For discussion
on 13 February 2006

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Legislative Council Panel on
Information Technology and Broadcasting

2004 Digital 21 Strategy –
Progress Report for 2005 and Targets for 2006 and Beyond

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PURPOSE

This paper reports the progress made in 2005 in implementing the 2004 Digital 21 Strategy, and sets out the targets and action plans for 2006 and beyond.

BACKGROUND

2. The overall objective of the updated Digital 21 Strategy, published in March 2004, is to sustain the momentum that has been created in the past five years and to continue to harness the benefits of IT for business, the community and Hong Kong's position in the world. The 2004 Strategy sets out eight main areas of action to drive the further development of information and communications technology (ICT) in Hong Kong from 2004 to 2007.

3. The Strategy has also entrusted the Government Chief Information Officer (GCIO) to measure progress at the end of each year against what is set out in the Strategy and propose specific targets, actions and plans for the next year. The Office of the Government Chief Information Officer (OGCIO) has taken stock of the progress made in 2005, identified areas requiring further work and proposed new actions to be taken in 2006. A list of the targets and action items for 2006 and beyond are summarized in **Annex**. The key initiatives are elaborated in the ensuing paragraphs.

PROGRESS AND TARGETS

(a) Government leadership

(i) Government as an advocate and champion

4.   The establishment of the OGCIO as the focal point for formulating IT policies and implementing related initiatives has strengthened Government's role in driving the development of information and communications technology (ICT) and e-government in Hong Kong.   To sustain the momentum and to deepen and broaden stakeholders' support for the Digital 21 Strategy, we will kick off a new round of **Digital 21 Strategy Review** in the first quarter of 2006 by initiating discussions with the relevant bureaux/departments (B/Ds) and business organizations.   Our plan is to come up with a draft document for internal consultation in mid-2006 and for public consultation in late 2006.   We will finalize the updated Strategy for promulgation in early 2007.

(ii) Enhancing the IT outsourcing programme

5.   We have outsourced 95% of our new IT projects in 2004-05.   To better support our rigorous IT outsourcing strategy, OGCIO has replaced the Information Technology Professional Services Arrangements (ITPSA) with the **Standing Offer Agreements for Quality Professional Services (SOA-QPS).** We have also awarded the contract for the **central computer centre operation** in December 2005.   Our aim is to complete the migration of the systems to the private sector operator by the third quarter of 2006.

6.   At the same time, we will **strengthen the governance of IT projects** implemented by B/Ds through OGCIO's more proactive involvement in the planning and implementation of the projects.   Under the new governance mechanism, IT projects will be assessed and classified against such criteria as scale and cost, complexity, project risks and project health status.   Based on the assessment, OGCIO will apply to each project a set of monitoring and governance measures commensurate with its scale, cost, complexity and risk level.   The new mechanism will be implemented with effect from April 2006.

(iii) Enabling the development of innovative applications

7.   The Government approved in October 2005 the implementation of a three-year pilot scheme to **open up intellectual property (IP) in Government IT systems** for commercial exploitation by vesting the IP ownership of new Government IT systems in the contractor. We are now working out the implementation details of the pilot scheme with the departments concerned. Our target is to implement the pilot scheme in the first quarter of 2006.

(b) Sustainable e-government programme

(i)   Sharpening the e-government focus and engaging stakeholders

8.   We promulgated the vision, missions and key priorities of the **next wave of e-government development** in January 2005.   As announced in the Chief Executive's 2005-06 Policy Agenda, the OGCIO and the Efficiency Unit (EU) are working jointly on a **Citizen-centric Service Delivery Programme** with a view to enhancing the quality and delivery of public services. For example, the OGCIO is planning to launch a new **One-Stop Access Portal (OSP)** to deliver citizen-centric e-government services, and the EU is working on various initiatives including the development of a central service hub for youth and a pilot Integrated Licensing Centre.   To better engage B/Ds in the process of proposing and prioritizing service transformation initiatives especially those requiring a cross-departmental and multi-skilled approach, we will set up, in the first quarter of 2006, a **Service Transformation Sub-Committee (STC)** under the E-government Steering Committee chaired by the Financial Secretary to draw up a government-wide service transformation programme.

9.   To improve the measurement of performance and value of e-government initiatives and assess the business case for Government IT investment, we will commission a **Study on Measuring the Benefits of IT Investment.** We will commission the consultancy study in early 2006 for completion in mid-2006.

(ii) Driving utilization, creating value and engaging customers

10.   The Government has decided to implement a **new strategy for**

e-government service delivery under the next wave of e-government development. The OSP mentioned in paragraph 8 above seeks to deliver government information and services based on a service clustering approach centering on citizens' needs and preferences. Details on the new strategy can be found in the Administration's papers submitted for discussion at the Panel meetings on 9 January and 13 February 2006.

11. We issued a **Customer Relations Management (CRM) Guide** in October 2005 to provide B/Ds with guidelines on how the quality and citizen-centricity of their e-services can be improved. The CRM Guide is an essential building block and management tool for implementing the new strategy for e-government service delivery described above.

12. As costing of different service delivery channels is an important component of **Channel Management Strategy**, we will promulgate the Strategy in the second half of 2006 so as to take account of the recommendations of the Study on Measuring Benefits of IT Investment to be available in mid-2006 (see paragraph 9 above).

13. We have been assisting the Rating and Valuation Department and the Land Registry in formulating the business and operation models for the **Property Information Hub (PIH).** Subject to the outcome of the tender exercise to be conducted in late 2006/early 2007, it is expected that the PIH service can be launched by end 2007.

(iii) Driving IT adoption through e-government

14. We commissioned a consultancy study on **e-Procurement Strategy** in July 2005. The Study recommended a number of e-procurement initiatives for implementation at the B/D level. Implementation of the initiatives will not only bring about tangible and intangible benefits to the Government but also help drive the IT and e-commerce adoption in the supplier community. We are discussing with relevant B/Ds on how to take forward the recommendations.

15. To drive IT adoption in the community, we continue to explore the inclusion of value-added applications in the **smart ID cards**. Since December 2004, Hong Kong permanent residents holding smart ID card

holders can perform self-service immigration clearance at control points installed with e-channels (by mid-2006, about 270 e-channels will have been installed at various control points).   By late 2006, smart ID card holders will be able to use their ID cards to book sports and leisure facilities at self-service kiosks.   Drivers will also be able to use their smart ID cards for checking driving licence data by 2007.   To sustain the momentum, OGCIO will conduct a study in the first half of 2006 to explore further Government and non-Government value-added applications that can ride on the smart ID cards.

(c) Infrastructure and business environment

(i) Digital Broadcasting

16.   The Government announced the implementation framework for **digital terrestrial television (DTT)** in July 2004.   The Asia Television Limited (ATV) and Television Broadcasts Limited (TVB) are required to simulcast their channels in both digital and analogue formats and launch high-definition television services by 2007 and achieve 75% DTT coverage by 2008. Implementation is underway.   The Government will collaborate with the industry and relevant organizations to stage promotion and publicity campaigns to build up public awareness of DTT.

(ii) Broadband infrastructure and wireless access

17.   Following the Government's announcement of the outcome of the review of the **Type II interconnection arrangement** in July 2004, mandatory Type II interconnection for local fixed-line telecommunications services will be gradually withdrawn to promote investment in high bandwidth customer access networks.   The withdrawal will be fully implemented across the territory by 30 June 2008.

18.   The Office of the Telecommunications Authority (OFTA) launched a public consultation in December 2004 to invite views on the licensing framework for **broadband wireless access** (BWA).   OFTA issued the second public consultation paper with detailed proposals in August 2005 and received 22 submissions by the deadline on 21 November 2005.   OFTA is reviewing the submissions and will propose the way forward in due course.

(iii) Technology infrastructure

19.   The Cyberport and Science Park continue to sharpen their respective technology focuses and promote wider business/industrial application in those sectors.   Development in the areas of wireless and mobile technologies and digital entertainment, being focuses of Cyberport, will be discussed in paragraphs 29 to 31 below.   For the Science Park, a host of technology support infrastructures have been provided to help enhance the research and development (R&D) capability of our industries in various fields.   These include the Integrated Circuit Design and Development Support Centre, the Product Analysis Laboratory, and the latest Photonics Development Support Centre which was officially opened in August 2005.

(iv) Promote the adoption of e-business

20.   We continue to drive e-business and IT adoption through the **Sector-Specific Programmes (SSPs)** with the objective of enhancing the e-readiness and competitiveness of small and medium sized enterprises (SMEs) in Hong Kong.   So far, six sectors have benefited from the SSPs, including the travel industry, private medical practitioners, drugstores, the logistics industry, accountants and the beauty industry.   We will identify more industry sectors for inclusion in the programme in 2006.

(v) Promote information security

21.   In connection with the 6th Ministerial Conference of the World Trade Organization (MC6), the OGCIO engaged an overseas cyber security advisor to conduct an independent quality assurance on the information security posture of the Government and the community in late 2005.   The advisor confirmed that we had robust information security protection, risk mitigation, contingency and incident response on cyber security related issues in place in Hong Kong. No cyber security attack on any of the networks and facilities of the essential services had been reported during MC6.

22.   On community support and education, the "**Three Smart Tips to Clean PC" campaign** was launched in 2005.   The campaign comprised the "Hong Kong Clean PC Day" and a series of television and radio programmes to enhance public awareness of information security.

23.   A **Special Task Force on Information Security**, convened by OGCIO and comprising representatives from the relevant B/Ds and the industry, was formed in mid-2005.   A list of actions to be pursued is being worked out and will be discussed by the Task Force in early 2006.

24.   The Commerce, Industry and Technology Bureau (CITB) conducted a business review of the **Hong Kong Post Certification Authority** (HKPCA) in mid-2005.   It was decided that the Hongkong Post should conduct a Request for Proposal exercise in the first half of 2006 to invite the private sector to participate in running the e-Cert services and come up with new value-added services/businesses so as to engender a self-financing public certification authority operation.   Members were briefed on the subject in December 2005.

(vi) Tackle spamming

25.   CITB announced in February 2005 a basket of anti-spam measures under the **STEPS Campaign**[1].   A consultation paper on the detailed proposals for the **Unsolicited Electronic Messages Bill** (UEM Bill) was released on 20 January 2006 for a two-month public consultation.   CITB aims to introduce the UEM Bill into LegCo within 2006.   CITB has also implemented various non-legislative anti-spam measures, including the launch of a new anti-spam website, revision of the code of practice on junk fax, issuance of information leaflets, preparation of teaching materials for primary and secondary school students, organization of roving exhibitions and broadcasting of a series of educational radio programmes.

(d)   Institutional review

(i) The case for a unified regulatory body

26.   The Government will consult the public in the first quarter of 2006 on its proposal to set up a **unified regulator** by merging the Broadcasting Authority and the Telecommunications Authority.   The proposed unified regulator would be better equipped to deal with cross-sectoral competitive issues and provide a one-stop shop for resolving regulatory issues in a

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[1] STEPS stands for Strengthening existing regulatory measures, Technical solutions, Education, Partnerships and Statutory measures.

convergent environment where the boundaries between telecommunications, broadcasting and information technology have become increasingly blurred.

(ii) Other institutional reviews

27.   We are conducting a review on the institutional framework of the Internet domain name administration regime, including the Government's relationship with the **Hong Kong Internet Registration Corporation Limited** (HKIRC), to reflect the latest international, regional and local development and industry practice.   We aim to complete the review in 2006.

(e) Technological development

(i)   Support for R&D

28.   The Innovation and Technology Commission (ITC) planned to set up **five R&D centres** to drive and coordinate R&D efforts in five technology focus areas and promote commercialization of R&D results.   The five focus areas are: (a) automotive parts and accessory systems; (b) logistics and supply chain management enabling technologies; (c) nanotechnology and advanced materials; (d) ICT; and (e) textile and clothing.   The Innovation and Technology Fund (ITF) will support and monitor the operation of these R&D centres.   It will also provide funding on a merit basis to projects in other areas such as digital entertainment (see paragraph 31 below) and mechanical watch movements.   Preparatory work for setting up the R&D centres is in progress, and it is expected that the centres will be established by early 2006.

(ii) Focus area: wireless technologies and services

29.   The **Task Force on Facilitating the Adoption of Wireless and Mobile Services and Technology** was set up by OGCIO in March 2005.   We will continue to facilitate the use of wireless and mobile services and technology through the implementation of the action programme formulated by the Task Force.

30.   The **"3G Cyberport"** project was launched in October 2004 to provide funding to support the development of innovative 3G applications and conduct relevant training and workshops to nurture local talents in the

development of 3G applications.   The project is expected to complete in mid-2006.

(iii) Focus area: digital entertainment

31.   After consulting the digital entertainment industry, a revised strategy for promoting the development of the digital entertainment industry in Hong Kong was prepared and reported to Members in June 2005.   The initiatives completed or launched in 2005 include:

(a)   to provide the much needed film recording services for the digital entertainment and film industries, the OGCIO sponsored the Digital Media Centre in Cyberport to acquire a film output device (**Arrilaser**);

(b)   a **Digital Entertainment Industry Support Centre** was set up in Cyberport in May 2005 to provide one-stop support services to local digital entertainment companies by facilitating their access to resources in areas such as marketing, equipment and facilities, training, internship and R&D support, development tools and financing;

(c)   the **Digital Entertainment Incubation-cum-Training Centre** was opened in September 2005 in Cyberport to support digital entertainment start-ups and provide training opportunities for local talents; and

(d)   a **Digital Asset Management Platform** has been developed by the i-Resource Centre of Cyberport to facilitate the distribution of legitimate digital content.   The Platform was launched in November 2005 to enhance the protection of digital content in Hong Kong.

(iv) Openness in technological and standards adoption

32.   The Government continues to promote the use of **open source software (OSS)** technologies and solutions within the Government through seminars and showcases.   Details of our efforts on this front have been reported to the Panel vide the Administration's paper dated 17 December 2005.

33.   The pilot project on **grid computing** launched by the Environmental

Protection Department in collaboration with the E-Business Technology Institute of the University of Hong Kong and the OGCIO was completed in 2005. We will continue to monitor developments on grid technologies and services, and promote the technology and consider wider adoption when it becomes mature.

(f) Vibrant IT industry

(i) CEPA and other Mainland-related initiatives

34.   To enable Hong Kong IT companies to take part in Mainland projects, CEPA II provides that Hong Kong service suppliers can apply for **Computer Information System Integration Qualification Certification** (SI Qualification Certification) in accordance with the provisions of the relevant laws, regulations and rules promulgated by the Mainland. The special arrangements for Hong Kong service suppliers agreed between the HKSAR and the Mainland Governments were effective from 1 January 2005. As at January 2006, three Hong Kong IT companies have attained the SI Qualification Certification and the applications of four other companies are being assessed. In addition, eight project managers have attained the SI Project Manager Qualification. Agreement has been reached with the Mainland Government to extend the above-mentioned special arrangements for another year up to 31 December 2006.

35.   As part of the **Pan-Pearl River Delta** (Pan-PRD) cooperative initiatives, the OGCIO and the provincial/regional governments in the Pan-PRD region jointly organized a "2005 Pan-PRD Software World" in Zhuhai in December 2005 which provided valuable networking and business opportunities for the software industries in the Region.

(ii) Promoting Excellence

36.   We continue to organize, sponsor or participate in exhibitions, conferences and trade fairs, and encourage the local industry to participate in these events to promote their businesses. In collaboration with the relevant industry bodies, OGCIO will organize the first **Hong Kong ICT Awards** in 2006. The Scheme aims to raise the local and international profiles of our local ICT awards by consolidating them into a mega event. The 2006 Awards

will be launched in March 2006 and results will be announced in November 2006.

(iii) Quality assurance and capacity building

37.   The ITF has endorsed a $5 million grant to assist local software companies to obtain certification in **Capability Maturity Model** (CMM).   Of the 14 participating companies, seven companies have obtained CMM level 2/3 certification in 2005 and the remaining ones are expected to obtain the certification in 2006.

(g)   Human resources in a knowledge economy

(i) IT in education

38.   The Education and Manpower Bureau (EMB) published in July 2004 a policy document entitled "Empowering Learning and Teaching with Information Technology", which forms its second **IT in education strategy** for the next three years.   Pursuant to the Strategy, funds were distributed to schools to assist them in: (i) acquiring IT resources for learning and teaching; (ii) setting up their own e-learning platforms; (iii) replacing and upgrading the schools' IT infrastructure; and (iv) helping parents to guide students in understanding the ethical, legal and health issues involved in using IT.   Other initiatives under the strategy which commenced in 2005 include the e-leadership training programme for all school principals and a large-scale "Computer Recycling Scheme" which will provide about 20,000 refurbished computers for underprivileged students as well as provide maintenance services, Broadband Internet connectivity services and IT training to them.

(ii) Qualifications framework

39.   EMB set up an **Industry Training Advisory Committee** (ITAC) in July 2005 for the development of a **Qualifications Framework** for the ICT industry to facilitate the mapping out of the competency standards at various levels and a progression pathway for continuous upgrading of the workforce to meet the demands of the industry.   It is targeted to develop the first set of **Specification of Competency Standards** for the ICT industry by end 2006/ early 2007.

(h) Bridging the digital divide

40.   Under the **"IT Hong Kong" campaign**, the OGCIO continues to implement measures aimed at raising awareness and promoting wider adoption of IT in the community. In 2005-06, we sponsored five digital inclusion projects, organized by NGOs, to promote wider adoption of IT among students, the youth and the elderly.

41.   CITB/OGCIO assisted the Hong Kong Council of Social Service (HKCSS) to set up the **Digital Solidarity Fund (DSF)**, contributed $1 million to the Fund and solicited donations from the private sector. Six digital inclusion projects were approved in 2005 and DSF will provide a total of about $1 million to support these projects.

42.   The OGCIO has commissioned the University of Hong Kong to conduct an **impact analysis study** on the degree of digital inclusiveness in Hong Kong, which has started in April 2005 and is expected to complete in February 2006. We will develop and implement a new series of digital inclusion programmes in 2006 with reference to the findings of the impact analysis study.

CONCLUSION

43.   Overall, the Government has continued to make good progress in 2005 in implementing the 2004 Digital 21 Strategy. In the light of the progress made, we have mapped out the targets and plans for 2006 and beyond. As mentioned in paragraph 4 above, we will start the upcoming Digital 21 Strategy Review shortly. The updated Strategy, to be promulgated in early 2007, will form the blueprint for ICT development in Hong Kong for the period from 2007 to 2010.   We shall seek Members' advice on our proposals later this year.

Office of the Government Chief Information Officer
Commerce, Industry and Technology Bureau
February 2006

2004 Digital 21 Strategy

Targets & Action Items for 2006 and Beyond

	Item	Target Completion Date
(A) Government Leadership		
1.	Conduct the Digital 21 Strategy Review with (a) initiating discussions with bureaux/departments (B/Ds) and business organizations; (b) internal consultation on draft document; (c) public consultation on revised draft document; and (d) promulgation of the updated Strategy	(a) Q1 2006 (b) Mid-2006 (c) Late 2006 (d) Early 2007
2.	Complete outsourcing of the central computer centre operation	Q3 2006
3.	Set up a new governance mechanism for Government IT projects	April 2006
4.	Commence the three-year pilot scheme to open up IP ownership in Government IT systems	Q1 2006
(B) Sustainable e-Government Programme		
5.	Set up a Service Transformation Sub-Committee under the E-government Steering Committee	Q1 2006
6.	Complete the Study on Measuring the Benefits of IT investment	Mid-2006

	Item	Target Completion Date
7.	Under the new strategy for e-government service delivery: (a) Soft launch the One-Stop Access Portal (OSP); (b) Complete migration of existing e-government services on the Electronic Service Delivery Scheme to the OSP	(a) Mid-2006 (b) end 2007
8.	Promulgate the Channel Management Strategy	2nd half of 2006
9.	Assist in conducting the tender exercise for the Property Information Hub with a view to launching the service in end 2007	Late 2006/ early 2007
10.	Work out the way forward for the e-Procurement Strategy	End 2006
11.	Using smart ID cards for (a) booking sports and leisure facilities and (b) checking driving licence data	(a) late 2006 (b) 2007
12.	Conduct a study to explore further Government and non-Government value-added applications on smart ID cards	1st half of 2006
(C)	**Infrastructure and Business Environment**	
13.	ATV and TVB to (a) launch high-definition TV services and (b) achieve 75% digital terrestrial television coverage	(a) 2007 (b) 2008
14.	Complete withdrawal of mandatory Type II interconnection for local fixed telecoms network services	June 2008
15.	Identify more industry sectors for inclusion in SSPs	2006

		Item	Target Completion Date
16.		Conduct a Request for Proposal exercise to invite the private sector to participate in running HKPCA's e-Cert services	First half of 2006
17.		Introduce the Unsolicited Electronic Messages Bill into LegCo	2006
(D)	**Institutional Review**		
18.		Consult the public on the setting up of a unified regulator by merging the Broadcasting Authority and the Telecommunications Authority	Q1 2006
19.		Review the institutional framework of the Internet domain name administration regime	2006
(E)	**Technological Development**		
20.		Set up five R&D centers	Early 2006
21.		Complete "3G Cyberport" project	Mid-2006
(F)	**Vibrant IT Industry**		
22.		Continue to support SI Qualification Certification Scheme	2006
23.		Launch and announce results of the 1st Hong Kong ICT Awards	Mar & Nov 2006
(G)	**Human Resources in a Knowledge Economy**		
24.		Develop the first set of Specification of Competency Standards for the ICT industry	End 2006/ early 2007
(H)	**Bridging the Digital Divide**		
25.		Develop and implement a new series of digital inclusion programmes	2006
26.		Complete an impact analysis study on the degree of digital inclusiveness in Hong Kong	Feb 2006

	Item	Target Completion Date
27.	Develop a new series of publicity materials and radio programme to promote IT in the community	2006