For discussion on
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Legislative Council Panel
on Information Technology and Broadcasting

Progress Update on E-Government Development

Purpose

This paper updates Members on the latest progress on e-Government development, and our plans and measures to support Bureaux/Departments (B/Ds) to achieve their policy objectives and initiatives through wider and better adoption of information technology (IT)[1].

Background

2. One of the key action areas under the Digital 21 Strategy is to enable the delivery of the next generation of public services. The Office of the Government Chief Information Officer (OGCIO) who co-ordinates efforts and supports B/Ds in this regard has committed to providing annual updates to Members on the progress of the e-Government development. We last briefed Members on the progress of e-Government development in June 2012.

Progress Since Last Reporting

3. In the past year, we furthered the development of e-Government

[1] In this paper, information technology (IT) is used as an extended synonym for information and communications technology (ICT).

services to the community and the utilisation of e-Government services continued to grow significantly. According to a recent internal stock taking, the overall utilisation of e-Government services delivered by B/Ds in 2012 has increased by more than 1.3 times that of 2011 in terms of total number of information searches and electronic transactions. **Annex A** shows the utilisation figures of the most popular e-Government services in 2012. To facilitate persons with disabilities to access online information and services, about 80% of the 444 Government websites have been enhanced to comply with the Level AA of the latest version (Version 2.0) of the Web Content Accessibility Guidelines promulgated by the World Wide Web Consortium (W3C). The remaining will be enhanced to comply with the standard by 2014.

E-Government Services to the Public

Mobile and Accessible Version of the MyGovHK Portal

4. Since the launch of MyGovHK, the personalised platform of the Government's one-stop portal, in December 2010, its number of accounts has continued to grow and exceeded 140 000 in April 2013, an increase of 57% over a year ago. Apart from enhancing its user-friendliness and enriching the services available on the portal, such as more subscriptions and notifications of government news and messages, we plan to launch its mobile and accessible version by the end of 2013. It will be a mobile-friendly as well as a screen reader-friendly web application which can be run on browsers of desktops and mobile devices.

Mobile Public Services

5. Smartphones and tablets are increasingly popular in Hong Kong. As at February 2013, mobile subscriber penetration rate stood at 229.3%. Among the mobile users, more than half are using smart devices. In tandem with this development, up to May 2013, the Government has launched a total of 56 mobile applications (as compared with 32 last year) and 59 mobile websites as additional electronic channels to deliver its

services to the public. With mobile applications (apps) fast becoming a popular channel for service delivery, the public's demand for on-the-go public services is rising. Following the established policy for public service delivery, citizen-centric approach has also been adopted for mobile public services. The mobile app "Tell me @1823" launched in 2011 is a good example. In the past year, we launched three mobile apps which extend across different B/Ds, namely:

(a) "GovHK Notifications": it enables citizens to receive on a one-stop platform a variety of important, urgent, and territory-wide Government alerts and messages on-the-go in a timely manner;

(b) "GovHK Apps": it enables the public to search for and download Government mobile apps conveniently and securely; and

(c) "EventHK": it provides a one-stop platform on events organised by the Government or held at Government venues.

Value-added Re-use of Public Sector Information

6. Since the rollout of the Data.One portal in March 2011, the number of downloads of public sector information (PSI) has been increasing. We have therefore been actively and progressively making available more datasets. For instance, three new sets of data, namely information featured on the EventHK mobile app, products exempted from nutrition labeling, as well as service locations of the Food and Environmental Hygiene Department have been recently added. The portal now features 12 types of PSI, encompassing hundreds of datasets for free download and re-use. We will continue to open up more PSI to bring convenience to the citizens, create new business opportunities, encourage entrepreneurship and promote innovation.

Popular e-Government Services

7. Many B/Ds also made good progress on e-Government

development in the past year. A few examples are set out below.

Customs & Excise Department (C&ED)

8. The C&ED has always been making good effort in using IT to enhance the efficiency and effectiveness of services provided. A typical example is its Road Cargo System (ROCARS). The ROCARS is built for Hong Kong to keep abreast with global, regional and national developments in moving towards electronic customs clearance which strengthens Hong Kong's competitiveness as an international trading centre. With the full rollout of ROCARS in late 2011 and good response from the users, the utilisation reached 36 million in 2012, which is 4.6 times that of 2011.

9. The C&ED has also replaced its Case Processing System to support the processing of cases for around 1 700 internal users comprising both disciplined and civilian staff. It provides computerised analysis tools for C&ED officers to analyse information collected and support e-payment on excessive dutiable commodities carried by arrival passengers at C&ED control points.

Companies Registry (CR)

10. Local and overseas investors can now start businesses less than one hour, with the one-stop service for electronic company incorporation and business registration that transforms the traditional paper based manual business steps into fully automated electronic processes. This one-stop service, provided by the CR in collaboration with the Inland Revenue Department, enables Hong Kong to move forward to a digital and knowledge-based international financial and business centre. It streamlines and automates their business processes by processing two statutory application forms within one single electronic process to facilitate business start-up in Hong Kong. With effect from August 2012, local companies can also submit 15 commonly filed specified forms electronically to report changes of company particulars (registered office addresses, directors / reserve directors / company secretaries and their

particulars and share capital) and file annual returns online. In addition, CR has also provided a company search mobile service in June 2012 as a convenient means for the public to search company information.

Hong Kong Observatory (HKO)

11. The mobile app of HKO "My Observatory" has been highly popular among citizens with more than 3.3 million copies downloaded. The visitor count (in page view) of HKO website in 2012 reached 30 billion, which was about five times that of 2011. Looking ahead, HKO will provide more personalised and specific weather information. For example, a new "Hong Kong Observatory Personalised website" (my.weather.gov.hk) with user customisable contents; and a regional weather webpage based on the Geographical Information System (maps.weather.gov.hk) integrating different weather information on the same map were recently launched in March 2013. Other new services like a new digital regional weather forecast are in the pipeline.

Leisure and Cultural Services Department (LCSD)

12. The LCSD continues to make extensive use of IT to provide comprehensive library services and strengthen the facilities of public libraries. Following the successful rollout of Phase 1 of the Next Generation Integrated Library System (NGILS) for the core library functions (including cataloguing, online access, circulation and payment services) in December 2011, the implementation of Phase 2 of NGILS has commenced. Phase 2 includes new functions and services such as self-service printing, e-payment, customer relationship management, virtual reference service, electronic resources management, inter-library loan, and management information system. These new functions and services have been launched progressively since early 2013.

13. Some other major IT initiatives in the Government are provided in **Annex B**.

Centrally-led Initiatives

Government Data Centre Service Arrangements

14. The OGCIO has completed a consultancy study on the long term arrangement of government data centre service. One major recommendation of the study is to establish a new and consolidated data centre complex to address the long-term requirements of hosting services within the Government, with a view to making government data centre and the associated computing infrastructure more agile, efficient, robust, secure, cost-effective and adaptable to changes in business needs and latest technology advancement. The consolidated complex can also achieve better energy-efficiency and greener operation to reduce carbon footprints and environmental impact on data centre operations. We are currently conducting a technical feasibility study and formulating the requirement specification of the complex, with a view to ascertaining the resources required to take forward the planning and implementation of the complex.

Implementation of the Government Cloud Platform

15. We obtained funding approval of $242 million from the Finance Committee in June 2012 to implement the Government Cloud Platform (GovCloud) for supporting the hosting of common shared services for shared use by B/Ds. The GovCloud will comprise a core infrastructure and a shared pool of computing resources that can be dynamically provided to the common shared services on demand. Tendering was conducted in 2012 and the contract was awarded for the implementation and operation of the GovCloud in March 2013 with an aim to roll out the services by the end of 2013.

E-Government Infrastructure Service (EGIS) platform

16. With funding of $135 million approved by the Finance Committee in April 2011, we have also started to develop and implement, using cloud technologies, a new hosting platform for B/Ds to provide

e-Government services, so that the hosting capacity can be adjusted in response to the actual demands. Under this private cloud platform, shared components like e-payment gateway and messaging firewalls will be made available to reduce the lead time for development of e-Government services. Service rollout of the new cloud-based platform has started in April 2013 and its service capacity will be progressively increased to support up to 100 additional e-Government services in 2015 to meet the rising public needs.

Use of Public Cloud Services

17. To facilitate the adoption of public cloud services in the Government, we have established a procurement arrangement of public cloud services in May 2012 for improving the efficiency of B/Ds in acquiring services which are non-sensitive in nature. Under this arrangement, B/Ds can acquire public cloud services from a list of 40 service providers with over 300 types of services. Since its launch, B/Ds have acquired different types of services such as video conferencing, web hosting, electronic mail and virtual computing resources. A notable use of public cloud services is the Data.One portal. We have also set up an infocloud portal (www.infocloud.gov.hk) in January 2013 to provide useful reference tools for both cloud providers and consumers, especially small and medium enterprises, to facilitate their provision, selection, and management of cloud services.

Development of Cloud-Based Common Shared Services

18. We are also developing a number of common shared services including electronic information management, human resources management and electronic procurement on our cloud platforms. With the use of cloud computing, these common shared services will be made available to B/Ds in a flexible and cost-effective way. Progress of these common shared services is at **Annex C**.

New Strategy for IT Development in Hong Kong

19. In view of technological advancement and rapid development of the local IT industry, we have embarked on another comprehensive review on the Digital 21 Strategy, with a view to formulating an updated blueprint for IT development across various economic and social sectors in the coming years. One of the main focuses of the review is on further enhancing e-Government services.

20. In conducting the review, we have sought the views of the IT industry bodies and organisations, the academia and relevant government departments. We will consult the public and this Panel on the draft strategy later this year.

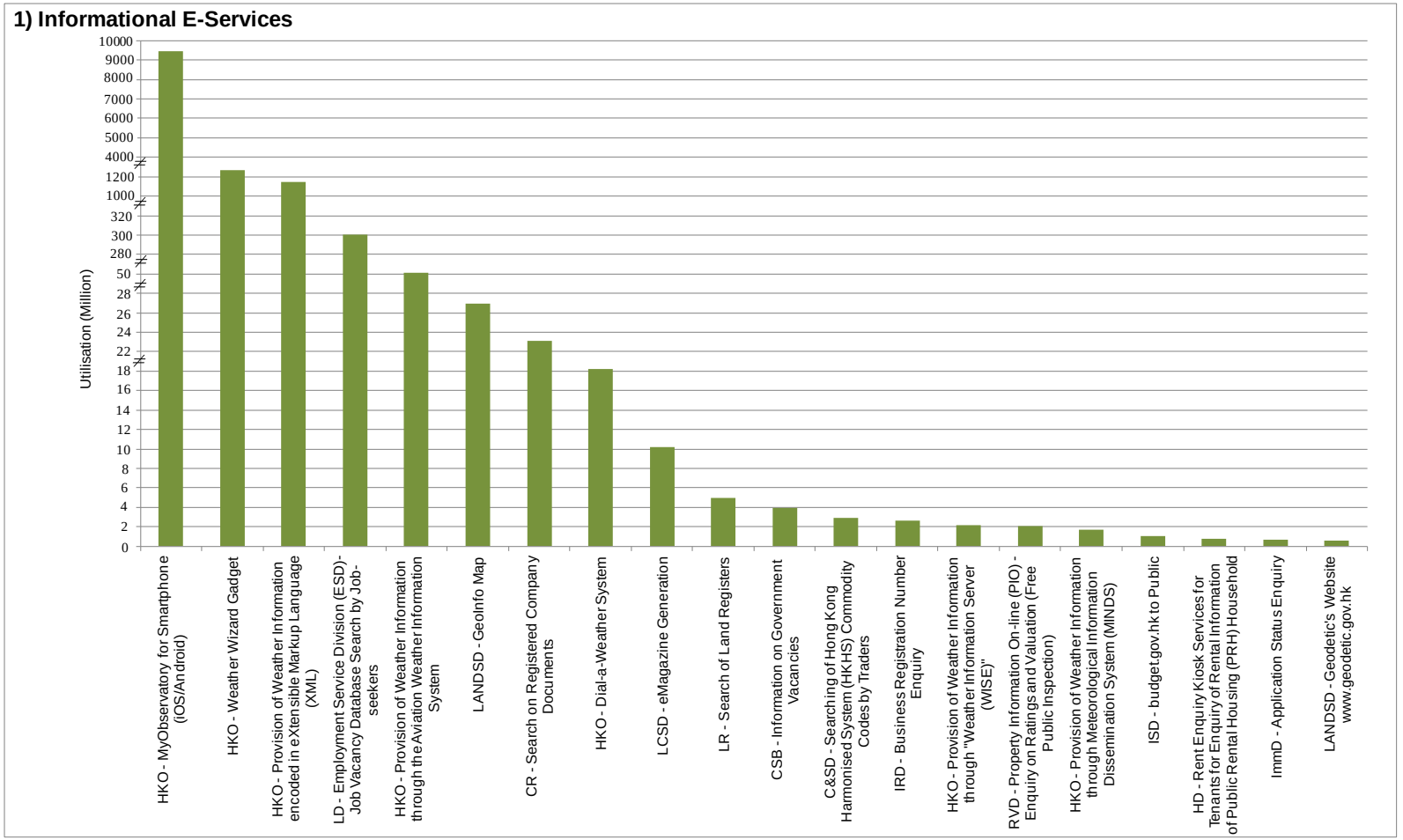
Conclusion

21. We will continue our effort in achieving the objectives defined under the Digital 21 Strategy by transforming and joining up government processes through IT adoption.

Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
June 2013

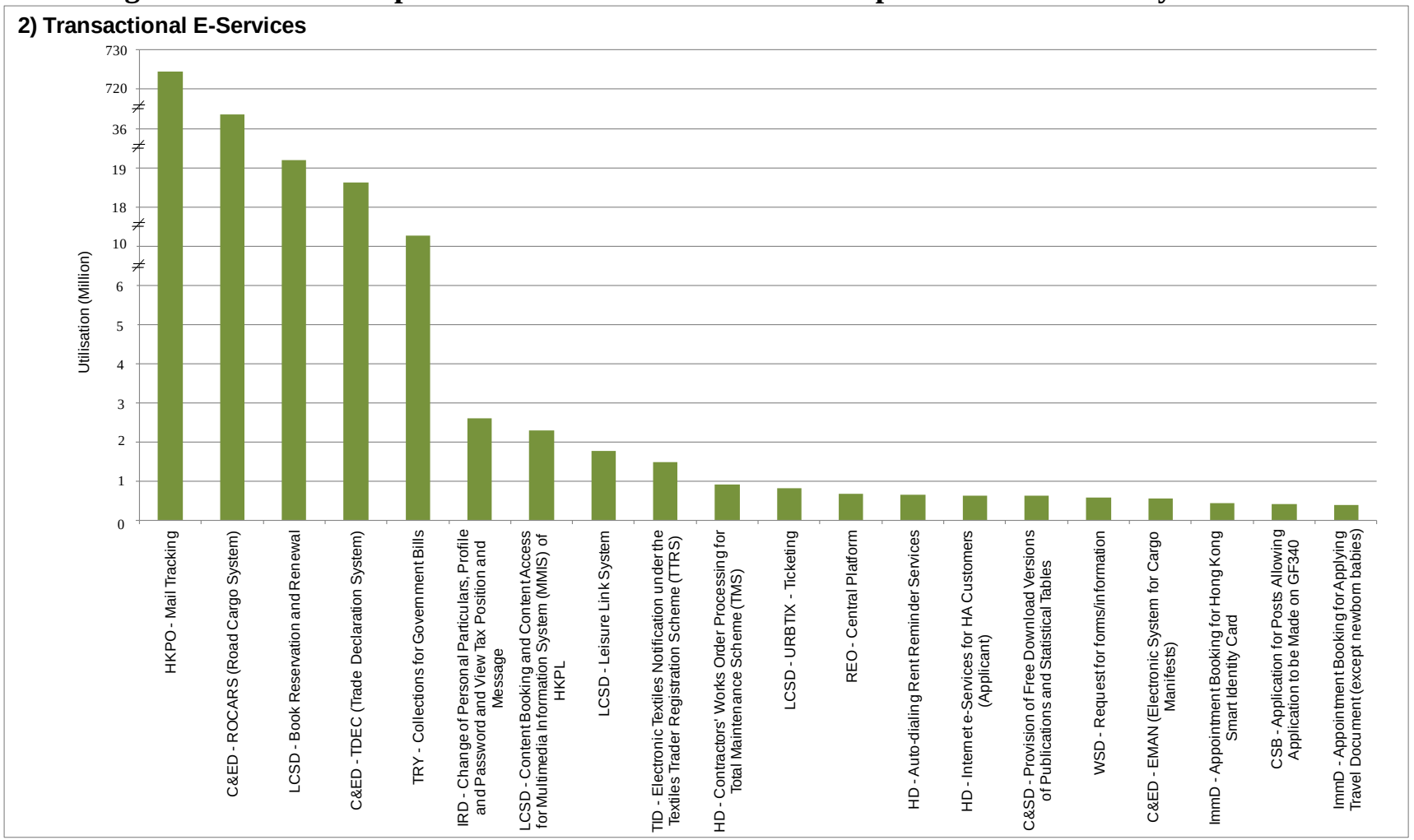
Annex A

Utilisation Figures of the Most Popular E-Government Services in the period from 1 January to 31 December 2012



Note: "Informational" type of service means its purpose is dissemination of information, which can be static or generated based on selection criteria, e.g. on-line telephone directory.

Utilisation Figures of the Most Popular E-Government Services in the period from 1 January to 31 December 2012



Note: "Transactional" type of service will involve interactive sessions with users, e.g. on-line booking of facilities and filing of returns.

Annex B

Other Major Initiatives

New Immigration Control System

With the funding of $912 million approved by the Finance Committee in February 2013, the Immigration Department is implementing a new control point system, namely the Immigration Control System (ICONS), to enhance operational efficiency and effectiveness at immigration control points for meeting rising service demands. The ICONS will enhance immigration clearance efficiency and effectiveness through further deployment of e-Channels and introduction of self-service departure for visitors holding electronic travel documents; improve immigration control through face recognition technology; strengthen the overall resilience of control point operations by flexible allocation and sharing of computer resources through adopting cloud computing and virtualisation technology. It is scheduled for rollout in 2016.

Major Upgrade of the Multimedia Information System of Hong Kong Public Libraries

2. The upgrading of the Multimedia Information System (MMIS) aims to extend the MMIS services from the Hong Kong Central Library and 28 branch libraries to all 67 static libraries of the Hong Kong Public Libraries. The upgraded MMIS will support the development and retrieval of digital content, enhance navigation capabilities, provide additional channels for the public to access library resources through Internet and mobile technology and enhance online booking/reservation service for MMIS workstations and audio-visual materials. The upgrade is targeted for completion in the third quarter of 2013.

Electronic Health Record (eHR) Sharing Programme

3. Development of the first stage of the territory-wide patient-oriented Electronic Health Record (eHR) Sharing System (eHRSS) is in progress. In implementing the eHR Programme, the Government has attached paramount importance to data privacy and system security. To ensure the compliance of the eHRSS with the privacy protection standard, the Food and Health Bureau (FHB) has commissioned privacy impact assessment in three phases. The first phase was completed in early 2013 and the second phase is in progress. To ensure the compliance of system security of the eHRSS in accordance with the security protection standard as well as the eHR security framework, the FHB has also engaged an external security consultant to carry out a security risk assessment and audit on the eHRSS for completion by mid-2014. Subject to the enactment of the eHR legislation, the eHRSS is planned for rollout by the end of 2014.

Annex C

Cloud-Based Common Shared Services

Electronic Information Management (EIM)

As pioneer projects, the Communications and Technology Branch of the Commerce and Economic Development Bureau as well as the Government Records Service are implementing their respective electronic recordkeeping systems (ERKS). These projects would be completed by the end of 2013. With reference to these projects, the Government will develop the common shared services on the Government Cloud environment covering the ERKS and collaborative workspace system, which are part and parcel of EIM. The first batch of B/Ds will start their implementation in 2014.

Electronic Procurement (e-Procurement) Services

2. The OGCIO has started to re-provision the e-Procurement system on the Government Cloud environment. All B/Ds will start using e-Procurement for the purchase of IT products and services through existing bulk purchase contracts by the end of 2013. Meanwhile, we are also developing e-invoice as an add-on to the existing e-Procurement system with a view to shortening the delivery time and further speeding up the procure-to-pay process.

Human Resources Management Services

3. The business case of transforming the management of human resources in the Government through the use of common IT services has been established. It is envisaged that the human resources management processes and related data could be standardised for use by B/Ds as the Government Human Resources Management Services (GovHRMS). The GovHRMS will support human resources activities of staff members

from recruitment to separation as well as strategic manpower planning and human resources decision making. It will also provide synergy opportunities for data/system functions sharing, particularly for processes straddling across B/Ds such as civil service grade management processes. We have adopted phased implementation for the GovHRMS and the development work of the first batch of functional modules is underway. The common shared service will be rolled out to a few early adopter B/Ds starting from the end of 2013 with more functions to be available by the end of 2014.