APEC TEL 35

Regulatory and Policy Update

Chinese Taipei

April 2007

Highlights

1. The National Communications Commission (NCC) is responsible for regulating both the telecom and broadcasting sector and marked its first anniversary on 22 February 2007. Up until 10 April 2007, the NCC had convened 155 times for Commission meetings and 59 times for sub-group Commission meetings. Moreover, through these meetings, the NCC had reviewed 723 cases related to the development of Chinese Taipei's communication trillion-dollar industry and the public's access to universal communication services. Further, the NCC had finalized 55,601 public announcements, permits, or dispositions concerning communications enterprises and the public's rights and interests.

2. As of December 2006, the number of fixed line subscribers reached 13.47 million, accounting for 58.90% of the population. The number of mobile phone subscribers (including 2G, PHS and 3G services) amounted to 23.24 million, with a penetration rate of 101.63%.

3. On 14 February 2007, Chinese Taipei finalized the licensing framework for wireless broadband access (WBA) service. NCC has been accepting applications for WBA service for a two month period since 12 April 2007. The WBA services consist of the fixed WBA service (3.4-3.487GHZ) and mobile WBA service (2.5-2.69GHZ); The frequency bandwidths of mobile were cleared for commercial use in March. NCC expects to grant 3 regional licenses each for both the northern and southern regions on 3 August 2007.

4. To promote the use and development of hand-held video, NCC assigned

Ch35, Ch36 and Ch53 for experimental trials with two technological standards, DVB-H and MediaFLO.

There are a total of five selected teams for the experimental trials of Digital Video Broadcasting – Handheld (DVB-H): In the northern region, Public Television Service Team (Ch35), CTV Team (Ch36), Qualcomm Team (Ch35), and in the southern region, Chunghwa Wideband Team (Ch36), and Dawn TV Team (Ch35). NCC expects to grant DVB-H licenses next year.

5. According to Chinese Taipei's survey, broadband network coverage is 99.74 % of the total communities throughout Chinese Taipei: there is 100% coverage of the general area (excluding remote areas) and 97.08 % of the total villages (684) in remote areas (such as aboriginal villages). In Chinese Taipei, there are 13 aboriginal peoples living in 823 tribes, a total of 474,000 people of the population.

6. During this year, we plan to subsidize 18 villages to build up the infrastructure and 28 villages to improve the quality of networks (currently with a maximum speed of only 512Kbps, resulting in the completion of the goal "Broadband for Communities" (excluding 2 villages in the off-shore islands of Kinmen）.

7. NCC announced, on 29 December 2006, that the new X-factor regulatory regime would apply to several telecom services and be implemented on 1 April 2007, such as ADSL for Integrated Network service and Local Network service, and GSM services.

8. Chinese Taipei is launching three new e-Government services this year: e-Messenger, e-Helper and e-Servant.

9. The above information is available on our website.(www.ncc.gov.tw)

National Communications Commission (NCC)

The NCC, responsible for regulating both the telecom and broadcasting sector, marked its first anniversary on 22 February 2007.

Up until 10 April 2007, the NCC had convened 155 times for Commission meetings and 59 times for sub-group Commission meetings. Moreover, through these meetings, the NCC had reviewed 723 cases related to the development of Chinese Taipei's communication trillion-dollar industry and the public's access to universal communication services. Further, the NCC had finalized 55,601 public announcements, permits, or dispositions concerning communications enterprises and the public's rights and interests.

Although in its infancy, since it released its Annual Plan on 30 May 2006, the NCC has come to recognize that to make the best possible decisions for the public, it should be independent of industry, and governmental pressure; as an independent regulator, it maintains an arm's-length relationship with the government, industry and the public.

Market Profile

As of December 2006, the number of fixed line subscribers reached 13.47 million, accounting for 58.90% of the population. The number of mobile phone subscribers (including 2G, PHS and 3G services) amounted to 23.24 million, with a penetration rate of 101.63%.

With regard to broadband access, the amount of broadband users had exceeded 12.4 million by January 2007 - an increase of 150,000 since July 2006. Moreover, 4.93 million households were using broadband access, representing 67.03% of all households, with an additional 190,000 since July 2006.

By September 2006, the international bandwidth reached 776Gbps, of which 148Gbps was the international Internet bandwidth – this showed an increase of 24Gbps since June 2006.

Licensing Framework for Wireless Broadband Access(WBA)

Aiming to adopt recent technology, safeguard consumers' rights and facilitate telecom development, Chinese Taipei, on 14 February 2007, finalized the licensing framework for WBA service. WBA licenses are to be

awarded in two stages. In the first stage, there are a total of 6 regional licenses: three for both the northern and southern regions, granting 30 MHz bandwidth to each licensee. A regional license is valid for 6 years; after which, it can then be merged with a license from the other region to form a nationwide license. The second stage starts from June 2009, and will award more than one nationwide license valid for 10 years.

In line with this initiative, NCC drafted WBA regulation following a public hearing, on 9 March 2007, held to invite comments on the regulation. Subsequently, the "Regulation on the WBA Service" was enacted on 30 March 2007, which gives legal status for the provision of the WBA service. NCC has been accepting applications for WBA service for a two month period since 12 April 2007 and will conduct auctions in July. NCC shall conduct a pre-qualification exercise followed by spectrum auctioning to select 6 WBA licensees. The auction adopts a self-proclaimed approach which will require the bidders to pay a certain percentage of their annual revenue turnover determined by the auction.

The WBA services consist of the fixed WBA service (3.4-3.487GHZ) and mobile WBA service (2.5-2.69GHZ); The frequency bandwidths of mobile were cleared for commercial use in March. NCC expects to grant 3 regional licenses each for both the northern and southern regions on 3 August 2007.

Promotion of Experimental Trial of Digital Video Broadcasting – Handheld (DVB-H)

To promote the use and development of hand-held video, NCC assigned Ch35, Ch36 and Ch53 for experimental trials with two technological standards, DVB-H and MediaFLO.

Following the project "Selection of Broadcasters for DVB-H" announced on 4 August 2006, the NCC on 13 October 2006 approved and announced 4 selected groups to carry out DVB-H trials. Moreover, the NCC on 16 October 2006 announced its intention to hold a second round of selection for the experimental trial of DVB-H. As a result, there was one group selected on 30 October 2006. There are a total of five selected teams for the experimental

trials of Digital Video Broadcasting – Handheld (DVB-H): In the northern region, Public Television Service Team (Ch35), CTV Team (Ch36), Qualcomm Team (Ch35), and in the southern region, Chunghwa Wideband Team (Ch36), and Dawn TV Team (Ch35). NCC expects to grant DVB-H licenses next year.

Digital Divide

In line with the "e-Taiwan" project of the Government's initiatives to bridge the digital divide, DGT launched the "Broadband for Communities" on 1 January 2005 to provide affordable broadband access for those who reside in remote areas. To carry out this program, the telecom operators were encouraged and mandated to strive for the deployment of broadband networks in remote areas for the need of the people in those areas. According to our survey, broadband network coverage is 99.74 % of the total communities throughout Chinese Taipei: there is 100% coverage of the general area (excluding remote areas) and 97.08 % of the total villages (684) in remote areas (such as aboriginal villages). (A village is regarded as a broadband service area as long as there is at least an ADSL subscription in the community/village). In Chinese Taipei, there are 13 aboriginal peoples living in 823 tribes, a total of 474,000 people of the population. During this year, we plan to subsidize 18 villages to build up the infrastructure and 28 villages to improve the quality of networks (currently with a maximum speed of only 512Kbps, resulting in the completion of the goal "Broadband for Communities" (excluding 2 villages in the off-shore islands of Kinmen）.

Further Regulation on Local Loops

After the public hearing on 30 October 2006, in which NCC solicited varied concerns regarding the regulatory framework on local loops, two major policy decisions were made:

1. NCC announced twisted copper local loops as a fixed network bottleneck facility on 14 December 2006, and that, as of 9 January 2007, the dominant market players (DMPs) of Integrated Network Telecom market shall make at least 15% of their twisted copper local

loops capacity of respective local exchanges available for leasing - unless they are able to demonstrate that the network capacity of their respective local exchanges has less than 15% availability.

2. In conjunction, NCC has undertaken to amend the related regulation to stipulate that the tariff for Type I telecom enterprises to lease twisted copper local loops announced as bottleneck facilities should be calculated at a cost-based price by historical cost methodology, so as to implement local loop unbundling and increase competition in the local fixed telecom market.

Review of the Tariff Regulation

After a thorough review of a series of public meetings, starting 31 August 2006, held on the review of tariff regulation, NCC announced, on 29 December 2006, that the new X-factor regulatory regime would apply to several telecom services and be implemented on 1 April 2007, such as ADSL for Integrated Network service and Local Network service, and GSM services. In terms of GSM services, there are 3 tariffs: local phones calling GSM cell phones, GSM prepaid services and, the costliest, GSM monthly payment services. This regulatory regime comes into effect from 1 April 2007 to 31 March 2010 in which time the mandated GSM operators may appeal to NCC to review this policy once the telecom market has substantially changed.

Consultation on the Internet Access Fee

To promote greater competition in the Internet market, Chinese Taipei launched a public consultation exercise over ten days starting from 23 January 2007. It aims to apply ex ante regulatory regime on Internet access fees as a primary tariff to the dominant market player (DMP) of Type I telecom enterprises in the Internet market. According to a survey by Chinese Taipei, as of 15 January 2007, DMPs dominated 82.7% of the Internet market. Under this regulatory framework, the adjustment and promotional scheme of primary tariffs of dominant Type I telecommunications enterprises shall be submitted to the NCC for approval 14 days prior to the schedule date of such adjustment.

Further Liberalization of Fixed Telecoms Market

On 2 November 2006, Chinese Taipei eliminated the restriction on 5Gbps bandwidth of full circuit for applications for the international submarine cable leased-circuit license. The decision was undertaken to stimulate further growth in the international submarine cable leased-circuit market. When the market becomes effectively competitive, we believe further regulation to be unnecessary and that it should be left to market forces.

E-Government

Chinese Taipei has rebuilt a new e-Government portal using the WEB2.0 concept. Under this concept, the new portal will provide three major new services: e-Messenger, e-Helper and e-Servant. E-Messenger is a messenger subscriber which enables the general public, to push subscribed messages directly to registered e-Government members; e-Helper will help businesses exchange information with government agencies, and provide government procurement through mobile devices or personal computers; and finally, e-Servant will improve efficiency of government employees. E-Messenger is scheduled to be online in April, 2007, e-Helper this summer, and e-Servant at the end of this year.

Chinese Taipei has been deploying the e-Government service platform to different ministries and local governments. The service platform is based on government service networks and government public key infrastructure mechanisms, and is defined as an application service infrastructure environment. The platform will become the standard application layer for the architecture of Chinese Taipei's e-Government. Currently, there are 13 cross agency innovative services - a new service which improves efficiency of the process flow - 39 integrated agency services, and 179 cross agency services, and 130 services under test.

Chinese Taipei has also been promoting aggressively in the digital divide, to provide suburban/rural areas more sophisticated online services. More than 100 digital opportunity centers have been set up in these areas to shorten the digital divide.

Chinese Taipei has also been aggressively promoting government

websites with high accessibility for the disabled. By the end of August 2006, 5,546 websites had been recognized as following Web Content Accessibility Guidelines. Among these websites, 1,395 earned Level "A", 1,316 "AA", 1,116 "AAA", and 1,719 "A+".

Cyber Security

Chinese Taipei established ICST (Information & Communication Security Technology Center) in 2001 to provide government agencies with various information security services. ICST integrates the efforts of government, academia and industry to provide technical support in the handling of nationwide security emergencies, to assure the nation of information and communication security. Since 2006, ICST has continued to promote awareness in IT security, research and develop IT security, compile information on computer incidents, vulnerability, and incident response services to government agencies. Chinese Taipei is also willing to cooperate with other CSIRTs/CERTs organizations worldwide to deal with computer incidents and to share information.

1. **Promote Awareness in IT Security and Provide Training Courses**
   Offer IT security conferences, workshops, training courses, and exhibitions for technical staffs and security managers.
   (1) Training Courses:
   - ISMS lead auditor.
   - ISMS building
   - Internal auditors of ISMS
   - CEH (Certified Ethical Hacker) for 20 participants
   - CISSP (Certified Information Systems Security Professionals) for 40 participants
   - Information alert system and vulnerability scanning
   - e-Learning (19 courses / 20 hours in total)

   (2) Conferences and Workshops:
   32 conferences and 2 workshops on information security and technical topics

2. **Incident Response and Prevention**

Chinese Taipei publishes advisories and alerts for preventing and responding to computer incidents. We compile information from various sources (e.g. real-time monitoring, incident handling and forensic, malicious code analysis) and analyze it so as to announce security trends. In 2006, we published a total of 808 advisories and alerts, including:

(1) 199 alerts for intrusion incidents.
(2) 45 advisories for system vulnerability or weakness.
(3) 141 alerts for website defacement incidents.
(4) 422 warnings of suspicious incidents and incident prevention.
(5) 1 alert for emergency incident.

A. The above information is available on our website.(www.ncc.gov.tw)

Regulatory and policy updates for other Member Economies at APEC TEL35 are available at www.apectelwg.org .