

Comments

to the

**Office of the Telecommunications Authority
Consultation Paper**

titled

Licensing Framework for Third Generation Mobile Services

**Analysis of Comments Received, Preliminary
Conclusions and Further Industry Consultation**

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*submitted
by*

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Introduction

Cable & Wireless HKT CSL Limited (CWHKTCSL) appreciates the opportunity to further participate in the formulation of a licensing framework for the Third Generation (3G) mobile services in Hong Kong and is pleased to submit our response to the Office of the Telecommunications Authority's (OFTA's) consultation paper on the formulation of a licensing framework for Third Generation (3G) mobile services in Hong Kong.

Hong Kong is commonly praised as being a pre-eminent telecommunications centre both in terms of wireline and wireless infrastructure roll-out, penetration and the availability of a host of services. The objective of any future licensing framework for 3G mobile services should undoubtedly aim to preserve and strengthen this status.

However, the introduction of 3G mobile services and the global trend towards convergence presents a new business paradigm for current providers of second generation (2G) mobile services. The overall value chain will likely change. Network operators and service providers must migrate from the provision of voice and basic data services to the packaging and delivery of a variety of two-way multimedia content including voice and video content. CWHKTCSL's view is that the new 3G mobile paradigm will offer Hong Kong a chance to broaden its pre-eminence from telecommunications infrastructure and services to include content development, aggregation, applications and software development, system integration, etc.

Our response to the TA's consultation paper is thus based on the overall objective of ensuring that Hong Kong retains its position as a leading centre for the development of innovative services. CWHKTCSL is pleased to present below in detail its selective comments, which it believes require particular focus, to the issues raised in the TA's second consultation paper. A few key points we would like to highlight are:

- CWHKTCSL agrees that an open network concept may offer great benefits to the economy as the concept, if properly implemented in a free market, will stimulate and speed up the introduction of innovative services and applications. However, if the possibility of regulatory intervention is to exist, then clarity of license obligations involving a number of complex issues must be made known prior to the licensing process taking place.
- CWHKTCSL maintains its position that a license award should be conducted on a merit basis rather than auction, but is prepared to offer its view on the proposed hybrid auction approach. While we are of the view that the proposed approach will meet much of the TA's objectives, we are sceptical of the view that the proposed approach will benefit consumers in terms of low prices and fast rollout of networks and innovative 3G services. We believe the proposed approach will lead to results that are in contrary to the above objectives.

- CWHKTCSL strongly believes there is no basis upon which to regulate the requirements for new 3G operators to access existing 2G networks unless the TA grants an automatic extension of 2G licenses without any material changes to the current terms for those network operators who are subject to this mandate.

Open Network

Paragraph 2.3.10: As stated in paragraph 2.3.1, the TA intends to introduce “open network” as an essential element in the approach for the selection of operators. [...] To implement such an “open network” requirement, it is necessary to separate service provision from network operation and to institute some sort of regulatory intervention in the determination of wholesale prices if commercial negotiation fails.

CWHKTCSL agrees that open access to a 3G network may represent a viable alternative for non-license winners and others to engage in 3G service provision. In particular, open network access may enable the entry of small, innovative content and service providers, and also provides scope for existing 2G mobile service operators to participate in the 3G business. In fact, it is not unlikely that licensees, driven by market forces, will wish to attract Mobile Virtual Network Operators (MVNOs) with valuable content to bolster the appeal of their network services.

The key issue here is the striking of a correct balance between open access to encourage development of services and content while ensuring sufficient financial and competitive incentives remain to attract 3G network investment. While the concept of open access is a useful one, the policy decision on this area must clearly recognize that it is the Mobile Network Operator (MNO) who obtained the license (via an auction perhaps), has invested in the network, and has assumed all the associated financial risks. MVNOs or resellers have done none of these things.

In connection with this, CWHKTCSL is of the view that the making available of 3G network capacity to MVNOs or resellers should be based solely on commercial negotiations and market forces. There is no basis for regulating this new market in terms of capacity reservations or pricing. This non-intervention approach is consistent with that of other markets.

Should however the TA decide to mandate the reservation of network capacity for non-affiliated MVNOs, which CWHKTCSL is strongly against, then this can only proceed given a clearly defined administrative procedure for compliance with regulatory requirements, and set out prior to the commencement of licensing, which will be adhered to by MNOs and MVNOs alike, specifically:

- A clear and technically viable methodology for defining “capacity” and for measuring its consumption within the 3G network environment;
- A clearly defined specification for interconnection of MVNOs to the 3G network;

- A clearly defined process by which capacity must be offered by MNOs and committed to by MVNOs or resellers;
- A clear and commercially viable methodology by which the TA might exercise its powers to determine wholesale pricing of 3G network capacity by MNOs to MVNOs or resellers.

In the absence of the above regulatory clarity being in place prior to licensing, a responsible government can hardly expect a responsible industry to invest large sums under what could arguably be considered unnecessarily high-risk conditions. The particulars of these issues are further detailed below.

Reservation of network capacity

***Paragraph 2.3.14:** The preliminary view of the TA on the percentage of network capacity to be open to any non-affiliated service providers (whether MVNOs or resellers) lies in the range of 30% to 50%. This availability of capacity to non-affiliated service provider would be assessed in the busiest cells during the peak traffic hours. Industry feedback on what they consider as a reasonable percentage is sought to assist the TA in making a final decision. The percentage should not be too low as to render the open network requirement meaningless; nor too high to discourage investment incentives.*

CWHKTCSL submits that the entire concept of regulating the reservation of network capacity for MVNOs appears flawed with significant technical issues which need to be resolved well before its implementation can become reality. Specifically:

- In the first instance, there exists no standardization nor any specification to support the reservation or partitioning of a defined portion of radio access network resources for a particular subscriber segment (e.g. MVNO) which will at the same time be seamless to other segments. None of the major 3G infrastructure manufacturers investigated are able to provide this capability.
- Without the ability to enforce a hard partition within the network between MNO and MVNO, there exists no means for the MNO to ensure the quality (eg.: GoS) of the network for its subscribers should the commercial market objectives of the MNO and MVNO differ. In the case where such objectives are not aligned through agreed commercial negotiation but rather mandated through regulatory intervention, then the ability for an MNO to differentiate its service on the basis of quality is taken away.
- At this time, no 3G infrastructure manufacturer is able to provide a methodology to give a meaningful measurement of capacity for 3G services by different subscriber segments. Likewise, there exists no means for MNOs to adequately manage network integrity, reliability, security and importantly data privacy under these conditions.
- Due to the enormous number of different service bearers and related attributes defined in the technical specifications for 3G networks (Transport Channels, Bearer Rates, QoS max. data rate, QoS transfer delay...), it is impossible to define the true meaning of

capacity in terms of any value. This is especially true for the radio access capacity which depends highly on the nature of the services and usage.

- Different infra-structure elements (eg: Node-B, RNC, MSC, HLR...) and different Services Capability Servers (eg: IN/CAMEL, MExE, GMLC and Profilers...), not to mention the various Services Application Servers (VOD Servers, UM Servers, Location Servers...), will have very different “busy hour” characteristics and as such a rigidly defined capacity percentage value is not meaningful.

CWHKTCSL is of the view that market forces will best determine how much of an MNO’s network capacity will be opened up for use by MVNOs or resellers, and further believes that significant technical issues will not support regulating the reservation of network capacity. However, should the TA decide to mandate regulation in this area, then CWHKTCSL would nonetheless submit that the process and procedures relevant to regulatory compliance of this area be set out prior to the commencement of licensing, and would recommend that a minimum reservation of network capacity be so identified, being in the range of 20%.

Interconnection of networks

In keeping with our view of enabling the “open network” concept on a purely commercial basis, CWHKTCSL maintains that the form of interconnection between the MNO and MVNO must be based entirely on commercial agreement. This will, in turn, ensure the ability for full flexibility and optimum use of both MNO and MVNO resources.

Should however the TA decide to mandate the interconnection of MNO networks to non-affiliated MVNOs, which CWHKTCSL is strongly against, then there must be a clearly defined technical arrangement for compliance with regulatory requirements, and set out prior to the commencement of licensing, which will be adhered to by MNOs and MVNOs alike.

The most straight-forward arrangement which is relatively well understood and available from manufacturers for adoption by operators is realised in the form of “simple resale”, whereby interconnection is made at appropriate network gateways. This arrangement is similar to the MVNO implementation adopted in other countries because:

- It is the simplest, and most expedient method for both the MNO and MVNO to implement, employing relatively stable technologies;
- It preserves the integrity of the network, affording the MNO with the ability to manage the network in respect of quality and reliability;
- It affords adequate safeguards for security and data privacy.

However, should the TA decide that a more adventurous methodology be mandated in respect to interconnection of MVNOs to 3G networks, then it is CWHKTCSL’s view that the only suitable form of interface is the “OSA-API” because:

- Although untried and untested, it is the interface for which the international 3G standardisation bodies have devoted much effort to prepare as a world standard, specifically for connection of the 3G mobile network to external platforms providing application services.

Adoption of this international standard will enable small and medium application service developers to participate effectively in the 3G services arena since there will be a competitive worldwide market for compliant platforms which have been manufactured to meet this demand. To mandate the opening of either inappropriate or non-standardised interfaces will have the probable effect of excluding or at minimum disadvantaging those MVNOs which are not able divert resources away from the development of their particular services into the technicalities of unique interfaces.

- Adoption of non-standardised interfaces will represent an enormous increase in the amount of testing required to ensure inter-operability. In addition to being of questionable value, this may further constitute a barrier to smaller MVNOs who wish to provide their services and content to the mobile public. The costs involved will discourage their presence and would not be in keeping with the TA's stated objective of enabling and promoting competition in this arena.
- Adoption of non-standardised interfaces raises serious practical issues in respect of network stability, network and subscriber security, and preservation of data privacy. There is a much higher possibility that outrage of one network will propagate to another network through such interfaces, which are not designed nor prepared for direct inter-connecting. This represents a concern for both MNO and MVNO.

CWHKTCSL wishes to stress its view that, particularly under a regulatory interventionist regime, the adoption of internationally recognised technical specification standards is the only viable method to meet the needs of both MNOs and MVNOs in a sustainable manner. The applicable technologies are extremely complicated and are evolving at phenomenal pace, and such standardisation bodies exist for the explicit purpose of enabling a dynamic industry to exist. Forced implementation of local standards has the effect of leaving Hong Kong outside the mainstream of technology development, and almost certainly hampered with costly, dead-end legacy solutions.

Wholesale pricing of network capacity

***Paragraph 2.3.15:** Regarding the wholesale price of the 3G network licenses to MVNOs or resellers, it is the initial view of the TA that he prefers to leave it first to commercial negotiations among the parties. The TA will only intervene when such negotiations failed and he is requested to make a determination under the interconnection provisions of the Telecommunications Ordinance. In making such a determination, the TA would consider economic principles based on both the "retail minus" and "cost plus" approach. [...] The TA is prepared to consider submissions on which is the industry's preferred approach.*

Financial commitment

CWHKTCSL shares the view that market force will create a vibrant market for the wholesale of network capacity to MVNOs and resellers, and accordingly believes that regulatory mandates are unnecessary and counter productive. However, if such mandates will nonetheless exist then MNOs can not be expected to invest and operate under a cloud of regulatory uncertainty, where rights and obligations are left ambiguous and subject to challenge or intervention at every turn.

The commercial complexities of placing a regulatory mandate on MNOs to reserve network capacity for use by others can not be ignored. In addition to the commercial solutions which must be found to deal with the issues raised by the technical uncertainties of interconnection, there exists the significant matter of financial liability for investment made under involuntary circumstances.

As previously stated, should the TA decide to mandate the reservation of network capacity for non-affiliated MVNOs, which CWHKTCSL is strongly against, then this must be conducted under clearly defined administrative procedures for compliance with regulatory requirements, and set out prior to the commencement of licensing, which will be adhered to by MNOs and MVNOs alike, specifically:

- To what regulatory procedures must an MNO adhere to ensure compliance with its license obligations? When and how must capacity be offered by an MNO? If offered capacity is not taken up at any particular point in time during the natural growth of a network, then what regulatory obligations might continue to exist over time?
- Will capacity which is built by an MNO for its own use be subject to regulatory seizure and reassignment to an MVNO? Building a network is a long-term planning process and MNOs must be afforded certainty that the capacity which they fund and build for themselves in accordance with their business plans will remain available for satisfying their business objectives.
- Is it reasonable to mandate a private company's shareholders to make significant investments in producing a commodity for which demand and associated financial return is unknown? Similarly, can MNOs be required to build more capacity than they require for themselves with only an unqualified expectation of MVNO demand?
- Under what circumstances might an MNO be required to invest and build new network capacity to satisfy regulatory determination on behalf of an MVNO? Any demand made by an MVNO for capacity which is brought for regulatory determination must be subject to up front and firm commitments.
- Commercial commitment from MVNOs for investment in dedicated network capacity is fair and necessary and MVNOs must be liable for such commitments regardless of their actual utilisation. Further, MNOs must be afforded a reasonable period for the delivery of capacity.

A related matter for regulatory review should be the amount of capacity that can be sought by any one MVNO from all network operators, to ensure such an MVNO can not become dominant in the delivery of services and therefore stifle the very competition which the introduction of MVNOs is meant to create. Further is the potential for a single “non-affiliated” MVNO, in acquiring capacity on multiple networks, to be in a position to offer more comprehensive service coverage than any of the “affiliated” MVNOs or resellers, and thereby creating a distorted market condition which gives them unfair competitive advantage.

Wholesale pricing formulae

In Hong Kong, the practice of free market competition with minimal government intervention has been proven to be a great success to our economy. We support free commercial negotiation among MNOs and MVNOs or resellers so as to enable market forces to both establish the true value of network capacity and to allow the parties to arrive at commercially sensible deals. In a market with four 3G operators, up to six 2G operators, and an unspecified number of MVNOs and resellers, we believe that there is sufficient market force to urge the licensees to fill up their network as soon as possible. Certainly, no single MNO will likely have any market power which could justify an aggressive policy or regulatory intervention.

The best approach in this competitive market would be to leave capacity pricing decisions to market forces and commercial negotiation between the multiple “buyers” and “sellers” of content and capacity. It is relevant to note that regardless of what method of regulatory price determination may be chosen, it is doubtful that a number of significant factors which constitute the true value of network capacity can be adequately captured by any such method, among them being:

- How to factor the aspect of supply and demand, particularly the price which one MVNO or reseller may be willing to pay over another?
- How to factor the value of the “commitment” which an MVNO or reseller might make to an MNO in respect to volume quantity or length of time?
- How to factor the value of network quality, which is realised through the skill and expertise of the staff of the MNO in employing its capital investment, representing a value-add benefit that can not be quantified in terms of simple financial “costs”?
- Where is the reward for innovation in building a network with unique features or superior characteristics?

CWHKTCSL would submit that regulated pricing formulae are not capable of capturing these and other elements, and if such formulae are imposed then MNOs will likely not be rewarded for the effort of building high quality, innovative, or otherwise unique mobile networks. This will logically result in the building of only adequate networks (at best) and

jeopardise the world-recognised position as a benchmark of quality and innovation which Hong Kong's mobile industry has earned.

It could be proposed that the "retail minus" approach might adequately capture the real market value of network capacity. Such approach, if interpreted and applied correctly, would in theory reflect the market dynamic and provide a fair reference upon which to base the requisite calculation.

However, the "retail-minus" approach poses some challenges in the 3G environment and in particular for application to the Hong Kong mobile market, specifically:

- For a 3G system, the variety of services and the possible quality-of-service attributes are extensive. Which services, and under what operational measures, are to be used in calculating the retail price?
- For application to the Hong Kong mobile market as it presently exists, it should be noted that all existing 2G mobile operators are already selling their services in the retail market at prices which are either close to, or below, their actual cost.
- The possibility exists whereby an MVNO could initiate a "price war" by selling service below cost. The MNO may either let the MVNO take away his customers or follow the MVNO by lowering his retail price. If the latter option is taken, it creates a situation whereby the MVNO could then demand an even lower cost. This may lead to a further price reduction and hence a circular loop of price reduction is formed which could lead the MNO to a situation of being required by regulation to offer service at below cost while the MVNO can reposition its pricing to enjoy an acceptable margin.

It would be grossly unfair to allow MVNOs to manipulate the market in this fashion by imposing regulation which has the effect of requiring 3G network operators to sell capacity to MVNOs at below cost, as could be the case under a rigidly regulated "retail-minus" regime. Accordingly, adequate safeguards should be included to prevent this from happening. It is the view of CWHKTCSL that there exists no legitimate rationale for requiring an operator to sell capacity on its network at a rate which is below cost.

Should the TA decide to regulate the MVNO marketplace, which CWHKTCSL is strongly against, then we would recommend that the "retail-minus" approach be adopted so as to afford the free marketplace the maximum possible influence, provided that adequate safeguards are included which will preclude an MNO from being required to sell its capacity at below cost.

Furthermore, CWHKTCSL maintains that the particulars of any price regulation regime which may be adopted must be clearly defined in respect of compliance with regulatory requirements, and set out prior to the commencement of licensing, which will be adhered to by MNOs and MVNOs alike.

Based on the above, a cost-plus regime may also be considered. It is CWHKTCSL's position that the following elements, among others, should be included in any cost-plus calculation:

- The “fully distributed cost” of building and supporting the operation of the network and all related supporting functions; as there is no basis for applying the “long run incremental cost” regime normally associated with legacy dominant monopoly wireline networks.
- A commercial rate of return reasonably expected of any enterprise.

The problem with cost-plus (even Fully Distributed Cost cost-plus) is that in a 3G environment it does not compensate the MNO for all of the risks it faces. CWHKTCSL would, therefore, suggest that the MNO be able to use retail-minus or cost-plus, whichever provides the higher price and, therefore, best reflects real risks taken. CWHKTCSL's first choice would of course be to still rely on market forces.

In addition, under the license auction award scenario, a principal uncertainty in respect of either choice (“cost-plus” or “retail-minus”) is whether MNOs will be allowed to include the cost of auction as part of their network cost calculation. Clearly and indisputably, this cost is directly related to the licensing, construction and operation of the 3G network, and CWHKTCSL is of the firm view that this cost must be fully recoverable through the commercial operation of the network itself. The notion that the capital which must be newly raised to pay auction fees can in any way be written off as “sunk costs” (as naively suggested by some) and need not be recovered through revenues will not prevail under the scrutiny of shareholders or financial institutions. Indeed, such an interpretation may in fact reduce the number of potential bidders to only those few with a financial position capable of underwriting such an arrangement. **Accordingly, CWHKTCSL is compelled to stress its most strong recommendation that all auction costs are recognised by the TA as directly related to the cost of the 3G network, and that this recognition be made clear in the regulatory framework to be announced prior to commencement of licensing.**

Accounting separation requirement

Paragraph 2.3.16: In meeting the “open network” requirement, the 3G licensee will be required to treat its own or affiliated service providers and the non-affiliated service providers on a non-discriminatory basis. Accounting separation will be incorporated into the 3G license conditions to enable the monitoring by the TA of such non-discriminatory treatment and to facilitate the determination of wholesale prices of the network if required.

CWHKTCSL submits that the introduction of accounting separation between the 3G licensee and its affiliated service providers is premature and unwarranted at this stage because:

- CWHKTCSL has been advocating for the relationships between the 3G licensees, MVNOs and resellers to be subject to market forces and commercial negotiations.

Under these circumstances, CWHKTCSL does not consider it necessary to impose any accounting requirements (including accounting separation) on the 3G licensees.

- Accounting separation generally only applies to a dominant operator. There is no evidence that either any of the existing 2G operators are dominant or will become one in a 3G environment. The same applies to any new 3G licensees¹

Summary on Open Network

CWHKTCSL maintains that to be successful, the “open network” vision must be realised via a purely commercial process between MNOs and MVNOs. It is only reasonable that MNOs be afforded the ability to serve their customers in the manner dictated by those customers, and to work only with those MVNOs whose business objectives and operations are compatible with their own. Any regulatory requirement to force the reservation of capacity, the form of interconnection, and the wholesale pricing of MNO 3G networks for use by MVNOs will be inherently flawed in its implementation and will at best have the effect of reducing the highly competitive Hong Kong wireless market – where a variety of consumer needs are served in a balance of quality and price – to a marketplace of limited choice.

Nonetheless, should the TA decide to impose regulatory requirements in the above areas, which CWHKTCSL is strongly against, then this must be conducted under clearly defined administrative procedures for compliance with regulatory requirements, and set out prior to the commencement of licensing, which will be adhered to by MNO’s and MVNOs alike.

Merits of the Proposed Licensing Approach

Paragraph 2.4.2: The TA welcomes comments on his preferred hybrid auction approach as described above (read in conjunction with Paragraph 2.3.1: the TA proposes a hybrid option including the elements of pre-qualification, spectrum auction and “open network” requirement)

In paragraph 2.2.1, the TA listed the criteria which he has to adopt in evaluating any operator selection arrangements as follows:

- licenses are awarded in a fair, transparent and objective manner;
- successful applicants will be able to build strong, sustainable businesses which will provide a competitive industry for the long term;
- adequate network investment will be made; and
- consumers will benefit from low prices for 3G services, fast rollout of networks and innovative 3G services.

¹ In considering accounting separation, there is a need to differentiate between discriminations and undue discriminations. While most 2G mobile operators in Hong Kong and other markets practise some form of discrimination in justifiably treating different customers, accounting separation should only be imposed in the case of undue discrimination by dominant carriers in relation to their dealings with affiliated entities.)

The last three criteria are in line with CWHKTCSL's belief that the merit process will provide the greatest overall benefit to Hong Kong, in that these criteria have traditionally formed the basis upon which licensees are selected in a merit award process. Specifically, in a merit selection, the bidders will largely be evaluated on the amount of investment, extent and timing of network and service rollout, technical and financial capability, proposed services and associated tariffs, etc. On the first criterion, achieving transparency in a merit selection process may not be as apparently simple as in an auction process, and hence not seen as such.

However, cash auctions have the effect of moving the license award process to bidders with the deepest pockets, rather than to consumer-oriented decisions for the best or most committed providers of the service. Furthermore, policy makers must realize that the auction alternative will cost users significantly and immediately in terms of higher prices, a slower rollout in less profitable areas with only minimal coverage where specifically required, restricted technology and less innovation with an overall lower service quality when compared with merit selections. More specifically, auction fees amount to a tax on both the consumers and providers within the telecommunications industry, as they have to be recouped by the 3G operators in the form of higher tariffs to consumers.

There is a general misconception that by awarding 3G spectrum via merit selection, licensees would be handed free usage of spectrum allocated. The truth is, 2G operators in Hong Kong have been paying a substantial sum to the government each year for use of spectrum and other fees. In fact, for the year 1999 alone, it is estimated that the mobile industry has paid between HK\$200M and HK\$300M to OFTA. Although not clearly stated, it is understood that this sum and more will continue to be collected on top of auction fees.

Licensing Process and Open Issues

Although CWHKTCSL maintains that the greatest benefit to society would be realised through a merit award process, assuming the TA decides to adopt the hybrid auction approach as proposed, then this must be preceded by release of clearly defined auction and licensing requirements well in advance of the proceedings. In particular, but not exhaustively, the TA should make known:

- The mechanics of the cash auction process which will take place.
- Details of the pre-qualification requirements, in exact and solid terms such as the extent (eg. number of base stations) and timing for network construction.
- Details of the financial guarantees to be submitted by potential bidders in the pre-qualification round, in particular, the form, the amount, and the effective period of such guarantees. The information should be released in sufficient time for bidders to make the necessary arrangements with bankers.
- Details of the expected license commitments, particularly the regulatory regime to be employed in respect to "open network" and domestic roaming, eg. decisions on capacity

reservation, determination of pricing, impact of domestic roaming on networks which are not being actively expanded, etc.

- Proposed resolution of the technical issues surrounding mandated “open network” access; effective means of network capacity partitioning and measurement of radio access resources, form of interconnection, etc.
- A clear and workable definition of “non-affiliated MVNO”. It is not uncommon for global and regional telecommunication companies to diversify their investments and to have certain amount of investment in a wide spectrum of telecommunication related businesses.
- Obligations of MVNOs, particularly: regulatory structure, obligations on license fees payable, commitments on service quality, etc. as these will have a bearing on network planning and maintenance, and most importantly, the desirability to be a network operator.

CWHKTCSL suggests that, in view of the complex issues surrounding the 3G license commitments and therefore potentially pre-qualification commitments, to have an open process of industry consultation to resolve the issues.

Auction Fees Payment Method

***Paragraph 2.5.7:** The TA welcomes comments on whether bidders would prefer to pay for licenses through an upfront cash payment, deferred cash payment, or the royalty payment with minimum guaranteed payment as proposed.*

CWHKTCSL favours a payment mechanism which is simple to assess, simple to administer and reduces credit risk thereafter. Our view is that “deferred cash payment” and “royalty payment with minimum payment” is contrary to the aforementioned principles.

In the case of deferred cash payment, the Government will bear unnecessary financial risk, unless the deferred payment is guaranteed, in the event that a licensee defaults in payment. To overcome the financial risk borne by the Government, it is possible to require licensees to guarantee the deferred payment in the form of performance bond. This approach would undoubtedly create unnecessary and additional financial burden to licensees.

In the case of royalty payment with minimum guarantee method, it would be difficult for the TA to determine whether one operator’s royalty rate is better than another due to differences in the quality and quantity of existing 2G customers and future 3G customers.

Accordingly, CWHKTCSL favours “upfront cash payment” as this is simple to administer and represents no credit risk to the Government, as it will be impossible for licensees to renegotiate payment fees the upfront payment is made. Furthermore, no unnecessary administrative costs would be incurred by the Government and licensees.

Domestic Roaming

CWHKTCSL strongly believes that domestic roaming arrangements should be based solely on commercial agreements reached between the operators themselves, and not be subject to regulatory mandate. Indeed, CWHKTCSL can find no basis upon which to regulate the requirements for new 3G operators to access existing 2G networks.

The licensing approach proposed by the TA will result in a market where only four 3G networks licenses are issued, and as such there will be more than sufficient market forces at play. Should there exist even one new market entrant, then this would mean that three, meaning one half, of the current 2G network operators were themselves without a 3G license.

However, should the TA decide to mandate domestic roaming, then the TA should also grant an automatic extension of 2G licenses without any material changes to the current terms for those network operators who are subject to this mandate, the reasons being:

- 2G licensees that intend to bid for a 3G license will be unable to commit on domestic roaming, given the additional investment required to support domestic roaming and the fact that their current 2G license is going to expire.
- Both the incumbent and new entrant 3G bidders will have a higher risk in their 3G business cases, with the future of 2G networks (which are important in the early stages of 3G network buildout) remaining unnecessarily unknown.

Separately, CWHKTCSL notes that in all likelihood the “sunset” date of five years would not be interpreted by the public as promoting aggressive buildout of 3G networks and raises questions as to the competitive expectations to be placed on 3G licensees under their pre-qualification commitments. As such, the TA may wish to reconsider this figure.

Renewal of 2G Licenses

There remains unanswered in this consultation paper the matter of renewal of existing 2G network operator licenses. For incumbent 2G network operators, this makes the formulation of a reliable business plan extremely difficult. CWHKTCSL believes that the future arrangement for these licenses should be made known before the commencement of licensing additional mobile services. Furthermore, CWHKTCSL strongly believes that 2G spectrum granted to existing 2G licensees should be renewed based on original terms and conditions.

CWHKTCSL has made substantial investment in infrastructure and services over the years and our commitment to the development of Hong Kong into a regional telecommunications hub is indisputable. The TA’s decision to introduce further competition into the market by issuing additional mobile licenses has changed the mobile competitive landscape and this

change was not anticipated by CWHKTCSL when it made its decision to enter into the 2G business. As a result, CWHKTCSL's original 2G business plan has been disrupted.

Conclusion

It is vital that the licensing framework for 3G mobile services be set in a manner which will result in the maximization of benefits to the telecommunications industry, the consumers it serves, and above all, the economy as a whole. The licensing framework as currently proposed by the TA is not conducive in achieving that objective. This, in turn, may stifle Hong Kong's effort to remain a global telecommunications and business hub.

The issues raised in this paper are cognisant of the financial reality surrounding the emerging 3G mobile industry. Financial institutions are no longer secure in their unwavering belief that telecommunications represents a low-risk investment. Huge sums are being put into the creation of a new industrial revolution the likes of which has not been seen for some time.

OFTA and ITBB need to address the fundamental policy question of what is the goal: community benefits or cash. A failure to address this prevents the creation of a coherent policy. In addition, the MVNO concept, while useful, must rely on market forces and recognize the variety of risks assumed by the network licensees in building 3G networks.

Importantly, OFTA must further provide information, clear and concise, in respect of its plans for license award (merit or auction), MVNO or resale, and other important details so that logical and financially viable business plans can be established. CWHKTCSL sincerely hopes the views as expressed in this submission will be useful to the TA and would welcome an opportunity to discuss this submission, or any part of it, with the TA and his staff.