



GOVTECH
SINGAPORE

Engineering Digital Government, Making Lives Better

ANNUAL REPORT 2018/19



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The Government Technology Agency of Singapore (GovTech) is the lead agency driving Singapore's Smart Nation initiative and public sector digital transformation. GovTech actively works with public agencies to develop and deliver secure digital services and applied technology for individuals and businesses. As the leading centre for Infocomm Technology and Smart Systems, GovTech develops the Singapore Government's capabilities in the fields of Data Science & Artificial Intelligence, Application Development, Sensors & IoT, Digital Infrastructure, and Cybersecurity.

Transforming digital services

As a digital government that aims to make lives better, we need to “Serve with Heart”. This involves automating our work and processes, and designing around a user-centric approach so that we can enrich the engagement between the government and its key stakeholders. Citizens and businesses will then be able to transact with us in a manner that is easy, seamless and secure.



Moments of Life (Families)

An integration of various government services that address specific tasks centred around the needs of families with young children, providing a more holistic experience as they engage with the government.



Government QR Payment

We introduced QR codes on physical and electronic government bills, allowing citizens to make payments in a quick and easy manner.



National Digital Identity (NDI)

With a single trusted digital identity that allows users to transact with the government and businesses, business products can be built upon NDI to equip them with secure identity verification.

Establishing technical leadership & deepening capabilities

Leading the way in Infocomm Technology & Smart Systems requires us to strengthen our technical capabilities and enhance digital government services. Technical staff and specialists need to be trained to thrive in their given roles, and our systems need to be interoperable and reusable to allow us to build for scale.

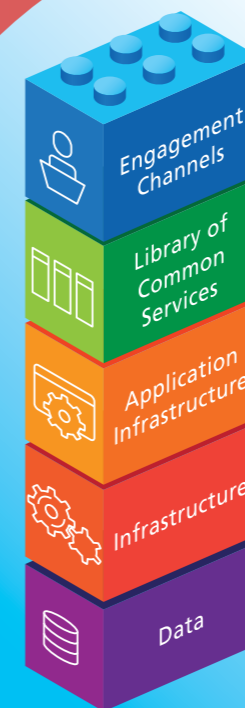
Capability Centres

Five centres have been set up to train and grow a team of dedicated technical specialists in areas such as Data Science & Artificial Intelligence and Sensors & Internet of Things.



Singapore Government Technology Stack

A technology stack comprising reusable digital components, machine-readable data and commercial cloud that allows agencies to design, develop and deploy citizen-centric services quickly and securely.



Smart Nation Sensor Platform

A nationwide sensor platform that will help public agencies and the government provide more responsive services through data collection and analysis.



Enabling digital government

Being digital to the core involves a digitally-confident public service that delivers as one, and public officers who live as digital natives. We aim for our officers to continually upskill themselves, pursue innovation and work closely across agencies to deliver desired digitalisation outcomes.



Data Science & Artificial Intelligence Capability Framework

We will set out to train public officers in data science and analytics competency, and aim for all public officers to possess basic digital literacy.

Ministry Family Digitalisation Plans

By spearheading digitalisation initiatives in each Ministry Family, we are paving the way for Public Sector Transformation and a strong Digital Government.



Digital Workplace Tools

A suite of digital productivity tools that allows public officers to work more productively and collaborate across agencies.

Chairman's Message



“
As a functional leader within the government for ICT & SS, we seek to raise digital technology capabilities across the rest of the government.”
”

Over the course of the year, GovTech has made significant progress both in delivering digital government today, as well as transforming ourselves organisationally to prepare for tomorrow. It is heartening to see how we have improved, and to have our work recognised by citizens, businesses and leading digital governments around the world.

In November 2018, Singapore was named the Smart City of the Year at the Smart City Expo World Congress in Barcelona. The award recognised us for our Smart Nation initiative – promoting digital technology and innovation to boost liveability and sustainability. This is the first award that we have won as a country since embarking on our digital transformation journey, and it is a testament to the good work that we have done collectively.

Our performance in the Annual Digital Government Perception Survey for Citizens and Businesses indicated a high level of usage and satisfaction with digital government services. Among citizens, 89% used our services for transactions with the government, with 78% indicating they were very satisfied with the overall quality of services. Almost all businesses polled used our services for their

operations, with 69% indicating that they were very satisfied with the quality. Based on the Digital Government Blueprint (DGB)'s target of 75%-80% for stakeholder satisfaction (rating of 5 out of 6), we are on track for citizens, and will strive to do better for businesses.

The past year has also seen us dealing with increasingly sophisticated cyber and data threats that affected some of our systems. It is now more crucial than ever for the government to strengthen our cyber defence and data management practices. The Public Sector Data Security Review Committee was set up, and will recommend technical, process and people-related measures to strengthen our data security regime and maintain citizens' trust.

All this has set a good foundation for us to build upon, and it is time for us to do more. We have laid out our new mission statement under **GovTech 2.0: Engineering Digital Government, Making Lives Better**. This emphasises our strong in-house capabilities and describes our aspiration to implement a digital government that improves the lives of the people we serve.

As a functional leader within the government for Infocomm Technology and Smart Systems (ICT & SS), we seek to raise digital technology capabilities across the rest of the government. Under GovTech 2.0, we aim to deliver three Strategic Outcomes (SOs): transformative digital services for citizens and businesses; be an ICT & SS functional leader with deep and integrated capabilities; and enable every public agency as a digital organisation, with every public officer digitally-enabled.

Transformative digital services for citizens and businesses

In the last year, GovTech has continued to transform our digital services to be more citizen- and business-centric. We rolled out the SingPass Mobile application in October to enable citizens to transact securely and

conveniently with public and private sector digital services. Using biometrics and a 2FA login method, citizens can do away with long passwords or physical tokens. As of July 2019, we have registered more than 420,000 active SingPass Mobile users, with an average of 30,000 daily transactions.

Together with the Ministry of Education (MOE), we launched a one-stop mobile application for schools and parents. Called Parents Gateway, it allows schools to update parents on programmes and activities, and for parents to complete administrative matters on behalf of their children digitally. All MOE schools will have access to the app by the end of 2019, serving 600,000 parents and 33,000 teachers.

For businesses, switching over to CorpPass has given them greater control and flexibility when conducting online transactions with government agencies. Having a single platform to manage access to government digital services means that employees no longer need to use their personal SingPass for work-related matters. More than 350,000 businesses, including non-profit organisations and associations, have been using the platform since September 2018.

We have also extended MyInfo to help businesses improve their services and customer relationship management. Over 190 business-to-consumer digital services are now using MyInfo to strengthen their e-KYC (Electronic Know Your Customer) practices, leading to expedited services and quicker verification of identity.

An ICT & SS functional leader with deep & integrated capabilities

We are taking steps to deepen our in-house technical capabilities and optimise the delivery of digital government services to better serve agencies' digitalisation needs. Five Capability Centres have been set up in the following areas to train and develop a dedicated team of technical specialists: Data Science &

Artificial Intelligence; Application Design, Development & Deployment; Sensors & Internet of Things; Government ICT Infrastructure; and Cybersecurity. Since October 2016, we have more than doubled the number of specialists in our centres from 320 to 680, and will continue to hire another 300 over the next three years.

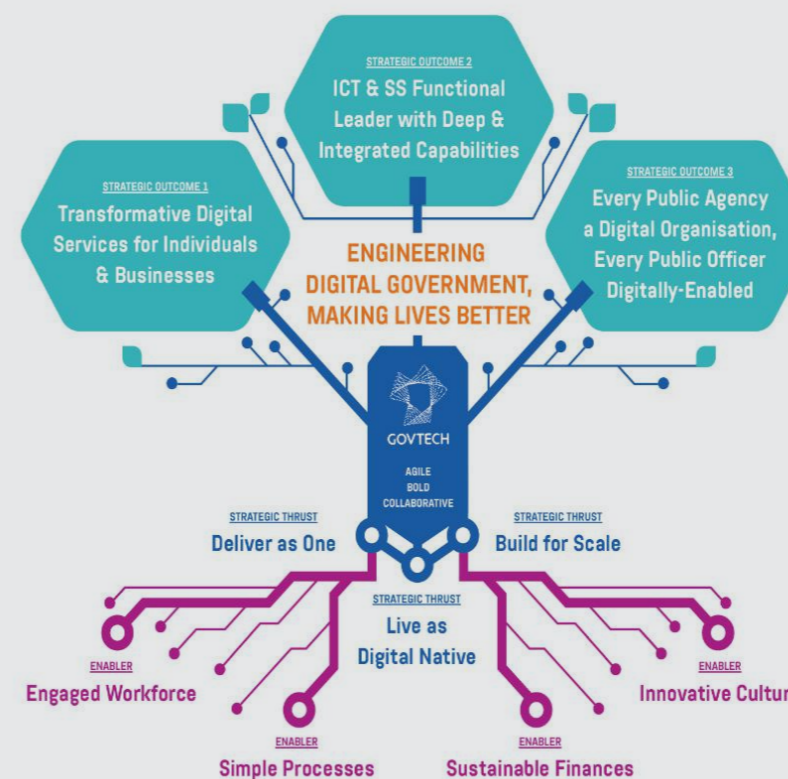
We have started to organise our staff into Functional Clusters to help them skill up and develop the multi-disciplinary capabilities required to thrive in their given role. To date, 10 Technical Clusters and 32 job roles have been identified. Each Cluster is a family of related job roles with their own set of competencies and proficiency levels, led by Practice and Chapter Leads who will drive professional development in each Cluster.

In the same vein, we are continuing to nurture the next generation of digital leaders who will take us into the future. Scholarships were awarded to the first batch of nine talents under the Smart Nation Scholarship Award in August 2018, who have gone on to undertake various national projects at the

Cyber Security Agency of Singapore, Infocomm Media Development Authority and here at GovTech.

Moving forward, we will **Build for Scale** by developing on platforms that will increase the interoperability of our systems, reusability of the components and velocity of our development cycles. We will focus on the following five platforms that are key to helping us meet the DGB outcomes:

1. **National Digital Identity (NDI)** – a digital credential for users to transact with the government and businesses via a single trusted digital identity. Products that are already making use of NDI include MyInfo and SingPass Mobile. We will soon launch SG-Verify, a facility for businesses to perform secure identity verification and data transfer through QR scanning.
2. **Smart Nation Sensor Platform (SNSP)** – a nationwide sensor platform to help public agencies provide more pre-emptive and responsive services to citizens through data collection and analysis. The Lamppost-as-a-Platform will be on trial at one-north and Geylang, and will test use cases that support the municipal, mobility and security domains.
3. **Moments of Life (MOL)** – an integration of different government services that are delivered to the citizen around a specific moment in his or her life. The first application, serving young families, has received 34,000 downloads and handled over 5,000 birth registrations since it was launched in June 2018. We will expand to include new services that cater to citizens at other key life stages, such as seniors.
4. **Singapore Government Tech Stack (SGTS)** – a technology stack that enables public agencies to design, develop and deploy digital services quickly and securely.
5. **Digital Workplace Programme** – a digital platform for public officers to work more productively and collaborate with officers across agencies.



that provide a more holistic experience as citizens transact with the government.

Every Public Officer Digitally Enabled

As we strive to make every public agency a digital agency and every public officer digitally-enabled, it is important that we embed digital skills across the government so that as individuals and organisations, we can **Live as Digital Natives**. GovTech has developed a Data Science and AI capability framework and training roadmap, under which we are committed to train 20,000 public officers in data science and analytics competency, with all officers possessing basic digital literacy by 2023.

Our team has also continued to build products for public officers that will enhance their productivity at work. FormSG, for example, has significantly improved workflows and helped officers digitise their forms easily. As of February 2019, over 12,000 public officers have built forms that have been filled out by more than 1.13 million members of the public.

Beyond addressing “Jobs to be Done”, the Service Journey approach encompasses a suite of interaction points that provide a more holistic experience as citizens transact with the government.

Every Public Agency a Digital Organisation

With the appointment of Chief Digital Strategy Officers to spearhead the development of their Ministry Family Digitalisation Plans (MFDPs), we are now embarking on over 90 digitalisation initiatives that will improve the lives of our citizens, businesses and public officers.

GovTech will continue to work closely with the agencies to realise the MFDPs, with a focus on enabling the government to **Deliver as One**. We will increasingly take a “Service Journey” approach in the next stage of our service delivery transformation. 12 Service Journeys have been commissioned to date. Beyond addressing tasks or “Jobs to be Done” that are centred on a specific need in a citizen’s life, the Service Journey approach encompasses a suite of interaction points

Delivering on Smart Nation

As we journey further along our way towards building a Smart Nation, what I have shared are just some of the many changes being made as we transit into the operationalisation phase of GovTech 2.0. As we move forward in FY19, let us continue to work as one, as we keep to our core values of being agile, bold and collaborative to drive a digitally-ready public service and nation.

Ng Chee Khern
Chairman
Government Technology Agency

Statistics



Singapore's Performance in the Digital Government Rankings

United Nations e-Government Survey

The UN e-Government (eGov) Survey measures the effectiveness of all 193 UN Member States on the relative ability of their governments in harnessing infocomm technologies (ICT) to deliver online services and engage its citizens in public policies.

In 2018, Singapore ranked 7th overall on the E-Government Development Index and was 2nd for the Online Services Index.

Publication Year	2012	2013	2014	2015	2016	2017	2018
UN eGov Survey (released biennially)							
i. Development Index	10 th	No report	3 rd	No report	4 th	No report	7 th
i. Online Services Index	1 st	No report	2 nd	No report	3 rd	No report	2 nd
ii. e-Participation Index	3 rd	No report	10 th	No report	8 th	No report	14 th

World Economic Forum Global Information Technology Report

The WEF Global IT Report (GITR) is a yearly study that ranks 148 economies and examines their preparedness to leverage information and communication technologies (ICT) for increased competitiveness and development.

In 2016, Singapore was ranked first in the world.

Publication Year	2012	2013	2014	2015	2016	2017	2018
WEF Global IT Report (released annually)							
i. Government Usage Sub-Index	2 nd	1 st	1 st	1 st	1 st	Not available	Not available
ii. Social Impact Sub-Index	3 rd	1 st	1 st	1 st	1 st	Not available	Not available

Annual Digital Government Perception Survey (Citizens) Conducted in 2018

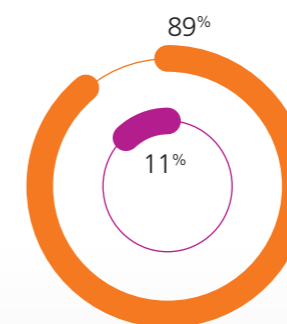
Background and Objectives

The Digital Government Customer Perception Survey (Citizens) is conducted annually by the Smart Nation and Digital Government Office (SNDGO) and GovTech to assess citizens' satisfaction with key digital government services and to identify areas for further improvement. The survey was conducted from October to December 2018 for the reporting period of FY2018 (i.e. 1 April 2018 to 31 Mar 2019).

Survey Results

89%

of respondents used digital government services for personal matters in FY2018, a significant rise from 84% in the previous year.



For the 11% that have not used digital government services, the majority have other family members that are transacting with the government on their behalf, or indicated that they were not technology-savvy to do so.

Research Methodology

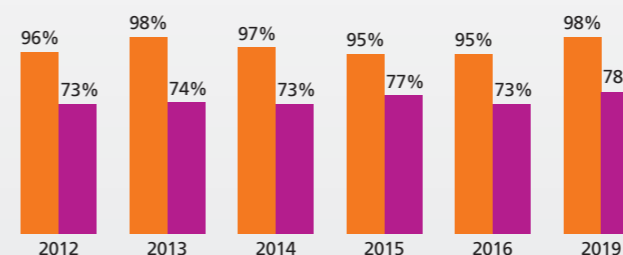
1,500



respondents, comprising representatives of the total demographic population above the age of 19, were surveyed. Data collection was done via face-to-face interviews.

Overall Satisfaction with Digital Government Services

(Satisfied = Rating of 4 and above; Very Satisfied = Rating of 5 and above)



75%

would recommend or encourage their family and friends to use digital government services.

98%



expressed satisfaction (rating of 4 and above on a scale of 6) with the overall quality of digital government services.



64%

agreed or strongly agreed that digital government services have improved in the past 12 months.

78%



were very satisfied or extremely satisfied (rating of 5 and above on a scale of 6).



76%

were very satisfied or extremely satisfied with the reliability, relevancy and ease of usage of digital government services in general.



Annual Digital Government Perception Survey (Businesses) Conducted in 2018

Background and Objectives

The Digital Government Perception Survey (Businesses) is conducted annually by the Smart Nation and Digital Government Office (SNDGO) and GovTech to assess the business community's satisfaction with key digital government services initiatives and to identify areas for further improvement. The survey was conducted from October to November 2018 for the reporting period of FY2018 (i.e. 1 April 2018 to 31 Mar 2019).

Research Methodology

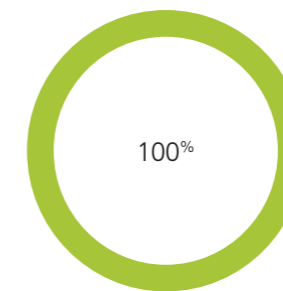


businesses, representative of the following industry sectors, were surveyed. Data collection was done through telephone interviews. Business sectors surveyed include:

- Commerce;
- Community, Social & Personal Services;
- Construction;
- Financial & Business Services;
- Manufacturing; and
- Transportation, Storage & Communications.

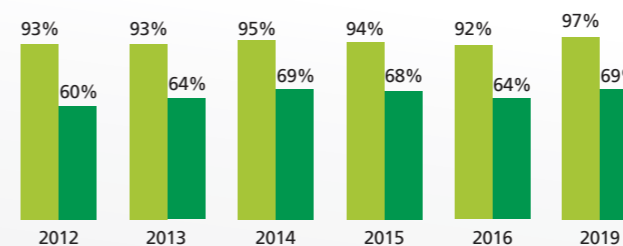
Survey Results

Almost all (100%) of the businesses used digital government services for their operations in FY2018, similar to the past three years.



Overall Satisfaction with Digital Government Services

(Satisfied = Rating of 4 and above; Very Satisfied = Rating of 5 and above)



97% expressed satisfaction (rating of 4 and above on a scale of 6) with the overall quality of digital government services.



69% were satisfied or very satisfied (rating of 5 and above on a scale of 6).



69% agreed or strongly agreed that digital government services have improved in the last 12 months.



67% were very satisfied or extremely satisfied with the reliability, security and relevancy of digital government services.

Highlights

Apr 2018

17 Apr

Helping jobseekers with job-to-skills matching technology

The MyCareersFuture search portal was launched to match jobseekers to relevant jobs based on their skills. Using AI and UX to make job searches convenient and easy by offering job-to-skills matching technology, the application provides recommendation of jobs based on current skills, and the ability for lower-skilled employees to search for jobs and be hired through programmes under WSG's Adapt & Grow initiative.



SINGAPORE STUDENT LEARNING SPACE

31 May

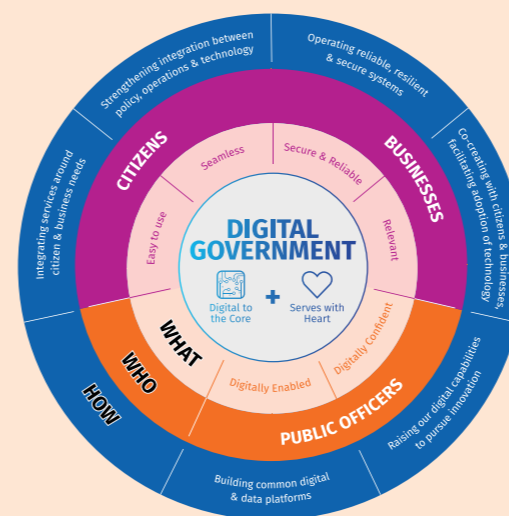
Curating digital educational resources for students

The Student Learning Space (SLS) Portal was rolled out to over 360 schools in May 2018. Developed by GovTech and the Ministry of Education, SLS is a digital learning platform for students to access curated educational resources at their own time and pace. The portal also won the 2018 IDC Smart City Asia Pacific Awards (Education) in July 2018.

5 Jun

Transforming government through the Digital Government Blueprint

Publicly launched in Jun 2018, the Digital Government Blueprint sets out a vision of a Singapore Government that is digital to the core and serves with heart. It is a statement of our ambitions to better leverage technology and data to fundamentally transform government for the better. The Blueprint also lays out key outcomes that we aim to achieve for citizens, businesses and public officers by 2023.



7 Jun

Collaborating with industry partners to build a Smart Nation

The Smart Nation and Digital Government Industry Briefing organised by GovTech saw a record turnout of more than 1,160 participants, comprising industry players and public officers. The Briefing covered topics that invited industry players to collaborate and participate in the Smart Nation movement, such as the Digital Government Blueprint, Singapore Government Tech Stack and National Digital Identity.



May 2018

3 May

Simplifying payment processes with Gov QR

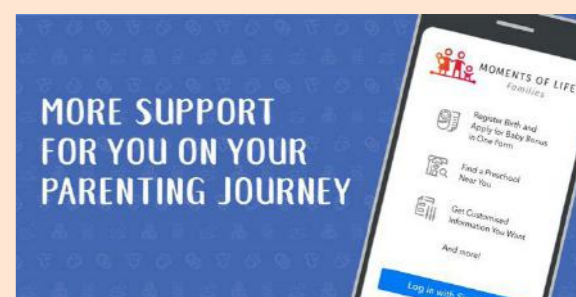
To improve citizens' user experience when paying bills to public agencies, Government QR (Gov QR) payment was launched. Developed by GovTech, Gov QR payment allows citizens to simply scan the QR code on their government bills to make payment, both physical and electronic. This eliminates the need to manually enter payment details such as bill reference numbers and the amount payable each time a citizen transacts with the government.

Jun 2018

5 Jun

Exchanging digital government experiences with international leaders

The Digital Government Exchange (DGX) is an invitation-only event for a select group of international public sector leaders from jurisdictions that have made significant progress in digital government and smart cities. The third edition saw an increased number of Government Chief Information Officers and Public Sector Leaders in attendance, including new attendees from Korea, Russia and Amsterdam.



29 Jun

Parenting made easier with Moments of Life app

The Moments of Life (Families) application was launched as the first government service designed around specific moments in a citizen's life. Through the app, parents can register births, apply for baby bonuses, and access health records and immunization schedules. It provides parents with a simplified interface to interact with the government as they begin their parenting journey.

Jul 2018

5 Jul Building a smart nation with geospatial technology

The Singapore Geospatial Masterplan – jointly developed by the Singapore Land Authority (SLA) and GovTech – was launched by Minister for Law, Mr K Shanmugam. The Masterplan outlined the key outcomes, strategies and initiatives over the next five years to support Singapore’s Smart Nation vision through the use of geospatial technology.



Sep 2018

1 Sep Securing government digital services for businesses

With effect from 1 September 2018, over 350,000 businesses in Singapore switched to the national digital identity platform, CorpPass, which enables businesses and other entities such as non-profit organisations and associations to conduct online transactions with government agencies. Businesses will have greater control and flexibility by having a single platform to authorise and manage their employees’ access to government digital services.



28 Sep

Developing tech solutions for the public good

GovTech worked with Startup Weekend Singapore to organise a hackathon that saw over 500 participants, industry partners and volunteers come together for 54 hours of open innovation challenge. More than 10 government agencies shared their problem statements and challenges to encourage participants to come up with solutions for the public good. 43 teams battled it out over the weekend, with winning teams prototyping projects that include virtual reality technology for dementia patients and wearable translation devices for deaf individuals.



2 Oct

Developing platforms for citizen-centric services

STACK also saw the launch of the Core Operations Development Environment and eXchange (CODEX) by Prime Minister Lee Hsien Loong. CODEX enables public agencies to move away from a silo approach in developing agency-centric applications, to a central platform with reusable digital components, machine-readable data and commercial cloud. This helps agencies reduce the time required to design, develop and deliver citizen-centric digital services.



19 Jul

Getting recognised for our user-centric digital services

Singapore moved up a spot to clinch second place (behind Denmark) in the Online Service Index of the UN E-Government Survey 2018. The improvement was attributed to our chatbot initiatives to deliver public services, and the use of behavioural and design-thinking approaches to create user-centric experiences.

Aug 2018

17 Aug Grooming future generations for ICT leadership roles

The inaugural Smart Nation Scholarship Award was held on 17 August, where a pioneer cohort of nine scholars were awarded. They will go on to undertake national projects in the Cyber Security Agency of Singapore (CSA), Government Technology Agency of Singapore (GovTech) and the Infocomm Media Development Authority (IMDA).



26 Sep

Streamlining customs and trade processes for businesses

The Networked Trade Platform is a national trade information management platform which combines all customs and trade-related services. It allows businesses to cut back on onerous paperwork in a streamlined process. Trade permits can now be processed in under one hour, as compared to several days previously.



Oct 2018

2 Oct Engaging the tech community through our first developer conference

GovTech held its first-ever developer conference for developers, programmers and technologists from the public and private sectors. Called STACK, the conference was a platform for tech enthusiasts to learn about, share knowledge on, and try out the latest digital products from the Singapore Government. It featured speeches by top technologists from the private and public sectors, as well as various talks and technical workshops.



Oct
2018

22 Oct

Implementing secure login methods for SingPass Mobile

The SingPass Mobile app was launched to enable citizens to transact securely and conveniently with public and private sector digital services. More than 265,000 users have downloaded the app since. This new 2FA-login method enables authentication using biometrics, including fingerprint and facial recognition, and does away with the need to key in long passwords or the hassle of using physical tokens.



Nov
2018

9 Nov

Verifying academic credentials with digital certs

GovTech worked with Ngee Ann Polytechnic, SkillsFuture Singapore and the Ministry of Education to develop OpenCerts – a platform to issue, certify, verify and validate academic and skills credentials. Leveraging on blockchain technology and open standards, OpenCerts allows both local and overseas educational institutes to easily create digital, tamper-proof versions of academic certificates. Graduates no longer need to bring physical certificates around, while employers will have an easier time verifying academic credentials.



Jan
2019

2 Jan

Providing a one-stop digital platform for parents and teachers

After two years of development, GovTech and the Ministry of Education successfully launched Parents Gateway. A one-stop mobile app, it allows schools to update parents on programmes and activities, as well as for parents to complete administrative matters via the app – even if their children are in different schools. This includes providing consent for their children to participate in school activities.



Parents can use their SingPass accounts, SMS 2FA or OneKey token to access the app, which is available on iOS and Android. By the end of the year, all schools will have access to the app, serving 600,000 parents and 33,000 teachers.

Feb
2019

4 Feb

Colourising old images from Singapore's past

Colourise.sg, a free online tool which brings history to life by adding colour to old photographs, earned rave reviews from the online community. Created by three specialists from GovTech as part of an internal hackathon, the tool has been used by more than 68,000 users globally, with over 270,000 colourised images generated. The software was intentionally trained to colour images specific to Singapore, with the model being fed more than 500,000 colour photos from the 1980s to train it to recognise Singapore-based objects and features.



22 Oct

Integrating APIs to better build and test solutions

The National Digital Identity (NDI) API Portal was launched to integrate both MyInfo and NDI Identity & Access APIs. It gives developers and business partners access to the information and tools to experiment, build and test solutions quickly and securely. Periodic workshops were conducted with interested developers to help them better understand the use of the portal.



14 Nov

Winning the Smart City of 2018 Award

Singapore was named Smart City of 2018 at the Smart City Expo World Congress in Barcelona. This is the first award that Singapore has won since embarking on our digital transformation journey. The award recognised us for our Smart Nation initiative – promoting digital technology and innovation to boost liveability and sustainability.



Dec
2018

21 Dec

Uncovering vulnerabilities in government ICT systems

To strengthen the resilience and security of government ICT systems, GovTech and CSA initiated a Bug Bounty Programme incentivising "white hat hackers" and security researchers to probe and uncover vulnerabilities in government ICT systems. Phase One was initiated in December 2018 involving 400 local and foreign hackers and five government sites. 26 vulnerabilities were uncovered and rectified, with a bounty pay-out of about USD\$12,000.



21 Jan

Giving SMEs quick access to banking facilities

Together with DBS, OCBC and UOB, we soft launched the MyInfo Business pilot initiative in end-Jan. MyInfo Business allows banks to offer small-and-medium enterprises banking facilities through consent-based sharing of government-verified corporate and personal data. Since Jan 2019, the three banks have collectively registered over 3,000 B2B MyInfo Business-enabled transactions, and reported time savings of 60 to 70 per cent for successful account openings and loan applications.



Meet Our GovTechies

Gloria Chua
Associate UX Designer



Designed SingPass Mobile for citizens

Part of the Experience Strategy and Design team, Gloria's work as a UX designer has helped to make SingPass Mobile a reality, contributing to a digital future where citizens can access government digital services conveniently and securely. Her average day is an eclectic mix of paper sketching new concepts, designing prototypes and mock-ups, liaising with developers and carrying out interviews to find out citizens' needs. Previously based in the Bay Area, Gloria headed back to Singapore to be at the centre of action. "The momentum had been building around the Smart Nation initiative, and I wanted to contribute to a mission and community that I care about," she shares. Aside from designing the app, Gloria and her team also conduct field interviews with the app's end-users. "This really energises me, because not only do I see people using what we've built, I also see how we can make it better."

Developed WOG QR generator for citizens

Rachel leads the strategic planning, programme development and implementation of the Whole of Government (WOG) e-Payment programme. Together with her team, the working mum oversees government adoption of PayNow and UPOS (Unified-Point-of-Sale) as part of a nation-wide push towards a seamless and secure e-payment experience. Her team was also responsible for rolling out the WOG QR generator that enables citizens to transact with the government with ease. To Rachel, living GovTech's vision of being 'Agile, Bold and Collaborative' is essential to carrying out her day-to-day work. "Dealing with different agencies who have entirely different domain and IT setups requires us to harness our A, B, Cs," says Rachel. "Otherwise, we will not be able to understand their requirements and how our central solutions can benefit them."

Rachel Lim
Executive Manager



Jayaraj Dirilokaraj
Manager

Rolled out Ideas! Platform for citizens

As a project manager, Jay's work has him developing tech solutions for platforms such as Ideas!, which serve to facilitate engagement between citizens and the government. Ideas! allows members of the public to contribute solutions to government challenges – through idea generation, application development and hackathons – and solve problems that Singaporeans may be facing. The team's hard work won them the GovTech Impact Award in 2018, and received positive feedback from agencies and citizens. "I'm in a space where the work I do translates to delivering solutions that help public officers and citizens have better conversations with each other. This, to me, is tangible and meaningful work," says Jay, who enjoys reading translated Japanese manga and Chinese martial hero stories in his free time. "Being a part of the public service, I think it's important for us as public officers to deliver positive impact for the betterment of our nation and its people."

Developed CorpPass for businesses

Helping businesses strengthen their data protection and internal controls is what Kok Khuan and his team do. Together, they rolled out CorpPass, which enables businesses to access government services with separate digital credentials – addressing privacy concerns surrounding the use of an individual's SingPass for work-related matters. Since its launch in 2016, the platform has onboarded close to 440,000 businesses and registered 950,000 user accounts. It is now the only login method for online corporate transactions with the government. "More than just an IT project, the rollout of CorpPass was a massive change management effort encompassing the entirety of the Singapore Government, local businesses and other entities," shares Kok Khuan, who leads his team in smoothening the transition process and helping businesses ease into the new system. "CorpPass is an important technology platform and I'm glad to have played a part in its development."

Fong Kok Khuan
Deputy Director





Elita Lawalata
Senior Manager

Implemented MyInfo Business and SG-Verify for businesses

Describing her job as a hybrid of an engagement and product manager, Elita is part of the team that works closely with businesses to implement products such as MyInfo Business and SG-Verify – enabling businesses to integrate their operations with the National Digital Identity ecosystem that GovTech is developing. “A strong digital identity platform is an important tool with which you can build many services,” explains Elita. “I feel lucky to be part of the team working on these two important aspects – trusted data and trusted identity.” Citing resilience, communication and continuous learning as key traits required to do her job well, Elita loves that what she does enables her to build and deliver products that create value in the lives of Singaporeans.

Built digital workplace tools for public officers

Part of the Standard Products team at GovTech, Joel’s role sees him heavily involved in product and UX development for the Digital Workplace mission. A typical day comprises collaboration across teams and agencies, product briefings, planning releases, and supporting end users. Some of the products that he and his team have rolled out for public officers include the Digital Workplace mobile application, where officers can manage their resource bookings, leave applications and staff claims within the app; as well as the digital business card, which allows partners to save a public officer’s contact details to their mobile phones with one click. “Getting feedback from public officers that the tools we create helps them work more efficiently keeps me going,” says Joel, who is an avid surfer and competes in lifesaving sports in his free time. “I also value the depth of expertise here at GovTech, which allows me to tap into a vast amount of knowledge and learn from my co-workers.”



Joel Chua
Manager



Andre Ng
Associate Cybersecurity Specialist

Organised the Government Bug Bounty Programme for citizens and government organisations

While friends and family think that he takes joy in finding fault with other people’s systems, Andre shares that his job could not be more different. As a cybersecurity specialist, a significant amount of his time is spent working closely with system owners to ensure that their systems are secure, and to help them with remediation efforts when a vulnerability is found. Andre also organises the annual Government Bug Bounty Programme (GBBP) – an effort that involves engaging various teams of engineers, system owners and the cybersecurity community to discover vulnerabilities in local government systems. One of his best work moments include receiving appreciation from participating white hat hackers for the GBBP, who felt that it gave them the opportunity to sharpen technical skills while earning some side income. “For this programme to succeed, it is essential to have talented individuals from various backgrounds coming forward – not because of the bounty, but knowing that they are working towards a greater cause,” says Andre. He adds that the cooperative relationship between the cybersecurity community and GovTech cannot be bought or forged overnight. “That’s what makes the GBBP special.”

Board of Directors

(As at July 2019)

1 Mr NG Chee Khern
Chairman
Permanent Secretary
Smart Nation and
Digital Government

2 Mr KOK Ping Soon
Chief Executive
Government Technology
Agency of Singapore

3 Mr Bojan BLECIC
*Senior Vice President/
Head of Experience Design*
OCBC Bank

4 Ms Lesly GOH
*Senior Technology
Advisor*
World Bank

5 Mr Peter HO
Chief Executive Officer
HOPE Technik Pte Ltd

6 Ms Mariam JAAFAR
*Partner and Managing
Director (Singapore)*
The Boston Consulting
Group

7 Ms Melissa KHOO
Deputy Secretary (Policy)
Ministry of Education

8 Mr Alexander KLEINBERG
Advisor to COO
Grab Holdings Inc.

9 Prof Annie KOH
Vice President
Office of Business
Development, Professor of
Finance (Practice)
Singapore Management
University

10 Mr David KOH
*Deputy Secretary
(Special Projects)/
Defence Cyber Chief*
Ministry of Defence
Chief Executive
Cyber Security Agency
of Singapore

11 Dr Bruno LANVIN
Executive Director
Global Indices INSEAD

12 Mr Bruce LIANG
Chief Executive Officer
Integrated Health
Information Systems
Pte Ltd

13 Mr Matt QUINLAN
Director
Ontrack Advisory

**14 Mr Muthukrishnan
RAMASWAMI**
President
Singapore Exchange Ltd

15 Mr TAN Kiat How
Chief Executive
Info-communications
Media Development
Authority of Singapore

16 Mr TAN Peng Yam
Chief Executive
Defence Science and
Technology Agency



Senior Leadership Team

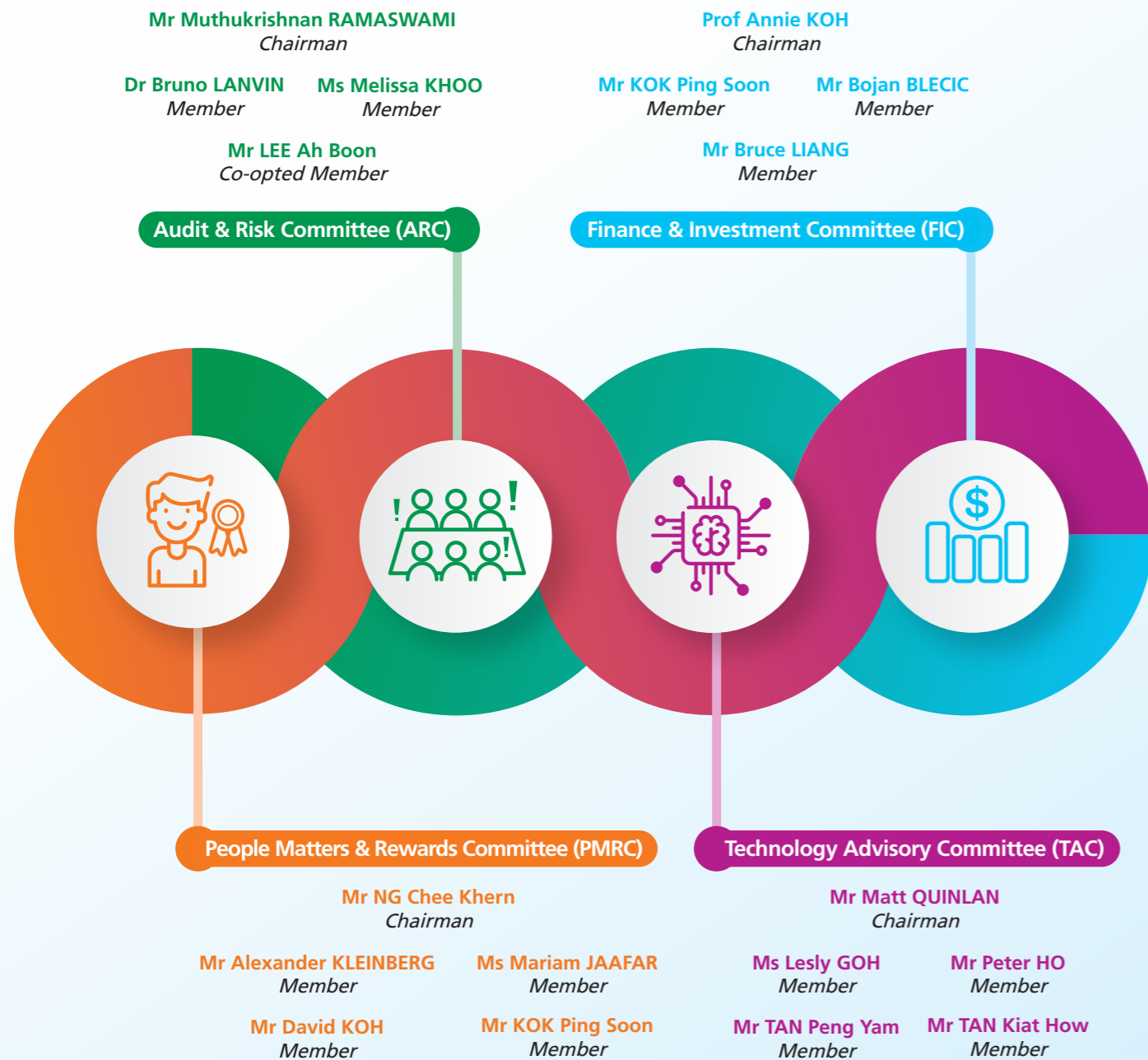
(As at July 2019)

- 1 Mr KOK Ping Soon**
Chief Executive
- 2 Mr CHAN Cheow Hoe**
Deputy Chief Executive (Product Management & Development) & Government Chief Digital Technology Officer
- 3 Mr FOONG Sew Bun**
Deputy Chief Executive (Services, Governance & Cybersecurity)
- 4 Ms LIM Bee Kwan**
Assistant Chief Executive (Governance & Cybersecurity)
- 5 Mr TAN Eng Pheng**
Assistant Chief Executive (Services)
- 6 Ms ANG Mui Kim**
Senior Director Manpower Cluster & SVC Workforce Transformation
- 7 Mr CHAI Chin Loon**
Senior Director Cyber Security Group
- 8 Mr KWOK Quek Sin**
Senior Director National Digital Identity
- 9 Mr LIM Chinn Hwa**
Senior Director Smart Nation Platform Solutions
- 10 Ms Jacqueline LIM**
Senior Director Government Infrastructure Group
- 11 Mr TAN Bee Teck**
Senior Director Education Cluster & Application Portfolio Remake
- 12 Mr Dominic CHAN**
Director Moments of Life
- 13 Mr LEONG Der Yao**
Director Data Science & Artificial Intelligence
- 14 Mr QUEK Yang Boon**
Director Sensors & IoT
- 15 Ms Jennifer TAN**
Director Strategy & Plans
- 16 Ms WONG Hefen**
Director Technology Management Office and Development & Organisation Transformation
- 17 Ms Evangeline CHUA**
Chief People Officer People & Organisation Group
- 18 Ms LEE Kai Nee**
Chief Financial Officer Finance, Investment & Procurement Group
- 19 Mr LIM Keng Soon**
Chief Communications Officer Communications & Marketing Group
- 20 Mr Vincent KOR**
General Counsel Legal

New appointees (not pictured):
Mr Jason BAY (5 July 2019)
Senior Director Government Digital Services
Mr D N PRASAD (22 July 2019)
Senior Director Strategy, People & Organisation



Members of Board Committees



Subsidiary

Assurity Trusted Solutions Pte Ltd ("Assurity") is a wholly-owned subsidiary of GovTech. It was incorporated to operate the National Authentication Framework (NAF).

The NAF is a project to improve the security of consumers performing online transactions. It is supported by the Monetary Authority of Singapore and respective regulators, such as the Ministry of Finance and the Ministry of Health.

The NAF is a part of GovTech's vision of "An Intelligent Nation 2015 (iN2015) Masterplan" to develop a secure and trusted infocomm infrastructure. This is to facilitate the delivery of safe online services offered by the public and private sectors. The NAF is one of the key initiatives of the Infocomm Security Masterplan and National Trust Framework.



- 1 Mr Robert CHEW**
Chairman
Assurity Trusted Solutions Pte Ltd
- 2 Mr Charles FAN**
Chief Executive Officer
Assurity Trusted Solutions Pte Ltd
- 3 Mr KWOK Quek Sin**
Senior Director,
National Digital Identity
Government Technology Agency
- 4 Mr Vivek KUMAR**
Assistant Director-General
NTUC
*Director, U Startup,
U Associate, U Future Leaders,
and U PME, Secretary
NTUC Membership Council*
- 5 Ms Shirley WONG**
Managing Partner
TNF Ventures Pte Ltd
- 6 Mr Bruce LIANG**
Chief Executive Officer
Integrated Health
Information Systems Pte Ltd
*Chief Information Officer
Ministry of Health*
- 7 Mr TAN Chee Hau**
Director, Smart Nation and
Digital Government Office
(Planning and Prioritisation)
Prime Minister's Office
- 8 Ms Deborah LEE**
Formerly Executive
Vice-President,
Corporate Development
Singapore Press
Holdings Ltd
- 9 Mr Eddie CHAU**
Board Advisor
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