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Panel on Information Technology and Broadcasting

Meeting on 15 June 2021

**Updated background brief on progress on the implementation of
the "iAM Smart" platform and e-Government services**

Purpose

This paper provides updated background information on the progress on the implementation of the "iAM Smart" platform and e-Government services. It also provides a summary of views and concerns expressed by Members during previous discussions on the subject.

Background

2. The Administration has been making use of innovation and technology ("I&T") to improve public services by promoting digital government and expanding online services. For example, the Office of the Government Chief Information Officer ("OGCIO") established the GovHK portal and launched the personalized service platform MyGovHK (www.gov.hk/mygovhk) in 2007 and 2010 respectively to provide services and information tailored to the public's needs. OGCIO also facilitates and assists other government bureaux/departments ("B/Ds") in developing more secure and convenient digital government services and improving user experience, thereby driving the digital transformation of public services such as electronic payments for Government bills, e-channels of the Immigration Department, chatbot to facilitate searching and use of government forms, establishment of the Public Service Information ("PSI") portal for promoting open data and development of city dashboards.

3. The 2017 Policy Address announced three smart city key infrastructure projects, including the provision of an electronic identity (now renamed as "iAM Smart") for all Hong Kong residents free of charge, allowing them to use a

single digital identity for authentication and conducting online transactions. Since the development of the "iAM Smart" platform in 2019, the cumulative expenditure of the project is about \$88.71 million. The estimated expenditures for 2021-2022 and 2022-2023 are about \$63.78 million and \$65.26 million respectively.¹

"iAM Smart" platform

4. The Administration launched the one-stop personalized digital government services platform "iAM Smart" in December 2020. Apart from accessing the necessary services and website information through the platform, residents could use "iAM Smart" to perform digital signing in accordance with the Electronic Transactions Ordinance (Cap. 553) for handling statutory documents and procedures. Members of the public will be able to access more than 20 commonly used online services of the Government and the public utilities such as the two electricity and the gas companies once they have registered for "iAM Smart".

5. According to the Administration, it will actively facilitate public and private organizations, including local I&T companies as well as small-and-medium-sized information technology enterprises, to adopt "iAM Smart" platform in their online services. Furthermore, OGCIO is working with the Hong Kong Monetary Authority ("HKMA") in assisting financial institutions to adopt "iAM Smart" in their online services. HKMA, the Securities and Futures Commission, the Insurance Authority as well as the Mandatory Provident Fund Schemes Authority have issued circulars to relevant authorized institutions to encourage their adoption of "iAM Smart".

Other initiatives for driving digital government services

Opening up government data

6. The Administration announced an open data policy in October 2018 to drive B/Ds and encourage public and private organizations to open up more data in machine-readable formats via the PSI portal for free use by the public. A city dashboard function was added to the PSI portal in end-2019 to facilitate the public to understand city-related open data.

¹ On 11 May 2018, Finance Committee approved the creation of a commitment of \$112 million for implementing a one-stop online system for the provision of electronic identity.

Using mobile communications devices

7. At present, GovHK has adopted a responsive design which facilitates the public browse the portal and use the searching and transactional functions provided on the websites with various devices, including tablets and smartphones. To further enhance user experience of e-Government services, OGCIO has requested B/Ds to adopt mobile-friendly design in developing new e-Government services and update all websites by end-2020.

Electronic payments

8. The Administration provides various online payment services to facilitate payment of government bills and fees by the public using credit card and other e-payment means. In addition, the Administration adopts the Faster Payment System ("FPS") and common QR codes launched by HKMA to facilitate payments of tax, rates and water charges by the public. Members of the public can scan the QR codes on the bills via different mobile banking applications ("apps") and e-wallets to make payment easily and conveniently. The Administration also plans to accept FPS payment at service counters of the Companies Registry, the Immigration Department, the Official Receiver's Office and the Transport Department. The Administration is also exploring with HKMA to enable members of the public to settle payments (e.g. application fees for government venues or facilities) with FPS via online services and mobile apps. In addition, HKMA has enhanced the functions of FPS to support the use of the Hong Kong identity card ("HKIC") number as the payment identification code to further broaden the application of FPS, such as supporting employers to pay salaries and for the Administration to handle cash handouts.

Artificial intelligence and big data analytics

9. OGCIO launched a chatbot on the GovHK portal (i.e. "Bonny") in December 2019 to facilitate searching of more than 3 300 government forms and relevant e-services by the public. The Efficiency Office also started to pilot the use of chatbot in December 2019 to handle 1823 public enquiries.

10. OGCIO is implementing the big data analytics platform, providing big data analytics and artificial intelligence ("AI") cognitive tools, parallel computing management system and a "Digital Highway" which will facilitate B/Ds' transmission and sharing of real-time data (such as traffic, weather and environment data) and conduct big data analytics so as to adopt a data-driven approach in policy making and service delivery for raising government operational efficiency and improving city management.

Blockchain

11. OGCIO has been conducting a pilot application project on blockchain technology since end 2018 to explore applicability, benefits and limitations in improving digital government services. The evaluation result will be shared with other B/Ds as a reference for planning their digital government services. OGCIO is working with the Intellectual Property Department, Environmental Protection Department and Department of Health to implement three pilot applications on the transfer of trademarks, optimization of the procedures for preparing environmental impact assessment reports, improvement of the traceability and management for pharmaceutical products, which are expected to be completed in 2020.

Previous discussions

12. The Administration consulted the Panel on Information Technology and Broadcasting ("the Panel") on the funding proposals for implementing three key infrastructure projects in connection with the smart city development at the meeting on 12 March 2018. Panel members supported the funding proposals. Relevant issues were also discussed at the Finance Committee meeting on 11 May 2018. The Panel discussed issues relating to the promotion of e-Government services, including the "iAM Smart" platform, at various meetings in recent years. Members' major views and concerns are summarized in the ensuing paragraphs.

"iAM Smart"

Registration and usage

13. Members noted that OGCIO would provide two versions of "iAM Smart", namely "iAM Smart Lite" and "iAM Smart". "iAM Smart" had the additional feature of supporting digital signing. They asked the Administration to explain, with examples, what kinds of government services would require digital signing, thus providing an impetus for adopting "iAM Smart" by the public. Enquiries were also raised about the applications of "iAM Smart" in public services.

14. The Administration advised that members of the public could submit applications for renewal of vehicle licences either in person or online using digital certificates. Upon registration at designated self-service kiosks or registration service counters, users would then be able to access those government services which required digital signing, including the renewal of vehicle licences, through the "iAM Smart" platform. Although the public

services of all government departments were expected to support "iAM Smart" where possible, some government services might not be able to accept electronic signature or support electronic submission under the exemption provisions of Cap. 553. In addition, there might be services which required the processing by a party outside the Government (e.g. banks), procedures requiring face-to-face verification of applicant's identity, etc.

15. Members held the view that the digital government service initiatives would bring more convenience to the public, particularly elders who seldom used smart phones or digital technology for online shopping. They asked the Administration to encourage wider adoption of "iAM Smart" among the elderly, and suggested that the Administration could target elderly persons who were learning computer skills at district elderly community centres for offering assistance in using "iAM Smart" more effectively. Some Members suggested that the Administration should accord priority to encouraging civil servants to use "iAM Smart" in order to facilitate wider adoption of "iAM Smart" in the community.

16. The Administration responded that while it currently did not have any plan to arrange priority registration for the elderly, it intended to promote the use of "iAM Smart" among the young people who were familiar with the use of digital technology. The Administration expected that these young users would recommend "iAM Smart" to their elderly relatives thereafter. The Administration would also actively promote "iAM Smart" to the public, including civil servants.

Electronic signing

17. Members noted that the public could use "iAM Smart" to perform digital signing in accordance with Cap. 553 for handling statutory documents and procedures. Some Members queried whether the Administration would introduce any legislative amendments to the existing statutory provisions on digital signing. The Administration advised that "iAM Smart" would provide an additional function of digital signing, which was supported by digital certificate. Given that a signature requirement under the law could be satisfied by a digital signature supported by a recognized digital certificate, no legislative amendment would be required.

Protection of privacy

18. Members were concerned whether biometric data, such as a photograph of HKIC and a self-portrait digital photograph, would be uploaded onto the server during user registration. The Administration advised that the system would verify the applicant's identity against the records of the Immigration

Department. The HKIC photograph provided and the self-portrait digital photograph taken by the applicant during registration for "iAM Smart" would be deleted immediately after verification of user identity. Other personal information provided during registration would only be used for "iAM Smart" account management. User data would be encrypted and stored in government data centres.

Faster payment system and the common QR code standard

19. In response to Members' enquires about the implementation progress and the way forward of FPS as well as the common QR code standard, the Administration said that FPS had been very well-received by the public and recorded over 4.86 million registrations since its launch. FPS was associated with the common QR code standard such that stored-value facility could use single QR code to accept payments from different payment schemes. The Administration was working with HKMA to explore collaboration opportunities between FPS and "iAM Smart" platform.

Open data

20. Members pointed out that there were criticisms about the quality and usefulness of government data that had been opened up; some people had commented that the data in the PSI portal were obsolete, the relevant government departments were slow in updating the data and that there was no correlation between data provided by various B/Ds. Members expressed concern as to how the Administration would ensure continuous improvement in the quality of government data being opened up.

21. The Administration advised that it had promulgated a new policy on opening up of government data, under which B/Ds should as a matter of principle endeavour to release their data for free public use via the PSI portal, unless there were justifications to do otherwise (such as where the data included personal information). The Administration had received many suggestions on the opening up of government data since the launch of the new policy, and would take into account public feedback and suggestions on the types of data to be further opened up and their potential applications. Relevant B/Ds had taken and would take appropriate follow-up actions accordingly.

Mobile applications developed by Government and relevant organizations

22. Members asked whether and when the Administration would review the development of mobile apps by B/Ds. The Administration replied that OGCIO would regularly review the development of mobile apps by B/Ds and, subject to the nature and target user groups of these mobile apps, request B/Ds to consider

decommissioning those that had been launched for some time but recorded fewer than 10 000 downloads, so as to save the maintenance expenditures.

23. Members asked about the mechanism for regulating the development of mobile apps for e-Government services, including whether the Administration would issue relevant guidelines to B/Ds reminding them to evaluate the cost-effectiveness of the mobile apps when considering the development of the government app. The Administration explained that the revised "Practice Guide for Developing Mobile Apps" issued by OGCIO to B/Ds in November 2018 stipulated that B/Ds were required to set the objectives of the mobile app and understand the needs of target user groups before developing a mobile app.

Questions raised at Council meetings

24. Members have raised questions relating to e-Government services, including GovCloud, "iAM Smart", blockchain technology, AI application, protection of personal data privacy, government mobile applications and promotion of electronic payment, at Council meetings. Details of the questions and the Administration's replies are given in the hyperlinks in the **Appendix**.

Latest position

25. The Administration will brief the Panel on 15 June 2021 on the progress on the implementation of the "iAM Smart" platform and e-Government services.

Relevant papers

26. A list of the relevant papers is set out in the **Appendix**.

Appendix

List of relevant papers

Committee	Date of meeting	Papers
Panel on Information Technology and Broadcasting	12 March 2018	<p>Administration's paper on the key infrastructure projects for smart city development <u>LC Paper No. CB(4)701/17-18(03)</u></p> <p>Administration's response to issues raised at the meeting on 12 March 2018 <u>LC Paper No. CB(4)1051/17-18(01)</u></p> <p>Minutes of meeting <u>LC Paper No. CB(4)1197/17-18</u></p>
Finance Committee	11 May 2018	<p>CAPITAL WORKS RESERVE FUND HEAD 710 – COMPUTERISATION Office of the Government Chief Information Officer New Subhead "Electronic Identity (eID)" New Subhead "Digital Transformation for Agile Delivery of e-Government Services" <u>FCR(2018-19)9</u></p> <p>Minutes of meeting <u>LC Paper No. FC9/18-19</u></p>
Panel on Information Technology and Broadcasting	9 July 2018	<p>Administration's paper on e-Government <u>LC Paper No. CB(4)1337/17-18(03)</u></p> <p>Updated background brief <u>LC Paper No. CB(4)1337/17-18(04)</u></p> <p>Minutes of meeting <u>LC Paper No. CB(4)1596/17-18</u></p>

Committee	Date of meeting	Papers
Panel on Information Technology and Broadcasting	10 May 2019	Administration's paper on electronic identity <u>LC Paper No. CB(1)1020/18-19(03)</u> Background brief on electronic identity project <u>LC Paper No. CB(1)1020/18-19(04)</u> Minutes of meeting <u>LC Paper No. CB(1)1290/18-19</u>
Panel on Information Technology and Broadcasting	10 June 2019	Administration's paper on e-Government <u>LC Paper No. CB(1)1135/18-19(03)</u> Updated background brief on e-Government development <u>LC Paper No. CB(1)1135/18-19(04)</u> Minutes of meeting <u>LC Paper No. CB(1)1327/18-19</u>
Panel on Information Technology and Broadcasting	8 June 2020	Administration's paper on launching of "iAM Smart" platform and other digital government service initiatives <u>LC Paper No. CB(1)710/19-20(04)</u> Updated background brief on e-Government development <u>LC Paper No. CB(1)710/19-20(05)</u> Minutes of meeting <u>LC Paper No. CB(1)919/19-20</u>
Council	27 February 2019	Question No. 11 raised by Hon WU Chi-wai <u>Making use of next generation government cloud infrastructure</u>

Committee	Date of meeting	Papers
Council	17 April 2019	Question No. 15 raised by Hon Charles Peter MOK <u>Implementation of electronic identity system</u>
Council	29 May 2019	Question No. 15 raised by Hon Charles Peter MOK <u>Application of blockchain technology</u>
Council	13 November 2019	Question No. 5 raised by Hon Charles Peter MOK <u>Application of artificial intelligence and protection of personal data privacy</u>
Council	26 February 2020	Question No. 6 raised by Hon Paul TSE <u>Government mobile applications</u>
Council	13 May 2020	Question No. 2 raised by Hon Charles Peter MOK <u>Information technology support for government personnel working from home</u>
Council	3 June 2020	Question No. 11 raised by Hon Charles Peter MOK <u>Application of technology in efforts to combat COVID-19 pandemic</u>
Council	10 June 2020	Question No. 13 raised by Hon Charles Peter MOK <u>Development of an electronic disbursement platform and fintech</u>
Council	27 January 2021	Question No. 6 raised by Hon Starry LEE <u>Promotion of electronic payment</u>