



# Office of the Government Chief Information Officer The Government of the Hong Kong Special Administrative Region



## Vision

Sustain Hong Kong's position as Asia's leading digital city.

## Mission

- Deliver efficient, secure and citizen-oriented e-Government Services.
- Nurture and develop Information and Communications Technology (ICT) talents and professionalism in Hong Kong.
- Develop a vibrant ICT industry, promoting high-tier data centres, cloud computing services, big data and cyber security awareness.
- Develop Hong Kong into a world-class smart city.
- Promote a digitally inclusive, knowledge-based society.

## Organisation Structure

Headed by the Government Chief Information Officer, the Office of the Government Chief Information Officer (OGCIO) is responsible for formulating information technology (IT) strategies, programmes and measures, in addition to providing IT services and support within the Government.

OGCIO has some 600 civil service staff and is responsible for the career development of around 1,900 government IT professionals working in different government bureaux and departments (including OGCIO).

These government IT professionals are responsible for assuring the quality of government IT activities, particularly in developing and aligning IT strategy with business and policy objectives and in designing and delivering IT-enabled business change projects that enable timely delivery of policy goals. In addition, around 3,900 contract IT staff are engaged to supplement the government IT workforce.

## Functions of OGCIO

### (i) *Facilitating a digital economy*

We facilitate the development of a digital economy through –

- Legal Framework for the Conduct of Secure Electronic Transactions in Hong Kong – The Electronic Transactions Ordinance (Cap. 553) (“ETO”) accords electronic records and electronic signatures the same legal status as that of their paper-based counterparts in the conduct of electronic transactions.



- Internet Domain Name Administration Regime – The Hong Kong Internet Registration Corporation Limited (HKIRC) is a non-profit making company and designated to manage and administer the “.hk” country-code top level domains for Hong Kong.



- Fostering IT Learning Atmosphere among the School Community – OGCIO launched the IT Innovation Lab in Secondary Schools Programme in the 2020/21 school year for three school years to provide funding support up to \$1 million to each publicly funded secondary school for organising IT-related extra-curricular activities and procuring necessary IT equipment and related professional services to support the activities, which aims to cultivate young people’s interest in IT, enhance their innovative thinking and foster an IT learning atmosphere, thereby promoting local popular science education and expanding the supply of I&T talent to meet the needs of a technology-driven society. From the 2021/22 school year, we extended the programme to primary schools by implementing a three year “Knowing More About IT” Programme. Subsidy of up to \$400,000 will be provided to each publicly funded primary school for organising extra-curricular activities to enhance primary school students’ interests, knowledge in and application of information technology and prepare them for integration into the knowledge-based economy and participation in the development of a digital society in the future.

- Smart City Development – The Government published the Smart City Blueprint for Hong Kong (the Blueprint) in December 2017, providing a clear and concrete direction for the smart city development in Hong Kong. Subsequently, the Blueprint 2.0 was released in December 2020, putting forth over 130 initiatives which enhance and expand existing city management measures and services. It has also included new chapters on “Use of I&T in Combating COVID-19” and “Smart Village Pilots”. The Blueprint 2.0 is available at the dedicated smart city portal ([www.smartcity.gov.hk](http://www.smartcity.gov.hk)).

“Smart Village Pilots” would explore the use of I&T in addressing the daily life issues faced by residents living in rural and more remote areas. OGCIO has already been providing free Wi-Fi service at more than 50 village premises (e.g. village offices), and will progressively extend the service to more than 100 village premises to facilitate the provision of other smart village pilot initiatives.

- Development of digital infrastructure in supporting the Smart City Blueprint, namely “iAM Smart”, Pilot Multi-functional Smart Lampposts Scheme and Next Generation GovCloud and Big Data Analytics Platform.

- “iAM Smart” – OGCIO launched the “iAM Smart” Platform in December 2020 for provision of one-stop personalised digital services. As of end-June 2022, over 1.4 million users have registered for “iAM Smart” and they could access more than 210 public and private digital services conveniently with a single digital identity.

- Pilot Multi-functional Smart Lampposts Scheme – We plan to implement a pilot scheme of installing some 400 smart lampposts in four selected districts in the territory with higher pedestrian flow. The smart lampposts with

smart devices will provide convenient data services and collect various real-time city data, enhance city and traffic management, and complement the infrastructure development for the fifth generation (5G) mobile communications services in Hong Kong. Over 70 smart lampposts have been put into operation in Kwun Tong district, Kowloon City district, Kai Tak Development Area and Yau Tsim Mong district. We are carrying out the installation works in the remaining districts by phases and expect to complete the installation in 2023. In addition, we have launched a multi-functional smart lampposts virtual exhibition ([smartlamppost.ogcio.gov.hk](http://smartlamppost.ogcio.gov.hk)) since March 2021 to explain the operation of smart lampposts and the benefits it would bring about to the public.

- Next Generation GovCloud and Big Data Analytics Platform – OGCIO has modernised the existing government cloud infrastructures and adopted a new application architecture. Through this new platform, bureaux and departments can expedite the development and delivery of digital government services, including the big data analytics and artificial intelligence applications. The Next Generation GovCloud Platform and Big Data Analytics Platform started operating in September 2020.

**(ii) Developing Hong Kong as a hub for innovation and technology**

We support ICT start-ups, nurture talents and facilitate ICT industry development through –

- Smart Government Innovation Lab – OGCIO set up a Smart Government Innovation Lab in April 2019 to promote pro-innovation government procurement policy and expedite bureaux and departments’ adoption of innovative IT products and solutions, thereby improving public services and creating more business opportunities for local start-ups and SMEs. Please visit the thematic website ([www.smartlab.gov.hk](http://www.smartlab.gov.hk)) for details.



- Collaboration with the Mainland – OGCIO takes active steps to facilitate exchange and collaboration between the ICT industries of Hong Kong and the Mainland. We have been leading local ICT delegations to visit the Mainland to explore collaboration and business opportunities, taking advantage of Mainland’s implementation of the strategic “Internet+”, “Belt and Road” and “Digital Economy” initiatives. We regularly take part in major ICT exhibitions in the Mainland providing



opportunities for local ICT companies, especially SMEs, to showcase their innovative products and services and to tap into the Mainland market.

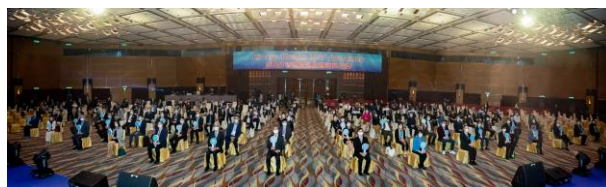
The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) and the National 14th Five-Year Plan were announced in February 2019 and March 2021 respectively. OGCIO will continue to actively support the national strategies in the high-quality development of GBA, and participate in key innovation and technology projects which include developing an international Innovation and Technology Hub and expediting Infrastructural Connectivity, building smart city clusters and a GBA big data centre, promoting the use on mutual recognition of electronic signature certificates and enhancing the level of cyber security protection, etc.

The Hong Kong/Guangdong Expert Group on Co-operation in Informatisation was set up to strengthen co-operation in promoting the development and adoption of new generation digital technologies such as 5G, big data, artificial intelligence in both places, as well as deepening the collaboration between the two governments and facilitating the exchanges among the industry, academia and research sectors of the two places, with a view to supporting the development of smart cities in the Greater Bay Area. OGCIO has put in place the mutual recognition scheme of electronic signature certificates between Hong Kong and Guangdong which helps enhance security and reliability of cross-boundary e-commerce.

- “Maker in China” SME Innovation and Entrepreneurship Global Contest - Since 2019, OGCIO has been collaborating with the Ministry of Industry and Information Technology of the People’s Republic of China and the Liaison Office of the Central People’s Government in the HKSAR in organising the Hong Kong Chapter of the national global contest - “Maker in China” SME Innovation and Entrepreneurship Global Contest ([www.smeiegck.hk](http://www.smeiegck.hk)) to facilitate better understanding of local innovative technology products and solutions among Mainland investors and enterprises. It also facilitates local technology SMEs to set up their business networks in the GBA and the Mainland. In the 2021 Contest, two winning teams of the Hong Kong Chapter won the championship and 1st runner-up of the Global Final.



- Hong Kong ICT Awards – OGCIO has been collaborating with the local ICT industry in organising the Awards since 2006 to recognise outstanding achievements and to showcase Hong Kong’s ICT innovation and successes. In its 2021 edition, the Hong Kong ICT Awards has received 2,160 entries under eight categories of the Awards. The Awards Presentation Ceremony was held on 29 November 2021. Preparation for the 2022 edition commenced in April this year. Please visit the thematic website ([www.hkictawards.hk](http://www.hkictawards.hk)) for details.



- Data Centres – OGCIO champions initiatives and measures to develop Hong Kong as a prime location for high-tier data centres in the region. The Data Centre Facilitation Unit ([www.datacentre.gov.hk](http://www.datacentre.gov.hk)) established under OGCIO provides information and one-stop support to assist enterprises interested in setting up data centres in Hong Kong, including conversion of existing industrial buildings and industrial lots for data centre use, and works with government departments on measures to facilitate the setting up of data centres taking into account their unique mode of operation.



- Wi-Fi Connected City – OGCIO has been promoting free public Wi-Fi services which are offered by public and private organisations under the common Wi-Fi brand “Wi-Fi.HK” since 2014. There are currently over 45,600 hotspots under the “Wi-Fi.HK” brand.



- Cyber Security – Through various means such as Cyber Security Information Portal ([www.cybersecurity.hk](http://www.cybersecurity.hk)), social media, seminars and school visits, OGCIO collaborates with key partners including the Hong Kong Computer Emergency Response Team Coordination Centre (HKCERT), Hong Kong Police Force, Hong Kong

Internet Registration Corporation Limited (HKIRC) and professional bodies to provide businesses (in particular SMEs), organisations, students and general users with the latest information on cyber threats, professional advice on preventive and recovery measures, and technical assistance (e.g. web scanning) to mitigate security risks.



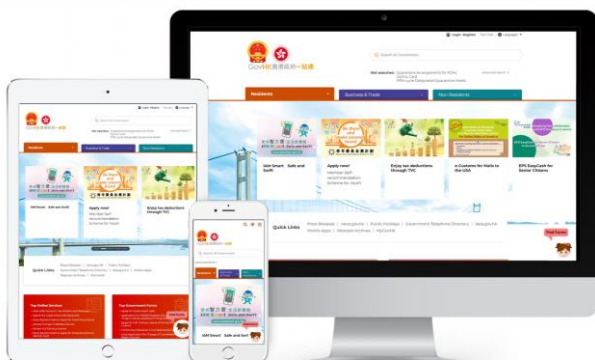
In addition, OGCIO partners with HKIRC to run a public-private partnership programme underpinned by a collaborative platform ([www.cybersechub.hk](http://www.cybersechub.hk)) and professional exchange activities to promote cross-sector sharing of cyber security information, best practices and experiences. The programme raises the community's awareness of cyber security, strengthens alert capability, promotes collaboration and ultimately helps the community as a whole meet the challenges of cyber attacks.



### (iii) Development of the next generation of e-government services

We facilitate service transformation in both the public and private sectors through –

- GovHK – GovHK ([www.gov.hk](http://www.gov.hk)) provides a one-stop portal of government information and e-services and an account-based platform – MyGovHK to provide single access to an array of personalised e-government services. The GovHK Chatbot (Bonny) was launched in the GovHK portal in December 2019. It makes use of Artificial Intelligence technology to interact with users by text to assist them in searching for government forms and related e-government services.



- Open Data – OGCIO launched the revamped Public Sector Information (PSI) portal ([data.gov.hk](http://data.gov.hk)) in December 2017 to release government open data free of charge in digital machine readable

format, with a view to tapping creativity and wisdom of the community in developing more innovative applications with open data, thereby bringing about convenience to the citizens and business opportunities to the industry. The portal currently provides over 4,970 unique datasets under 19 public data categories and 1,800 Application Programming Interfaces. The portal has also introduced city dashboards at the end of 2019 for the public to understand the city-related data more easily.

- IT Strategy – OGCIO formulates government-wide IT strategy and actively facilitates government bureaux and departments to plan and execute their IT-enabled change initiatives in a more agile, cost-effective and joined-up manner by adopting cloud computing and other emerging technologies. These initiatives include:
  - Electronic Information Management – The government-wide electronic information management strategy embraces content management, records management and knowledge management. OGCIO, in collaboration with Government Records Service and Efficiency Office, is developing a central Electronic Recordkeeping System (ERKS) on the Government's private cloud platform to support full implementation of ERKS in the Government to enhance efficiency in preserving and managing government records.
  - Electronic Procurement – OGCIO is rolling out its cloud-enabled electronic procurement service to government bureaux and departments to enhance procurement efficiency. Suppliers also reap the benefits of shorter transaction turnaround time and greater business opportunity.
  - Government Human Resources Management Services (GovHRMS) – Providing common IT services to facilitate human resources management activities of staff members as well as strategic manpower planning and human resources management decision making in Government. OGCIO monitors the development and implementation of the GovHRMS.
  - Government Data Centre Service Arrangements – OGCIO is building a government data centre complex that consolidates some of the existing government data centres, leading to better economy of scale, cost effectiveness as well as greener management in the overall government data centre operations.
  - Government Electronic Communications Infrastructure – OGCIO establishes and maintains an advanced and secure electronic communications infrastructure for effective and efficient communications and collaboration in government operations and delivery of public services.
- Information Security – OGCIO implements and regularly reviews the "Government IT Security



Policy and Guidelines” to ensure that they are in pace with technology advancement and international best practices. The latest versions of the policy and guidelines are available on government websites for public reference. OGCIO also enforces compliance by government bureaux and departments with the security requirements. GovCERT.HK ([www.govcert.gov.hk](http://www.govcert.gov.hk)) run by OGCIO is dedicated to coordinating and managing information security incident response for government bureaux and departments. It also collaborates with other CERTs locally and globally to assist public/private sectors and individuals in protecting their information and digital assets.

**(iv) Application of Information Technology to Combat COVID-19**

In combating COVID-19, we have been actively assisting relevant government bureaux and departments in their application of IT on implementing various anti-epidemic measures with a view to curbing the spread of diseases in the community, assisting the public to cope with the new normal and at the same time supporting economic recovery on the basis of vaccine bubble –

- Support to Compulsory Quarantine – Through the use of the “StayHomeSafe” mobile app adopting geo-fencing technologies, together with Bluetooth Low Energy electronic wristbands worn by confinees, OGCIO has since February 2020 been assisting in the monitoring of confinees’ compliance with the quarantine requirement of staying in their designated dwelling places during the quarantine period, while ensuring proper protection of confinees’ privacy. So far, over 830,000 electronic wristbands have been distributed for use by confinees. Furthermore, from late February 2022, OGCIO started to deliver anti-epidemic kits to infected persons under home isolation and their household close contacts. More than 1.2 million kits have been delivered so far.



- Interactive Map Dashboard on the Latest Situation of COVID-19 in Hong Kong – Through application of open data and geographical IT, the Government launched the Interactive Map Dashboard on the Latest Situation of COVID-19 in Hong Kong (Interactive Map) in February 2020 to enable the public to keep abreast of the latest situation of the epidemic and other related information effectively. In addition, datasets under the Interactive Map are

also opened up in machine-readable format via PSI Portal for free public use. The Interactive Map has so far recorded over 79 million views.

- Community Testing Centres – To enable citizens to make bookings for the testing services in an efficient and secure manner, OGCIO established an online booking system and registration system for the Community Testing Centres established by the Government in various districts. The online registration system is designed to simplify the on-site registration procedures and thus reduce the chance of mass gathering. As regards the registration system, it is designed to handle citizens’ personal data and sample testing process separately, so that laboratories responsible for testing samples could not access any personal data and citizens’ personal privacy is thus protected.
- COVID-19 Vaccination Programme – OGCIO established an online booking system facilitating the Government to launch the COVID-19 Vaccination Programme in February 2021, enabling citizens to make bookings in respect of the time and venue for receiving vaccination. SMS reminders will also be sent to the persons with appointment bookings. Real-time updates on the vaccination centres’ booking status are also made available on the thematic webpage to keep the public informed of the booking places available in each vaccination centre. The system also supports the setting of vaccine quotas for each vaccination centre, and provides booking statistics to assist in the overall vaccine logistics arrangement under the programme.



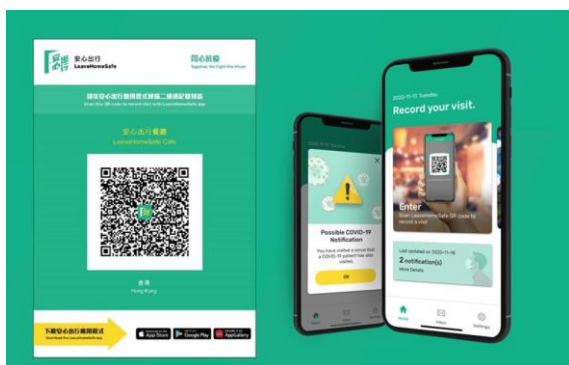
- COVID-19 Electronic Vaccination and Testing Record System – The system was launched for citizens to conveniently download the electronic vaccination, testing and recovery records and vaccination medical exemption certificate after verifying their identity through “iAM Smart”. A QR code with digital signature technology is embedded in the record to ensure that the information is tamper-proof and enable effective verification of the authenticity of the electronic record for facilitating the citizens to enter into certain designated local premises under the vaccine bubble initiative.



- “LeaveHomeSafe” exposure notification mobile app – OGCIO launched the “LeaveHomeSafe” mobile app in November 2020 to provide members of the public with a convenient digital tool for recording their whereabouts. The mobile app will send exposure notification and issue relevant health advice to a user if the user is later identified to have visited the same venue that a confirmed patient has visited at about the same time, to enhance their vigilance so as to minimise the risk of further transmission of the virus. In an unfortunate event of infection, the user’s visit records stored in the app can assist the Centre for Health Protection in epidemiological investigations. In collaboration with the Hong Kong Baptist University to adopt their award-winning AI analytic technology, we launched a new dynamic auto-leave function for taxi rides in August 2021 as an ongoing effort to enhance user experience. To support orderly resumption of normal travel between the Mainland and Hong Kong and leverage technologies to combat the epidemic, OGCIO launched “LeaveHomeSafe 3.0” in December 2021 which enables connection to the Hong Kong Health Code System for the purpose of applying for the Hong Kong Health Code. To facilitate the public’s entry to designated premises under the “Vaccine Pass” arrangement, OGCIO updated “LeaveHomeSafe” to version 3.2.3 or above in May 2022 to enable the automatic display of QR code of electronic vaccination record / recovery record / vaccination medical exemption certificate / provisional vaccine pass after scanning a venue QR code, simplifying the process of displaying QR codes.

The “LeaveHomeSafe” mobile app does not require registration of any personal information of the user and does not have a tracking function. Like visit records, the electronic vaccination records stored in the app will only be saved in the user’s mobile phone and will not be uploaded to the Government or any other systems, thus protecting the user’s personal privacy. Since its launch, the number of downloads of the app exceeds 8.2 million. More than 130,000 public and private venues across the territory have participated in the scheme to display the “LeaveHomeSafe” venue QR codes.

The OGCIO has set up mobile support stations in 25 MTR stations since 20 December 2021 and the “LeaveHomeSafe” enquiry hotline (2626 3066) since 23 May 2022 to handle public enquiries on the “LeaveHomeSafe” mobile app and “Vaccine Pass” arrangement.



- “QR Code Verification Scanner” – In line with the full implementation of the Government’s “Vaccine Pass” arrangement from 24 February 2022, OGCIO launched the “QR Code Verification Scanner” mobile application and updated the version to 4.3.2 or above in May for the persons in charge of the relevant premises to scan and record the information in the QR code of the vaccination record / recovery record / vaccination medical exemption certificate / provision vaccine pass and verify its authenticity, and to help contact tracing when needed. Since its launch, the mobile app has recorded over 580,000 downloads.



- “Return2HK” and “Come2HK” Schemes – to facilitate gradual restoration of cross-boundary travelling, OGCIO set up online booking systems for “Return2HK” and “Come2HK” Schemes for Hong Kong residents and other travellers who meet the specified conditions under the schemes to apply for quarantine exemption quotas for travelling to Hong Kong from the Mainland or Macao via different ports to ensure a smooth and orderly quarantine process at the ports.
- Hong Kong Health Code System – The Government launched the “Hong Kong Health Code” system in December 2021. Upon successful real-name registration, users of the “Hong Kong Health Code” can upload their visit records and notification records from the “LeaveHomeSafe” mobile app and make online health declaration. The system will compare their residential addresses and visit records in the past 21 days with the lists of COVID-19 confirmed cases and close contacts, etc. to determine and issue Red, Amber or Green “Hong Kong Health Code” to users according to their own risk of infection. In preparation for our support on the orderly resumption of normal travel between the Mainland and Hong Kong, persons with Green “Hong Kong Health Code” valid for the day and fulfilling other specific criteria can apply for code conversion to the “Yuekang Code” of Guangdong Province. More than 730,000 residents have registered and activated their “Hong Kong Health Code” account.



## (v) *Fostering a digital inclusive society*

We seek to narrow the digital divide through implementation of the following –

- Web/Mobile App Accessibility Campaign – To facilitate access to online information and services by everyone including persons with disabilities, OGCIO has been implementing a Web/Mobile App Accessibility Campaign since 2011 through a multi-pronged strategy ranging from Government leadership, fostering awareness, promulgating guidelines and tips, nurturing expertise and organising recognition scheme to encourage adoption of accessibility design. Since 2018, HKIRC has become the organiser of the Web Accessibility Recognition Scheme.
- Encouraging ICT Adoption among Elderly – OGCIO has been conducting the ICT Outreach Programme for the Elderly since 2014 to help institutionalised and hidden elderly, and elderly receiving day care services and home care services experience how ICT can spice up their lives. An Enriched ICT Training Programme for the Elderly was introduced in 2019 for elderly persons with basic ICT knowledge to learn about the adoption of digital technology in their daily living and serve as trainers to help more elderly people acquire technology knowledge. A web-based learning portal was launched in the same year to help the elderly acquire digital skills, so that they can benefit from the advancement in digital technology in their daily living. The new round of the ICT Outreach Programme for the Elderly and Enriched ICT Training Programme for the Elderly were launched in March and December 2021 respectively. Starting from the end of 2021, services organisations operating the ICT Outreach Programme have been setting up mobile outreach service stations at various community locations under a pilot scheme to proactively introduce useful mobile applications to elderly people and answer their questions on the use of smartphones, with a view to facilitating them to realise the benefits of digital living.



## Facts and Figures

To keep Hong Kong at the forefront of ICT development, OGCIO has implemented various measures to create the right environment, infrastructure, skills and culture for developing and adopting ICT, as reflected in –

- Hong Kong has a robust telecommunications network, with eight submarine cable landing stations connecting to twelve regional and trans-Pacific submarine cable systems;
- Hong Kong's median download speed over fixed broadband at 179.14 Mbps is among the fastest in the world (May 2022);
- Many participants from Mainland China, Taiwan, Korea, Japan, Singapore and other Asian economies join the Internet exchange service with direct connection with Hong Kong. Hong Kong's household broadband penetration rate reached 98.2 per cent, among the highest in Asia (February 2022);
- Hong Kong's mobile subscription rate reached 347.6 per cent, one of the highest in the world (February 2022);
- The penetration of public Wi-Fi is among the highest in the world with 83,113 wireless hotspots installed by the Government and the private sector (May 2022);
- Over 19 hectares of land in INNOPARKs (formerly known as "Industrial Estates") have been granted for data centre development and the Tseung Kwan O INNOPARK is currently housing a total of 11 high-tier data centres; and
- About three hectares of land in Tseung Kwan O was set aside for establishing high-tier data centres. The land was sold in October 2013 and December 2018 through open tenders. The high-tier data centre on the first site of about one hectare was put into operation in October 2017.