THE TECHNOLOGY, MEDIA AND TELECOMMUNICATIONS REVIEW

THIRD EDITION

Editor John P Janka

LAW BUSINESS RESEARCH

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EDITOR'S PREFACE

The digital revolution continues to alter both local culture and the world in ways that few could have imagined when the seeds of the Internet were sown more than 40 years ago. The Internet allows ideas, news and other information to flow more freely than ever before, making it increasingly difficult for nations to control this flow at their geographical borders. Moreover, the Internet is forcing changes in many long-standing business models. It now serves for many as the preferred means of communication and media delivery, displacing or supplementing other means, such as traditional copper phone service, print media, subscription TV services and broadcast networks, in the process. The Internet now also serves as a new marketplace for goods and services, as well as a primary research tool for many.

New technologies place into our hands more computing power than was used by astronauts when the Internet was in its infancy. The proliferation of these mobile devices – smartphones and tablet computers – leads many to employ texting, e-mail and blogging instead of communicating by the spoken word. We expect to have constant access to the networks that we use in this manner to stay in contact with our social circles and the rest of the world. And our most intimate thoughts are often now memorialised for the long term, in ways that can be potentially used by third parties for purposes we have not truly anticipated.

The legal frameworks in many jurisdictions are now straining under these disruptive changes. The old adage that technology outpaces the law is more true today than ever. No doubt, the 'hands-off' approach to the Internet that many lawmakers and regulators once took has facilitated many of these developments. At the same time, policymakers are now struggling with new types of concerns, as broadband Internet access service becomes more and more essential to our lives. Is the marketplace responding to the needs of consumers? Are broadband networks being deployed everywhere that they are needed? Are the capabilities of those networks adequate? If not, how should government ensure that none of its citizens is left behind? Is it appropriate for government to invest in broadband infrastructure in a manner similar to its historical investment in roads.

bridges, and other critical infrastructure? Is it fair to liken broadband service to a utility, or does the state of competition make that an unfair analogy? Can government provide the best overall solution, or should it just fill in any infrastructure 'gaps' not closed by commercial providers? Should government establish 'ground rules' upfront, or should it intervene when it perceives that abuses of market power exist? How does government avoid skewing the competitive marketplace by (inadvertently or otherwise) preferring one type of technology over another and thus effectively picking the winners and losers who otherwise might emerge in the marketplace, and challenge the incumbents? Who are the new 'gatekeepers' in the Internet broadband distribution chain, and is it enough to focus on regulating the network operators when others further up the chain, such as application service and equipment providers, have more influence than ever before on what information we access and how we access it?

This expectation of instant and continuous mobile connectivity, and the development of bandwidth-intensive 'apps', create an increasing demand on the limited radio frequency spectrum asset. While digital technologies allow more efficient use of spectrum than ever before, the laws of physics still render some spectrum bands more valuable than others for mobile communications. The demand for wireless spectrum outstrips the supply in many markets, and regulators are increasingly being forced to 'refarm' spectrum bands that were designated for other purposes before the mobile broadband revolution was a glimmer in anyone's eye.

This third edition of *The Technology, Media and Telecommunications Review* provides an overview of the evolving legal constructs that govern these types of issues in 29 jurisdictions around the world. Although the authors cannot fully address each of these topics in the following articles, we hope this book provides a helpful framework for starting your analysis.

John P Janka

Latham & Watkins LLP Washington, DC September 2012

LIST OF ABBREVIATIONS

3G Third-generation (technology)
 4G Fourth-generation (technology)
 ADSL Asymmetric digital subscriber line

ARPU Average revenue per user

BIAP Broadband Internet access provider

BWA Broadband wireless access

CATV Cable TV

CDMA Code division multiple access
CMTS Cellular mobile telephone system
DAB Digital audio broadcasting
DDoS Distributed denial-of-service

DoS Denial-of-service
DSL Digital subscriber line
DTH Direct-to-home
DTTV Digital terrestrial TV
DVB Digital video broadcast

DVB-H Digital video broadcast – handheld
DVB-T Digital video broadcast – terrestrial
ECN Electronic communications network
ECS Electronic communications service
EDGE Enhanced data rates for GSM evolution

FAC Full allocated historical cost FBO Facilities-based operator FCL Fixed carrier licence

FTNS Fixed telecommunications network services

FTTC Fibre to the curb
FTTH Fibre to the home
FTTN Fibre to the node

List of Abbreviations

FTTx Fibre to the x
FWA Fixed wireless access
Gb/s Gigabits per second
GB/s Gigabytes per second

GSM Global system for mobile communications

HDTV High-definition TV
HITS Headend in the sky
HSPA High-speed packet access
IaaS Infrastructure as a service
IAC Internet access provider
ICP Internet content provider

ICT Information and communications technology

IPTV Internet protocol TV
ISP Internet service provider
kb/s Kilobits per second
kB/s Kilobytes per second
LAN Local area network

LRIC Long-run incremental cost

LTE Long Term Evolution (a next-generation 3G and 4G

technology for both GSM and CDMA cellular carriers)

Mb/s Megabits per second MB/s Megabytes per second

MMDS Multichannel multipoint distribution service

MMS Multimedia messaging service

MSO Multi-system operators

MVNO Mobile virtual network operator

MWA Mobile wireless access
NFC Near field communication
NGA Next-generation access
NIC Network information centre
NRA National regulatory authority
OTT Over-the-top (providers)
PaaS Platform as a service

PNETS Public non-exclusive telecommunications service

PSTN Public switched telephone network

RF Radio frequency
SaaS Software as a service
SBO Services-based operator
SMS Short message service

STD–PCOs Subscriber trunk dialling–public call offices

UAS Unified access services

UASL Unified access services licence

UCL Unified carrier licence UHF Ultra-high frequency

UMTS Universal mobile telecommunications service

USO Universal service obligation

List of Abbreviations

UWB Ultra-wideband

VDSL Very high speed digital subscriber line

VHF Very high frequency VOD Video on demand VoB Voice over broadband

VoIP Voice over Internet protocol

WiMAX Worldwide interoperability for microwave access

Chapter 25

TAIWAN

Arthur Shay and David Yeh1

I OVERVIEW

Taiwan has one of the most developed telecommunications sectors in Asia, with significant strengths in cable television, broadband technology and the online gaming industry, all attracting foreign attention. In addition to its strategic importance in R&D, it manufactures many ICT products as a result of its strong resources in the semi-conductor industries. European companies are yet to exploit these resources, with the United States still making the lion's share of the investment into the country.

Most state-of art technologies and infrastructure has been present in the telecommunications market since 2003; fibre-optics have gradually replaced xDSL for broadband access service, 3G operations enjoys the majority of market share, along with GSM and CDMA services, thanks to the various smart devices flowing into market, and becoming an MVNO is a fast track for new players tapping the emerging consumer market.

Commercial terrestrial TV and radio services were mainstream in the media market from the 1960s to 1990s. Political liberalisation in the early 1990s, accompanied by the wide distribution of cable TV systems on the island, changed the media landscape forever. By 2000, following the widespread deployment of satellite transponders and the introduction of DTH services, cable TV systems (which were given operation licences in 51 franchise areas) had dramatically grabbed a national market share of more than 70 per cent for media and entertainment for an extremely low fee.² Competition, however, did not stop increasing in this expanding market. In 2003, Chunghwa Telecom ('CHT'), the dominant market player in the telecommunications market, and at the time a state-owned

¹ Arthur Shay is a partner and David Yeh is a consultant at Shay & Partners.

A cable TV subscriber (in most cases, a household) paid approximately \$18 per month for a basic service of around 100 channels (including all the premium international channels such as HBO, Cinemax and Star Movie in Asia).

company, launched its 'BIG TV' service, a wall-gardened IPTV service available for ADSL, aiming to establish its position in the national TV viewing market. The Cable TV operators in the market place, which eventually became five MSOs – Kbro, CNS, TBC, TFN and TOP – through mergers and acquisitions, formed their own industry association and have fought hard to compete with CHT, even though the government has appeared sympathetic to their rival. The cable TV penetration rate in Taiwan hit a record high in 2010, with an average 85 per cent island-wide and even higher in major metropolitan areas, with more than 90 per cent of TV households estimated to be subscribed to a cable TV service. Nevertheless, the most potent threat has come from the opportunities the Internet has brought to both businesses and consumers. MSOs have reported a halt – and even worse, a decrease – in its subscription growth, mostly as a result consumers of the younger generation increasingly accessing unlimited free content on the Internet.

The Fundamental Communications Act was created in January 2004 to address goals to be achieved during the course of digital convergence. Traditionally, the Telecommunications Act, the Radio and Television Law, the Cable Radio and Television Law and Satellite Broadcasting Law drew the lines between respective transmission platforms, but the National Communications Commission ('the NCC') – an independent regulator established in 2006 for both of telecommunications and electronic media – now exercises exclusive power granted by the Fundamental Communications Act converging all the foregoing platform regulations into a combined, single legislation. There is no specific regulation for Internet, but the Internet remains a grey area in relation to audiovisual content distribution in the NCC's policy.

The Taiwan government announced an ambitious plan in December 2010 for the development of digital convergence between 2010 and 2015. The Executive Yuan (the cabinet) backs up the NCC's single-law approach as mentioned above and identifies the following key performance indexes as goals to be achieved by end of 2015:

- a 80 per cent of national households with access to 100Mb/s broadband service via a fixed network;
- *b* 6 million FTTH users;
- c 2 million mobile or wireless broadband users;
- d 75 per cent of national households with access to digital cable TV service; and
- *e* 50 per cent penetration rate of IPTV at national level.

II REGULATION

i The regulators

The NCC is the main authority dealing with telecom, audio-video media distribution and the Internet except, but also:

- a the Ministry of Transportation and Communications ('the MOTC') has exclusive power over spectrum allocation, the numbering plan and relevant policy planning, such as IP addresses based on a decision entered into by the Executive Yuan in 2007; and
- *b* the Ministry of Culture is co-regulator in the fields of radio and television regardless of transmission type.

The NCC was appointed by the Executive Yuan as the regulator for Internet matters, but it refused to take on such responsibility, even though it does regulate Internet businesses in the form of type II telecom operators subject to the Telecommunications Act.

ii Regulated activities

Licence control has been retained as major measure for regulation on FBOs and SBOs in market entry prior to launch of actual services. In the field of telecommunications businesses, specifically for type I operators (FBOs), the permissible businesses, scope of the business, number of licences, and restriction to the businesses must adhere to the order given by the Executive Yuan subject to Article 12 of the Telecommunications Act. Permissible facility-based operations as of 31 July 2012 would include the following:

- a fixed networks:
 - integrated fixed networks;
 - local phone calls;
 - domestic long-distance calls;
 - international phone calls; and
 - circuit leasing including in-land cable and international submarine cable;
- *b* wireless or mobile networks:
 - digital low power wireless phones (such as DECT, PHS, etc.);
 - paging services;
 - mobile phones (AMPS, GSM, and CDMA);
 - 3G mobile communications (WCDMA and CDMA 2000); and
 - wireless broadband access services in which WiMAX is a main application; and
- *c* satellite networks:
 - satellite TV and radio programme relay and transponder leasing;
 - mobile satellite communications; and
 - fixed satellite communications.

Specific concessions for respective type I businesses are required. The NCC scrutinises operational plans, which must specifically follow the NCC guidelines in terms of format as well as detail, and inspects the equipment and facilities installed. Type II operators (SBOs) are subject to general authorisations, which in contrast are not heavily regulated.

Terrestrial TV stations and radio stations have been long under strict licence control according to the longstanding Radio and Television Law and the conservative policy on principle of scarcity in spectrum. Cable TV and radio, not surprisingly, are also highly restricted in terms of both franchise area and national expansion.

The NCC has the final say on applications for cable TV franchises and operational licences though the local governments in designated franchise areas, and consumer advocates would normally be invited in one of the three rounds of review.

Satellite broadcasting systems or DTH operators enjoy less regulation while applying for their landing licences³ due to their small share in the audiovideo distribution market. Satellite TV channels, however, have been forced to wait to receive landing licences for up to eight months after filing applications. It is common that much of advice made by the reviewers engaged by the NCC to view operational plans submitted by the operators is taken and adopted into the original plan in order to improve the outcome.

In principle, only licence holders of facility-based operations are qualified to be assigned the radio spectrum by the NCC necessary to their respective approved services. Legally speaking, there are no spectrum licences independent of the above concessions.

iii Ownership and market access restrictions

Foreign ownership

In the telecom sector, foreign direct investment in single type I telecom operator may not exceed 49 per cent of total equity shares and there may not be more than 60 per cent in total of direct and indirect foreign investments.

In the media sector, foreign ownership is prohibited in terrestrial TV stations and radio stations. For investment in cable system operators, the total foreign ownership must be below 60 per cent, and the foreign direct investment is for legal entities only and may not exceed 20 per cent of total shareholding. Foreign satellite broadcasters, channel operators, content providers and DTH service operators are able to receive landing licences either by setting up a branch or appointing a local agent for compliance with the relevant administrative regulations. Where foreigners invest in Taiwanese satellite broadcasting businesses, a cap of 50 per cent on total equity shares applies.

No restriction is placed on foreign investment in the Internet-related business.

Cross-ownership

In July 2007 the authority amended a specific restriction on terrestrial TV stations and radio stations of no cross-ownership from newspapers or other terrestrial TV and radio stations of more than 50 per cent of total shareholding in a licensed operator.

Similarly, the NCC has imposed restrictions of cross-ownership between cable MSOs and satellite channel operators to minimise the effects of vertical integration in cable TV market.

Other ownership restriction

Governments, political parties and their employees, and trustees, may not invest or hold any property interest in terrestrial TV stations, radio stations, cable TV systems, satellite broadcasting systems or satellite TV channels.

Chinese investment in type I telecom business, broadcasters, cable systems, satellite broadcasting systems, satellite TV channels, and the other audiovideo distribution services are expressly banned.

Government approvals given for satellite broadcasters as well as channel operators to supply their programme feeds into the territory of Taiwan.

Limitations on market access

As previously mentioned, there is no open market for type I telecom business; only those specifically addressed in the open list announced by the Executive Yuan are entitled to market access.

Cable TV system operators were also subject to the NCC's order prior to July 2012. The NCC opened all of the franchised areas for new players and allowed incumbents to cross-over franchises from 27 July 2012.

iv Transfers of control and assignments

Licences are not transferable independent of the entities awarded.

Mergers and acquisitions between the type I telecom operators are subject to broad review by the NCC before they take place. The same is true in the case of broadcasters, so a merger or acquisition of shares of a terrestrial TV station or radio station must first receive a permit from the NCC. Generally speaking, the review process at the NCC takes between 30 days and three months. It is also worth noting that the introduction of foreign investment into the cable TV system could trigger a lengthy process, including public consultations and administrative hearings, before the NCC finally makes up its mind. In its latest review, which resulted in a conditional concession for the acquisition of CNS, the largest MSO in Taiwan, NCC took 18 months, which, according to NCC's press release, has been spent evaluating industry policy, effects on relevant markets, diversified cultural development, freedom of speech and the public interest.

The NCC executes the *ex ante* regulation while the Fair Trade Commission ('the FTC') enjoys parallel power in approving mergers of acquisitions among telecom operators and media players from an antitrust point of view. Such FTC reviews are usually been efficiently processed and normally can be done in less than three months.

III TELECOMMUNICATIONS AND INTERNET ACCESS

i Internet and Internet protocol regulation

Some IP-based services have been defined as telecommunications services and subject to different rules under the Telecommunications Act. For example, the VoIP is regarded as a value-added telecommunications service under the type II administration rules. The wall-gardened IPTV, such as 'multimedia on demand' promoted by CHT, has been specifically catered for under the fixed network administrative rules and therefore is a type I telecommunications service subject to heavy-handed regulation while the Internet TV (or 'web TV') remains unregulated according to NCC's interpretation of the existing laws.

ii Universal service

The universal service in Taiwan covers not only voice telephony but also broadband access services. The NCC has successfully implemented its broadband universal service plans entitled 'Broadband for Villages' and 'Broadband for Tribes'; broadband infrastructure has now been deployed to all villages in more remote areas. The universal service is supported by the universal service fund apportioned by eligible telecommunications operators (that is, all type I telecom operators and special type II operators). The broadband universal

service subsidised the construction of broadband infrastructure and use of broadband services at local schools as well as public libraries in accordance with Article 11 of the Telecommunications Universal Service Regulation.

iii Restrictions on the provision of service

The prices of type I telecom services charged to end users (retail price) are regulated. Any operator with significant market power must submit a primary rate plan for prior approval by the regulator. According to Articles 21 and 22 of the Telecommunications Act, telecom operators may not refuse to provide services without any legal cause nor discriminate on the basis of the content they carry or their customers. Network operators are encouraged by the authorities to adopt a self-regulation approach for monitoring and controlling content, applications and services accessed by their network users with regard to telecom fraud, spam e-mail, protection of minors, etc. The Minor's Welfare and Rights Protection Law, in its latest version of Article 46, has imposed a direct responsibility on ISPs to assist relevant authorities with Internet content surveillance. ISPs must take all necessary measures to restrict minors from accessing certain sites or content, or remove the content upon receiving notice from a competent authority that the identified online content or link is harmful to the physical or mental health of minors.

iv Security

The NCC was established in 2006 specifically to protect of freedom of speech, an integral right under the Taiwanese constitution.

The Personal Data Protection Law came into effect in 1995, and exactly followed the OECD guidelines on the protection of privacy and transborder flows of personal data; it was amended in May 2010 to further strengthen the protection of personal data and privacy with the introduction of class actions, and by giving individuals that have suffered abuse of personal data or unlawful collection various rights to claim in civil and criminal actions.

The construction and deployment of telecommunications networks are required to be in compliance with the Communications Protection and Surveillance Act. Telecommunications operators must cooperate with enforcement officers in matters of legal interception authorised by writs of surveillance issued by competent judges.

In response to growing cybersecurity concerns, in 2001 the Executive Yuan implemented the 'National Information and Communication Infrastructure Security Mechanism Plan (2001–2008)'; the National Information and Communication Security Taskforce (NICST) and Information and Communication Security Technology Centre (ICST) were subsequently established as executive arms. Further, in 2009, an amendment was made, which became the 'National Information and Communication Security Development Plan (2009–2012)', which calls for collaboration among industry players in telecommunications, energy, and electricity, etc., to work with relevant government agencies to protect sensitive infrastructures from cyber attacks and hackers.

IV SPECTRUM POLICY

i Development

The use of spectrum in the 20th century had previously been affixed to specific telecommunications businesses or broadcaster licences, and associated with designated technologies. In the Fundamental Communications Act it became a written law for the first time in 2004 that the spectrum allocation and assignment must conform to principles of fairness, efficiency, convenience, harmony, and technological neutrality. Spectrum use was reviewed by both the MOTC and the NCC in order to free up more spectrum for new services. Digital dividends are thus clearly discernible typically in the 700MHz band, and government is continuing to move existing users toward higher bands for upcoming allocation of these bands for new services.

ii Flexible spectrum use

Many attempts have been made in terms of enabling more flexible use of spectrum such as introduction of WiMAX applications in the 2.5GHz/2.6GHz bands, and also the trial run of mobile TV in the 600MHz band (which was later renamed by the NCC the 'mobile multimedia' service) but did not come to fruition. The NCC is freeing up more spectrum for licence-exempt use under certain regulatory requirements. Wi-Fi is an example, which has been deemed a useful alternative to ease the great need for the 3G bandwidth needed to handle the massive use of mobile Internet services.

iii Broadband and next-generation mobile spectrum use

As of 30 June 2012 the refarming of 700MHz has been completed. The MOTC has conducted public consultations on 4G services on 700MHz, 900MHz and 1,800MHz bands. It is expected that by end of 2012 the Executive Yuan will announce its official decision on the timing of 4G licensing as well as the number of licences available for next-generation mobile broadband services. The NCC disclosed in February 2012 that 4G licences – preferably LTE-Advanced – should be available for auction by June 2014.

iv Spectrum auctions and fees

Pursuant to Article 48 of the Telecommunications Act, the NCC regulates radio frequency, power, mode of transmission, radio station identification signals and call signs, and other radio spectrum-related matters. The NCC enacts regulations governing the planning and allocation of radio frequency, application procedures, principles of assignment, termination of approval, use administration of radio frequency, handling of interference the standard definition of interference and regulations related to the supervision of radio waves. The NCC further mandates the term of utilisation of frequency, and establishes a fee schedule to collect usage fees from radio frequency users.

Spectrum assignment is made by auction or open bid except in the following cases, in which a beauty contest approach is taken:

a radio frequencies for the military, police, navigation, ships, amateur radio, government telecommunications, industrial, scientific, medical, low-power radio frequency devices, academic experiment, emergency aid and rescue, and other charity or public uses;

- b radio frequencies for mobile communications networks, satellite communications networks, radio broadcast stations or TV stations whose operations are based on the utilisation of specific radio frequencies, which shall be designated at the time of issuance of operation permit or franchise licence, or the networks thereof could not function; and any radio frequency increased for improvement in quality of local telecommunications; or
- c radio frequencies that could be used repeatedly, under certain conditions of use, for the wireless local loop of fixed-line networks, satellite links or wireless microwave links.

The fees for the use of radio frequency spectrum are calculated every year pursuant to the Charge Standard of Utilisation Fee of Radio Frequency. The fees standard varies for permitted types of communications businesses and the frequency spectrum applied, but fees for usage for academic experiments, navigation aid, meteorology, radar, rescue, military dedication or emergency medication may be exempted.

V MEDIA

i Restrictions on the provision of service

Licences for the distribution of audiovisual media are generally regulated on the basis of holding and controlling physical distribution platforms, including terrestrial TV stations, radio stations, cable radio and cable TV systems, and satellite TV transmission systems. The NCC, since its establishment in 2006, has expanded its licence control beyond the platforms to content providers. All of the aforementioned licence holders are required to observe detailed programme and advertisement regulations laid out by the NCC, which basically contain the following:

- a content must not violate compulsory or prohibitive regulations under the law;
- b content must not impair the physical or mental health of children or juveniles; or
- c content must not disrupt public order or adversely affect good social customs.

ii Digital switchover

As of 1 July 2012, the NCC completed the digital switchover at a national level from analogue transmission of terrestrial TV. There were five terrestrial TV stations in Taiwan serving around 8 to 10 per cent of TV households; there are now 16 digital TV channels offered by existing terrestrial TV stations.

iii Internet-delivered video content

The popular broadband service sponsored by the government as well as the broadband universal service, have taken a huge number of the younger generation away from traditional means of broadcast video distribution (including cable TV). The over-the-top content (OTT) model, however, does not benefit ISPs, who miss out on a reliable fee-collection mechanism or effective digital rights management.

iv Mobile services

The NCC chairperson announced in February 2012 that 4G licences will be available no later than July 2014, earlier than previously expected. More spectrum may be opened up, as the NCC dropped a hint of a possible modification of the proposals discussed with the MOTC.

Needless to say, further deregulation would be required in order to inspire broadcasters and telecommunication operators to offer cross-over services in a competitive media distribution market.

VI THE YEAR IN REVIEW

Everything is being prepared for the end purpose of digital convergence, as declared by the Executive Yuan in its ambitious plan applying between 2010 and 2015. The NCC completed draft amendments to Radio and Television Act, the Cable Radio and Cable TV Act, the Satellite Broadcasting Law and then the Telecommunications Act by end of July 2012. Specifically, the NCC is introducing both functional separation and legal separation of CHT in the amendment to the Telecommunications Act, the dominant player in the fixed-line network. According to the NCC's legislation plan, the draft amendments will be submitted to the Legislative Yuan for deliberation this September.

The NCC has also opened up the market entry of cable TV market to new entrants who are well-placed to bring digital cable TV subscriptions from less than 10 per cent to 75 per cent at the end of 2015.

After a long review of 18 months, the NCC finally gave its conditional approval of the acquisition by the Want Want Group, which controls the *China Times* and the CTI Television News Channel, of China Network Systems, the largest MSO in Taiwan (owning 11 cable television systems accounting for around 27 per cent of the television subscription market in Taiwan together with their associated cable television systems) for \$2.55 billion from the MBK, a private equity fund. Major opponents of this acquisition deal included opposition legislators and representatives of academia, who criticised the NCC for neglecting its regulatory duty. Ironically, the Want Want Group, which filed the application, has also publicly stated that it cannot accept the NCC's precondition that the Want Group must give up the operation of its existing satellite and terrestrial television news channel.

The MOTC released a consultation paper on 4G licences in the following bands:

- a three licences are planned for the 700 MHz band, with 2×15MHz available block bandwidth for each licence;
- b two licences are planned for the 900 MHz band, with 2×15MHz available block bandwidth for each licence; and
- c three licences are planned for the 1,800MHz band, with 2×20MHz available block bandwidth for each licence.

Each operator may participate in the tender for all bands, but cannot obtain more than one block in each licensed band.

The licences for each band will be released by June 2014, and operators may commence activities after available frequencies have been obtained and deployment is completed.

For the 900MHz and 1,800MHz bands, mobile broadband operation will basically commence in July 2017, since the existing GSM mobile phone licences will expire in June 2017. However, in order to encourage operators to introduce new telecommunications technologies as early as possible in order to enhance frequency utilisation efficiency and provide services, if an operator's GSM band overlaps with the 900MHz or 1,800MHz band for which that operator is awarded a contract, such an overlapped band:

- a will be renewed for mobile broadband use; and
- *b* will not be subject to the limitation that operation should commence in July 2017.

The government has agreed to renew licences for existing operators of GSM mobile phone and pager services in Taiwan pursuant to the policy decisions of the Executive Yuan in November 2010 and August 2011. The term of such licences will, however, expire on 30 June 2017.

VII CONCLUSIONS AND OUTLOOK

The NCC approved CHT's most recent plan for a uniform tariff for local and domestic long-distance calls. As from 1 January 2012, local and long-distance calls from a household fixed-line phone have been charged at NT\$1.60 (US\$0.05) for three minutes. CHT had been under pressure from the NCC and legislators, and the charge for long-distance calls has been reduced from NT\$5.70, which is exactly the same as the local call rate. The charge for both local and long-distance calls has been changed to NT\$1 per three minutes during discounted time slots. As a result, no distinction is made between the tariffs for local and long-distance calls nationwide, which also include the offshore islands. According to the NCC, although the monthly rent charges for each service still differ, a single tariff in terms of call charges will be achieved this year. This tariff is the lowest local call tariff in the world.

With 12.8 million local phone subscribers in Taiwan – which represents a 97 per cent penetration rate, according to the NCC – CHT has long been the only local call operator in the country. CHT's statistics reveal that 52 per cent of its subscribers make long-distance calls, and as a result of this tariff reduction for long-distance calls, CHT claims it will suffer revenue losses of NT\$2.8 billion. However, the NCC refutes this argument on the grounds that inexpensive local calls will prompt consumers to make more local calls rather than using their mobile phones. This argument is based on a past case where telephone calls increased by over 30 per cent when Matsu (a small island close to mainland China) was included within Taiwan's call zone.

The fixed-line telecommunications market was deregulated in 2002. Since then, newly established private operators have been encouraged to enter the local call and domestic long-distance telephone market to compete with Chunghwa (the only incumbent operator at that time). However, three new fixed-line operators have failed to make substantial progress in network deployment and operation.

The NCC's success in compelling CHT to adopt a uniform tariff for domestic long-distance and local calls is tantamount to a tacit admission that the objective of the second telecommunications liberalisation – which the Directorate General of Telecommunications (the former telecommunications authority) has been attempting

to achieve since 2000 – has been aborted. It also signifies that CHT will now legally monopolise the Taiwanese market.

As far as CHT is concerned, the NCC's decision is not acceptable to its shareholders (the company's foreign shareholding has dropped from a peak of almost 45 per cent to today's 24 per cent). Shares being sold by foreign investors on the stock market are mainly being purchased by large government-controlled funds, making it more difficult for CHT to rid itself of the state-owned enterprise role that the government has imposed on it.

Appendix 1

ABOUT THE AUTHORS

ARTHUR SHAY

Shay & Partners

Arthur Shay heads the TMT team of Shay & Partners. He specialises, in addition to TMT, in intellectual property rights, and mergers and acquisitions. His experience with leading international companies includes advising multinational telecom companies on corporate and regulatory issues in Taiwan including consortium formation and bidding on GSM/PCS, liberalisation of international submarine cable landing station, VoIP, and 3G services and a full range of clients including DTH operators, multiple cable system operators, Internet data centres, Internet portals, ASPs, and ICPs. Mr Shay is a frequent speaker at various communications law forums on regulatory reform and market investment. He has been commended for his 'professional, down-to-earth and client-friendly approach' (*Chambers Asia-Pacific 2012*). Mr Shay was appointed the president of Globalaw for 2011, the international law group, which is an independent law firms network comprising 106 law firms in 160 cities.

DAVID YEH

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David Yeh is a consultant in the TMT team of Shay & Partners. He specialises in telecommunications and media law, cyberspace and e-commerce, intellectual property, antitrust and competition law. His practice focuses on high-tech industry transactions with an emphasis on telecom and broadcasting, including regulatory analysis, IPR licensing, drafting contracts and official documents and other matters. He has assisted international cable programme providers in applying for pay-channel licences from the broadcasting authority and represented domestic cable operators and multinational satellite operators on regulatory compliance matters. He received a degree of SJD from the Maurer School of Law, Indiana University-Bloomington. He also lectures on communication laws as well as copyright issues on the Internet in colleges in Taiwan.

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