drove
Public Sector efficiency

CSCP

(1980 - 1999)

- Automation of public service
- Basic IT infrastructure and data hubs

ICT drove
Public Service excellence

e-Government Action Plan I & II

(2000 - 2006)

- Online service delivery (1,600 e-services deployed)
- Integrated services

ICT drove
Whole-of-Government integration

iGov2010

(2006 - 2010)

- Integration of data, process and systems for Government agencies
- 300 mobile government services deployed

ICT drove
Government-private value innovation & economic competitiveness

eGov2015

(2011 - 2015)

- Focus on collaboration within and outside Government

SG e-Government

- E-citizen's portal (www.ecitizen.gov.sg)
  - › One-stop access to government services
  - › Divided into categories based on real-life needs of citizen
  - › Offers over 1,600 e-services pertaining to business, health, education, recreation, employment & family

Electronic Business Centre (GeBiz)

- E-Procurement portal was set up in June 2000
- Aim to simplify government procurement & tender activities
  › Achieves efficiency & cost savings
  › Consistency in procurement practice
  › Transparency in Transactions
- Stimulates e-commerce
- Within 1st year, tranx value was US$50M

iGov 2010 Masterplan
- Notable examples

- OneMap
- Unique Entity Number
- REACH (or Reaching Everyone for Active Citizenry@Home)
  - Official government e-engagement platform for improving channel of communication between citizens & Government
- Alliance for Corporate Excellence (ACE)
  - A shared HR, finance & procurement system for more than 11 agencies, leading to higher efficiency

SG-SPACE

- Singapore Geospatial Collaborative Environment
- A WOG initiative to create a National Spatial Data Infrastructure (NSDI) environment in which public & private sectors & community can collaborate & create a wide range of innovative applications & services using geospatial or map-based info
- Budget: S$12M (over 3 years)
- Also addresses mechanism & policies to allow convenient access to quality geospatial info in usable form
- 2 major challenges in establishing NSDI
  - Getting good authoritative data
  - Convincing decision makers to invest in geospatial apps & info

- An integrated map system for improving citizen's experience of finding map locations & driving directions

> OneMap is 1st major application of SG-SPACE
> Launched in Mar 2010
  ◉ Commonly used services include
    > Driving Directions
    > Intelligent Search
    > Land Query
    > School Query
    > Mobile Maps
  ◉ Aims to spur innovation by facilitating & promoting use of geospatial info across public, private & people sectors
  ◉ Companies, organisations & individuals can tap on OneMap's advanced web mapping technologies to create useful & value-added services within their own websites

OneMap

- Examples
  - Volunteering opportunities based on location
  - Interest & availability
  - Hot spots for bird watching
  - Driving directions
  - Retail promotions based on locations
  - Research on competition & market profiling for business at specific location

- A multi-agency collaborative initiative
- Participating agencies include
  - IDA, LTA, MCYS, MOE, MICA, MoLaw, NAC, NHB, NLB, NPB, PA, SLA, SSC, STB, URA

Objectives
- A common means of identifying establishments across public sector agencies, to facilitate effective sharing of basic non-confidential info on establishments across public sector agencies to enable delivery of better & more personalised services
- To make interactions with Govt simpler, faster & easier

- Establishments had to use different identification nos when interacting with different govt agencies
- Commonly used ids are ACRA no. issued by Accounting & Corporate Regulatory Authority (ACRA) to registered companies, businesses & limited liability partnerships
  - ROS no. issued by Registry of Societies (ROS) to registered societies
  - Central Registration (CR) nos. issued by Department of Statistics (DOS) to various categories of establishments as required for survey or statistical purposes
  - CPF employer no. issued by Central Provident Fund Board (CPF) to all employers

Implementation of UEN

- To minimise changes needed, ACRA no. that was issued to about 85% of establishments, was leveraged as UEN for businesses & local companies registered with ACRA
- Remaining 15% of establishments such as societies, embassies, representative offices, & mutual benefit organisations etc which did not have ACRA nos. (as they are not registered with ACRA) have been issued with new identifier as their UEN
- By January 2009, all establishments were issued with their UEN
- All government agencies have adopted UEN with effect from July 2009
- To facilitate transition to UEN conversion software that maps UEN to existing identifiers were provided to public, private & social sector agencies

UEN: Desired Outcome

Before

After

Enhancing Internal Government Capabilities

Alliance for Corporate Excellence: A shared HR, finance & procurement system

Vital.org: Aggregating HR and finance services of government agencies under one roof

SOE: An integrated infocomm environment for all public officers
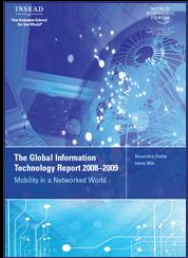
Based on the 2010 e-Government Customer Perception Survey,

87%

87% of the people are satisfied with the quality of government's e-services.

93%

93% of the people will recommend others to transact with the government through e-services

International Ranking

World Economic Forum Global Info Technology Rep Ranking

2nd (2011)

United Nations e-Government Development Index

11th (2010)

Waseda University World e-Gov Ranking

1st (2009-2011)

United Nations e-Participation Index

9th (2010)

United Nations Special Award for Outstanding Progress (2010)

Singapore eGov Masterplan

World of digital content

Knowledge Economy

The World Today

Pervasive connectivity

More savvy users

eGov2015 Masterplan (2011-2015)
Connecting People, Enriching Lives

Vision

- To be a Collaborative Government that Co-creates and Connects with Our People.

eGov2015 is about building an interactive environment where Government, private sector & people work together seamlessly, through enabling power of ICT

The vision of a Collaborative Government will be achieved through 3 strategic thrusts

- Co-creating For Greater Value
- Connecting For Active Participation
- Catalysing Whole-of-Government Transformation
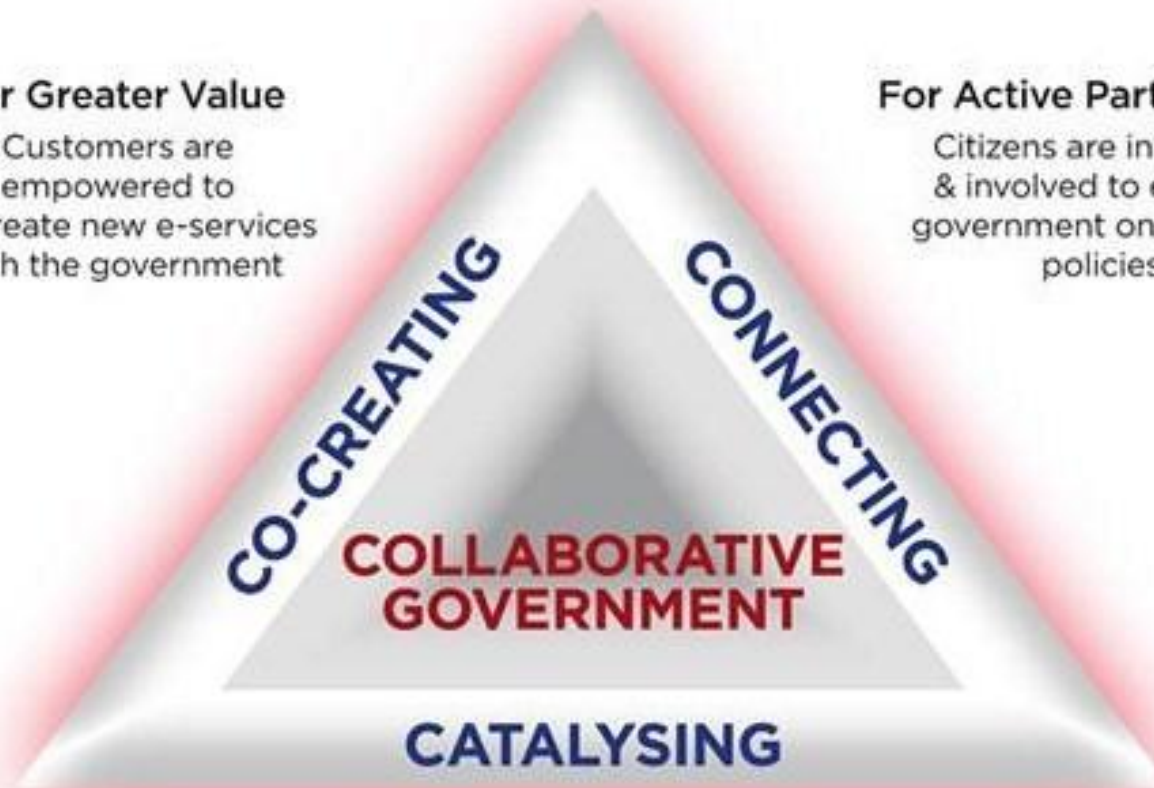
Programmes for Citizens

data.gov.sg	mGov@SG	OneInbox
data.gov.sg provides easy discovery of and access to publicly-available government datasets.	mGov@SG is a one-stop mobile site that allows individuals and businesses to easily search for, identify, and access m-services provided by the Government.	OneInbox is a one-stop official and trusted platform for individuals and businesses to receive electronic correspondences from the Government, in place of hardcopy letters.

Objective

- ⊙ Provides easy discovery of & access to publicly-available government datasets

Today

- Agencies share publicly available data & statistics on websites & publications
- Not always easy for public & researchers to locate them

Data.gov.sg

- Seeks to provide convenient access to data through easy-to-use Data Catalogue
- Seeks to make more data available in machine-readable formats for developers to develop innovative apps & services
- Developers can list apps at Applications Showcase for sharing with wider audience

Objective

- mGov@SG is a one-stop mobile site that allows individuals & businesses to easily search for, identify, & access m-services provided by Govt

- Today, different types of m-services are made available through various mobile platforms (such as agencies' Internet websites, App stores such as iTunes, Android Market & Telco App stores)

- Launched on 20 June 2011 with ~40 m-services

- Brings together mobile browser-based, native application-based & SMS-based m-services

mGov@SG

Several ways for users to find m-services

1. **Categories**: Can locate m-services through one of 9 categories of "Business", "Community & Housing", "Travel & Leisure", "Defence & Security", "Education & Learning", "General", "Health", "Jobs & Money" & "Transport"

2. **Organisations**: Can first look up agency under "Organisations" to browse through agency's m-services

3. **Quick Search**: Can perform a search for a specific government m-service with search tool provided

4. **Discover All**: Can view all the m-services

Objective
One-stop official & trusted platform for individuals & businesses to receive electronic correspondences from Government, in place of hardcopy letters

- Launch date in 2nd half of 2012

- Based on results from surveys & polls, most individuals & businesses prefer to receive electronic correspondences instead of hardcopy letters

- Will make it easier for individuals & businesses to file & track their correspondences from a single aggregated platform

- Will provide a trusted & guaranteed delivery of correspondences, free from spam

- Those who travel frequently or are living overseas will be able to access correspondences from Govt anytime, anywhere

Programmes for Government

Cloud Computing for Government

Whole-Of-Government Enterprise Architecture (WoG EA)

The Government Cloud (G-Cloud) provides a resilient and secure ICT shared environment that allows government agencies to procure computing resources on-demand, with greater ease and speed.

The programme aims to establish a federated view of all government agencies' enterprise architectures to optimise government ICT assets for greater cost savings or avoidance.

CLOUD COMPUTING FOR GOVERNMENT

Objective
Provides a resilient & secure ICT shared environment that allows govt agencies to procure computing resources on-demand, with greater ease & speed


• Acknowledges that each cloud computing model provides its own level of assurance & benefits

• Cloud strategy aims to leverage appropriate cloud for appropriate need by adopting a multi-prong approach to cloud computing
  • Leverage public CSPs for appropriate needs so as to benefit from lower cost of computing resources
  • Implement a private govt cloud (Central G-Cloud) for WOG use where security & governance requirements cannot be met by public clouds

CENTRAL G-CLOUD

SINGAPORE GOVERNMENT CLOUD STRATEGY

• Will provide efficient, scalable & resilient cloud computing resources

•Will be designed to meet 2 levels of security & governance requirements:

- High Assurance Zone – a physically dedicated computing resource pool which will only be used by Govt to serve its high assurance needs
- Medium Assurance Zone – a computing resource pool which will be shared with non-govt cloud users to lower cost computing resources for Govt
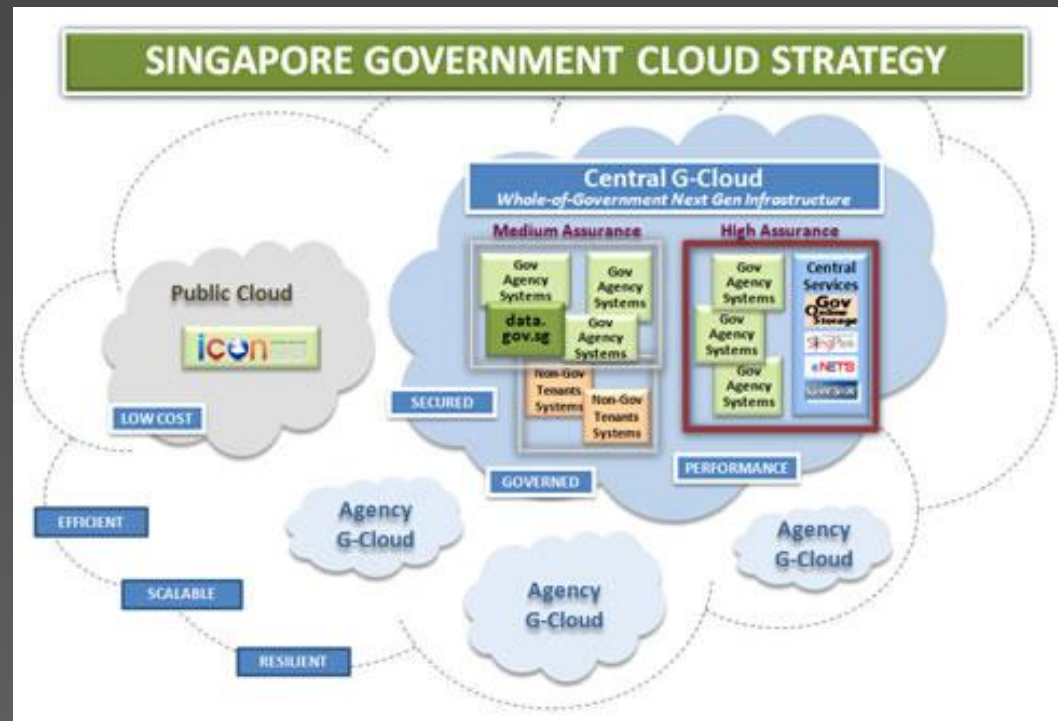
•Will provide central services
- govt web service exchange
- gateways to SingPass & e-Payment services

•Will identify & provide common services, such as CRM & web content management, as SaaS offerings on G-Cloud

• Enables standardisation, & sharing of computing resources & apps at WOG level

WOG ENTERPRISE ARCHITECTURE (WOG EA)

Objective
Aims to establish a federated view of all govt agencies' enterprise architectures to optimise govt ICT assets for greater cost savings or avoidance

- Aims to achieve
  - Identify opportunities for end-to-end service integration for a seamless govt, leading to greater synergy & efficiency
  - Identify shared systems that can be used by multiple govt agencies to minimise duplicative efforts
  - Improve clarity on application resilience requirements to achieve robust solution designs
  - Improve impact analysis on technology adoption to attain better technology planning & policy development
  - Improve transparency of WOG initiatives & government agencies' various ICT investments, as well as their policy alignment with business goals to reach better investment decisions