

**Minutes of the 5<sup>th</sup> Meeting**  
**Multi-functional Smart Lampposts**  
**Technical Advisory Ad Hoc Committee**

Date: 10 December 2019 (Tuesday)

Time: 9:30 a.m. – 11:30 a.m.

Venue: Conference Room, 15/F Wanchai Tower, Wan Chai

**Present:**

Convenor

Mr Victor LAM                      Government Chief Information Officer

Members (*list by order of surname*)

Mr Vincent CHAN                      Partner, Ernst & Young Advisory Services Limited

Mr Francis FONG                      Honorary President, Hong Kong Information  
Technology Federation

Mr Stephen HO                      Honorary Chairman, Communications Association of  
Hong Kong

Ir Prof Joseph NG                      Professor and Director of the Research Centre for  
Ubiquitous Computing, Department of Computer  
Science, Hong Kong Baptist University

Mr Ronald PONG                      Chairman, IT Governance Committee, Smart City  
Consortium

Dr Lawrence POON                      General Manager, Hong Kong Productivity Council

Dr K F TSANG                      Associate Professor, Department of Electrical  
Engineering, City University of Hong Kong

Mr Wilson WONG                      Chief Executive Officer, Hong Kong Internet  
Registration Corporation Limited

### OGCIO Representatives

Mr Tony WONG	Assistant Government Chief Information Officer (Industry Development) [AGCIO(ID)]
Mr Jason PUN	Assistant Government Chief Information Officer (Cyber Security and Digital Identity) [AGCIO(CSD)]

### Representatives from Government Departments

#### *Environmental Protection Department:*

Mr David CHAN	Principal Environmental Protection Officer (Territorial Control)
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#### *Lands Department:*

Mr Kenny CHAN	Senior Land Surveyor/ Geodetic (Atg.)
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#### *Transport Department:*

Mr Ricky HO	Chief Engineer/Smart Mobility
Ms Candy HO	Senior Engineer/Smart Mobility1
Ms Shirley LEUNG	Senior Engineer/Survey & Projects
Mr Gary LEUNG	Engineer/Projects 2

### In Attendance

Ms Clara WONG	Assistant Legal Counsel, Office of the Privacy Commissioner for Personal Data
Mr Alan LO	Principal Assistant Secretary for Innovation and Technology (4), Innovation and Technology Bureau
Mr Rex TONG	Chief Systems Manager (Smart City), OGCIO
Mr CS CHENG	Senior Engineer / 1, Highways Department
Ms Peggy POON	Systems Manager (Smart City)21, OGCIO

## Secretary

Mr Dantes TANG                      Senior Systems Manager (Smart City)2, OGCIO

## **Absent with apology:**

Dr K P CHOW                      Associate Professor, Department of Computer Science,  
The University of Hong Kong

Mr Stephen Kai-yi WONG    Privacy Commissioner for Personal Data

## **Discussion:**

## **Opening Remarks**

Convenor welcomed Members to the fifth meeting of the Multi-functional Smart Lampposts Technical Advisory Ad Hoc Committee. He also thanked the representatives from Environmental Protection Department, Lands Department and Transport Department for joining the meeting to brief Members regarding the proposed enhancement measures of their respective applications.

## **Confirmation of Minutes of Last Meeting**

2.        The draft minutes of the fourth meeting held on 12 November 2019 had been circulated to Members with their comments duly incorporated and were uploaded to the smart lampposts thematic webpage on OGCIO website for public reference on 26 November 2019. The minutes were confirmed without amendments.

## **Summary of Smart Lamppost Applications**

3.        AGCIO(ID) briefed Members on the summary of applications originally planned for installation on the smart lampposts and their respective purposes in

collecting various types of real-time city data such as meteorological data, air quality data and traffic flow, to facilitate city management and promote smart city development in Hong Kong and support 5G mobile network implementation. Convenor supplemented that data collected from the smart lampposts would be uploaded as open data to the Public Sector Information (PSI) Portal (data.gov.hk) for free access by the public and for the industry to promote development of more innovative applications.

## **Proposed Enhancement on Smart Lamppost Applications**

### *Environmental Protection Department*

4. Mr David CHAN representing the Environmental Protection Department (EPD) briefed Members on the latest position of the illegal dumping monitoring application. Mr David CHAN highlighted the importance of tackling illegal dumping activities, as they do cause environmental concerns on various occasions. EPD had to adopt effective means to conduct enforcement against these activities. To address privacy concern of the public on camera devices on smart lampposts, EPD would work with OGCIO to explore suitable and privacy-friendly technologies other than cameras, for installation on the smart lampposts while can still serve the intended purpose of monitoring and detecting illegal dumping activities. Any newly proposed applications would go through the new governance mechanism before implementation on the smart lampposts.

### *Lands Department*

5. Mr Kenny CHAN representing the Lands Department (LandsD) briefed Members on Bluetooth Beacon, Geographical Quick Response Code (Geo-QR Code) and RFID Tag, which were installed on smart lampposts to provide accurate positioning information. Members concurred that the positioning devices would not collect data and have no apparent personal privacy issue. Mr Kenny CHAN added that LandsD would provide technical specifications and related documents for public reference. They would also publish usage guidelines on the positioning devices to facilitate the development of various location-based applications by the

other government departments and the industry, which could also enhance public understanding and transparency on the functions and purposes of the devices.

### *Transport Department*

6. Mr Ricky HO and Ms Shirley LEUNG representing the Transport Department (TD) briefed Members on the applications related to traffic snapshot images, thermal detector, Automatic License Plate Recognition (ALPR), Bluetooth detector, video detector and pan-tilt-zoom surveillance camera.

7. Mr Ricky HO said that TD would explore other technology solutions on the smart lampposts to replace the camera and Bluetooth detector despite the fact that the data collected from the replacement technology solutions might not be able to fully satisfy requirements for traffic planning and management. In respect of data for traffic flow and vehicle classification originally planned to be collected by ALPR, TD proposed to replace the cameras by exploring other privacy-friendly technologies, such as Light Imaging Detection and Ranging (LIDAR). Ms Shirley LEUNG remarked that due to the limited details of the LIDAR images, quality and amount of traffic data obtained from LIDAR could be reduced. Members noted the potential limitation of the replacement technology solutions and appreciated TD's effort in addressing public concerns over privacy on the use of camera and Bluetooth detector.

8. For thermal detector, Ms Shirley LEUNG said that besides publishing technical specifications and related documents for public reference, some enhancement measures were also proposed such as (i) displaying clear message and sample photo on smart lampposts and via smart lamppost thematic website showing the actual views collected by the devices, and (ii) conducting comprehensive security risk assessment and audit as well as privacy impact assessment regularly based on international standards to confirm no personal data privacy concerns on the use of thermal detector.

9. TD would also replace video detector with thermal detector for collecting data related to traffic flow and vehicular speed. As for taking traffic snapshot images, Bluetooth detector and pan-tilt-zoom surveillance camera, TD would

continue to explore other technologies, which would be more privacy-friendly and capable of fulfilling their respective requirements. Any newly proposed applications would go through the new governance mechanism before implementation on the smart lampposts.

### **Proposed Enhancement on Transparency and Public Engagement**

10. AGCIO(ID) briefed Members on the proposed measures to enhance the transparency of the project by consolidating the advice and recommendations from Members in the earlier meetings, including publishing comprehensive information related to the project in both Chinese and English; regular reporting to the public on the progress of the project, dissemination of promotional materials for publicity, participation in public educational programmes as well as illustrating the devices and applications installed on the smart lampposts through picture/diagram/QR code for easy reference by the public.

### **Proposed Enhancement on Governance Mechanism**

11. AGCIO(ID) briefed Members on the proposed enhancement measures on governance mechanism including arranging regular privacy review through qualified independent third-party, setting up procedures to review and approve new smart lamppost applications, consulting and obtaining support from relevant stakeholders including concerned District Councils, for every new device/application proposed on smart lampposts, and making the decision fully transparent to the public.

### **Views/Comments from Members**

12. Members agreed to the proposed enhancement measures and their views and comments expressed at the meeting were summarised as follows:

## Overall Comments

- Members agreed that the Government should continue with the smart lampposts project after taking out cameras, especially given the rollout of the 5G mobile service in near future;

## Smart Lamppost Applications

- Government to provide more information about the thermal detectors, including limited colours and low resolution images, and sample output from the thermal detectors as open data for reference by the public;
- Government to inform the public of the potential limitation on the intended outcome due to the removal/replacement of the devices or applications on the smart lampposts though smart lamppost was one of the key digital infrastructures for smart city development;
- Government to take necessary measures, such as electromagnetic compliance tests, to ease the concern over the impact of 5G signals emitted from base stations on public health;

## Transparency and Public Engagement

- Government to showcase the functions and features of the smart lampposts through demonstrations, exhibitions and workshops in relevant venues such as Science Museum, and engage schools and relevant organisations to invite students, parents and the general public to participate;
- Government to promote the smart lampposts to the general public on the benefits of the applications from a people-centric perspective, for example, positioning devices to discover nearby facilities for the pedestrians and traffic data to disseminate real-time traffic condition to the drivers;
- Government to highlight the measures to protect security and personal privacy;
- Government to emphasise that the collected data would only be sent to the designated government departments but not to other third parties;

#### Governance Mechanism

- Government to engage renowned audit firms for the regular audit exercises on compliance with the security and privacy requirements; and
- Government to consider engaging independent product testing and research laboratories to assess / certify the security and privacy protection of the devices to be installed on the smart lampposts.

13. Convenor expressed gratitude to Members on reaching consensus that the Government should continue with the smart lampposts project to support smart city development in Hong Kong, while cameras on the smart lampposts should be replaced by other technologies or solutions, such as LIDAR and thermal detectors, to enlist wider community support for the smart lampposts.

#### **Any Other Business**

14. Convenor informed Members that a press release would be issued to convey the messages to the public on the consensus reached at the meeting. The Committee would work on the detailed report in the coming two meetings.

15. There being no other business, the meeting adjourned at 11:20 a.m.

**Office of the Government Chief Information Officer  
December 2019**