

For discussion on  
11 April 2011

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

**Next Generation Government Wi-Fi Programme**

**Purpose**

This paper seeks Members' support for the implementation of a Next Generation Government Wi-Fi (*GovWiFi*) Programme for succeeding the current Programme, the service contract of which will expire in December 2012.

**Background**

2. In May 2007, the Finance Committee of the Legislative Council approved funding of \$217.6 million for implementing a *GovWiFi* Programme. The Programme provides free Wi-Fi Internet access service to the public at designated government premises. Under the Programme, we arranged a five-year contract for the supply, implementation, support and maintenance of the necessary network equipment and associated services. The contract commenced in December 2007 and will expire in December 2012.

3. We have implemented the *GovWiFi* service progressively by phases with the service initially launched in 30 government premises in March 2008 and fully rolled out in June 2009. Currently, the service is available at 392 government premises as shown in **Annex A**. We have installed over 2 000 hotspots in these premises.

4. *GovWiFi* service is well received by citizens. In terms of number of Internet connections through the service, we observe an average monthly

growth rate of 7% since the service was fully rolled out in June 2009. As of March 2011, the average number of users and Internet connections per day are around 14 000 and 26 000 respectively. Usage information of *GovWiFi* service is in **Annex B**.

### *Providing Better Public Services*

5. *GovWiFi* offers free Wi-Fi Internet access to the public, and also provides additional channels for delivering e-government services. Through the *GovWiFi* web portal and the use of location based technology, citizens can access specific e-government services pertaining to the *GovWiFi* premises they are situated in. For example, citizens can enjoy book renewal services at public libraries, sports facilities booking services at sports centres, interactive employment services at job centres; and access weather information local to the district of the *GovWiFi* premises in which the citizens are situated.

6. *GovWiFi* service also helps bridge the digital divide in the community. By offering free Internet access at government premises like public libraries and community centres, *GovWiFi* service complements other digital inclusion measures in facilitating under-privileged groups to gain access to the Internet. As more and more content and services are accessible through the free *GovWiFi* service, we anticipate more social groups, including the elderly and persons with disability, will find the service useful.

### *Stimulating Development of Public Wi-Fi Services by the Commercial Sector*

7. With Government taking the initiative to implement the *GovWiFi* Programme, we notice an increase in public Wi-Fi services provided by commercial service providers. Since the launch of *GovWiFi* service in March 2008, the number of public Wi-Fi locations in Hong Kong has increased from around 4 200 to over 5 000, or about 20% increase.

8. The provision of commercial Wi-Fi services in Hong Kong has extended from fixed locations to mobile transportation media such as buses,

ferries and trains where passengers can enjoy on-board Internet access services. In conjunction with the provision of free *GovWiFi* service at business districts and tourist spots such as the Statue Square and the Tsim Sha Tsui Promenade, a wide ubiquitous Wi-Fi network is gradually building up in Hong Kong. Apart from benefiting citizens in using the services, business visitors and tourists who come to visit Hong Kong can enjoy the convenience brought about by them. All these contribute to the positive image of Hong Kong as a wireless and ubiquitous city.

## **Proposal**

### *Continuing the GovWiFi Service*

9. The *GovWiFi* Programme has fully achieved its objectives. We propose to implement a next generation *GovWiFi* Programme to succeed the existing one upon expiry of its current service contract in December 2012. The new Programme will last for five years covering the period from December 2012 to December 2017.

10. In ascertaining the continued need for *GovWiFi* service, we have conducted a survey to collect views and requirements from government departments. Their feedback indicates that there remains a strong demand of *GovWiFi* service from the public. We have also made reference to the surveys conducted by the Census and Statistics Department which showed that the percentage of citizens having devices with Wi-Fi capabilities is on the rise<sup>1</sup>. This further confirms the need for *GovWiFi* service.

11. In the new Programme, we will extend the service to new premises where there is strong public demand for *GovWiFi* service. Based on requirements collected from departments, we would extend the service to about 40 new premises. To ensure value for money, we will also review the usage at

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<sup>1</sup> The percentage of persons aged 10 and over who had mobile web devices with Wi-Fi function increased from 17.8% in 2008 to 28.3% in 2009 according to the Thematic Household Surveys on Information Technology Usage and Penetration conducted by the Census and Statistics Department.

existing premises and reduce the service scope or curtail the service for locations of low usage<sup>2</sup>.

### *Enhancing the Service*

12. We propose to enhance the *GovWiFi* service by adopting a newer version of Wi-Fi technology standard<sup>3</sup> which can provide better signal coverage, enable faster data transfer and reduce signal interference. We expect that, with the adoption of newer technology, we can provide faster and better quality service to citizens.

13. As the addresses of the prevailing Internet communication standard (IPv4<sup>4</sup>) are running out, users of Internet service would start using the new Internet communication standard (IPv6<sup>5</sup>) in the near future. The *GovWiFi* network has to be made ready for the new standard to cater for the foreseeable public demand. We propose to enhance this network under the new *GovWiFi* Programme.

14. We also propose to enhance the *GovWiFi* web portal to facilitate the provision of more tailored and a greater number of e-government services and contents to citizens.

### **Potential Benefits**

15. *GovWiFi* service is a popular service well received by citizens. Implementation of the new Programme will enable citizens to continue

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<sup>2</sup> We will further consult the government departments responsible for these premises to assess the impact and other alternatives available to the public (e.g., whether there is any other available Wi-Fi service nearby) before we decide whether to reduce service scope or curtail the service.

<sup>3</sup> The new version of technology standard to be adopted is Wi-Fi standard IEEE 802.11n. The standards adopted in the current Programme are IEEE 802.11b and 802.11g which are older versions. The new version is backward compatible with the old ones.

<sup>4</sup> The prevailing Internet communication standard is Internet Protocol version 4 (IPv4). On 3 February 2011, the Internet Assigned Numbers Authority allocated the last batch of IPv4 address blocks to the regional Internet registries, implying the exhaustion of the global free pool of available IPv4 addresses.

<sup>5</sup> Internet Protocol version 6 (IPv6) is a new standard to succeed IPv4. IPv6 offers much greater number of addresses (in the order of  $3.4 \times 10^{38}$ ) than IPv4 (in the order of  $4.3 \times 10^9$ ).

enjoying this public service. It will also help ensure the continual delivery of the benefits of the present Programme mentioned in paragraphs 5-8 above.

16. With the adoption of a more up-to-date Wi-Fi technology standard, the service will promise better coverage, more stable wireless connection and faster performance. Upgrading the GovWiFi network to support the new Internet communication standard (IPv6) will enable the public to access new services of IPv6 which are gradually developing and growing on a global basis.

**Funding Proposal**

*Non-Recurrent Expenditure*

17. The estimated non-recurrent expenditure for the new Programme is \$152 million. The breakdown is as follows:

	<b>\$ million</b>
(a) Provision of GovWiFi service including implementation and maintenance	110.0
(b) Programme coordination, management and support	28.5
(c) Contingency	13.5
<b>Total</b>	<b>152.0</b>

The current GovWiFi Programme is funded under Capital Works Reserve Fund (CWRP) Head 710 Computerisation Subhead A068XV. As there will be an unspent balance of the existing commitment at some \$84 million, we propose to seek for an additional allocation of \$68 million to top up the existing commitment of \$217.6 million for meeting the required non-recurrent expenditure of \$152 million.

18. On paragraph 17(a), the estimate of \$110 million is for the acquisition of services for provision of hardware, software, site preparation, installation, on-going operation and maintenance, Internet connection and helpdesk service.

19. On paragraph 17(b), the estimate of \$28.5 million is for the coordination, management and support work for the new Programme. It includes the professional services for monitoring site work, acceptance of Wi-Fi coverage, inspection of Wi-Fi signal as well as the services of contract information technology (IT) staff for programme coordination and management.

20. On paragraph 17(c), the estimate of \$13.5 million represents a 10% contingency on the cost items set out in paragraphs 17(a) and (b) above.

#### *Other Non-Recurrent Cost*

21. Implementation of the new Programme will require non-recurrent staff cost of \$3.8 million which represents a total of 45 man-months of IT professional staff effort for performing tendering and contract management work. This requirement will be absorbed within existing resources.

#### *Recurrent Expenditure*

22. An estimated recurrent staff cost of \$1.2 million for a total of 18 man-months of IT professional staff effort will be required from 2013-14 onwards for providing on-going programme coordination, management and contract administration for the new Programme. This requirement will also be absorbed within existing resources.

### **Implementation Plan**

23. To ensure the provision of highly integrated Wi-Fi services, we will continue to adopt a total outsourcing approach. Rather than buying the required hardware, software and Internet services from respective suppliers, we will procure a service from the market covering the provision of hardware, software, site preparation, installation, on-going operation and maintenance, Internet connection and helpdesk service.

24. The proposed implementation plan is as follows:

<b>Activity</b>	<b>Timing</b>
(a) Funding	May 2011
(b) Procurement of service for implementation and operation of <i>GovWiFi</i>	June 2011 to February 2012
(c) Commencement of implementation	March 2012
(d) Completion of implementation at existing premises and ready for service rollout	December 2012
(e) Completion of implementation at new premises and ready for service rollout	November 2013

25. Subject to Members' support for the Proposal, we plan to seek funding approval from the Finance Committee in May 2011.

### **Advice Sought**

26. Members are invited to support the proposed next generation *GovWiFi* Programme as set out in paragraphs 9-14 above.

**Office of the Government Chief Information Officer  
Commerce and Economic Development Bureau  
March 2011**

**Distribution of GovWiFi Premises by Type  
as of March 2011**

<b>Premises Type</b>	<b>No. of Premises</b>
All Public Libraries	66
All Public Enquiry Service Centres	20
All Job Centres	12
<i>Selective based on demand of respective premises:</i>	
Sports Centres, Sports Grounds and Stadiums	93
Government Buildings and Offices	56
Community Halls and Centres / Complexes	45
Cooked Food Markets / Centres	37
Parks, Gardens and Visitor Centres	37
Cultural and Recreational Centres	15
Holiday Camps	4
Piazza / Beach / Promenades	4
Ferry Terminals	3
<b>Total</b>	<b>392</b>

### GovWiFi Usage Statistics

