

立法會
Legislative Council

LC Paper No. CB(1)2308/06-07
(These minutes have been seen
by the Administration)

Ref : CB1/PL/ITB/1

Panel on Information Technology and Broadcasting

Minutes of meeting
held on Monday, 11 June 2007, at 2:30 pm
in the Chamber of the Legislative Council Building

- Members present** : Hon SIN Chung-kai, JP (Deputy Chairman)
Hon Fred LI Wah-ming, JP
Hon Jasper TSANG Yok-sing, GBS, JP
Hon Howard YOUNG, SBS, JP
Hon Emily LAU Wai-hing, JP
Hon Ronny TONG Ka-wah, SC
- Members absent** : Hon Albert Jinghan CHENG (Chairman)
Dr Hon LUI Ming-wah, SBS, JP
Hon Timothy FOK Tsun-ting, GBS, JP
Hon Albert CHAN Wai-yip
- Public officers attending** : Agenda Item IV

Mr Stephen MAK, JP
Deputy Government Chief Information Officer
(Operation)

Mr Dominic KWONG
Chief Systems Manager (Human Resources,
Professional Development and IT Management)

Agenda Item V

Mrs Marion LAI, JP
Deputy Secretary for Commerce, Industry and
Technology (Communications and Technology)

Mr Kevin CHOI
Principal Assistant Secretary for Commerce, Industry
and Technology (Communications and Technology) A

Mr MA Po-ho
Acting Assistant Director of Telecommunications
(Operations)
Office of the Telecommunications Authority

Mr Chaucer LEUNG Chung-yin
Senior Telecommunications Engineer (Advisory and
Support)
Office of the Telecommunications Authority

Agenda Item VI

Mrs Marion LAI, JP
Deputy Secretary for Commerce, Industry and
Technology (Communications and Technology)

Mr T Y CHAN
Assistant Director of Telecommunications (Regulatory)

**Attendance by
invitation**

: Agenda Item V

Television Broadcasts Limited

Mr CHEONG Shin-keong
General Manager – Broadcasting

Mr Bruce KRUGER
Controller – Engineering Division

Asia Television Limited

Mr H Y KWONG
Senior Vice President

Mr C H CHOI
Vice President

Hong Kong & Kowloon Electrical Appliances
Merchants Association Ltd.

Mr Peter K L CHU
Chairman

Mr S H WONG
Director

Consumer Council

Ms Rosa WONG
Head, Research & Trade Practices Division

Dr Victor HUNG
Chief Research & Trade Practices Officer

Clerk in attendance : Miss Erin TSANG
Chief Council Secretary (1)3

Staff in attendance : Ms Annette LAM
Senior Council Secretary (1)3

Ms Guy YIP
Council Secretary (1)1

Ms May LEUNG
Legislative Assistant (1)6

Action

- I. Confirmation of minutes of meeting**
(LC Paper No. CB(1)1818/06-07 -- Minutes of meeting held on
17 April 2007)

As the Chairman, Hon Albert Jinghan CHENG, was out of town, the Deputy
Chairman, Hon SIN Chung-kai, took the chair.

2. The minutes of the meeting held on 17 April 2007 were confirmed.

II. Information paper issued since last meeting

(LC Paper No. CB(1)1596/06-07(01) -- Information paper on "Review of the Electronic Transactions Ordinance")

3. Members noted the paper issued since the last meeting.

III. Date of next meeting and items for discussion

(LC Paper No. CB(1)1831/06-07(01) -- List of outstanding items for discussion

LC Paper No. CB(1)1831/06-07(02) -- List of follow-up actions)

Regular Panel meeting to be held on 9 July 2007

4. Members agreed that the following items would be discussed at the next Panel meeting to be held on 9 July 2007 from 2:30 pm to 5:30 pm:

- (a) Update on the E-government Programme and implementation of Digital 21 Strategy;
- (b) Information security; and
- (c) Findings of the survey on the enforcement of the Control of Obscene and Indecent Articles Ordinance (COIAO) (Cap.390) and the effectiveness of the existing regulatory regime under the COIAO.

(Post-meeting note: In response to the Administration's request, the Chairman has agreed to defer item (c) above to the next legislative session as Television and Entertainment Licensing Authority (TELA) needed more time to compile the collected data from the survey to complete the report. Members were informed of the above arrangement vide LC Paper No. CB(1)2034/06-07.)

Special meeting to be held on 18 July 2007

5. Members noted that the item "Release of spectrum for broadband wireless access services" originally scheduled for discussion at this meeting had to be rescheduled as some industry players had indicated that they required more time to discuss the subject amongst themselves. Members noted that in addition, two more items were suggested by the Administration for discussion in July 2007. Members agreed that a special meeting be held on 18 July 2007 from 2:30 pm to 5:30 pm to discuss the following items:

- (a) Release of spectrum for broadband wireless access services;
- (b) Review of regulatory framework for universal service arrangements;
and
- (c) Provision of consumer information in relation to residential broadband use in Hong Kong.

Members further agreed that the industry, stakeholders and other interested parties should be invited to provide their views and to attend the special meeting on all three items above.

(Post-meeting note: General notices inviting submissions on the three subjects were posted on the website of the Legislative Council (LegCo) on 22 June 2007. Interested parties were invited to provide submissions and to attend the meeting to present their views. Members were duly informed of the above arrangements and were invited to propose other organizations/individuals, if any, to which/whom the Panel should extend invitation vide LC Paper No. CB(1)1914/06-07 on 18 June 2007.)

6. Members also noted the Administration's proposal to defer the discussion on the item of "Broadcasting Services Survey 2006" to the fourth quarter of 2007 as according to the Administration, the outcome of the survey was not yet ready for presentation to the Broadcasting Authority and the Panel before the summer recess in view of the unsatisfactory response rate to the survey.

IV. Report on the review of administration of Internet domain names in Hong Kong

(LC Paper No. CB(1)1831/06-07(03) -- Paper provided by the Administration

LC Paper No. CB(1)1831/06-07(04) -- Press release issued by the Office of the Government Chief Information Officer on 4 May 2007)

Presentation by the Administration

7. At the invitation of the Deputy Chairman, the Deputy Government Chief Information Officer (Operation) (DGCIO(O)) took members through the Administration's paper (LC Paper No. CB(1)1831/06-07(03)). Members were briefed on the background leading to the six-week public consultation conducted from 4 May to 15 June 2007 on the administration of Internet domain names in Hong Kong and related issues, as well as the major recommendations set out in the consultation paper issued on 4 May 2007. He highlighted the major points as

follows:

(a) *The Incorporation of the Hong Kong Internet Registration Corporation Limited (HKIRC)*

Following public consultation in 2000 which found general support to transfer the Internet domain names administration functions from the Joint Universities Computer Centre (JUCC) to a new non-statutory and non-profit making corporation. The HKIRC was incorporated in December 2001 to take up the overall responsibility for ".hk" Internet domain name administration. In March 2002, the HKIRC acquired the Hong Kong Domain Name Registration Company Limited (HKDNR), a wholly-owned subsidiary of the JUCC, responsible for the administration of ".hk" Internet domain names. In April 2002, the Government and the HKIRC signed a Memorandum of Understanding (MOU) in which the Government designated the HKIRC to manage and administer all Internet domain names under the ".hk" country-code top level domain (ccTLD). The HKIRC was governed by a Board of 13 non-executive, part-time directors comprising members from six member classes, namely User Class, Service Provider Class, Information Technology (IT) Industry Class, Commerce and Industry Class, Tertiary Institution Class and Government Class. Except for the Government Class the director of which was appointed by the Government Chief Information Officer (GCIO), directors of the remaining five member classes were elected by the HKIRC Members of the corresponding class for a term of three years.

(b) *Consultancy study*

In the light of the latest international and regional developments in the administration of Internet domain names, GCIO commissioned a consultancy study in 2006 to review the institutional framework and corporate governance for the administration of ".hk" Internet domain names that had been in operation for a number of years.

(c) *Major recommendations set out in the public consultation paper issued in May 2007*

Taking into consideration the consultant's recommendations, as well as the overall information and communications technology strategy in Hong Kong, the Administration had issued a public consultation paper on 4 May 2007 setting out the following recommended changes to the institutional framework and corporate governance for the administration of ".hk" Internet domain names:

- (i) The current governance arrangements, i.e., delegation by the Government of the domain name management function to the HKIRC, should be retained;
- (ii) The HKIRC should establish a new Consultative and Advisory Panel (CAP) comprising a Government representative and other members invited by the Government from a broad set of stakeholders to advise the Board on major ccTLD domain issues and to facilitate the Board's interaction with stakeholders in general and also with specific interest groups;
- (iii) The make-up of the HKIRC Board should move to a mix of appointed and member-elected non-executive directors and the total membership would be reduced to seven;
- (iv) The HKIRC should introduce, following consultation with all interested stakeholders, a "registry-registrar" model, whereby appropriate bodies might provide ".hk" users with registrar services on an equal and competitive basis with the HKIRC;
- (v) The HKIRC should establish a comprehensive Corporate Governance Framework in collaboration with the Government and through stakeholder consultation; and
- (vi) The HKIRC should develop and publish a Five-year Strategic Plan to take forward the above recommendations to be followed by a formal review of the MOU in collaboration with the Government five years after its execution.

8. DGCIO(O) said that after the completion of the six-week consultation on 15 June 2007, the Administration would finalize the proposed changes and arrangements for the administration of ".hk" Internet domain names in the light of the comments and suggestions received.

Discussion

Allocation of Internet domain name

9. Mr Howard YOUNG noted that while some jurisdictions including Hong Kong had two-alphabet Internet domain names such as ".uk" for the United Kingdom (UK), ".cn" for the Mainland China and ".hk" for Hong Kong, there were cases where three alphabets were used, with examples including ".hkt" for Phuket of Thailand and ".hkg" for the Hong Kong International Airport. He sought information on how the Internet domain names were allocated. He also enquired whether a three-letter domain name would be used in the event a two-letter domain name would not sufficiently cater to the rapid development in technologies and

communications and, if such was the case, whether there was a need for Hong Kong to secure the use of ".hkg" in advance.

10. In response, DGCIO(O) advised that Internet domain names, Internet Protocol (IP) addresses and IP numbers were assigned on the basis of a region and/or a jurisdiction, not a city and/or a town. The allocation of the 200 plus ccTLD domain names currently in use throughout the world was managed by an international non-profit corporation, the Internet Corporation for Assigned Names and Numbers (ICANN), which was responsible for, inter alia, IP address space allocation, protocol identifier assignment, and ccTLD domain name system management. The allocation list on Internet domain names had been published worldwide. There was no question of any other jurisdiction adopting ".hk" which was already allocated to Hong Kong. He added that non-ccTLD domain names for commercial or other uses were allocated under a separate application and registration mechanism and an ".asia" domain name was recently approved. He stressed that domain name application and registration were subject to a rigorous vetting process and a prudent and comprehensive approval mechanism. Individual city or town could not just adopt any domain names at will.

Corporate governance mechanism

11. Ms Emily LAU supported the move towards enhancing corporate governance which she considered should be introduced much earlier to ensure effective strategic and operational management. She then sought elaboration on the recommended changes to the Board composition and the establishment of the new CAP.

12. In reply, DGCIO(O) stressed that the Administration had all along attached great importance to enhancing corporate governance of the HKIRC. He said that the MOU, signed between the Administration and the HKIRC way back in April 2002 to provide for the HKIRC to manage and administer ".hk" Internet domain names, was a simple and general document. Having considered the consultant's recommendation, the Administration decided that the time had come to conduct a formal review of the MOU in the light of the five-year operational experience with a view to identifying areas for further improvement. DGCIO(O) pointed out that under the proposed new governance regime, a formal review of the MOU would be conducted every five years and a formal institutional framework would be put in place for the Board to maintain regular communication with the new CAP to receive the industry's and users' views and suggestions on issues relating to market developments and service quality.

13. On the membership of HKIR Board, DGCIO(O) said that at present, the HKIRC was member-based with its non-executive directors elected by the HKIRC members from six different member classes. The consultant, having conducted extensive research on the domain name administration regimes across more than a dozen countries, recommended the reduction of the number of member classes to

three, i.e., Supply Class, Demand Class, and Representative Association Class. As regards the representation of relevant stakeholders, the consultant recommended the setting up of a new CAP comprising a Government representative and 13 other members invited by the Government from the Internet community, including users, industry, academia and the Government as well as renowned and independent organizations and individuals to ensure that the interests of all stakeholders in the Hong Kong Internet community were represented and to facilitate the interaction of the Board with the stakeholders and specific interests groups on domain name issues. With the strategic engagement of key stakeholders to be undertaken via the new CAP, the number of non-executive directors of the future Board was recommended to be reduced from 13 to seven. He added that as the HKIRC was not a large corporation, a Board with too many members might reduce efficiency in operation and management.

14. Ms Emily LAU noted from the Annex to the Administration's paper (LC Paper No. CB(1)1831/06-07(03)) that of the seven non-executive directors, four were to be appointed by the Government, including the Board Chairman who would also be appointed by the Government. She sought explanation on the rationale for such an appointment arrangement, and enquired from which sectors the four directors to be appointed by the Government would come from.

15. DGCIO(O) explained that the consultant recommended that the Board should move to a mix of appointed and member-elected non-executive directors to allow the Board to expand the available talent pool from those who solely had a strong interest in ccTLD issues to a wider set of qualified, professional non-executives. He said that the Administration did not have any specific sectors in mind from which to appoint the four directors. Nevertheless, the objective was to engage people of suitable calibre and experience from various sectors through the existing government boards and committees appointment mechanism. As regards the recommendation for the Chairman of the Board to be appointed by the Government, DGCIO(O) explained that in view of the high mobility and turnover of representatives from the industry in general as shown by past experience, the proposed appointment arrangement had the advantage of helping to ensure continuity.

16. Noting that apart from the one Government representative nominated by GCIO, the remaining members of the new CAP would be invited by the Government from the Internet community, including end users, industry, academia and the Government as well as renowned and independent organizations and individuals, Ms Emily LAU queried why the members were not nominated by the industry instead. She pointed out that members who were appointed in their personal capacity were under no obligation to consult or report to the industry whereas representatives nominated by the industry would be held accountable to the organization/industry that they represented. DGCIO(O) said that the Administration would closely liaise with the industry, academia and end users when inviting representatives to the CAP. He said that past experience showed that a non-executive director representing

sector-specific interests might sometimes hold up decision-making on a particular issue, and this would not be conducive to the overall development of the Board. The new CAP with broad representation from the industry and community to advise the Board would facilitate interaction of the Board with a broad set of stakeholders.

Admin 17. Ms Emily LAU pointed out, however, that to smoothen the process of decision-making by eliminating divergent views through government appointing members to the CAP and the Board was a backward move in corporate governance. She added that she had no objection to reducing the Board membership to seven non-executive directors to simplify the membership structure for more effective management. However, she had reservation on the proposed appointment arrangements as that would result in undue Government influence and control in the operation of the Board and the CAP. She urged the Administration to consider allowing the industry to elect more representatives to the Board and for the industry to nominate members for appointment to the CAP so as to increase the industry's representation at both the Board and the CAP level. DGCIO(O) noted the suggestion for further consideration.

18. In response to Ms Emily LAU's further enquiry on whether the proposed changes and arrangements were consistent with international best practice, DGCIO(O) said that the consultant had conducted extensive research on the administration regime on more than a dozen economies including the United States, the UK, Australia and Canada, etc, the details of which were set out in Annex A to the Administration's paper. From the international research, the consultant concluded that it was not possible to define a single set of best practice and had instead identified four to five organizational and governance models for reference. He added that the existing approach was considered a viable one with a track record of success in a number of economies that could be further improved to the best advantage of Hong Kong.

Enhancing transparency and accountability

19. Ms Emily LAU enquired what measures would be devised to enhance the transparency and accountability of the future the HKIRC Board. DGCIO(O) pointed out the HKIRC Board, in all its decision making, would be duty-bound to take full account of the guidance of the CAP which represented the interests of a wide spectrum of Internet community. A transparent mechanism would be put in place for the Board to account for any of its decisions that were inconsistent with the advice of the CAP. He added that currently, a summary of the proceedings of some meetings held was posted on the HKIRC's website for public information. The new MOU would further set out in details the information and reports to be regularly published by the HKIRC. He also took on board Ms LAU's suggestion that the Administration would request the HKIRC to post, as far as practicable, relevant papers and minutes of meetings on non-commercially sensitive issues on its website to enhance transparency and accountability. Ms LAU added that the Administration should also request the HKIRC to conduct open meetings where possible. DGCIO(O) took note

of Ms LAU's suggestion and assured members that the HKIRC would be requested to conduct its activities in an open and transparent manner to ensure easy public access to all relevant information. In this regard, he undertook that the Administration would regularly report development of related issues to the Panel.

Registry-registrar system

20. On the proposed introduction of a "registry-registrar" system to bring in market competition, Ms Emily LAU asked how the system would operate and whether any market analysis had been conducted to estimate how many competitors the current market could support. In response, DGCIO(O) said that the management and administration of ".hk" Internet domain names at present was undertaken solely by the HKIRC. Citing the example of the telecommunications industry in which a number of retailers/ service providers were engaged in marketing and service provision, he said that competition among accredited registrars in providing registration service was expected to help promote the growth of the ccTLD size and enhance the standard and quality of service. He advised further that it was envisaged that at least a few retailers such as mobile telecommunications companies/users as well as educational institutions and academia engaged in science research projects would be interested.

21. The Deputy Chairman enquired about the financial position of the HKIRC. He was particularly concerned whether the introduction of the registry-registrar model to bring in competition would strain the HKIRC's financial position and result in added pressure for a fee increase. In response, DGCIO(O) said that the HKIRC was currently financially healthy and self-financing. With close to 140,000 registered domain names which was its main source of income, the HKIRC had recorded an operating surplus for the past two to three years and had accumulated a reserve for future capital investment. He recalled that the credit line of \$6 million approved by the Finance Committee for the HKIRC which was unused had been terminated in 2004. He added that domain name registrations had increased steadily from 60,000 to 140,000 over the past few years and was expected to register a continued steady growth in the future. As such, he envisaged that at the present fee level, the HKIRC would remain financially sound with a steady revenue stream.

22. The Deputy Chairman cautioned that financial soundness of the accredited registrars in providing registration service was an important consideration. He opined that apart from a review of the institutional framework and corporate governance, it was important to also examine the financial implications as well as assessing the financial viability of the registry-registrar option. He asked whether the Administration had ever conducted any financial analysis to assess the possible impact of increase competition on the HKIRC's financial position. He further enquired as to why the consultant was not requested to also assess the financial implications of the registry-registrar model.

Admin

23. While acknowledging that future fee level might be adjusted downwards due to competition, DGCIO(O) said that the Administration had not conducted any financial analysis to assess the possible financial impact as no mechanism was in place for the Administration to regulate the fee level. He pointed out that the consultancy study commissioned in 2006 was mainly focused on the review of the institutional framework and corporate governance for the administration of ".hk" Internet domain names. Nevertheless, from the operational point of view and having regard to the series of changes recommended in the consultation paper, the HKIRC had the responsibility to make the necessary financial assessment to analyze the impact on the financial position and market condition brought about by opening up domain name registrations to competition. DGCIO(O) said that subject to the approval of the recommendations as set out in the consultation paper, the Administration would require the HKIRC to submit a Five-Year Strategic Plan no later than the start of the 2009 term of the Board to take forward the recommendations, including conducting an in-depth market analysis and assessing the financial implications and the methods of recruiting service providers. He assured members that the Administration would ensure that the HKIRC would undertake the necessary financial assessment and market analysis and would regularly update the Panel on developments in this respect.

24. Referring to the dilemma of competition, the Deputy Chairman pointed out that while competition that eliminated market monopoly would lower the costs, increase consumer choice and satisfaction, and in theory be conducive to market development, competition might at the same time reduce the profit margins of market players, resulting in financial stringency. On the recently reported cases of Internet fraud in which a number of companies had registered their domain names and set up phony phishing sites posing as reputable companies in Hong Kong to prey on unwary overseas residents such as those in the United States and Canada, the Deputy Chairman remarked that to eradicate these fraudulent activities which would negatively impact on Hong Kong's reputation, action should be taken to tighten up the registration and vetting procedures. However, a more vigorous vetting mechanism would inevitably lead to higher operating cost and indirectly reduce profit margins. Noting the dilemma in adopting a reasonably strict vetting procedure while keeping the operating cost down and sustaining growth in business volume, he enquired what measures the Administration would draw up to address the dilemma and to tackle the problems of phishing sites. In reply, DGCIO(O) said that the Administration and the HKIRC were well aware of the unscrupulous activities of Internet piracy. The Administration, in collaboration with the HKIRC, the Police and the Hong Kong Computer Emergency Response Team Coordination Centre, had in the past few months made concerted efforts to look into the causes of the problem. The HKIRC had tightened the vetting of applications for registration and to streamline the procedures for more efficient deletion of domain names in breach of the registration rules. He said that the situation was under control and the HKIRC was reminded to further step up the relevant registration procedures and technical capability for enforcement.

25. Responding to the Deputy Chairman's concern about measures to ensure that the HKIRC had the technical competency to respond robustly to new technological and market developments which might impact on domain name registration, DGCIO(O) said that the consultancy study had highlighted the need to reinforce technical competency in the provision of service. In this regard, a Technology Committee had been set up to oversee the development and the quality of the technical standard to ensure competency to abide by the requisite technical requirements necessary for preserving the integrity and security of the system.

V. Progress in the implementation of digital terrestrial television broadcasting in Hong Kong

(File Ref: CTB(CR) 9/1/9 (07) Pt. 24 -- The Legislative Council Brief on "Implementation of Digital Terrestrial Television" issued by the Commerce, Industry and Technology Bureau

LC Paper No. CB(1)1831/06-07(05) -- Press release issued by the Telecommunications Authority on 4 June 2007

LC Paper No. CB(1)1831/06-07(06) -- Background brief prepared by the Legislative Council Secretariat)

Briefing by the Administration

26. At the invitation of the Deputy Chairman, the Principal Assistant Secretary for Commerce, Industry and Technology (Communications and Technology)A (PAS(C&T)) gave a power-point presentation on the progress of implementation of digital terrestrial television (DTT) in Hong Kong and highlighted the following:

(a) DTT implementation framework

The two domestic free TV programme service licensees, i.e. Asia Television Limited (ATV) and Television Broadcasts Limited (TVB), were required to launch DTT by 2007 and expand the digital coverage to at least 75% of Hong Kong by 2008. The two broadcasters were required to simulcast their four existing analogue programme channels in digital format by sharing a newly assigned multiplex. They were each assigned one additional multiplex for launching new services. ATV would focus on multi-channel broadcasting by providing four standard definition TV (SDTV) channels and, some high definition TV (HDTV) programmes during prime time on the additional multiplex assigned to it, whereas TVB would launch one enhanced Jade channel with over 80% HDTV content. Subject to further market and technical

studies, the Government aimed to switch off analogue broadcasting five years within the launch of DTT, i.e. by 2012.

(b) DTT transmission standard

In end 2006, ATV and TVB submitted their proposals to the Telecommunications Authority (TA) that Hong Kong should adopt the national DTT standard announced by the Mainland (national standard). According to the TA's assessment, the national standard would perform satisfactorily in the Hong Kong environment. It would make more efficient use of the frequency spectrum and support other new services such as mobile TV. The TA promulgated on 4 June 2007 that the national standard should be adopted for DTT transmission. As the same DTT standard would be adopted by Hong Kong and the Mainland, a full range of consumer products was expected to be available in the market at competitive prices.

(c) DTT compression and coding standards

ATV and TVB would adopt the commonly-used MPEG-2 compression and coding standard, a widely used standard adopted by all the pay TV and satellite TV services in Hong Kong, in respect of the shared multiplex to simulcast their existing programme channels. As for the new services to be provided via the additional multiplexes, ATV opted for MPEG-2 while TVB opted for H.264 (also known as MPEG-4 Part 10 which was a more advanced version of compression and coding standard). The TA considered that the combination of using MPEG-2 by ATV and H.264 by TVB would give the two broadcasters flexibility to test out different business models on the DTT platform and provide more choices of new services to the public.

(d) DTT receivers

There would likely be two different tiers of set-top boxes, viz. basic tier and higher tier. The basic tier set-top boxes would be capable of decoding and receiving SDTV programmes, i.e. the four existing programme channels and the new SDTV channels to be broadcast by ATV. They would effectively improve reception quality such as the elimination of ghosting and snowing and were expected to cost around a few hundred dollars per unit. The higher tier set-top boxes would be capable of decoding and receiving both SDTV and HDTV programmes, i.e. all existing and new programme channels broadcast in SDTV and HDTV formats, and would also provide better audio-visual quality. The cost for higher tier set-top boxes was estimated at more than a thousand dollars each.

(e) DTT network rollout

DTT network would be rolled out by three phases. In the first phase, the Temple Hill principal transmission station, which was estimated to serve up to 50% of Hong Kong including the south of Kowloon, north of the Hong Kong Island, part of Shatin and east of the Lantau Island, would be ready for DTT broadcasting by the fourth quarter of 2007. The exact coverage would be verified upon the launching of DTT broadcasting by this transmission station. The second phase would be completed by 2008 during which five more main stations would be constructed at Castle Peak, Golden Hill, Kowloon Peak, Cloudy Hill and Lamma Island. By then, a 75% DTT coverage would be achieved. The third phase of network rollout would be carried out during 2009 and 2011 when another 23 smaller stations would be constructed. Upon the completion of the third phase, a total DTT coverage of 99% of Hong Kong would be achieved, i.e. the same coverage as that of the existing analogue TV broadcasting.

(f) Promotion and publicity to boost DTT uptake

The Administration would collaborate with the broadcasters, electronic consumers industry and the Consumer Council to promote and publicize DTT. The publicity and promotion would be through the dedicated website (www.digitv.gov.hk), announcements of public interest on TV and radio, and information leaflets distributed to households through the Home Affairs Department, building management companies, owners' corporations and other local area bodies.

Presentation by deputations

27. The Deputy Chairman welcomed representatives of the deputations to the meeting. He said that written submissions from deputations received before the meeting had been circulated to members and uploaded onto the Legislative Council (LegCo)'s website for public perusal. He requested the deputations to provide their written submissions, if they had not done so, or supplementary submissions, if any, to the Panel after the meeting. He also reminded the deputations that when addressing the Panel at the meeting, they were not covered by the protection and immunity under the Legislative Council (Powers and Privileges) Ordinance (Cap. 382), and their written submissions were also not covered by the said Ordinance.

28. Members noted that a written submission (LC Paper No. CB(1)1831/06-07(09)) had been provided by the Society of Motion Picture and Television Engineers – Hong Kong Section, a deputation not attending the meeting.

Television Broadcasts Limited (TVB)
(LC Paper No. CB(1)1831/06-07(07) -- Submission (*English version only*))

29. Mr CHEONG Shin-keong, General Manager – Broadcasting of TVB, reported TVB's progress of implementing DTT in respect of the following two major areas:

(a) DTT network rollout

The construction work for the Temple Hill principal transmission station was on schedule. The transmission tower building's construction work was expected to be completed and ready for inspection by relevant Government departments such as the Civil Aviation Department, etc, by mid-September 2007. TVB was in the process of procuring relevant transmission and broadcasting equipments to prepare for the launch of DTT and HDTV broadcasting.

(b) DTT standard

TVB was closely liaising with set-top box manufacturers with a view to ensuring the availability and compatibility of set-top boxes which should be ready for consumption by the time DTT was launched.

Summing up, Mr CHEONG said that TVB was working in full force on all fronts towards the launch of DTT. With the assistance of the relevant Government departments and the enthusiastic support of set-top box manufacturers, the launch of DTT would be realized as scheduled.

Asia Television Limited (ATV)
(LC Paper No. CB(1)1872/06-07(01) -- Submission (*Chinese version only*))

30. Mr H Y KWONG, Senior Vice President of ATV, briefed members on ATV's progress of DTT implementation in respect of the following four areas:

(a) DTT network rollout

Among the six main transmission stations to be constructed during the first and second phases of network rollout, ATV and TVB would each be responsible for the construction of three transmission stations. While TVB was taking charge of the construction of the Temple Hill principal transmission station, the progress of which had been reported by the Administration and TVB, he reported that the preparatory work, such as land leases and construction plans etc., for the three transmission stations to be constructed by ATV were expected to be completed by 2008 as scheduled. The preparatory work for the 23 transmission stations to be constructed in the third phase would be

implemented in due course.

(b) DTT standard

ATV welcomed the TA's decision to accept ATV and TVB's proposals to adopt the national standard. By adopting the national standard, Hong Kong viewers would benefit from economies of scale of the Mainland's full range of DTT receiving devices which were expected to be available at highly competitive prices.

(c) DTT broadcasting

To prepare for DTT broadcasting, ATV had embarked on the construction of a new broadcasting complex and production base which would be located in the Hong Kong Science and Technology Parks at the Tai Po Industrial Estate with a site area of 200 000 square feet and a gross floor area of 550 000 square feet. There would be 12 production studios within the new complex, of which a 20 000 square feet production studio would be the largest one in Hong Kong, while two others would be equipped with HDTV production equipments to cater for ATV's future development needs. Installation of the relevant DTT systems and equipments were due for completion soon. ATV would operate four new SDTV channels (namely, trade news and finance, trendy culture, shopping information, and showbiz news) through its newly assigned multiplex. ATV would also collaborate with local production companies as well as international quality channel operators to jointly broadcast its existing Chinese and English channels.

(d) Promotion and publicity

In its service licence to implement DTT, ATV had undertaken to assist the Government to disseminate information about DTT to the public and encourage early take-up of DTT. Details of the promotional and publicity campaigns would be promulgated in due course.

Hong Kong & Kowloon Electrical Appliances Merchants Association Ltd.
(HKKEAMA)

(LC Paper No. CB(1)1831/06-07(08) -- Submission)

31. While expressing HKKEAMA's support to the launch of DTT, Mr Peter K L CHU, Chairman of HKKEAMA, urged that the finalized specifications of DTT standard be promulgated by end of June 2007, as stated by the TA in his statement issued on 4 June 2007, so that members of HKKEAMA could start developing decoders or set-top boxes that would comply with the specifications promulgated by the TA. In this connection, he pointed out that more advanced compression and

coding standard would necessitate longer time for product development, thereby resulting in higher production costs and higher retail prices. As not all consumers would require the extra features provided by the advanced compression and coding standard, he urged that consideration be given to specifying only the basic DTT functions to ensure that receiving devices could be produced at relatively reasonable prices.

Consumer Council (CC)

(LC Paper No. CB(1)1872/06-07(02) -- Submission (*English version only*))

32. Ms Rosa WONG, Head, Research & Trade Practices Division of CC, said that in DTT implementation, the main concerns relevant to consumers were to ensure consumers could make an informed choice of digital receiver for access to DTT service and that necessary measures were put in place to ensure there was an acceptable level of competition in the relevant markets. In this connection, she highlighted CC's submission as follows:

(a) Ensuring consumers' interests

In its previous submission, CC gave support to deferring introduction of DTT until after promulgation of the Mainland DTT standard. CC supported the TA's recent decision that the national standard should be adopted which CC considered would allow Hong Kong viewers to capture the potential benefit of the economies of scale in manufacturing TV sets and associated equipments such as set-top boxes for the large Mainland market. Consumers could access a wide variety of more affordable consumer products.

The experience in the United Kingdom (UK) showed that there would be many kinds of kits or receivers that consumers could use to receive DTT services including set-top boxes, tuner digital TV recorders, integrated digital TVs, personal computer TV cards/adapters and indoor aerials, etc. CC noted that the Government planned to set out a two-tier specification, i.e. basic tier and higher tier, for DTT receivers to meet different deployment plans of the two DTT broadcasters. Viewers, therefore, had to differentiate between the two tiers of specification applicable to the two DTT broadcasters. CC would offer ready assistance in disseminating information to consumers to help them make informed choices in their purchase of digital TV receivers.

(b) Ensuring healthy competition in the broadcasting industry

The Government should vigorously monitor the development of the DTT market and the pace of DTT broadcasting. To bring benefits of DTT to consumers, the Government should consider implementing necessary measures such as conducting progress review at regular

intervals or introducing new competitor into the market to ensure that there was an acceptable level of competition in the relevant markets.

Discussion

DTT reception and set-top boxes

33. Mr Howard YOUNG was pleased to note that the TA had announced on 4 June 2007 the adoption of the national standard of the Mainland as the technical standard for the transmission and reception of the new DTT services in Hong Kong, and that according to the DTT implementation framework, the new DTT services would be launched within 2007. Mr YOUNG remarked that from consumers' point of view, the main concerns were whether and when they would have to purchase a set-top box in order to view DTT programmes as well as how readily it would be available in the market and how much they would have to pay for it. Noting that the prices of set-top boxes ranged from a few hundred dollars (basic tier) to a thousand dollars (higher tier), he asked whether the prices were competitive as compared with those in overseas countries when DTT broadcasting was first launched. He also enquired at what time would integrated digital TV sets with built-in digital decoders for receiving DTT signals be available in the market.

34. In response, the Deputy Secretary for Commerce, Industry and Technology (Communications and Technology) (DSCCT) said that according to the implementation framework for DTT broadcasting, when the two domestic free television programme service licensees, i.e. ATV and TVB, commenced DTT broadcasting in the last quarter of 2007, the two broadcasters would be required to simulcast their four existing analogue programme channels in both digital and analogue formats in the shared multiplex up to at least 2012 as a transitional arrangement for the migration from analogue to digital broadcasting. As the two broadcasters were still maintaining their analogue services during the simulcast period, the public could still receive the analogue television programmes and satellite television programmes with their existing TV sets without having to buy a new TV set or install any additional equipment. As such, no one would be deprived of access to free TV programmes arising from the implementation of DTT broadcasting. For those who wished to receive the new DTT programmes, such as SDTV programmes and HDTV programmes, they would need to procure DTT receivers in the form of basic tier/ higher tier set-top boxes or integrated digital TV sets that were compatible with the transmission standards as well as the compression and coding technologies promulgated by the TA for the Hong Kong market.

35. On the price range and affordability of set-top boxes, DSCCT said that according to the study conducted by the Administration, the anticipated price range of set-top boxes for Hong Kong were relatively low as compared with the overseas price of a basic tier set-top box which cost around \$1,000 when DTT broadcasting was first launched. The variety of set-top boxes would be limited at the initial stage, but the adoption of the national standard with a vast market of the Mainland would

eventually lead to mass production of set-top boxes which would bring further choices and lower prices for local users.

36. As regards to the availability of DTT receivers, DSCCT said that according to consumer electronics manufacturers, subject to the TA's finalization of the technical specifications for DTT receivers before the end of June 2007, receiver products were likely to become readily available at different price levels depending on their features and functions by the last quarter of 2007, tallying with the launch of DTT within the year. She added that basic tier set-top boxes for SDTV-only reception were expected to be available within three months for around a few hundred dollars, while higher tier receivers for both SDTV and HDTV reception were expected to be available within six months, at a higher price at the initial stage. Integrated TV sets would require a longer production lead-time and were expected to come on to the market by early or mid 2008. In this connection, Mr Peter KL CHU of HK&KEAMA affirmed that if the TA could finalize the technical specifications for DTT receivers by the end of June 2007, consumer products compliant with the national DTT standard would be commercially available in the market within the year to tie with the launch of DTT broadcasting by end 2007, while integrated TV sets would be available by mid-2008 at the latest.

37. Mr Howard YOUNG noted that the Temple Hill principal transmission station, which would be ready by the fourth quarter of 2007, could serve up to only 50% of Hong Kong, covering mainly south Kowloon and north Hong Kong Island, and that the construction of the remaining five main stations to cover another 25% of Hong Kong would be completed by 2008. He remarked that people residing in Island south and the New Territories might as well wait until 2008 to procure DTT receivers. He said that as in the case of mobile phones, advances in technologies would help bring down prices of the set-top boxes, improve the reception quality and provide added functions.

38. Mr CHEONG Shin-keung of TVB agreed that technological advances would bring in a wider variety of receiver products in the form of built-in TV sets and higher-grade set-top boxes with added features for additional services and more functionality at lower prices. Referring to the manufacturing trade's preference for the production of a basic tier set-top box with no interactive feature at the early stage of DTT implementation as remarked by Mr Peter KL CHU of HK&KEAMA, Mr CHEONG pointed out that the higher tier receivers, though involving a longer development lead-time and higher cost, would have extra features capable of supporting interactive services such as electronic programme guides, and data-casting services covering weather, financial quotes, and transport information, etc. As such, TVB had requested the electronic consumer products manufacturers to consider incorporating softwares that supported interactive and data-casting services.

39. The Deputy Chairman said that he disagreed with the manufacturing trade in this regard. He remarked that the industry should make the best use of the potentials

of technology to give full play to DTT's capability in supporting interactive and data-casting services. He also urged the industry to closely liaise with the two broadcasters to develop a standard for technical transmission parameters capable of supporting both the hardwares and the concerned softwares.

40. Mr Howard YOUNG was concerned that the availability of a variety of DTT receivers on the market together with technical terms such as HDTV, SDTV and HDTV-ready would be confusing to the public. He asked whether the aforementioned technical terms were clearly defined and generally accepted by the industry. In response, PAS(C&T) explained that the classification of HDTV as to mean a picture resolution of 720 lines (horizontal) or up and SDTV as to mean a resolution of 525 (horizontal) lines were accepted worldwide. He believed that the industry had no reason to purposely mislead or confuse the public with a host of technical terms.

41. Noting that many plasma/Liquid Crystal Display (LCD) TV sets currently available on the market were specified as digital TV or high-definition ready (HD-ready), Mr Ronny TONG sought clarification on whether users of these TV sets would be required to purchase set-top boxes for viewing of DTT programmes.

42. Acting Assistant Director of Telecommunications (Operations), Office of the Telecommunications Authority, AD of T (Atg)/OFTA responded that all plasma/LCD TV sets currently available in the market were not equipped with built-in DTT decoder. The so-called "HD-ready" TV sets were analogue TV sets equipped with display panel supporting picture quality equivalent to high definition resolution. Viewers using these plasma/LCD TV sets would need to purchase DTT set-top boxes for connection to these TV sets in order to view DTT programmes.

Implementation of DTT and related issues

Concern about possible interference with DTT broadcasts in the Mainland

43. The Deputy Chairman was concerned whether in future DTT broadcasts in the Mainland China, for example in Guangdong, would interfere with DTT reception in Hong Kong. Mr CHEONG Shin-keong of TVB responded that according to his understanding, the TA had already liaised with the relevant Mainland authorities to ensure non-interference. AD of T (Atg)/OFTA informed the meeting that OFTA had undertaken the necessary co-ordination work with the Mainland authorities on the DTT frequency channels to be used by Hong Kong and Guangdong.

The handling of discarded TV sets and outdated set-top boxes

44. Noting that more than one million households in Hong Kong had TV sets, Mr Howard YOUNG was concerned that the disposal of discarded TV sets and outdated models of set-top boxes would add pressure to the existing landfill in Hong Kong. He enquired whether the Administration would consider putting in place

measures to handle such a major jump in household discards, and whether manufacturers would follow the example of the battery industry and consider the viability of trading in set-top boxes to reduce electronic waste.

45. In response, DSCT stressed that existing TV sets once connected with set-top boxes with digital decoder would be capable of receiving DTT broadcast. As such, there was no question of the general public replacing their existing TV sets all at the same time. She pointed out that it was individual viewer's choice on whether and when to changeover to an integrated digital TV set. On Mr YOUNG's concern about the handling of discards, DSCT said that the Commerce, Industry and Technology Bureau would liaise closely with the Environmental Protection Department on related issues to minimize adverse environmental impacts.

Publicity and promotion drive

46. Noting that DTT services would be rolled out in phases and that with the advance of technology, higher-grade multi-function DTT receivers would come on stream at a cheaper price at a later stage of DTT implementation, Mr Howard YOUNG considered that consumer education was essential to assist the general public to make informed decisions as to when and what type of receiver products would best suit their need. He hoped that the Consumer Council and the Administration would provide the necessary consumer information to prepare the consumers for the launch of the DTT.

47. Mr CHEONG Shin-keung of TVB pointed out that consumers should make their own choice as to whether, when and what type of DTT receivers they should acquire depending on their need, the location of their residence, and the type of their existing TV sets. Residents in poor reception buildings/areas could immediately enjoy improved picture quality with the installation of set-top boxes. He said that at present, an estimated of about 17% of households in Hong Kong had plasma or LCD flat-panel wide-screen TV sets. Digital set-top box connected to these existing TV sets would provide a much better picture quality with an aspect ratio of picture width to height of 16:9. He pledged that TVB, in close collaboration with the Administration, Consumer Council, ATV and the manufacturers, would make the best effort to set out in clear terms all factors for consideration to facilitate the general viewers to make the best informed decision.

48. Acknowledging that DTT services would be rolled out in phases whereby some areas would receive DTT services later, DSCT undertook that the Administration, making reference to overseas implementation experience, would regularly update the public with comprehensive information on DTT coverage in order to assist the public in preparing for the DTT launch. She said that whether a viewer could receive DTT programmes depend on a number of factors, such as whether the location was within the DTT network coverage and whether the in-building communal antenna broadcast distribution (CABD) systems of the building had been upgraded/replaced so that DTT service was receivable by

residents in the buildings. She further pointed out that in the press release issued on 4 June 2007, the Administration had highlighted that no DTT receivers were available on the market yet and had also drawn the public's attention to the fact that unless they wish to view DTT programmes in future, they did not have to purchase any set-top boxes or change their existing TV sets. The press statement also underlined the factors that the public should take into consideration when deciding whether and when to purchase DTT receivers. To disseminate information about the DTT implementation and to encourage DTT take-up, the Administration would coordinate publicity efforts with the Consumer Council, ATV and TVB to launch a comprehensive promotion and publicity programme nearer the time of the DTT launch to raise public awareness and to provide the public with consumer information about requirements for and availability of receiver products to enable consumers to make informed purchase choice. In this connection, consumer education and publicity activities including a dedicated website, announcements of public interest on television and radio, and information leaflets to households, building management companies and incorporated owners would be launched nearer the time.

49. In this connection, Mr SIN Chung-kai suggested the Administration to include in its dedicated website geo-map to provide the public with updated information on the phased DTT network coverage.

50. DSCT noted members' concern and reiterated that the Administration would coordinate with the Consumer Council, ATV and TVB to mount a comprehensive promotion and publicity campaign including consumer tips for the purchase of DTT receivers to educate the public.

Availability of free TV programmes and programme choice for consumers

51. Referring to slide 3 of the power-point presentation, Ms Emily LAU sought information on the SDTV and HDTV programmes to be broadcast by the two broadcasters during the simulcast period. She was particularly concerned whether the public had to pay for the new DTT programmes.

52. In response, PAS(C&T) advised that both TVB and ATV were domestic free television programmes service licensees and therefore programmes of the four existing free-to-air television channels and future DTT programmes were all free. He explained further that on top of the simulcast of existing four analogue programme channels in the shared multiplex, TVB and ATV were each assigned with an additional multiplex for launching new DTT services such as multiple SDTV channels, HDTV and interactive services, etc. He explained that a multiplex was a digital transmission frequency channel for DTT broadcasting that had a capacity of carrying four SDTV programme channels (i.e. could support multi-channel broadcasting) or one HDTV programme channel at a time if MPEG-2 compression standard was used. During the broadcast of HDTV programmes, the broadcast of SDTV channel had to cease and hence the broadcaster had to make a choice between

SDTV or HDTV. An operator could switch from multi-channel broadcast to HDTV broadcast and vice versa at different timeslots. He added that the two broadcasters were required under the existing licensing condition to implement DTT and to broadcast a specified number of hours of DTT programmes per week. On the new DTT services, ATV had opted to provide a hybrid digital service of HDTV and multi-channel broadcast. The plan was to launch four new SDTV channels and not fewer than 14 hours of HDTV programmes per week during prime time starting from end 2007. The broadcast of the four SDTV channels would cease during these HDTV broadcasting hours. As for TVB, one enhanced Jade Channel with over 80% HDTV content together with some programmes in new formats, e.g. programmes with multiple viewing angles, would be launched.

53. Ms Emily LAU noted that there were two different tiers of set-top boxes and that the basic tier set-top boxes, though more affordable, could decode and receive only SDTV programmes coded in MPEG-2 format, i.e., the four programme channels simulcast by TVB and ATV and the four new SDTV channels (but not the HDTV content) provided by ATV. She was concerned that those households that could not afford the higher-end set-top boxes (i.e. higher tier set-top boxes) would have less programme choice and would be deprived from viewing HDTV programmes.

54. PAS(C&T) said the choice of a suitable set-top box depended on the type of TV set currently in use by the viewers. The basic tier set-top box would be more suitable for the conventional cathode ray tube TV sets which, once connected with a basic tier set-top box, would provide good reception for the four programme channels simulcast by TVB and ATV, as well as the latter's new SDTV channels. A higher tier set-top box would not help these older types of TV sets to receive the higher picture quality of HDTV programme.

55. Mr H Y KWONG of ATV said that when DTT broadcast was kicked-off by end 2007, ATV would focus on multi-channel broadcasts by offering four SDTV channels on trade news and finance, trendy culture, shopping information, and showbiz news, on top of the existing two programme channels of ATV-World and ATV-Hong Kong, bringing to six the total number of programme channels. He said that ATV had pledged to provide not fewer than two hours of HDTV programmes per day during prime time starting from end 2007 in order to encourage DTT take-up. The broadcast of the four SDTV channels would cease during these HDTV broadcasting hours. He pointed out that households with a basic tier set-top box connected to their existing TV sets could view the programmes of the six ATV channels but not ATV's HDTV programme. He highlighted that two hours of HDTV programmes per day was the minimum that had been pledged to the Government, and ATV would review its broadcasting and programming policy to make adjustments as appropriate having regard to the market situation including DTT up-take and the state of advertising market. In response to Ms Emily LAU's enquiry on HDTV programme to be broadcast during prime time, he said that in order to attract more audience, the usual practice was to broadcast more entertaining type of

programme; nevertheless, a concrete decision had yet to be taken.

56. Mr CHEONG Shin-keong of TVB said that TVB had pledged to launch a HDTV channel with daily broadcast of 18 hours of which 80% would be HDTV programmes and the remaining 20% SDTV programmes.

57. In this regard, Ms Emily LAU called on ATV to increase its HDTV programmes as the new shareholder of ATV would inject additional capital to boost programme production.

Concern about the timing of the analogue switch-off and the provision of assistance to facilitate a complete digital migration

58. Mr Ronny TONG said that he was shocked to note from the paper provided by the Administration (Legislative Council brief on "Implementation of Digital Terrestrial Television" File Ref: CTB(CR)9/1/9(07) Pt.24) that analogue broadcasting would be switched off in 2012 or earlier. Given that an estimated one million people in Hong Kong were living around the poverty line, he considered it unacceptable to impose a deadline for the analogue switch-off which would force households to replace their TV sets before 2012. He pointed out that the income disparity in Hong Kong as indicated by the recently released Gini Coefficient was the highest among the developed countries and not everyone in Hong Kong could afford to change to the more expensive TV sets for viewing HDTV programmes. He called on the Administration to seriously consider putting off the analogue switch-off until everyone could afford an access to HDTV programmes.

59. In response, DSCT said that overseas experience showed that as far as practicable, a target date for analogue switch-off should be set to encourage early DTT take-up so that the spare spectrum thus released would be usefully deployed for other new services and economic activities such as mobile television and interactive services. She stressed that 2012 was only a target date and the Administration would closely monitor the situation and would step up publicity to enhance public awareness and understanding of the benefits of adopting DTT and also to stimulate the public's interest in going for DTT. She remarked that the Government would not force users to replace their TV sets, and it was entirely up to individual households to decide whether and when to acquire DTT receivers in accordance with their individual circumstances and needs.

60. Mr Ronny TONG remained unconvinced. He remarked that despite the Administration's claim that the public would not be forced to acquire DTT receivers, to switch off analogue broadcasting in 2012 in real sense was no different from forcing the public to replace their existing TV sets, which normally had a life span of more than five years, with up-scale integrated digital TV sets; or else, those households who could not afford to purchase DTT receivers for reception of DTT programmes would be deprived of free television programmes services. He therefore maintained that a deadline should not be set for the termination of analogue

broadcasting and urged the Administration to rethink its position on this matter.

61. In this connection, the Deputy Chairman remarked that the Administration should set up some objective criteria for the analogue switch-off. He opined that instead of sticking to a deadline for complete digital switchover from a simulcast situation, the Government could, for example, consider using the DTT uptake, i.e., the proportion of population/households that had taken up DTT, in order to determine when to switch off analogue broadcasting. He said that this was the case of the United States where an 80% DTT uptake was set as the trigger for analogue switch-off.

62. DSCT said that the Administration would closely monitor the progress of DTT implementation and make a decision on the timing of the analogue switch-off with due regard to the world trend, and on the basis of objective criteria and statistics including the extent of DTT coverage, consumers' DTT readiness as well as the degree of public acceptance as indicated by the extent of DTT uptake.

63. Given that the analogue-to-digital migration could result in more effective use of the available spectrum, Ms Emily LAU asked how the additional spectrum thus released would be used. She noticed from Annex B to the Administration's Paper (Legislative Council brief on "Implementation of Digital Terrestrial Television" File Ref: CTB(CR)9/1/9(07) Pt.24) that according to a cost-benefit analysis in the UK, the economic benefits of a complete digital switch-over in the UK was estimated to be around £1.5 billion - £2 billion in net present value terms. She enquired whether the Administration had ever made a similar cost-benefit analysis to evaluate the economic benefits of the switch over in Hong Kong.

64. DSCT responded that as the target of a complete analogue switch-off in 2012 still had six to seven years away, the Administration was not yet in a position to comment on the future deployment of the released spectrum. She added that it was too early and premature to make any realistic assessment on the economic benefits to be generated by the analogue switch-off.

65. Noting the vast business opportunities made possible by the analogue-to-digital migration and in view of the benefits of more efficient use of the released spectrum including the possible increase in the number of TV programme channels and new interactive multimedia applications, Ms Emily LAU urged the Administration to seriously consider providing assistance as appropriate to needy families to facilitate an early complete digital switch-over so that the economic benefits of a switch over could be realized as early as possible. She also requested the Administration to provide an estimate on the economic benefits arising from the analogue switch-off in due course.

Admin

Summing up

66. To conclude, the Deputy Chairman requested the Administration to take note of members' views, concerns and requests raised at the meeting, and to provide the Panel with the requisite information in due course.

VI. Review on the convergence of fixed and mobile communications services

(LC Paper No. CB(1)1831/06-07(14) -- Paper provided by the Administration

LC Paper No. CB(1)1831/06-07(15) -- Background brief prepared by the Legislative Council Secretariat)

67. Members noted the information provided by the Administration as per paragraph 21 of the Administration's paper (LC Paper No. CB(1)1831/06-07(14)) regarding the application filed by the incumbent fixed network operator, PCCW-HKT Telephone Limited (PCCW), to the High Court on 26 October 2006 for a judicial review of the second consultation process. Following the Court's decision disallowing PCCW's application on 13 February 2007, PCCW had filed an appeal to the Court of Appeal, and a hearing would take place in September 2007. Moreover, subsequent to the publication of the Fixed Mobile Convergence (FMC) Statement by the Telecommunications Authority (TA) on 27 April 2007, PCCW had filed a competition appeal under section 32N of the Telecommunications Ordinance (TO) (Cap.106) to the Telecommunications (Competition Provisions) Appeal Board (TAB) on 11 May 2007. Members also noted that the Administration did not see any problem with the Panel's discussion of the TA's FMC Statement and the related issues. Nevertheless, OFTA might not be able to respond to questions that might be relevant to the potential litigation. In this connection, members noted that the Panel's legal adviser had advised that members might discuss the policy issues relating to the TA's FMC Statement. The Deputy Chairman also drew members' attention to Rule 41(2) of the Rules of Procedure which provided that reference should not be made to a case pending in a court of law in such a way as, in the opinion of the Chairman, might prejudice that case.

68. Having regard to PCCW's appeals to the Court of Appeal and the TAB, the Assistant Director of Telecommunications (Regulatory) (AD(R)) said that discussion would have to be confined to the issues related to the TA's FMC Statement. Noting that legal proceedings were underway, Ms Emily LAU requested and AD(R) agreed that the Administration would update the Panel on the outcome of the proceedings.

Admin

69. At the invitation of the Deputy Chairman, AD(R), with the aid of power-point presentation, took members through the conclusions as set out in the TA's FMC Statement. The FMC Statement was published on 27 April 2007 following the first public consultation in September 2005, the consultancy study commissioned in June 2006 and the second public consultation in July 2006 to review the regulatory framework to facilitate developments in the

telecommunications sectors under a FMC environment. He highlighted the conclusions as follows:

(a) *Fixed-mobile interconnection charging arrangement*

The TA would follow a market-driven approach and deregulate the existing fixed-mobile interconnection charge (FMIC) arrangements, and would withdraw the regulatory guidance that favoured "Mobile Party's Network Pays" (MPNP) which was introduced more than 20 years ago, subject to a transition period of two years. The network operators would be free to negotiate the terms and conditions of interconnection based on mutually acceptable settlement options. The TA would retain the power under section 36A of the TO to make a determination if commercial negotiations failed to produce agreed terms of interconnection between fixed network operators (FNO) and mobile network operators (MNO) within a reasonable period of time. The TA would continue to monitor the market development and re-consider the need for regulatory guidance if market conditions changed and/or there were indications of likely market failure. There would be no change to the existing regime of any-to-any (A2A) connectivity requirements. The TA would intervene only in the event that commercial negotiations in the market failed to achieve A2A, which was to the detriment of public interest.

(b) *Interconnection charges from service providers*

The existing arrangements for Local Access Charge (LAC) payable by external telecommunications services (ETS) providers to local network operators would be maintained. Mobile LAC would remain unregulated. The TA would monitor if more effective competition had developed for LAC upon the withdrawal of MPNP guidance, and would consider whether there would be scopes for the deregulation of the level of LAC in due course.

(c) *Licensing regime*

The TA would recommend to SCIT that a regulation be made under section 7(2) of the TO prescribing a unified carrier licence (UCL) authorizing network operators to provide fixed or mobile services. Subject to SCIT's approval for the creation of the UCL, the TA would conduct separate consultation in respect of the special conditions to be attached to the UCL.

(d) *Fixed -mobile number portability*

Fixed-mobile number portability (FMNP) whereby telephone numbers

could be ported across fixed and mobile platforms was not currently supported. The TA would conduct further market research to assess consumer demand for FMNP and its likely costs and benefits before deciding whether to introduce FMNP.

Discussion

Fixed-mobile interconnection charging arrangements

70. On the deregulation of the existing FMIC arrangement for network operators to negotiate freely interconnection charges and also on the withdrawal of regulatory guidance on interconnection links, Mr Japser TSANG was concerned whether a failure to reach an agreement on the terms and conditions of interconnection through commercial negotiations would lead to disconnection, disrupting the smooth operation of the telecommunications market.

71. In reply, AD(R) said that network operators would have a two-year transition period to negotiate the terms and conditions of interconnection based on mutually acceptable settlement options during which the TA would closely monitor the situation. In the event that commercial negotiations failed to achieve mutually acceptable terms and conditions and there were indications that a market failure was likely to emerge, the TA would intervene and invoke the powers under the TO to make an order requiring network operators to take such action as the TA considered necessary to secure the interconnection between particular networks or to continue connectivity to ensure efficient and reliable provision of telecommunications services pending an agreement between the network operators or a determination to be made by the TA. The network operators could then settle the connection charges subsequently. AD(R) assured members that the Administration would closely monitor the situation to preclude the occurrence of a market failure and to ensure that the situation was well under control.

72. In response to the Deputy Chairman's enquiry about the time-frame for the implementation of the TA's conclusions in respect of FMIC, LAC and UCL, AD(R) advised that the transition period would end on 26 April 2009, two year from the publication of the TA Statement on 27 April 2007.

VII. Any other business

73. There being no other business, the meeting ended at 4:30 pm.