



Hong Kong CSL Limited submission

in response to:

“Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services”

19 June 2004

1 Introduction

1.1 Hong Kong CSL Limited (“CSL”) is pleased to provide further comments on the licensing of second generation mobile services by the Telecommunications Authority (“TA”) and responds to the “Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services” consultation paper issued by the Office of the Telecommunications Authority (“OFTA”) on 19 March 2004 (“Consultation Paper”).

2 2G licence renewals

TDMA

2.1 CSL strongly disagrees with the TA’s proposal to deny CSL the right of first refusal on its TDMA licence. CSL¹ has always had a genuine expectation that it would be granted the right to renew its TDMA licence and granted the right to change the technology used with the spectrum.

2.2 This expectation dates back to 1990, when the predecessor to OFTA, the Telecommunications Branch of the Hong Kong Post Office (“PMG”), issued its “Consultative Paper on Licensing of Digital Public Mobile Radiotelephone Services in Hong Kong” on 16 November 1990 (“1990 Information Paper”). The purpose of the 1990 Information Paper was to state the PMG’s views as to the technologies to be used when moving from analogue public mobile radiotelephone services (“PMRS”) systems to digital PMRS systems. The 1990 Information Paper considered a number

¹ A reference to CSL in section 2 means CSL or Pacific Link Communications Limited (the original licensee of the spectrum), where relevant.

of new technologies and concluded that the GSM standard and the digital cellular standard developed in the United States, USDC (“**TDMA**”), should be used in Hong Kong for the then next generation of PMRS. At the time, CSL (Pacific Link Communications Limited) employed Extended Total Access Communications System (“**ETACS**”) as its analogue PMRS standard. In paragraph 11 of the 1990 Information Paper it states:

“However, if the GSM standard is extended eventually to cover the ETACS bands, the Post Office should have no objection to a request from Pacific Link to implement a GSM system and a USDC system within the 10 MHz of ETACS spectrum.”

- 2.3 The PMG envisaged the possibility that the relevant spectrum could be used for GSM purposes. At no stage since 1990 has the PMG or the Telecommunications Authority (“**TA**”) revised the above statement or indicated the view was no longer current.
- 2.4 Since acquiring Pacific Link Communications Limited for several billion dollars in 1998, CSL has made substantial investments in TDMA infrastructure and services and has provided, and continues to provide, services and customer support to its TDMA customers. CSL would not have made such investments, or expended considerable effort, if it thought the TDMA standard was an unviable business or an unattractive opportunity.

Decline of TDMA as a worldwide standard; an orphan technology

- 2.5 However, without any fault on the part of CSL, TDMA has declined as a global telecommunications standard. In terms of number of world cellular subscribers, the percentage of TDMA subscribers has fallen from 10% in July 2001, to 9.66% in September 2002, to 9.28% in March 2003 to 7.36% in March 2004². It is, as some commentators have observed, an ‘orphaned technology’ - a technology which has filled a short-term market need and which offers no basis for further evolution³. The decisions of AT&T Wireless and Cingular Wireless, two of the largest mobile operators in the USA, to move away from the TDMA standard and focus their efforts on the GSM standard is evidence of the orphan status of the technology. AT&T Wireless (previously the world’s largest operators of TDMA-136 technology) abandoned TDMA in favour of GSM/GPRS in 2001 and in recent times has deployed EDGE⁴ technology. Similarly, Cingular Wireless has chosen to use and deployed

² EMC World Cellular Database.

³ The Shosteck Group, “GSM or CMDA: The Commercial and Technology Challenges for TDMA Operators”, June 2001, section 1.4.

⁴ AT&T Wireless, press release, “AT&T Wireless Takes its Customers to the *EDGE*” 18 November 2003.

EDGE and will trial 3G UMTS during summer 2004⁵. It is clear that many TDMA networks are progressively being migrated to either GSM or CDMA. In the Americas, 40 TDMA operators⁶ have decided to migrate to GSM or CDMA (28 and 12 respectively), with the TDMA operators migrating to GSM representing about 68% of all TDMA subscribers in the Americas⁷.

- 2.6 The actions of handset manufacturers provide further indication of the declining nature of the TDMA standard. Unlike new models of GSM handsets which are constantly being released by manufacturers, CSL has been unable to acquire new model handsets from Nokia and Sony Ericsson, two of the world's biggest handset manufacturers, since 2000. Such products have not been marketable in the Hong Kong market for a number of years. In terms of worldwide handset sales, in the year 2000, TDMA ran a distant third (9%) behind GSM (63%) and cdmaOne (13%)⁸.
- 2.7 OFTA itself has made numerous references to TDMA as a "legacy" technology⁹. CSL's customer numbers have, in part, dropped due to the worldwide decline in the use of TDMA by leading operators. It is now unnecessary for a customer to use a TDMA handset when roaming in the USA as both AT&T Wireless and Cingular Wireless have extensive GSM networks.

CSL's attempts to change technologies

- 2.8 Realising that TDMA technology was on a worldwide decline and knowing there would be problems with the further evolution of TDMA, since 1999, CSL has repeatedly petitioned the TA to allow CSL to convert its TDMA-136 technology to another international technology. This approach is not unique to CSL. Observers have remarked on the need for TDMA operators to choose between GSM or cdmaOne as a migration path to 3G¹⁰. In this regard, CSL proposed to the TA that it use its TDMA spectrum for Extended-GSM ("E-GSM") purposes as a transition to WCDMA.

⁵ Cingular Wireless, press release, "Cingular Wireless Selects Lucent Technologies For 3g Umts Trial Network In Atlanta", 26 May 2004.

⁶ AT&T Wireless (USA), Cingular Wireless (USA), Telcel (Mexico), Rogers AWS (Canada), Cable & Wireless (pan-Caribbean and Central American Operations), Dobson (USA), Triton PCS (USA, AT&T Wireless affiliate), Edge Wireless (USA, AT&T Wireless affiliate), Observer Cellular (Antigua and Barbuda), Telecom Personal (Argentina), Unifon (Argentina) BTC Mobility (Bermuda), Telefonica CTC (Chile), Comcel (Columbia), Conecel (Ecuador), TSTT (Trinidad and Tobago), TSKL (Kiribati), TIM (Brazil), Oi (Brazil), Telefonica (Brazil), SETAR (Aruba), Batelco (Bahamas), Entel Movil (Bolivia), ICE (Costa Rica), Curacao Telecom (Netherlands Antilles), Setel (Netherlands Antilles), TelCell (Netherlands Antilles), CPR (Puerto Rico), Bell Mobility (Canada), BellSouth International (Ecuador, Panama, Chile, Venezuela, Columbia), Movilnet (Venezuela) US Cellular (USA), Verizon Wireless Puerto Rico, Cellular One (Bermuda), Otecel (Ecuador) and Western Wireless (USA) – EMC and CDG as cited in Northstream, "Operator Options for 3G Evolution", February 2003.

⁷ 3G Americas

⁸ The Shosteck Group, "Terminal Sales by Technology, World Market, 1992-2000".

⁹ For example, paragraphs 33 and 37 of the Consultation Paper.

However, despite CSL's concerted efforts, the TA has not dealt with the technology change and spectrum swap issue until now, thus denying CSL the opportunity to pursue its proposal and propagating a climate of uncertainty for CSL.

- 2.9 As mentioned above, CSL has publicly and privately requested the TA to clarify how he intended to deal with the renewal of existing 2G licences for many years. In 2000, the TA said he would deal with the subject "nearer the time"¹¹. In 2001, the TA indicated to CSL that he would conduct a consultation on the issue, however nothing was done until this current consultation process started in August 2003, less than two years prior to the expiration of CSL's TDMA licence. Given the notice periods provided by regulators in other regimes (including periods in excess of five years), it would be unconscionable for the TA to disallow CSL from renewing its TDMA licence given that CSL has at all times co-operated with the TA and agreed with his proposed strategies about how to deal with spectrum swaps.

No indication of performance issues

- 2.10 Prior to the release of the first consultation paper¹², at no time did the TA indicate to CSL that it was inadequately or inefficiently making use of the spectrum or that it had breached its licence conditions. Similarly, the TA has never indicated to CSL that customer numbers would be used as the sole criterion on which CSL would be judged when considering whether its TDMA licence would be renewed. CSL strongly disagrees with this 11th hour choice of criterion, especially given the TA's long-held belief that customers should be free to decide from which licensee they acquire services and the type of wireless technology they use.

CSL's preference

- 2.11 As stated by CSL in its response to the First Consultation Paper, CSL should be granted the right of first refusal for its TDMA licence. CSL reiterates its proposal to use the frequency for E-GSM to provide EDGE technology and re-farm the spectrum to WCDMA when it becomes available in the frequency band in the future as set out as follows:

- (a) existing TDMA allocation:
- ? 835MHz-842.5MHz (base transmit)

¹⁰ Above n3, section 1.4.

¹¹ Office of the Telecommunications Authority, Licensing Framework for Third Generation Mobile Services: Analysis of Comments Received, Preliminary Conclusions and Further Industry Consultation, 3 October 2000, paragraph 4.4.4.

? 880MHz-887.5MHz (mobile transmit)

(b) suggested migration to E-GSM:

? 882.5MHz-890MHz (mobile transmit)

? 927.5MHz-935MHz (base transit) (as previously stated, a minor adjustment may be required on 931.9375 MHz with trade off or some shift of guard band, however this will depend on whether there still are customers using the relevant service(s)).

2.12 CSL disagrees that deploying the E-GSM standard in ‘Block B’ will not be conducive to the development of innovative services in Hong Kong. As discussed below, there are many innovative mobile data services offered by 2G licensees in Hong Kong, many of which are the same as, or similar to, the data services available in Japan or Korea. In Japan and Korea, the innovative services which the TA seems to be so impressed by were launched using 2G, 2.5G or 2.75G technologies, not a 3G technology.

2.13 CSL is pleased the TA has recognised the importance of aligning the Hong Kong and China frequency band plans in order to avoid interference at border areas, however believes CSL should be given the opportunity to continue to use the spectrum, since it has been deprived of the opportunity to properly utilise the spectrum asset due to the worldwide decline of TDMA as a viable technology and the failure of the TA to conduct a consultation when proposed in 2001.

2.14 The TA’s theory that ‘Block B’ can be as seed spectrum for future rationalisation of the frequency allocations to GSM and PCS licensees is, in CSL’s option, flawed. Setting aside of the spectrum is a needless waste. Not only does it deprive CSL of the use of the spectrum, but from a public benefit perspective, there is a substantial question mark over the practical application of this theory.

Other licences

2.15 CSL believes that all incumbent 2G licensees should be given the right to renew their existing licences.

¹² Office of the Telecommunications Authority, “Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services: Consultation Paper”, 1 August 2003 (“**First Consultation Paper**”).

3 Technology neutrality

- 3.1 The Hong Kong government has acknowledged that one of the major challenges facing the telecommunications industry is the impact of rapid technological advancement. As the Secretary for Commerce, Industry and Technology correctly points out, the industry is characterised by extremely short product life cycles and the constant emergence of new technologies¹³. It is therefore perplexing why the TA would want to dictate the type of technology to be used for any particular spectrum, especially as the “relentless march of progress will undoubtedly continue”¹⁴. As CSL can attest, locking a licensee into a particular type of technology is unwise for both the licensee and consumer as it is inevitable that it will be superseded by an improved technology within the licence period.
- 3.2 Although the TA is at pains to point out in the Consultation Paper that he maintains a technology neutral stance, the references to the cdma2000 standard, the unsubstantiated cdma2000 customer numbers and the claims that cdma2000 1x EV-DO has been a success, are clear that the TA is not technology neutral and is favouring the cdma2000 standard. CSL is concerned by this change in approach by the TA. Historically, the TA has adhered to a technology neutral policy and such a policy should not be changed, without good reason. The about face by the TA is completely inappropriate as it creates a climate of regulatory uncertainty for existing and potential licensees.
- 3.3 CSL is particularly concerned because the TA is making claims which are far short of the mark. For example, he claims there are a “wide range of consumer mobile phones and devices supporting the standard is also available in the market”¹⁵, however it is CSL’s and other operators’ experience that the reality of the commercial availability of the handsets does not match, and is the opposite of, the claims made in the glossy publications of cdma2000 proponents. There are simply not a wide range of phones or devices available in less than large minimum quantities which are attractive to consumers and/or present commercially viable propositions that have universal application across markets. Unlike GSM handsets which are available from a wide range of manufacturers in reasonable minimum quantities (which is important given the small size of the Hong Kong market), CDMA handsets are bespoke purchases

¹³ Speech by Mr John Tsang, Secretary for Commerce, Industry and Technology at the opening of the 29th APEC Telecommunications and Information Working Group (APEC TEL 29), 24 March 2004.

¹⁴ Ibid.

¹⁵ Consultation Paper, paragraph 36.

from manufacturers which require minimum orders greater than any GSM phone supplier. As a consequence, the high minimum order quantities reduces the number and range of models which an operator can purchase which does not appeal to the Hong Kong consumers' taste for change of handset.

- 3.4 When the government first announced the licensing framework and key aspects of the regulatory framework for 3G mobile services in February 2001, one of the announcements made was the reiteration that under the technology-neutral regime, existing operators were free to use any technology under licence conditions, regardless of whether it was 2G or 3G¹⁶. It is unclear why the TA is not only reversing his previous stance on technology neutrality, but is also prepared to be at odds with the government's existing policy.
- 3.5 The TA's views are also different to the mainland Chinese government's publicly stated position on choice of technology. It has been reported that the Minister of the Information Industry, Wang Xudong has indicated the government would take a technology neutral stance with respect to 3G standards, stating "China will draw on the common world practices to let telecommunication operators select 3G standard by themselves within the standard regulated by the country"¹⁷. Subsequently, the Ministry of Information Industry Vice-Minister Lou Qanjian made similar statements, indicating that operators should have the ability to select their own operating platforms¹⁸. It seems strange that whilst China is comfortable with not dictating wireless standards, the TA is willing to go against conventional wisdom and publicly support one particular standard. In China, despite having 2G standards within the country, the government has made a prudent decision to defer choosing any particular 3G standards until after the completion of one-year 3G trials.

4 Japan and Korea

- 4.1 For some inexplicable reason, the TA chooses to believe that the introduction of the cdma2000 standard in Hong Kong will automatically result in data penetration levels similar to Japan and Korea. In taking this view the TA has not acknowledged the many cultural, geographic, demographic, economic and technological differences between Hong Kong, and Japan and Korea. There is a need for OFTA to give

¹⁶ Information Technology and Broadcasting Bureau, press release "The Licensing Framework for Third Generation Mobile Services", 13 February 2001.

¹⁷ Communications Day, "China eases stance on 3G standards", 28 April 2004, page 2.

¹⁸ Collier, Andrew., "MII official bemoans failures in 3G trials", South China Morning Post, 2 June 2004, B3.

consideration to these differences, some of which, with respect to Japan and Hong Kong are set out in the table below.

Japan	Hong Kong
Large subscriber base (127 million)	Small subscriber base (7 million)
Three mobile operators	Six 2G mobile operators, four 3G mobile operators, six mobile virtual network operators (“MVNOs”)
Mobile penetration rate of 61.9% ¹⁹	Mobile penetration rate of 107.9% ²⁰
Three mobile operators (same as Korea) in relatively large markets and the highest mobile operator ratio (Korea being the second highest) ²¹ - means a lack of fragmentation and presence of scale for each operator	Lowest population to mobile operator ratio amongst a basket of developed economies ²² , in other words the most fragmented mobile sector amongst the relevant economies and a lack of scale for each operator
Voice tariffs comparatively high; mobile internet tariffs comparatively low	Voice tariffs very low; mobile internet tariffs relatively high
Establishment and growth of mobile internet before fixed internet – the penetration of personal computers was slow and has only recently reached the average of high-income countries ²³ . Many people initially used mobile internet rather than fixed internet to access their email accounts	Fixed internet popular – predominant use of fixed internet to access email accounts and the internet
Fixed internet comparatively expensive	Cheap fixed broadband and dial-up internet
High use of mobile internet at home and whilst in transit (eg on buses and trains) ²⁴ with long distances to travel to and from work	Low use of mobile internet at home (use of fixed internet instead), high use of mobile voice in buses and trains with comparatively short distances to travel to and from work
Self-regulatory measures where data rather than voice is used as the mobile operation mode, eg. ‘mobile etiquette’ of sending a text message or email before engaging in a voice call, sending a series of messages after a physical meeting ²⁵	Mobile voice extremely popular and cheap, absence of ‘mobile etiquette’
The large market has allowed proprietary phone standards to be developed. Operators and Japanese handset manufacturers co-operate closely to produce optimised	The small market means operators are unable to dictate handset specifications to suppliers and operators are reliant on specifications being devised by international handset

¹⁹ Office of the Telecommunications Authority, Report on the Effectiveness of Competition in Hong Kong’s Telecommunications Market: An International Comparison, June 2003, section 4.2

²⁰ Office of the Telecommunications Authority, ‘Key Telecommunications Statistics’, http://www.ofta.gov.hk/frameset/facts_index_eng.html, 7 June 2004

²¹ Above n19 at section 3.2.2.

²² Ibid.

²³ ITU World Telecommunication Indicators Database

²⁴ International Telecommunication Union, “Shaping the Future Mobile Information Society: the case of Japan”, February 2004, section 5.1.

²⁵ Ibid, section 5.6.

Japan	Hong Kong
handsets for the Japanese market	manufacturers
Customised handsets for the Japanese market makes character input simple	Non-customised handsets make Chinese character input difficult ²⁶
Non-exportable handsets – roaming is difficult	Exportable handsets – GSM roaming easy and accessible
No mobile number portability	Mobile number portability
Mobile operators play a leading role in wireless research and development activities (eg. Yokosuka Research Park) ²⁷	International handset manufacturers are responsible for research and development
Many content providers	Comparatively few content providers

4.2 In addition, it is unwise for the TA to predicate that the use of cdma2000 technologies will achieve the same data penetration rates as in Japan and Korea. 2G, 2.5G or 2.75G technologies were the tools being used when high data usage rates were achieved in those countries. Higher data rates are not the main driver for data service uptake. The network technology behind the biggest success of advanced mobile data so far is the Personal Digital Cellular standard (PDC-P at 9.6 kbps)²⁸. In addition, to the Personal Digital Cellular standard, the Personal Handyphone System standard and the cdmaOne standard (and not the cdma2000 standard) were the technologies which were used to achieve the penetration rates. Subsequently, two of the three 3G operators in Japan have adopted the WCDMA (rather than any variants of the cdma2000) standard. Currently the GSM world is behind Japan and Korea in terms of introduction of data services to the market. However, what used to be a gap of about two years is now down to less than one year (for example, full video steaming). Now that the Japanese market leader, NTT DoCoMo has chosen the WCDMA standard, the technology gap should be further reduced.

4.3 As discussed in section 5.4 below, one of the enablers of data growth is the availability of adequate numbers of data-capable handsets in the market to drive usage. This is reflected in Figure 1 which shows that in Japan, over time, as more mobile internet handsets became available, the more individuals used the internet via their mobiles. In Hong Kong, the proportion of data-enabled handsets is growing, however need to be more widely available before data usage rates similar to Japan can be contemplated.

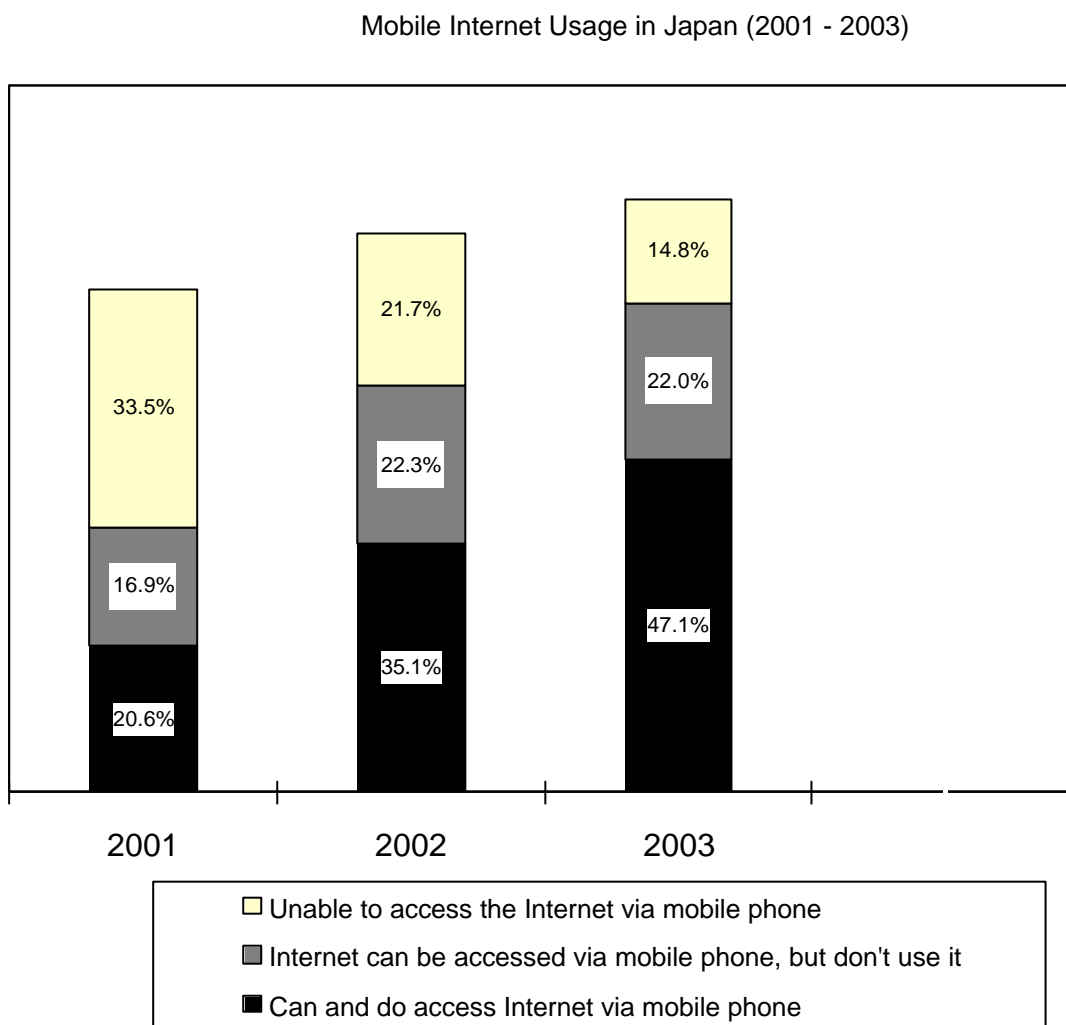
²⁶ As recognised by the Hong Kong government's highest-level advisory body in IT matters, the Information Infrastructure Advisory Committee's Ad Hoc Working Group in its report on the promotion of wireless services and technology, November 2003, paragraph 32.

²⁷ Above n24, section 3.5.

²⁸ Above n6 at section 1.

Figure 1: Trends in individual usage rates for cellular phones (2001 – 2003)

Source: Cyberlife Survey, Nomura Research Institute.



5 Adequate competition in the Hong Kong market

5.1 The Consultation Paper does not recognise that despite a relatively small population of seven million people, Hong Kong has an abundance of competitors (currently six 2G mobile network operators (operating 11 networks), four 3G mobile carriers and six licensed MVNOs). By any standard, it is evident that the existing mobiles market is extremely competitive and one, if not the most, competitive in the world. China recently indicated that it would only issue three 3G licences (and possibly less), fewer than what has been issued, and what is currently contemplated, in Hong Kong. Consumers in Hong Kong have benefited from the excessive competition with some of the most affordable mobile charges in the world.

5.2 In the past, the TA's approach of introducing more competition in the supply side of the mobiles market has helped achieve extremely cheap voice prices for consumers.

However, such an approach may not work when the focus is on data rather than voice. Stimulating data services requires more than just another licensee operating in the market. If the government perceives there is a data usage problem, it should be analysing the reasons why there are comparatively low data usage rates in Hong Kong and why there are higher rates in other places. An analysis of the conditions which provide the optimal framework and the necessary enablers for delivering high quality, innovative and value for money services should also be undertaken. Without trying to understand any underlying problems, the TA will not achieve his objectives.

- 5.3 With the exception of Japan and Korea, the commercial success of data has really been with SMS (and then mostly of a person to person nature, not applications). In Hong Kong, as mentioned in the table in section 4.1 above, there are structural and literacy reasons why SMS has not been as successful as other places. For example, despite the existence of IOSMS, in Hong Kong voice prices are very cheap, it is hard to input Chinese and for many consumers, English is either not their preferred language or there levels of literacy are low. In European countries, voice ARPUs are high and SMS is used as a substitution for voice due to the comparatively high tariffs. Benchmarking Hong Kong with other places needs to be done carefully as once IDD and roaming revenue is removed from Hong Kong ARPU rates, data makes up a significant proportion of local revenue.
- 5.4 Enablers are necessary for mobile data services to grow. Enablers include an active developer community which produces attractive content for each type of handset, standards for interoperability between networks, attractive prices compared to voice and adequate numbers of data capable handsets available in the market.
- 5.5 The introduction of a new licensee will not automatically generate these enablers. It has taken more than five years for NTT DoCoMo's i-mode service to reach its current subscriber level of 41 million subscribers and the 79,000 internet sites developer community²⁹. The TA cannot expect that a proposed fifth 3G licensee will be able to achieve significant results in a short amount of time. In fact, by the time any proposed new 3G licensee enters the market, the task will be harder as it will need to compete with four established 3G WCDMA operators that will be distributing attractive WCDMA content.

²⁹ NTT DoCoMo website, <http://www.nttdocomo.com/corebiz/imode/what/index.html>,

- 5.6 The mere introduction of more non-GSM technology in the Hong Kong market will not necessarily result in consumers embracing the technology. We suggest the TA look to Taiwan, where CDMA was introduced in an established GSM territory, and assess the success of that initiative.

6 Mobile data services in Hong Kong

Strong growth in data services

- 6.1 CSL can clearly demonstrate that it has invested a substantial amount of time, resources and effort into stimulating mobile data usage amongst the mobile consumers of Hong Kong. It has launched innovative data services including SMS and MMS applications, wallpaper and graphic downloads, video streaming services, instant messaging services, email services, financial, news, weather and traffic information, interactive mobile games, mobile betting and trading and mobile commerce solutions, many of which are world or Asian firsts. CSL has demonstrated to the TA how many of these services are similar to, or the same as, content and applications which are available in Japan and/or Korea.
- 6.2 Although the efforts and achievements of the mobile telecommunications industry seem to go unnoticed by the TA, it is encouraging that the government in its Digital 21 Strategy of March 2004 (“**Strategy**”) has praised the industry, acknowledging that it provides “quality and innovative services on a highly competitive basis” and has recognised the enormous investment by entities in the telecommunications sector in the three years between 2000 and 2002 (exceeding HK\$24.5 billion)³⁰. The government states that these achievements have, in part, been driven by public policy that promotes competition, investment and innovation. CSL compliments the government for looking at the big picture and establishing the Hong Kong Wireless Development Centre (“**WDC**”) at Cyberport, however the government can do more (see section 8.3 below). If the government wants firms to continue to invest and innovate, it must allow all existing 3G licensees to launch their services, invest in infrastructure and develop more innovative services before it makes any decision to introduce further competition.
- 6.3 Lawrence Cheung of the Hong Kong Productivity Council has correctly pointed out that mobile data penetration in Japan was not an overnight phenomenon. i-Mode

³⁰ Commerce, Industry and Technology Bureau, The Government of the Hong Kong Special Administrative Region, Digital 21 Strategy: Sustainability and Opportunities, March 2004, Government Logistics Department.

commenced in February 1999 and a year later had 5 million subscribers, representing a penetration of around 12%. By February 2001, the number of subscribers had grown to 31 million representing a penetration of about 50%. In Hong Kong, the penetration rate was thought to be about 10% at the end of 2003 growing at a rate of between 10% to 15% per month³¹. CSL agrees with the Productivity Council that the homogenous business model in Japan compared to the heterogenous model in Hong Kong means that data penetration in Hong Kong faces a much harder task.

No walled garden approach

- 6.4 CSL understands from meetings with the TA that he believes the existing mobile operators are actively engaging in a walled garden campaign which involves keeping out content and application providers through pricing mechanisms or by refusing to accept content. CSL denies such an unsubstantiated allegation and points to its record of distributing innovative third party content for many years.
- 6.5 CSL reminds the TA that it provides billing services to each provider, promotes the provider's content, provides customer support in relation to the content, handles all customer disputes about the content and needs to configure its systems in order for the content to be distributed to customers and customers billed for usage. The parties need to negotiate about the type of content to be provided, the scope of the activities which will be undertaken by CSL on behalf of the content provider and the amount which CSL will be paid to cover the costs incurred by it when acting on behalf of the content provider. CSL needs to be fairly compensated for the work required to launch and maintain a content provider's material in the market.
- 6.6 Furthermore, CSL reminds the TA that in the case where content and application providers wish to manage their own marketing, promotion, customer service and billing, there exists no impediments within CSL's network for CSL's customers to directly access such services (eg: via SMS or WAP) to view information and/or download content. In such conditions the content and application providers are at complete liberty to operate totally separately and without any dependence upon CSL whatsoever in the pursuit of their business objectives. In other words, there is no walled garden.

³¹ Cheung, Lawrence., "A perspective on the mobile markets in Japan and Korea", Telecommunications Research Project, Centre of Asian Studies, December 2003.

Open network access policy

6.7 The special conditions of each of the 3G mobile carrier licences require a licensee to open at least 30% of its network capacity to non-affiliated service providers or MVNOs on a non-discriminatory basis (“**Open Network Access Policy**”). OFTA states that the Open Network Access Policy aims to meet the following conditions:

- to introduce greater competition at the content, application and service level;
- to enable small and medium sized content or service providers to provide more innovative content, applications and services; and
- to enable parties who do not have the resources to bid for, or who have failed to obtain, a licence the opportunity to participate in the 3G market³².

6.8 The Open Network Access Policy was also championed by the government as it believed the arrangement would maintain effective competition in the mobile market³³. While present experience questions the need for such a heavy handed regulatory approach, these new regulatory mechanisms already exist for the stimulation of additional competition, and content providers and MVNOs will have access to consumers via the Open Network Access Policy and so it is unnecessary to grant another 3G licence.

6.9 As not all 3G operators have launched their services, it is too early to conclude that the Open Network Access Policy has not produced adequate competition at the services level or there is a lack of innovative content being produced. The TA must allow all 3G licensees to launch their services, provide MNVOs and content providers with the opportunity to take advantage of the Open Network Access Policy and then assess whether the Open Network Access Policy has achieved the policy aims at least five years after all 3G licensees have launched their services. By introducing another 3G licensee before allowing all existing 3G operators to launch their services, seems to be a signal that the government’s Open Network Access Policy has failed or is inadequate. As the Chinese government is in no hurry to allocate any 3G licences³⁴, CSL questions why the TA is so keen to introduce additional 3G competition at this time and urges the TA to carefully re-think this proposal.

³² Office of the Telecommunications Authority, Hong Kong Third Generation Mobile Services Licensing: Information Memorandum, July 2001

³³ Information, Technology and Broadcasting Bureau, “Legislative Council Brief: Licensing Framework for Third Generation Mobile Services”, 13 February 2001.

³⁴ Above n17.

7 No requirement to auction ‘Block A’

7.1 As CSL believes that all existing 2G licensees should be given the first right of refusal to renew their licences, CSL strongly disagrees with the auctioning of ‘Block A’.

8 Government policies and initiatives

Government policy and initiatives to stimulate data growth

8.1 It is important to contemplate the proposed issuance of another 3G licence whilst reflecting upon the Hong Kong government’s aims for the information and technology sectors (as set out in the Strategy). It is clear from the Strategy that the government is committed to supporting continued innovation in the mobile telecommunications industry, sustaining a stable investment climate for investors and taking a leadership role. It plans to achieve this by being “an effective facilitator to enhance the innovative capability of both industry and the community, promote the development of industry and enterprises, and in this process encourage investment and innovation in IT”³⁵.

8.2 The government has shown its commitment to innovation, and the development of industry and investment by citing the Information Infrastructure Advisory Committee’s Ad Hoc Working Group’s (“**IIAC**”) report on the promotion of wireless services and technology in the Strategy and indicating its intention to follow-up with the relevant recommendations of the IIAC report.

8.3 In particular the IIAC recommends that the government, industry, academia and the WDC develop an action plan to promote and facilitate the adoption of wireless services in enterprises (presumably these recommendations can apply equally to consumers), and in particular recommends to:

- encourage and facilitate the development of seamless end-to-end Chinese language processing capabilities for enterprise information system with wireless extension to the mobile users;
- develop wireless technologies capable of supporting Chinese language, covering input methods, Chinese character repertoire and traditional/simplified character interoperability;
- create a stronger synergy between the IT sector and the telecommunications and wireless sectors as well as various parties in the supply chain (including

³⁵ Above n29 at paragraph 3.5.

the applications system integrator, solution provider, network operator, device supplier) to foster the adoption of wireless capabilities in enterprise systems;

- encourage and facilitate the development of generic products, technical design models and interface protocols based on open, interoperable and device-independent standards so as to facilitate the development of wireless e-business solutions; and
- forge industry-wide collaboration to generate a critical mass for wireless services development and adoption in Hong Kong for the creation of a branding effect that demonstrates Hong Kong's strength in innovation and technology exploitation as well as the industry's ability to excel in the supply of wireless services, products and expertise³⁶.

8.4 The introduction of a new 3G licensee will not modify or lower the existing barriers which impede growth in the development of wireless services and may also lead to the emergence of additional obstacles or the stifling of growth. The government's aim to sustain Hong Kong's position as a leading digital city in the globally connected world³⁷ is entirely consistent with developing an action plan to implement the recommendations of the IIAC. As the government has suggested that the Information Technology Services Department ("ITSD") should be merged into the Communications and Technology Branch of the Commerce, Industry and Technology Bureau ("CITB") and as the merged organisation will "have a coordinated role in promoting the development of applications and services, supporting the information industry and driving IT adoption"³⁸, the ITSD/CITB organisation is an appropriate government vehicle to break down barriers, work with industry, assist in the implementation of the recommendations of the IIAC and create opportunities for wireless data growth.

InfoTechnology Forum

8.5 Some of the obstacles identified by the IIAC were also raised at the WDC co-organised Telecoms InfoTechnology Forum held on 25 March 2004. At the forum, content developers were unequivocal about the need for standardised business models so developers could move away from the current norm of entering into different arrangements with different operators³⁹. Presently, in order for content to be made available to a licensee's customers, content developers need to negotiate with each licensee and handle each licensee's particular content production guidelines and

³⁶ Above n26 at paragraph 41.

³⁷ Above n13

³⁸ Above n29 at paragraph 3.15

³⁹ Telecommunications InfoTechnology Forum, <http://www.trp.hku.hk/tif/papers/2004/mar/0403summ.pdf>, 15 June 2004.

handset product lines. Introducing a cdma2000 standard into this mix will only make a developer's business more difficult and margins smaller, as it will need to deal with yet another business model and also a completely different standard.

Government assistance

8.6 If the TA or the government perceives there is a mobile data problem in Hong Kong, rather than focussing on introducing new networks, the government should recognise there are other ways in which it can assist to stimulate data usage, including:

- identifying the characteristics of effective and competitive mobile content and data service markets;
- analysing ways in which the government can support and stimulate the data services market (for example, streamlining the process required to obtain government content from government agencies and allowing more government content to be made available to licensees);
- creating an environment which provides the optimal framework for application development;
- encouraging the WDC to play a more active role in bringing together content providers, mobile operators, technology enablers and handset suppliers;
- facilitating for a third party (possibly the WDC) to act as an aggregator on behalf of content providers with a view to helping establish common access to all participating mobile operators, eliminating any barriers to entry for new content partners and encouraging content providers to develop local content which can also be exported to China;
- providing financial assistance or tax incentives for content providers;
- promoting the establishment of a content developer association in Hong Kong;
and
- analysing ways in which data content exchange between Hong Kong and China can be stimulated.

9 2G licence terms

- 9.1 CSL agrees that the new licences should be placed on an equal footing with the 3G mobile carriers, however as mentioned in CSL's response to the First Consultation Paper, given that many other jurisdictions are relaxing the licence conditions of 3G licensees, CSL believes it is appropriate at this time to make adjustments in the existing mobile carrier licences.
- 9.2 If the TA disagrees with this proposal then he should conduct a thorough review of the mobile carrier licence conditions and assess whether certain licence conditions are demonstrably required (especially as existing 2G licensees have in the main complied with their existing licence conditions and mobile carrier licences contain conditions which are more onerous than any other telecommunications licence in Hong Kong).

Open Network Access Policy

- 9.3 CSL still strongly disagrees with the proposal to impose the Open Network Access obligation on existing 2G licensees, at any time. The TA believes a delayed commencement date of the Open Network Access obligation will encourage licensees to move to the more advanced 3G technologies. The timing of when a licensee moves to 3G technologies should be a commercial decision for the 2G licensee. The TA should not be seeking to dictate when such a move should take place. This is another example of the TA imposing a heavy-handed regulatory approach.
- 9.4 There are other problem's with the TA's view that the Open Network Access obligation will "help to encourage the licensees to better utilize the spectrum and to migrate to the more advanced 3G technologies"⁴⁰. The TA seems to be in two minds as to whether the 2G licensees are utilising their spectrum effectively. On the one hand, he is prepared to grant a first right of refusal to the majority of the licensees as he believes they are efficiently utilising their spectrum. On the other hand, he wishes to impose an additional regulatory obligation because he wishes for licensees to better utilise the spectrum. What evidence is there that licensees are not utilising spectrum efficiently ? What is the objective benchmark being used by the TA when considering what is an efficient use of spectrum ? Where else in the world is spectrum being more efficiently utilised ? This is an unsubstantiated requirement. The statement is also problematic because the TA seems to have ignored that currently two of the existing 2G licensees do not have 3G networks. We presume from the TA's comments that he means for these licensees to migrate their own customers from their network to a 3G

licensee's network (where they will be a MVNO of the 3G licensee) in order to provide capacity on its own 2G network for unaffiliated MVNOs. This approach is nonsensical and does not appreciate the administrative, technical and commercial difficulties with this course of action as well as the possible impacts upon consumers.

- 9.5 Nevertheless, should the TA maintain his view that Open Network Access should be regulated (which CSL does not support), the obligation should only relate to 3G services and should commence on the cut-off date when SUF becomes payable.

Spectrum Utilisation Fee ("SUF")

- 9.6 CSL submits that if the TA considers the right time to remove the differential treatment is around 1 January 2010, then prior to this date the TA should review the situation and assess whether it is still an appropriate date to commence the imposition of the SUF.

Performance bond

- 9.7 CSL believes that all existing 2G licensees should not be required to provide a performance bond.

Coverage to specified locations

- 9.8 CSL agrees that the TA should withdraw his proposal to oblige all existing 2G licensees to provide coverage to specified locations.

10 Codes of Practice

- 10.1 CSL disagrees that compliance with the code of practice on mobile service contracts and the code of practice on protection of customer information ("**Codes**") should be mandatory. It is interesting to note that of the 23 submissions received by the TA during the first round of consultation, only seven respondents made any comment about the Codes and only one respondent was in favour of the Codes becoming mandatory. Clearly there is not widespread dissatisfaction in the community about the voluntary nature of the Codes and or a clamouring for the codes to be made mandatory. The Consumer Council in supporting the proposal did not indicate why it was necessary to make the codes mandatory, just that they should be (which is insufficient). As this topic has ignited very little interest in the public, CSL questions why the TA is seeking to over-regulate this area.

⁴⁰ Consultation paper, paragraph 76.

10.2 As discussed in CSL's response to the First Consultation Paper, the TA has not demonstrated any failure in the operations or conduct of the licensees that would justify a more heavy-handed regulatory intervention. Despite requesting the TA to provide evidence to support the need for mandatory Codes, the TA has not provided any evidence of systemic non-compliance with the voluntary Codes. If voluntary compliance with the Codes is working, then there is no need to impose mandatory compliance on the licensees. The TA's current position is completely contrary to the much-professed 'light-handed' regulatory touch.

COP on mobile service contracts

10.3 If mobile operators are mandated to comply with the code of practice on mobile service contracts, then the TA must require mandatory compliance by all telecommunications providers of the same code to ensure fair and even-handed regulatory treatment.

COP on protection of customer information

10.4 The TA has not addressed the jurisdiction issues associated with imposing a mandatory code of practice on the protection of customer information. It is still unclear as to whether the TA intends to usurp the powers of the Privacy Commissioner or claim a concurrent power. Currently, if CSL requires clarification of a privacy issue, it approaches the Office of the Privacy Commissioner, the personnel of which have the expertise and knowledge to be able to provide opinions on particular data privacy issues. If this code is made mandatory, will a mobile operator now seek clarification from OFTA? What if the TA makes a ruling which is inconsistent or contrary to the position of the Privacy Commissioner? Obviously it is unclear which authority the licensee should follow. As previously stated, it is an inefficient use of taxpayers' money for duplication of functions to exist amongst government agencies. An adequate and efficient regulatory framework already exists pursuant to the Personal Data (Privacy) Ordinance. CSL believes it is unnecessary to attempt to further regulate this area and create unwanted uncertainty for the mobile operators.

COP on quality of service

10.5 CSL disagrees with the need to mandate compliance with a code of practice on quality of service. In a highly competitive market, quality of service should be left to the market to determine. CSL believes quality of service is better in Hong Kong than in other places and is a sign that competition is working in the market. CSL has not received significant requests from customers requiring quality of service information. Given the lack of customer interest in the subject matter, CSL requests the TA to

explain why he thinks it is necessary to impose such a regulation on the industry and evidence of consumer demand for this proposal.

- 10.6 It is unclear from the Consultation Paper the sort of information which the TA proposes to seek from licensees, why it would be necessary to provide the TA with a copy of any information before it is published or why the TA may wish to require an independent auditor to verify information.
- 10.7 If the TA intends to require mandatory compliance with this code, then the TA must:
- (a) also impose similar conditions on other telecommunications providers so as to ensure an even-handed and fair regulatory approach;
 - (b) ensure any comparisons are 'like-with-like' comparisons;
 - (c) ensure that only quality of service parameters for particular problem areas are measured; and
 - (d) ensure that licensees' resources are not wasted on a large number of measurements.
- 10.8 Overall, CSL is particularly opposed to the imposition of mandatory codes of practice as they would amount to yet another unnecessary cost of business, in what is an already difficult operating environment and under the structure envisaged by the TA, it creates a framework for perpetual, back-door ad-hoc amendments to be made to licence conditions. This creates no certainty for doing business and makes it extremely difficult for licensees to operate their businesses as the rules are always changing.
- 10.9 CSL is not opposed to consumer rights, however the TA has taken on an imbalanced role. His own statements show how he is preoccupied with consumer interests to the detriment of maintaining a healthy industry overall. The formation of a stronger consumer body or the introduction of consumer legislation is the way to handle these very important issues.

11 Conclusion

- 11.1 CSL should be given the first right of refusal to renew its TDMA licence. For years, CSL has publicly and privately urging OFTA to deal with the 2G licensing renewal issue. CSL should not be punished because of a worldwide decline in the TDMA standard and customers choosing to use the predominant standard in Hong Kong which is supported by more attractive handsets and has comparable roaming coverage

in countries where TDMA previously dominated. CSL has consistently presented OFTA with a simple and workable migration plan and should not be denied the right to benefit from the substantial investments it has made for, and related to, this spectrum. It has been OFTA's inability to deal with this correctly has meant that CSL finds itself in this position today.

- 11.2 The Hong Kong mobile telecommunications market does not need an additional 3G licensee at this time. Three of the four licensees have not launched their services. Innovative data services are available and licensees continue to launch and support creative and attractive data products and solutions for consumer and corporate customers. Data-enabled handsets are more widely available and penetration amongst consumers is rising. As the Productivity Council has said, Hong Kong can make it to be one of the major forces in mobile content and applications⁴¹, however this will not happen in a short period of time. There are not numerous examples of success stories where the regulator has mandated, or sought to influence, the introduction of a 3G standard into a market which has historically favoured a different standard.
- 11.3 The government needs to provide the existing 3G licensees with certainty and an environment which favours investment. The TA's current proposal does neither. We strongly urge the government to re-think this proposal and consider whether from a policy perspective, this is the right way to be driving data usage. The government's current endeavours to support the industry including the establishment of the WDC and the implementation of the IIAC recommendations are more strategic and sensible options to pursue rather than an experiment which may not work.
- 11.4 CSL understands that OFTA has engaged Spectrum Strategy Consultants to undertake economic modelling in connection with the effect of introducing a fifth 3G licensee into the Hong Kong mobile telecommunications market. In the interests of transparency and fairness, CSL requests the TA to make available the results of the modelling to the public and allow the industry and interested parties to comment on the findings made by Spectrum.

12 Confidentiality

- 12.1 CSL does not regard any part of this submission as confidential and has no objection to it being published or disclosed to third parties.

⁴¹ Above n31.