For discussion on
17 April 2007

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

Provision of Wi-Fi Facilities at Government Premises

PURPOSE

        This paper briefs Members on the Programme for providing Wi-Fi facilities at Government premises, and seeks Members' support on the funding proposal under Capital Works Reserve Fund (CWRF) Head 710 Computerization for implementing the Programme.

BACKGROUND

2.   Wi-Fi is a technology which can support the connection and access to the Internet through Wi-Fi enabled mobile devices, such as notebook computers, personal digital assistants (PDAs) and mobile phones. The venues where Wi-Fi services are provided are commonly known as hotspots. The provision of public hotspots has become a global trend nowadays. The impetus is largely fuelled by the increasing availability of mobile devices equipped with Wi-Fi capability in the market.

3.   As at February 2007, there are 29 registered service providers operating more than 1,000 hotspots and providing commercial Wi-Fi services in Hong Kong. They provide services in densely populated commercial and residential areas, for example, Central, Causeway Bay, Tsim Sha Tsui and Mong Kok. The hotspots are mainly installed in fast food shops, cyber cafés, restaurants, convenience stores and shopping malls.

4.   While Wi-Fi services at the metropolitan level are provided by commercial service providers, the services are mainly provided at commercial premises. To further facilitate citizens to enjoy Wi-Fi services anytime and anywhere, we plan to launch a Programme to install Wi-Fi facilities at major Government premises.

5.   As set out in the draft 2007 Digital 21 Strategy which is being finalized, our vision to make broadband Internet access available to all citizens in Hong Kong, regardless of whether they are at home or on the move. Through our proposed Wi-Fi Programme and in concert with other Wi-Fi initiatives in the private sector, we envisage that nearly ubiquitous access to the Internet will be progressively available to citizens in all built-up areas of Hong Kong.

THE PROPOSAL

6.   We propose to implement the Programme to install Wi-Fi facilities in around 350 Government premises with high public patronage. These premises include public libraries, key cultural and recreation centers, community halls, large parks, and those government offices that are frequently visited by the public. A list of the proposed Government premises to be equipped with Wi-Fi facilities is enclosed at **Annex**.

7.   Through the Wi-Fi facilities provided at the various Government premises, citizens would enjoy free of charge connection to the Internet.   However, where individual transactions and services are chargeable, e.g. as in the case of e-commerce or e-government transactions that are related to the users' personal accounts, they will continue to be charged by the respective service providers. To avoid citizens from entering into obscene web sites, appropriate filtering software will be installed.   Relevant security measures will also be introduced to protect the proper use of the Internet services by citizens. To provide assistance to citizens on the use of Wi-Fi services, helpdesk services will also be provided.

8.   An outsourcing approach will be adopted for implementing the Programme. The installation of Wi-Fi facilities, implementation of

Wi-Fi services as well as their on-going operation will all be outsourced. The Office of the Chief Government Information Officer (OGCIO) will centrally oversee, coordinate and manage the whole Programme.

POTENTIAL BENEFITS

9. The proposed Wi-Fi Programme is expected to bring benefits on all fronts, including citizens in general, the Government, business sectors, ICT Industry and Hong Kong as a whole.

Providing convenience and affordable solution to the public

10. The installation of Wi-Fi facilities at Government premises will significantly increase the number of hotspots available in Hong Kong. This will greatly enhance the accessibility of hotspots both in terms of number and geographic coverage. Citizens can get access to the Internet for business, studies or leisure ubiquitously where these facilities are provided. This will enable much quicker and more convenient access to relevant information, thereby helping improve productivity and enhancing the quality of life of the users.

11. Moreover, the Wi-Fi services at Government premises will be provided free of charge to citizens. This would help lower the economic barrier for Internet access and help bridge the digital divide in the community.

Providing more diversified and effective Government services

12. The wider availability of Wi-Fi networks would facilitate the delivery of more e-Government services through the wireless and mobile channel, and allow multiple users to obtain the same Government service simultaneously.

Facilitating businesses in all sectors

13. The Government Wi-Fi Programme aims to help stimulate and facilitate the development of wireless and mobile applications in all

sectors. The large number of hotspots, the wide geographic coverage of the Wi-Fi networks, as well as the free Internet access offered by the Government are all incentives for encouraging this development.

Fostering development of ICT Industry

14.   As discussed earlier, the implementation and on-going operation and service provision of the Wi-Fi Programme will be outsourced. This should mean additional employment and new business opportunities for our ICT industry.

15.   Apart from this direct benefit, it is expected that the Wi-Fi Programme would also catalyze the development of related Wi-Fi solutions in the market. These solutions would include Wi-Fi applications in both e-government and e-commerce arenas; mobile devices or consumer products with Wi-Fi capability; and supporting services such as Wi-Fi network design, Wi-Fi security, etc. All these would help foster the development of the ICT industry in both the areas of products and services.

Promoting the image of Hong Kong

16.   The Wi-Fi Programme will not only bring benefits to the local community, it would also facilitate visitors in their business and leisure activities during their stay in Hong Kong. For example, foreign business travellers to Hong Kong can make use of the Wi-Fi network and the associated applications to perform government or commercial related activities in a ubiquitous manner. With the help of Wi-Fi network installed in some tourist spots such as museums, tourists would be able to enjoy better informational/tourist services. All these would help build and sustain a positive image of Hong Kong and would help uphold our status as a leading digital city.

IMPACT TO THE ICT INDUSTRY

17.   The Wi-Fi Programme will have positive impact to the ICT industry as a whole. The Programme will bring business opportunities to

industry players in different arenas, including but not limited to, Internet service providers, Wi-Fi equipment providers, system integrators, mobile device vendors, and application systems developers. Leveraging on its competitive strengths in application development, the local industry can develop innovative Wi-Fi applications for massive roll-out in the local market as well as for exporting to other countries/regions to generate revenue for Hong Kong.

18.   As regards the impact on mobile network operators, it is believed to be minimal, and if any on the positive side. It should be noted that the Wi-Fi Programme would help bring awareness to citizens on the use of mobile services. This would catalyze the development of more mobile applications, which in turn generate more mobile users.   This will have positive impact on the ecosystem of the mobile industry at the macro level, and will bring benefits to all industry players irrespective of the technology they are providing.

19.   Moreover, Wi-Fi technology has its own unique characteristics in terms of speed, data capacity and mobility which are different from those of other mobile technologies such as 3G.   Wi-Fi is therefore not considered as directly competing with other technologies. Instead, Wi-Fi complements other technologies, and together, they provide more choices and more comprehensive coverage to mobile users.

FUNDING PROPOSAL

Non-Recurrent Expenditure

20.   We will seek the Finance Committee's funding approval for a total non-recurrent provision of **$227.5 million** from 2007-08 to 2009-10 under CWRF Head 710 Computerization for acquiring the required installation and implementation services; performing site preparation; conducting publicity and promotion campaigns; as well as coordinating and managing the implementation programme. The actual non-recurrent expenditure requirement will depend on the outcome of the tendering exercise. The cost breakdown is as follow :

		$ million
(a)	Installation and implementation services[(see Note below)]	125.6
(b)	Site preparation	53.6
(c)	Programme coordination and management	10.6
(d)	Publicity and promotion	8.0
	Sub-total	**197.8**
(e)	Contingency(15%)	29.7
	Total	**227.5**

Note: Including initial support and maintenance services during the implementation period

Other Non-Recurrent Cost

21. The Programme requires the creation of one time-limited post, non-recurrent Senior Systems Manager (SSM) post for two years to manage and coordinate the implementation. The total staff cost incurred is $1.9 million for the 2-year period. The programme also entails non-recurrent staff costs of $2.1 million for taking up the tendering and contract management work. This requirement will be absorbed within existing resources.

Recurrent expenditure

22. The Wi-Fi facilities will be installed progressively according to a planned implementation schedule, with the first installation to commence in November 2007. During the first year, priority will be given to public libraries, key cultural and recreation centers, community halls, large parks, and those government offices that are frequently visited by the public. The whole implementation programme is planned to be completed in 2 years after funding approval.

23. Recurrent expenditure is needed for on-going maintenance, operation and support for the Wi-Fi facilities. The full-year recurrent expenditure from 2010-11 onwards is estimated to be about **$19.2 million**. The actual recurrent expenditure requirement will depend on the outcome of the tendering exercise. The breakdown of the full-year

recurrent expenditure is as follow:

		$ million
(a)	Data communication and Internet Service	7.2
(b)	Hardware & Software maintenance and support	6.7
(c)	Operation and Helpdesk support	5.3
	Total	**19.2**

IMPLEMENTATION PLAN

24.   To ensure cost-effective procurement and the provision of highly integrated Wi-Fi network services, we will adopt an open tendering approach for the procurement.   In order to expedite the implementation process and to enable more industry players to participate in this Government-wide programme, we plan to select more than one contractor.

25.   The proposed implementation plan is as follows :

Activity	**Timing**
(a) Funding	May 2007
(b) Procurement of Services for Implementation and Operation of Wi-Fi facilities	June to November 2007
(c) Commencement of Implementation	November 2007
(d) Completion of priority targeted sites	June 2008
(e) Completion of the remaining sites	June 2009

ADVICE SOUGHT

26.		Members are invited to note the scope of the Government Wi-Fi Programme as outlined in paragraphs 6 to 8, and support the funding proposal as set out in paragraphs 20 to 23 above.

Office of the Government Chief Information Officer
Commerce, Industry and Technology Bureau
April 2007

List of proposed Government sites
to be equipped with Wi-Fi Facilities

There will be a total of about 350 Government sites to provide Wi-Fi facilities for Internet access.

(a) Cultural and Recreational Facilities
These include libraries, museums, cultural centres, stadiums, and large parks of the Leisure and Cultural Services Department.

Sites	*Total*
Libraries	66
Museums	7
Cultural centres	6
Stadium	2
Parks	3
Total	*84*

(b) Community Facilities
These include community halls/community centres and public enquiry service centres (PESC) of the Home Affairs Department.

Sites	*Total*
Community Hall/Community Centres	90
Public Enquiry Service Centre (PESC)	18
Total	*108*

(c) Facilities of other bureaux/departments (B/Ds)
There will be about 160 sites with high public patronage from different B/Ds.