

立法會
Legislative Council

LC Paper No. CB(4)816/14-15(04)

Ref. : CB4/PL/ITB

Panel on Information Technology and Broadcasting

Meeting on 11 April 2016

Background brief on development of Wi-Fi connected city

Purpose

This paper provides background information on the development of Hong Kong as a Wi-Fi connected city and summarizes the latest views and concerns expressed by Members on the subject.

Background

2. The Digital 21 Strategy is the blueprint for the development of information and communications technology ("ICT")¹ in Hong Kong. The Government first published the strategy in 1998 and updated it four times in 2001, 2004, 2008 and 2014 to take into account technological advancement and changing needs of the society. The advent of wireless and multi-platform technologies, cloud computing, Internet of Things and big data in recent years has provided new impetus for social and economic developments. The Government has been updating the Digital 21 Strategy so that it grows and evolves continuously in pace with global trends and aspirations of Hong Kong community.

3. Government Wi-Fi ("GovWiFi") was one of the major initiatives under the 2008 Digital 21 Strategy to build Hong Kong into a wireless city. The Programme aims to provide free wireless Internet access services to all citizens by installing Wi-Fi facilities at designated government premises. GovWiFi started installing Wi-Fi facilities since early 2008 at various government premises in all 18 districts. These premises include public libraries, public enquiry service centres, sports venues, cultural and recreational centres, cooked food markets and cooked food

¹ ICT refers to all technologies and applications that involve information processing and/or exchange over communication networks, including the Internet.

centres, job centres, community halls, major parks, government buildings and offices.

4. The Administration assessed that the GovWiFi programme had achieved its objective. To address the continued need for the GovWiFi service, the Administration implemented the next generation GovWiFi programme with enhanced services upon expiry of the current service contract in December 2012. The next generation GovWiFi will last for five years from December 2012 to December 2017. Enhancements in the new Programme include:

- (a) extension of service scope to more premises, where there is strong public demand for GovWiFi service;
- (b) adoption of Wi-Fi technology standard (IEEE 802.11n), which provides better signal coverage, enables faster data transfer and reduces signal interference;
- (c) support the latest Internet communication protocol (IPv6) for accessing web sites and Internet services delivered through IPv6; and
- (d) enhance the GovWiFi captive portal to facilitate the provision of more tailored and a greater number of e-government services and contents to the public.

5. As at December of 2015, the Government has rolled out free Wi-Fi service at around 600 premises. In the fourth update of the Digital 21 Strategy in 2014, the Administration proposed a series of initiatives under the theme of "Smarter Hong Kong, Smarter Living", including doubling the number of Wi-Fi hotspots with complete or time-limited free public access to 20 000 by the end of 2014 through public-private partnership to promote city-wide Wi-Fi for all.

Previous discussions

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6. At the meeting of the Panel on Information Technology and Broadcasting ("the ITB Panel") on 8 June 2015, the Administration briefed members on the progress on e-Government development. Some members expressed concern about the efficiency and coverage of the GovWiFi service. The Administration advised that it regularly monitored the service quality of GovWiFi with clear targets to extend the coverage of the service to 600 Government premises with 3 000 hotspots by the end of 2015. On the efficiency of GovWiFi service, the Administration had conducted regular tests on reception of signals at various GovWiFi hotspots with satisfactory results. The management of these hotspots sites was reminded to

provide conspicuous signage to show the locations of the hotspots. With the concerted efforts of the industry and the Government, it was estimated that the number of public Wi-Fi hotspots under the "Wi-Fi.HK" brand would be increased from currently 15 000 to around 17 000 by end 2015.

7. At the policy briefing of the ITB Panel held on 2 February 2016, members noted that, as announced in the 2016 Policy Address, the Administration would, within three years, progressively expand the coverage of free Wi-Fi service by doubling the number of Wi-Fi.HK hotspots from 17 000 to 34 000. The Administration would install free Wi-Fi hotspots at places with high patronage, including public rental housing estates, public hospitals, markets, parks, sitting-out areas, promenades, tourist spots, public transport interchanges, land boundary control points and other public places. The Administration would also work with different organizations to install Wi-Fi.HK hotspots at facilities such as bus stops and shopping centres, providing free Wi-Fi service to the public.

8. Some members indicated that they had experienced difficulties in accessing Wi-Fi hotspots in some places with high patronage. They commented that the free Wi-Fi service the Government provided at present did not commensurate with the amount of resources provided. The Administration advised that it would continue to work with the private sector and pool public and private resources together to promote free Wi-Fi services in the community.

9. Some members suggested that free Wi-Fi coverage should be extended to areas inside elevators of shopping malls and major commercial premises. The Administration advised that while the issue could be solved technically, co-operation with the owners or managers of the premises would be necessary.

10. Members supported the Administration's initiative to build a connected Wi-Fi city. Some members commented that, notwithstanding the number of Wi-Fi hotspots the Administration had installed or planned to install, many hotspots were too weak or the range was too short that users could not connect to the Internet using those hotspots. Members asked the Administration to report to the Panel how it would ensure the quality of the free Wi-Fi service at the meeting when it would present the item on building a connected Wi-Fi city in April 2016.

Council meetings

11. At the Council meetings on 4 November 2015 and 20 January 2016, Hon CHAN Hak-kan and Hon Jeffrey LAM raised questions on GovWiFi respectively.

12. The Administration advised that the Finance Committee allocated a total of \$285.6 million in 2007 and 2011 for the provision of the GovWiFi service till the end of 2017. As at September 2015, the total expenditure of GovWiFi was around \$231 million. To improve connection speed, the Administration would

progressively double the overall Wi-Fi connection speed with enhanced security at government premises. For example, the Administration had increased the connection speed for each user from about 1-2 Mbps to 4 Mbps at government premises with high patronage, including all public libraries, to facilitate the public to enjoy faster Internet services.

Recent development

13. In the 2016-2017 Budget, the Government has earmarked \$500 million to further increase the number of Wi-Fi.HK hotspots to over 30 000, bringing greater convenience to our citizens and tourists.

Latest position

14. The Administration will brief the Panel on 11 April 2016 on Wi-Fi connected city.

Relevant papers

15. A list of the relevant papers with their hyperlinks is at:

<http://www.legco.gov.hk/yr14-15/english/panels/itb/agenda/itb20150608.htm>

<http://www.legco.gov.hk/yr15-16/english/panels/itb/agenda/itb20160202.htm>

<http://www.legco.gov.hk/php/hansard/english/rundown.php?date=2015-11-04&lang=0>

<http://www.legco.gov.hk/yr15-16/english/counmtg/hansard/cm20160120-translate-e.pdf#nameddest=wrq>

<http://www.legco.gov.hk/yr10-11/english/fc/fc/papers/f11-24e.pdf>

Council Business Division 4
Legislative Council Secretariat
6 April 2016