香港特別行政區政府

創新及科技局

香港添馬添美道二號政府總部西翼二十樓



INNOVATION AND TECHNOLOGY BUREAU

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THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

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13 July 2021

Mr Daniel SIN, Clerk to Panel, Panel on Information Technology and Broadcasting, Legislative Council Complex, 1 Legislative Council Road, Central, Hong Kong

Dear Mr Sin,

Panel on Information Technology and Broadcasting Progress on the implementation of the "iAM Smart" platform and e-Government services

At its meeting on 15 June 2021, the Panel requested the Administration to provide supplementary information on the four pilot blockchain projects. Relevant information is appended below.

The Office of the Government Chief Information Officer (OGCIO) launched a pilot initiative on blockchain in end of 2018 to jointly explore the applicability and benefits of adopting blockchain technology in different digital government services with the Intellectual Property Department, the Environmental Protection Department, the Department of Health, and the Companies Registry. Details of the pilot projects are as follows:

Department	Project description
Intellectual Property	To leverage the immutability feature of blockchain to
Department	maintain records of assignments of trademark ownership and
_	relevant information so as to facilitate the receipt of and
	access to such information by relevant parties (such as the

	assignor and assignee) and their agents. The internal pilot run of the system was commenced in December 2019 and completed in March 2020.
Environmental Protection Department	To optimise the compilation processes of environmental impact assessment (EIA) reports involving the Environmental Protection Department, project proponents, EIA consultants and various government departments by leveraging the distributed ledger as well as the immutability and traceability features of blockchain. The internal pilot run of the system was commenced in May 2020 and completed in August of the same year.
Department of Health	To improve the effectiveness of pharmaceutical product management through storing pharmaceutical product supply chain information on blockchain which has enhanced traceability and transparency. The internal pilot run of the system was commenced in June 2020 and completed in end of December of the same year.
Companies Registry	To enhance the "e-Monitor" service using blockchain technology to provide company users (such as banks and company secretaries etc.) with a more effective and automated means to monitor the document filing status of specified companies. This pilot project has officially launched in August 2020.

Apart from the above four pilot projects, the Government and some statutory bodies have also implemented and supported a number of projects using blockchain technology. Some examples are as follows:

Department / Organisation	Project description
Hong Kong Monetary Authority	In end of 2018, the "eTradeConnect" trade financing platform was developed and launched by the consortium formed by the Hong Kong Monetary Authority and 12 major banks in Hong Kong. By digitising trade documents, automating trade finance processes and leveraging the features of blockchain technology, the platform can improve trade efficiency, build better trust among trade participants, reduce trading risks and facilitate trade counterparties in obtaining financing.

OGCIO	To jointly develop the "Health Code" data conversion system with Guangdong Province and Macao Special Administrative Region by leveraging the distributed ledger and immutability feature of blockchain technology to store the record of each health code conversion request on blockchain. When the destination's health code system receives the code conversion request, it can enquire and authenticate the record of the request through blockchain. The function of converting "Yuekang Code" and "Macao Health Code" for use on the electronic Health Declaration Form platform on entry to Hong Kong has already been adopted under the "Return2HK" Scheme launched on 23 November 2020.
Hong Kong Federation of Insurers	The Transport Department (TD) and the Hong Kong Federation of Insurers (HKFI) have worked in collaboration in verifying the authenticity of motor insurance policies through the Motor Insurance DLT-based Authentication System (MIDAS) developed with blockchain technology by HKFI in end of 2018. Applicants can upload the specific QR code on the motor insurance policy to the MIDAS website, or submit the motor insurance policy together with the QR code to the licensing offices of TD when applying for the motor vehicle licence for instant confirmation of the authenticity of motor insurance cover notes/policies.
Joint Universities Computer Centre	The Joint Universities Computer Center (JUCC) is developing a common online platform using blockchain technology for verification of tertiary education academic qualifications, enabling local tertiary students to submit academic qualification documents more efficiently to different institutions and employers around the world. The platform is expected to be launched in the third quarter of 2021 for not less than five institutions on a pilot basis, and will be opened up to other JUCC members, including the eight University Grants Committee-funded universities, in the 2021/22 academic year.

From the experience gained in implementing blockchain projects in different areas, it can be seen that blockchain technology can bring different degrees of benefits to digital government services, including strengthening information security, facilitating the tracing of the source of records, increasing transparency and improving process efficiency. Nonetheless, such technology can also pose some

new challenges. For instance, system performance will be lowered when adding records as compared with traditional technologies and more complicated system maintenance. Summarising the preliminary results of the pilot projects, we considered that blockchain technology should not aim at replacing existing technologies, but to complement and add value to the systems concerned.

We will continue to facilitate bureaux and departments (B/Ds) to consider applying different technology solutions including blockchain technology when they implement digital government services to provide members of the public with convenient, secure and cost-effective services. OGCIO is also building a common blockchain platform, which is expected to be launched in 2022, where B/Ds can develop blockchain application systems more effectively under the common platform.

Yours sincerely,

(Evelyn CHAN)

for Secretary for Innovation and Technology