

**For Discussion on
14 May 2018**

**Legislative Council Panel
on Information Technology and Broadcasting**

**Progress Update on the Implementation of the
Wi-Fi Connected City Programme**

Purpose

This paper briefs Members on the latest progress of the implementation of the “Wi-Fi Connected City” programme.

Background

2. In May 2016, the Finance Committee of the Legislative Council approved a funding commitment of \$500 million for implementing the “Wi-Fi Connected City” programme to progressively expand the coverage of “Wi-Fi.HK” hotspots and enlist the participation of more public and private organisations to provide the public and visitors with free Wi-Fi services in various districts across the territory.

Progress of the “Wi-Fi Connected City” Programme

3. In the past year, the Government continued to implement the “Wi-Fi Connected City” programme through a multi-pronged approach, which includes promoting the “Wi-Fi.HK” brand, expanding the free Wi-Fi service at government venues through government funding or public-private collaboration (PPC) and subsidising youth service centres and study rooms operated by non-profit-making organisations to provide Wi-Fi service. As at end-April 2018, the “Wi-Fi Connected City” programme has provided about 21 800 free Wi-Fi hotspots which cover different types of venues, including universities and tertiary institutions, parks, cultural and sports venues, entertainment and leisure venues, government offices, youth service centres and study rooms, hospitals, banks, malls, food premises, hotels, convenience stores, telephone booths, public transport facilities, etc.

“Wi-Fi.HK” Brand

4. Since its launch, the “Wi-Fi.HK” brand has received support from public and private organisations. The number of participating organisations has increased to more than 100, including Wi-Fi service providers, industrial and commercial organisations, tourism-related organisations, universities and tertiary institutions, public bodies and non-profit-making organisations, etc. (a list of participating organisations is at **Annex 1**). We will continue to promote the brand and streamline the procedures for joining the brand as far as possible.

5. With the support for the “Wi-Fi.HK” brand from various sectors, we are applying for trademark registration for the brand in Class 38 (Telecommunications) to further enhance the “Wi-Fi.HK” brand’s image and encourage more public and private organisations to join “Wi-Fi.HK”. The application has passed the preliminary examination and the trademark registration will be completed in mid-2018. It will help enhance the attractiveness of and level of trust in the brand.

Providing Wi-Fi Service at Government Venues through the Public-Private Collaboration (PPC) Model

6. We implemented a pilot PPC project in 2016, which covered 29 venues (see **Annex 2**) providing more than 270 hotspots. It aims to enable service providers to provide value-added services (e.g. installing small cell mobile radio base stations to facilitate the rollout of 5G service) as commercial incentives to provide free Wi-Fi service at government venues so that the Government need not bear the cost for provision of Wi-Fi service. Following an open bidding process, four service providers participated in the pilot project. Some Wi-Fi hotspots have been launched progressively since July 2017. Among the 185 government venues offered by the Office of the Government Chief Information Officer initially under the pilot project, three service providers only selected a small number of venues and the fourth service provider was allocated the remaining 160 venues. Due to commercial reasons, this service provider could not complete the related installation works and arrange for broadband network, and returned 156 venues in October 2017.

7. Drawing on the experience in implementing the PPC model, whilst the number of venues with Wi-Fi service successfully launched is less than expected due to the special situation of one of the service providers, our on-site survey indicated that the Wi-Fi service provided through PPC has wider coverage and more hotspots than expected, and

that the general user connection speed during peak hours reaches an average of 20Mbps, exceeding the project requirements. Besides, as there are more hotspots at the venues, connection failure and service disruption are also reduced. The service providers participating in the pilot project are willing to continue to provide free Wi-Fi service at more government venues through PPC. Some other service providers also expressed interest in participation in the collaboration arrangement.

8. Hence we will roll out the PPC arrangement more widely for providing Wi-Fi service at more suitable government venues. In the light of the pilot project's experience, we have refined details of the PPC programme and contract provisions, and invited the industry this April to consider providing free Wi-Fi service at more than 3 100 government venues¹ currently without Wi-Fi service. These venues include all 44 public hospitals (12 of which have already provided Wi-Fi service at some areas), 81 out-patient clinics, 119 post offices, etc. We expect the service providers to select several hundreds of venues for installing about 3 000 new Wi-Fi hotspots and progressively roll out the service from 2019. For venues not selected, we will further assess public demand for Wi-Fi service at these venues and consider providing service direct under Government Wi-Fi ("GovWiFi").

Government Wi-Fi Service

9. Currently, Government funded a total of 3 100 government-funded "GovWiFi" hotspots at about 610 government venues. New "GovWiFi" service will launch progressively this year. Apart from continuing the provision of Wi-Fi service at these government venues, we have requested the contractor to fully adopt the latest Wi-Fi standard (IEEE 802.11ac) to reduce signal interference and replace copper wires by fibre links where feasible to improve the data transmission speed and stability. All installation and service enhancement works will be completed within this year. By then, it is expected that fibre network will be available at over 80% of the venues and hotspots and the connection speed would substantially increase from the existing average speed of 3 to 4Mbps to over 10Mbps.

10. To ensure cost-effectiveness of the "GovWiFi" service, we will also review the service usage at existing venues, including moving hotspots from venues with low usage to venues with higher usage, and consider terminating service at those venues with very low usage.

¹ The full list of venues is available at http://www.ogcio.gov.hk/en/our_work/business/tender_eoi_rfp/doc/list_of_PPC_venues.pdf

11. Regarding outdoor government venues, with the continuous advancement of mobile network technology in recent years, we have launched a pilot project in early 2018 to provide Wi-Fi service using mobile network in Jordan Valley Park, Central Kwai Chung Park and Tung Chung North Park. Installation is expected to complete by June this year. Subject to satisfactory service performance, we will extend the arrangement to more outdoor government venues suitable for deployment, including more than 1 000 small parks and sitting-out areas in various districts and public housing estates, as well as venues with public demand but not selected under the PPC arrangement. Adopting mobile network technology can resolve the difficulties of lack of fixed network facilities support at some venues, simplify installation works, as well as control the operation cost through charging by usage volume.

12. Besides, to enable the public and visitors to enjoy faster Internet connection at tourist attractions, we are studying the setting up of high-speed Internet access points at “GovWiFi” venues located at some tourist hotspots, (such as Golden Bauhinia Square and Peak Road Garden, etc.). It is expected that the service will be rolled out in early 2019. We will also simplify the connection and login procedure of “GovWiFi” for better user experience.

13. Furthermore, we will tie in with the multi-functional smart lampposts pilot scheme by selecting smart lampposts at some busy locations or tourist attractions in the pilot districts for the installation of public Wi-Fi hotspots. It is expected that smart lampposts for the first phase of the pilot scheme will come into operation progressively from mid-2019.

Wi-Fi service at Youth Service Centres and Study Rooms

14. We launched a subsidy scheme in March 2017 to provide financial support for eligible non-profit-making organisations to provide free Wi-Fi service at their youth service centres and study rooms with a view to facilitating the public (students in particular) to utilise and learn from Internet resources. A total of 51 organisations have since submitted applications and all of them have been approved. Free Wi-Fi service has been progressively rolled out since last August. Currently, 162 youth service centres and study rooms are providing free Wi-Fi service, involving more than 700 hotspots.

Monitoring Service Quality

15. Since the establishment of the “Wi-Fi.HK” brand, we have engaged third party organisations to conduct regular sample checks on the Wi-Fi service. Starting from 2018, we will conduct a comprehensive annual survey on service performance and user experience covering all “Wi-Fi.HK” venues to ensure that the “Wi-Fi.HK” service quality meets service requirements and public expectation. The service performance survey results will be published on the “Wi-Fi.HK” website by the end of this year.

Publicity and Promotion

16. We will step up the promotion of the “Wi-Fi.HK” brand and the safe use of public Wi-Fi and build up the brand’s image through organising various events, harnessing social media and producing online marketing videos to raise public awareness on “Wi-Fi.HK” and the proper use of the service. We will also continue to work with the Hong Kong Tourism Board to promote “Wi-Fi.HK” to overseas and Mainland visitors.

17. We will also require venue owners to post the “Wi-Fi.HK” brand signage at conspicuous locations near the hotspots to facilitate the use of Wi-Fi service by the public and visitors. Besides, we will update the “Wi-Fi.HK” website and mobile app timely, and open up the data of “Wi-Fi.HK” hotspots so as to provide the public and visitors with more information for them to easily locate “Wi-Fi.HK” hotspots, thereby promoting the venues and organisations participating in the brand.

Advice Sought

18. Members are invited to note the content of this paper and provide views on the development of the “Wi-Fi Connected City” programme.

Innovation and Technology Bureau
Office of the Government Chief Information Officer
May 2018

Participating Organisations of the “Wi-Fi.HK” Programme
(As at April 2018)

	<i>Wi-Fi Service Providers</i>
1	21 ViaNet Group Limited
2	HGC Global Communications Limited
3	Hong Kong Broadband Network Limited
4	Hong Kong Telecommunications (HKT) Limited
5	SmarTone Mobile Communications Limited
6	WTT HK Limited
7	Y5ZONE Limited
	<i>Industrial / Commercial Organisations</i>
8	AdWiFi Holding Limited
9	Apm
10	Bank of China (Hong Kong) Limited
11	Certizen Limited
12	East Point City
13	Hang Lung Properties
14	Henderson Land Development Company Limited
15	HomeSquare
16	Hopewell Holdings Limited
17	Metroplaza
18	Mikiki
19	MOKO
20	Tai Po Mega Mall
21	The Bank of East Asia, Limited
22	Tsuen Wan Plaza
23	V city
24	World Trade Centre (WTC)
25	YOHO MALL
	<i>Tourism Related Organisations</i>
26	Airport Authority Hong Kong
27	Ngong Ping 360 Limited

28	Ocean Park Corporation
29	West Kowloon Cultural District Authority
	<i>University and Tertiary Institutions</i>
30	City University of Hong Kong
31	Hang Seng Management College
32	HKU School of Professional and Continuing Education (HKU SPACE)
33	Hong Kong Baptist University
34	Lingnan University
35	The Chinese University of Hong Kong
36	The Education University of Hong Kong
37	The Hong Kong Academy for Performing Arts
38	The Hong Kong Polytechnic University
39	The Hong Kong University of Science and Technology
40	The Open University of Hong Kong
41	The University of Hong Kong
42	Tung Wah College
43	Vocational Training Council
	<i>Public Bodies</i>
44	Construction Industry Council
45	Consumer Council
46	Hong Kong Cyberport Management Company Limited
47	Hong Kong Exchanges and Clearing Limited
48	Hong Kong Export Credit Insurance Corporation
49	Hong Kong Housing Authority
50	Hong Kong Productivity Council
51	Hong Kong Science and Technology Parks Corporation
52	Hong Kong Trade Development Council
	<i>Non-profit Making Organisations</i>
53	Aberdeen Kai-fong Welfare Association Social Service
54	Asbury Methodist Social Service
55	Association of Baptists for World Evangelism (HK) Ltd
56	Association of Baptists for World Evangelism, Inc.
57	Baptist Oi Kwan Social Service
58	Caritas – Hong Kong

59	Cheung Chau Rural Committee Integrated Youth Centre
60	Chinese Evangelical Zion Church Limited
61	Chinese Young Men's Christian Association of Hong Kong
62	Christian & Missionary Alliance Church Union Hong Kong Limited
63	Christian Family Service Centre
64	Chung Sing Benevolent Society
65	Fung Ying Seen Koon
66	Hong Kong Children & Youth Services
67	Hong Kong Christian Service
68	Hong Kong Conservative Baptist Church Association Limited
69	Hong Kong Evangelical Church
70	Hong Kong Family Welfare Society
71	Hong Kong Lutheran Social Services, Lutheran Church - Hong Kong Synod Limited
72	Hong Kong PHAB Association
73	Hong Kong Playground Association
74	Hong Kong Sheng Kung Hui Welfare Council Limited
75	Hong Kong Young Women's Christian Association
76	Hong Kong-Macao Conference of Seventh-day Adventists
77	Kowloon Tong Church of the Chinese Christian and Missionary Alliance
78	Methodist Centre
79	Methodist Epworth Village Community Centre, Social Welfare
80	Pentecostal Holiness Church Inc.
81	Pok Oi Hospital
82	Sai Kung District Community Centre Limited
83	South Asian Lutheran Evangelical Mission Limited
84	St. James' Settlement
85	Tai Hang Youth Centre
86	The ABM Hong Kong Swatow Baptist Church Community Service Association
87	The Baptist Convention of Hong Kong
88	The Boys' & Girls' Clubs Association of Hong Kong
89	The Chinese Rhenish Church Hong Kong Synod
90	The Church of United Brethren In Christ, Hong Kong Limited
91	The Free Methodist Church of Hong Kong

92	The Hong Kong Buddhist Association
93	The Hong Kong Federation of Youth Groups
94	The Mongkok Kai-Fong Association Limited
95	The Neighbourhood Advice-Action Council
96	The Salvation Army
97	Tung Wah Group of Hospitals Jockey Club Tai Kok Tsui Integrated Services Centre
98	Yan Chai Hospital
99	Yan Oi Tong Limited
100	Yang Memorial Methodist Social Service
101	Yuen Long Town Hall Management Committee Limited
102	Zion Social Service Limited

Annex 2

Government Venues in the Pilot PPC Project

1	Apliu Street Public Toilet
2	Dr Sun Yat-sen Museum
3	Fo Tan Cooked Food Market (East)
4	Fo Tan Cooked Food Market (West)
5	Hong Kong Coliseum (Indoor)
6	Hong Kong Coliseum (Outdoor)
7	Hong Kong Cultural Centre
8	Hong Kong Cultural Centre Piazza and Tsim Sha Tsui Promenade
9	Hong Kong Science Museum
10	Hong Kong Space Museum
11	Immigration Department - East Kowloon Office
12	Kwai Hing Station Bus Terminus
13	Lo Wu Control Point
14	Lok Ma Chau Control Point
15	Lok Ma Chau Spur Line Control Point
16	Man Kam To Control Point
17	Mong Kok Stadium
18	Queen Elizabeth Stadium (Arena, Distribution and Exchange Lobby)
19	Queen Elizabeth Stadium (Box Office, Multi-Purpose Hall)
20	Sha Tin Town Hall
21	Shenzhen Bay Control Point
22	Shenzhen Bay Port (Hong Kong Port Area) Public Transport Interchange
23	Tung Chung Station Bus Terminus
24	UC Centenary Garden - Tsim Sha Tsui East
25	Central (Exchange Square) Bus Terminus
26	Footbridge - along Connaught Road Central from Pedder Street to Shun Tak
27	Footbridge - O'Brien Road
28	Statue Square Gardens
29	Victoria Park