

6 October 2004

Office of the Telecommunications Authority
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Wanchai
Hong Kong

By post and by fax
Fax no. : 2803 5112

Attn: Mr. Herbert Fung, SRAM (C)3

Dear Sirs

Re: Guidelines on the Principles and Methodologies for the Interconnection Charges to Mobile Virtual Network Operators (MVNOs) and Tariffs for Content or Service Providers ("CSPs") by Mobile Carrier Licensees Operating in the 1.9-2.2 GHz Band ("MNOs")

We refer to the consultation paper in respect of the subject matter ("Consultation Paper") issued by the Telecommunications Authority (the "TA") on 6 August 2004. Our submissions to this Consultation Paper are set out below:

1. **Costing Principles**

We agree that there should be a single and consistent set of "cost based" principles for the TA to determine the open network access ("ONA") charges payable by MVNOs and the tariffs for CSPs in case regulatory intervention is necessary e.g. when commercial agreements cannot be reached between the relevant parties. However, based on the reasoning set out below, we disagree that the set of principles adopted by the TA for the determination of ONA charges be used for the purposes of the "arm's length" and "anti-avoidance" provisions under SC13 to calculate network turnover and spectrum utilization fee.

One of our concerns is that, due to the competitiveness of the retail telecommunications market, an MNO should be fully entitled to formulate its own business strategies including determination of the pricing of its network capacity. To remain competitive in the retail market, an MNO may in response to market conditions have to sell network capacity below cost. For example, the market price of network capacity is \$5 per bit/second while the relevant cost is \$7 per bit/second. Due to market forces, an MNO may have no choice but to sell its network capacity at \$5 per bit/second or even lower prices.

According to the Hong Kong Third Generation Mobile Services Licensing Information Memorandum issued by the TA in July 2001 (“IM”), the spectrum utilization fee payable by an MNO comprises of, inter alia, (i) a minimum annual payment for each of the first 5 years after the grant of 3G licences and (ii) the higher of the minimum annual payment for each year **or** the royalty amount equivalent to 5% of the annual Network Turnover (as defined in the IM) of such MNO starting from the sixth year after the grant of 3G licences. By adopting such payment mechanism which ensures that the Government will at least receive a fixed amount from an MNO, the TA must have recognized the high risk nature of a 3G business when it issued the IM. In fact, the advantages of adopting such payment mechanism were set out by the TA in his Further Industry Consultation Paper issued on 3 October 2000. Firstly, an MNO is not required to come up with a hefty upfront payment. Secondly, the financial risk borne by the Government would be minimized since the Government is entitled to receive from an MNO a minimum annual payment each year even though such MNO’s 3G business may be at a loss in that year. On the other hand, it can share the upside benefits with MNOs. According to the 3G licence conditions, each MNO has committed to a total minimum royalty payment which amounts to more than HK\$ 1.3 billion. The Government’s interest is certainly well protected under this payment mechanism.

It appears that the TA now proposes to determine Network Turnover and calculate spectrum utilization fee based on deemed costs, which are to be determined by the same costing principles and methodologies used for determining ONA charges. If that is the case, an MNO may have to pay a royalty on top of the minimum annual payment while it is actually making a loss in its 3G business. We take the view that this newly proposed charging method is inconsistent with the payment mechanism referred to in the IM and is totally unreasonable.

2. **Relevant costs – short run or long run?**

It is provided in the Consultation Paper that the policy framework of ONA is to provide fair and adequate compensation to MNOs for network resources consumed under ONA. Hence, an MNO should be able to recover its cost plus a reasonable return on its investment.

The Consultation Paper proposes that the relevant costs for the provision of ONA should follow the principles of “long run” and “total service”, including “corporate overhead costs”. We share the TA’s view about these principles.

3. **Reference carrier – efficient, mean, marginal or individual?**

Paragraph 24 of the Consultation Paper outlines the relevant costs across different MNOs and suggests that “the relevant costs of ONA charges should be the cost of individual carriers”.

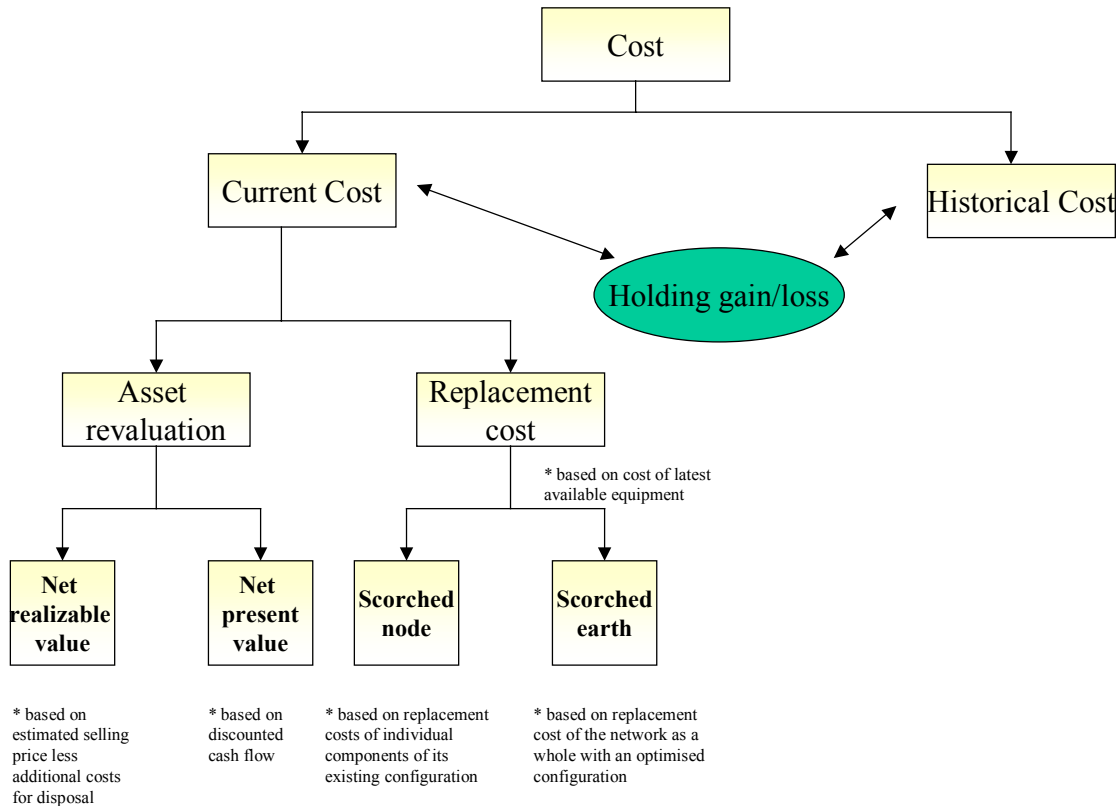
We agree with this TA’s proposal. As 3G technology is a new technology to the telecommunications market, the risk of investment therein is considerably high. Due to different business strategies of the MNOs, they may have different requirements for their respective 3G networks including network configuration, network quality and coverage. Also, the types of services to be provided and the equipment vendors to be engaged by them may also differ. Hence, the use of “efficient carrier”, “marginal carrier” and “mean carrier” will discourage investment and impair fair competition of the 3G telecommunications market. Moreover, if any of the said three carriers is used to calculate the relevant costs of ONA charges, your office will have to undertake a heavy administrative burden in working out the relevant unit cost. In any case, we believe that it will be extremely difficult to find out the relevant cost of each of these carriers. On the other hand, the “individual carrier” method will enable an MNO to obtain a fair and adequate compensation for its investment. Investments by MNOs in the 3G telecommunications market will thus be encouraged.

4. **Cost standard - current or historical cost?**

The TA proposed in paragraph 26 of the Consultation Paper that current cost standard should be adopted in the calculation of ONA charges.

We also note that current cost can be derived from the asset revaluation approach or the replacement cost approach as summarized below:

Cost standard



The TA proposed in paragraph 33 of the Consultation Paper that the current cost for the provision of ONA should be the replacement cost based on the SNA approach. He further proposed in paragraph 37 of the Consultation Paper that holding gain/loss should be recognized in the calculation of ONA charges during the year in which such gain/loss is incurred.

It is our understanding that current cost accounting is a theoretical concept and is not commonly applied in Hong Kong. The demerits of adopting such accounting method in the calculation of ONA charges are set out below:

- i) Current cost accounting requires a perfect market where price information is easily obtainable. However, due to rapid changes of technology, it will almost be impossible to obtain a quotation for an equipment, the quality and functions of which are comparable to those of the equipment in

question. It follows that there will not be sufficient market information for an MNO to assess the revaluated or replacement cost of its equipment.

- ii) The cost of each type of telecommunications equipment may vary as each equipment is tailored made to suit the requirement of a particular MNO. If current cost accounting is adopted, there may be room for human manipulation as an MNO can choose those cost figures which are favourable to itself in its calculation of ONA charges.
- iii) The adoption of current cost accounting will increase the administrative burdens of the MNOs. To fulfill the TA's requirement, substantial resources are required by an MNO to restate its financial statements at current costs. It will have to obtain quotations for building individual network components and re-designing its network configuration as a result of technology changes. The costs for such additional works will have to be shifted to MVNOs and end customers. This will in turn adversely affect customers' demand for 3G services which is against the TA's objective "to ensure that Hong Kong has high quality telecommunications services available at competitive prices".

Apart from these additional administrative burdens for MNOs, in view of the complicated valuation process, current cost accounting will also make it difficult for the TA to determine if the current cost adopted by an MNO is a fair estimate.

- iv) In view of rapid technological advancement, it is highly likely that the cost of network construction will drop significantly within a short period of time. As such, the cost incurred by the first mover in building a 3G network, the configuration of which is the same as or similar to that of any late comer, will be much higher when comparing to the cost so incurred by a late comer.

The historical cost of an asset reflects the actual cost incurred by an MNO in acquiring such asset whereas the current cost only indicates the existing value of this asset in the market. Based on the abovementioned reasons, the historical cost of a telecommunications equipment incurred by the first mover is likely to be much higher than the current cost of this equipment. It follows that the use of current cost in calculating the ONA charges will not only penalize the first mover as it is unable to recover its initial investment from MVNOs, it will also deter all MNOs from making further investments in their 3G businesses. Development of the 3G mobile industry will thus be hindered. This is against OFTA's objective "to maintain sufficient incentive for network investment".

Based on the above reasons, we believe that current cost accounting is not suitable for the calculation of ONA charges. Instead, we propose to adopt historical cost accounting in the calculation of ONA charges as this method provides more objective and fair figures.

However, if the TA finally decides to adopt current cost accounting despite the demerits set out above, we believe that the replacement cost under the scorched node approach will provide a more equitable result than other current cost accounting methods.

Also, to ensure that an MNO is able to fully recover the costs for its initial investment and hence maintaining incentive for an MNO to invest in its network infrastructure, holding gain/loss should be recognized in calculating the ONA charges under current cost accounting.

5. **Asset life- physical or economic life?**

In paragraph 34 of the Consultation Paper, the TA proposed that network assets should be depreciated over the economic life in the calculation of ONA charges.

Technological evolution will usually cause an end to the economic life of a telecommunications equipment before its physical wear-off. Hence, by adopting the economic life of an asset in the calculation of ONA charges, the risk of any telecommunications investment can be better reflected.

6. **Annualisation methods – straight line, accelerated or flat annuity?**

Paragraph 35 of the Consultation Paper provides the following annualisation methods for the calculation of ONA charges:

- (i) straight-line method
- (ii) accelerated method
- (iii) flat annuity method

In paragraph 39 of the Consultation Paper, the TA proposed to adopt straight-line method in calculating ONA charges. We support the TA's view and believe that straight-line method provides the most equitable and efficient way for an MNO to recover from MVNOs its network resources consumed under ONA.

7. **Network capacity**

According to paragraph 42 of the Consultation Paper, an MNO may choose to measure its network capacity by way of busy-hour traffic, total traffic over a defined period or any other methods as appropriate.

Although charging by volume of traffic is a common practice for both 2G and 2.5G retail businesses, we are of the view that such charging method is not suitable for 3G wholesale business. In the fixed line internet market, the unit charge is measured by bandwidth rather than volume of traffic. In view of the convergence of fixed and mobile internets, we believe that the calculation of ONA charges should be based on bandwidth instead of volume of traffic.

Furthermore, our cost structure is primarily based on peak hour bandwidth and peak hour throughput. Our preference for peak hour bandwidth can be illustrated by the following example:

- peak hour bandwidth committed by MVNO1 is 1Mbit/second per month while the volume of traffic consumed by MVNO1 per month is 1 Mbyte.
- peak hour bandwidth committed by MVNO2 is only 1 Kbit/second per month while the volume of traffic consumed by MVNO2 can be as high as 10 Mbytes.
- If network capacity cost is based on volume of traffic, the cost chargeable to MVNO2 will be higher than that to MVNO1. However, it is certainly more expensive for us to meet the requirement of MVNO1.

8. **Discounts in pricing**

We agree with the TA that discounts given by MNOs to different service providers will not constitute discriminatory pricing if the level of charges so applied can be justified by objective criteria e.g. contract commitment term, payment term and other risk factors. However, we disagree that any discounts offered to MVNOs or CSPs have to be published. An MNO may not be able to disclose to any third party the pricing offered to an MVNO or a CSP if such pricing is subject to confidentiality requirement (a common requirement in most commercial contracts). Even if an MNO is allowed to disclose the pricing pursuant to its commercial agreement with an MVNO or a CSP, the discounted price published may mislead the public as factors causing the discount may be unknown to them due to confidentiality. Should the TA require information regarding any discounted prices, we will always endeavour to supply such information to the TA.

9. **Actual utilization or efficient capacity?**

If the utilization of a network is below its efficient capacity, the actual utilisation figure instead of the effective capacity figure should be used for the purpose of calculating ONA charges as it is unfair for an MNO to bear the cost of unused capacity while MVNOs and CSPs can enjoy economies of scale. In addition, we are of the view that the calculation of wholesale tariff should not be based on individual network components but the actual throughput of the whole network since we are supporting and managing an integrated network.

10. **Cost of capital**

We agree with the TA's proposal that the cost of capital after the initial 3 years of licence period should be calculated in the form of WACC. As the financial structure of an MNO differs from each other, we agree that the WACC used for calculating ONA charges should be based on individual carriers.

Due to the inherent risk of the 3G network business, we also agree that the WACC for such business should be above market average. In addition, as each MNO has committed to a long term and risky investment, we take the view that a higher risk factor should be incorporated for calculating the ONA charges for short term investments by MVNOs or CSPs. However, if there exists a transfer price between internal business units, we consider that the risk factor used for calculation of charges should be substantially lower as the relationship of the network and retail businesses of an MNO is on a long term basis and no financial risk is involved in such relationship.

11. **Periodic review**

We note that the TA is prepared to review the guidelines as and when necessary, either at his own initiatives or upon request from the industry, to ensure that the charging principles will continue to reflect the prevailing market conditions. On this basis, we have no objection to the TA's preliminary view that the guidelines be reviewed no less frequent than every three years.

Yours faithfully
For and on behalf of
Hutchison 3G HK Limited

Joanna Wong
Legal Counsel

