

5 June 2014

Australian Competition and Consumer Commission  
[MTASFADInquiry@acc.gov.au](mailto:MTASFADInquiry@acc.gov.au)

**Mobile terminating access service:  
Final access determination Draft decision**

**Your reference**

**Our reference**

Macquarie Telecom Pty Limited ("**Macquarie Telecom**") welcomes the opportunity to make this submission to the Australian Competition and Consumer Commission ("**ACCC**") in response to the ACCC's draft decision and associated benchmarking analysis concerning the above.<sup>1</sup> On 6 May 2015, the ACCC released a draft decision on the primary price terms for the MTAS FAD to apply from 1 January 2016 to 30 June 2019.

The *Final access determination Draft Decision* ("**Draft MTAS FAD**") represents the almost final step in the declaration process. The Draft decision records the ACCC's decision to determine (i) the mobile termination rate using an international benchmarking approach and (ii) the SMS termination rate using the sum of conveyance cost of SMS termination and the SMS delivery specific cost elements, namely SMS Centres (SMSCs). Macquarie Telecom records its strong support for such costing approaches and believes them to be reasonable, empirically robust and in the long-term interests of end-users ("**LTIE**"). This is notwithstanding that Macquarie Telecom believes that the pure LRIC approach is the most appropriate for Australia and the most likely to ensure the LTIE is maximised.

The Draft decision also seeks views on its draft regulated rates for both voice and SMS termination, the timing of the application of those new regulated rates and the ACCC's decision not to impose mandated pass-through of MTAS reductions. Macquarie Telecom's specific comments on the MTAS FAD Draft decision are included in Appendix A of this submission.

The Draft MTAS FAD includes an accompanying final report paper prepared by WIK Consult entitled *Benchmarks for the cost of Mobile Termination Access Service in Australia: Final Report* ("**WIK Consult Report**"). Macquarie Telecom's specific comments on the WIK Consult Report are included in Appendix B of this submission.

Macquarie Telecom has been for some time of the view that, since the last MTAS final access determination ("**FAD**") in 2011, fundamental developments in technology, market structure and consumer behaviour have led to significant reductions in the cost of providing MTAS. Along with these recent developments, Macquarie Telecom also considers that the deployment of 4G/LTE voice and SMS services will lead to a further dramatic reduction in the cost of MTAS in the near future. Such views have been well supported in the WIK Consult Report.

---

<sup>1</sup> ACCC, Mobile terminating access service: Final access determination Draft decision paper, May 2015 ("**Draft MTAS FAD**").

Macquarie Telecom's conclusions presented in this submission can be summarised as follows:

Macquarie Telecom:

- endorses a cost-based approach to the setting of regulated prices for the MTAS;
- believes that the ACCC is taking an efficacious approach to determining the mobile termination rate using an international benchmarking approach and the SMS termination rate by summing the relevant incurred cost;
- supports the proposed decision to adopt a MTAS price of 1.61 (cpm) for voice termination for the FAD period until 30 June 2019 notwithstanding that Macquarie Telecom considers that the use of TSLRIC+ cost model and the lack of an explicit reduction in the MTAS price due to the take-up of VoLTE overcompensates the MNOs especially over the period of the MTAS. Consequently, in relation to the latter, Macquarie Telecom requests the ACCC to include a formal trigger for a reduction in the MTAS price for voice and SMS termination when VoLTE penetration in Australia reaches 25 percent;
- supports a SMS termination rate of 0.028 cents per SMS as computed by WIK Consult and highlights that there are compelling reasons why the ACCC's regulated SMS termination rate should be brought forward to 1 July 2015; and
- proposes mandatory pass-through of MTAS voice and SMS reductions being imposed on dominant integrated operators to ensure that consumers are able to benefit from reduced costs in the form of lower retail prices that better reflect the cost-structure of providing services. Securing such pass-through is critical in the next stage of MTAS and SME termination reductions and ought to be supported by mechanisms including incorporation in the RKR as it is more likely to lead to retail competition and hence ultimately end users enjoying rate reductions.

In summation, the ACCC must recognise that it is imperative that MTAS regimes are set and available for voice calls, SMS and data on 3G and on 4G/LTE data termination. This is vital for the LTIE. Consumers need choice and the opportunity to take advantage of bundled service packages, so MVNOs should be allowed to have commercially agreed deals on both 3G and 4G/LTE networks. It ought to be noted that while the MTAS FAD will be helpful to mobile competition it is insufficient to address Telstra's current anti-competitive conduct in the market for mobile telecommunications services.

Macquarie Telecom would be pleased to engage directly with the ACCC going forward to elaborate on its thinking on any of the matters raised in this submission. Should you have any queries concerning this submission, please feel free to contact me.

Yours sincerely,

Matt Healy  
National Executive – Industry and Policy  
Macquarie Telecom Pty Ltd

T 03 9206 6847

E [mhealy@Macquarietelecom.com](mailto:mhealy@Macquarietelecom.com)

## MACQUARIE TELECOM'S COMMENTS ON FINAL ACCESS DETERMINATION DRAFT DECISION

Macquarie Telecom is a mobile virtual network operator ('**MVNO**') providing mobile services to its customers on the networks operated by all three of Australia's mobile network operators ('**MNOs**') (i.e. Telstra, SingTel Optus and Vodafone Hutchison Australia).

The comments contained in this Appendix are therefore from the perspective of a carrier neutral wholesale service acquirer and a long-term industry participant that supports sustainable and effective sector competition. Macquarie Telecom has made comments on each of the sections in the MTAS FAD Draft decision highlighting key issues and detailing arguments as to why certain aspects of the Draft decision are endorsed and/or where certain changes are needed.

### 2. ACCC APPROACH TO PRICING THE MTAS

In relation to ACCC's proposed approach to pricing the MTAS, Macquarie Telecom notes the relevant legislative requirements (specifically section 152BCA of the *Consumer and Competition Act*) and how the ACCC proposes to address them. From Macquarie Telecom's perspective it is critical that the decisions on the MTAS and SMS termination are assessed through the prism of competition and the importance of setting terms and conditions – including pricing based on costs – in respect of declared services. Such an approach is likely to best promote the long term interests of end-users ('**LTIE**').

In this context, Macquarie Telecom therefore:

- Endorses a cost-based approach to the setting of regulated prices for the MTAS;
- Is strongly supportive of the ACCC's decision of taking an efficacious approach to determining:
  - (i) the mobile termination rate using an international benchmarking approach; and
  - (ii) the SMS termination rate by summing the relevant incurred cost. In this case summing the sum of conveyance cost of SMS termination and specific cost elements associated with SMS delivery, namely SMS Centres (SMSCs).

Macquarie Telecom believes both approaches to be reasonable, empirically robust and in the LTIE. Based on our research as well, it is not possible to determine SMS termination based on international benchmarks as there are few global studies. However, those markets which have modelled SMS costs, namely Denmark, Malaysia, etc have embraced a similar methodology and computed prices of a similar magnitude (see the detailed discussion in [Appendix B](#), Section E).

### 3. PRICE TERMS FOR MOBILE VOICE TERMINATION

Macquarie Telecom's comments on the proposed costing methodology and related issues on mobile voice termination are detailed below.

#### ***Optimal pricing framework***

Macquarie Telecom continues to be strongly of the view that the TSLRIC+ methodology is not the most appropriate choice available for determining the regulated price of wholesale mobile voice or SMS termination services. Macquarie Telecom believes the pure LRIC method would best promote the LTIE. In 2007, the ACCC developed four key criteria that it considered needed to be satisfied when implementing a TSLRIC+ model. These were:

1. The total costs of providing the service should not exceed the stand-alone costs;
2. Common costs should not be 'over-recovered';
3. Common costs must be common to (shared by) the declared service and not unduly allocated to that service; and
4. The inclusion of common costs (incorporated into the access price) in the internal transfer price of a vertically integrated firm.

Macquarie Telecom submits that the TSLRIC+ model adopted by the ACCC does not avoid the possibility that common costs are 'over-recovered' or unduly allocated to the MTAS (criteria 2 and 3 above). Macquarie Telecom believes that by allocating these costs in an "arbitrary" way, the TSLRIC+ model risks an MTAS rate that is higher than what would otherwise exist under competitive conditions. The TSLRIC+ method is therefore less likely to maximise the LTIE than a pure LRIC approach.

From Macquarie Telecom's review of the MTAS FAD Draft Decision, the key driver behind the ACCC's decision to continue to support TSLRIC+ model for mobile termination is the risk that a pure LRIC framework will result in cost under-recovery for the MNOs. Given voice traffic comprises only 1.64 percent of total and is falling rapidly, where is the risk of significant under-recovery? Macquarie Telecom does not consider that a 1 percent factor is going to discourage investment in mobile infrastructure when each and every statement from the Australian MNOs is about investing to significant sums to address surging demand for wireless broadband.<sup>2</sup>

Globally, mobile data traffic is estimated to increase 11-fold between 2014 and 2019.<sup>3</sup> In Australia, the growth is even more rapid with the ABS reporting in April 2015 that the volume of data downloaded via mobile handsets for the three months ended 31 December 2014 was 52,745 Terabytes, a 36 percent increase from the three months ended 30 June 2014.<sup>4</sup> If such growth continues to follow such a trend, then the voice (and SMS) services on the mobile networks will be less than 1 percent by end of 2015. It may indeed be materially lower if the current industry trend to offer significantly higher monthly mobile download caps to consumers continues.<sup>5</sup>

In this context, the risk is that there will be significant over-recovery by the MNOs, like there has been under the current MTAS FAD. Given almost all of the international benchmarks identified by WIK Consult (see page 25 of the WIK Consult Report) developed and applied pure LRIC as their costing standard it would be relatively straightforward for the benchmark analysis to be re-run using pure LRIC benchmarks. If this was done then, forward looking prices could be determined.

---

<sup>2</sup> For example, Optus is investing AUD1.75 billion in mobile phone infrastructure focusing on improving Optus's 4G mobile data coverage and performance, with the technology identified as key to attracting and retaining customers.. See [www.abc.net.au/news/2015-05-14/optus-plans-large-mobile-investment-as-profits-stagnate/6469376](http://www.abc.net.au/news/2015-05-14/optus-plans-large-mobile-investment-as-profits-stagnate/6469376) and [www.itnews.com.au/News/392010.telstra-expands-700-mhz-lte-network.aspx](http://www.itnews.com.au/News/392010.telstra-expands-700-mhz-lte-network.aspx) regarding Telstra's investment of AUD1.3 billion in LTE network coverage in late 2014.

<sup>3</sup> *Cisco Visual Networking Index: Forecast and Methodology, 2014–2019*, 27 May 2015. Mobile data traffic will grow at a CAGR of 61 percent between 2014 and 2019, reaching 15.9 exabytes per month by 2019.

<sup>4</sup> Australian Bureau of Statistics, *8153.0 - Internet Activity, Australia, December 2014*, 1 April 2015. For the 21.0 million mobile handset subscribers, this equates to 0.8 GB of data downloaded per subscriber per month. This figure excludes fixed wireless, and mobile wireless via a datacard, dongle, USB modem or tablet SIM card and other wireless broadband which is reported by the ABS including satellite services at another 34,339 TB for December 2014.

<sup>5</sup> See for example, [www.smh.com.au/business/telstra-ups-download-deals-to-challenge-competition-20150329-1ma9k6.html](http://www.smh.com.au/business/telstra-ups-download-deals-to-challenge-competition-20150329-1ma9k6.html)

### ***International benchmarking is the most appropriate pricing methodology***

As indicated in Macquarie Telecom's earlier submissions to the ACCC's Mobile terminating access FAD inquiry (including the submission made on 3 September 2014), there is a high degree of support for the global benchmarking of MTAS rates approach (although as indicated Macquarie Telecom favours the use of a pure LRIC cost modelling). Our support is for a number of reasons including, not least the time it would take to develop a new bottom up costing model. In Macquarie Telecom's view, the industry and indeed the LTIE cannot wait. It has been clear that the cost of MTAS has fallen substantially but this has not been reflected in the regulated prices for the declared service.

Macquarie Telecom therefore considers global benchmarking studies to be empirically valid and more than capable of satisfying the applicable statutory requirements. A forward-looking MTAS pricing approach based on an efficient network is required to ensure that operators have an incentive to deploy 4G/LTE services as quickly as possible. Macquarie Telecom notes that the decrease in underlying unit costs associated with delivering voice and SMS services have been recognised in other global markets. This is reflected in substantial decreases in mobile termination rates including in Europe and other markets.

### ***WIK Consult benchmarking study***

Having assessed in some detail the analysis undertaken in the WIK Consult Report Macquarie Telecom strongly endorses, in general terms the conclusions on the MTAS benchmark rate including their recommendations in relation to the SMS termination rate. Macquarie Telecom's detailed set of comments on the WIK Consult Report are contained in Appendix B.

Macquarie Telecom notes that results of that benchmarking study confirm its view that the cost of voice termination today has already fallen substantially and will fall even further as voice and video calling over LTE (VoLTE) network trials which are underway or completed in all of the MNOs, leading up to commercial services later in 2015.<sup>6</sup>

### ***Draft mobile termination rates for 2015-2019***

Macquarie Telecom notes the ACCC's proposed decision to adopt a MTAS price of 1.61 (cpm) for voice termination for the FAD period until 30 June 2019. Macquarie Telecom also considers that the decreasing mobile voice termination rate will continue to benefit end-users of mobile services and fixed-line voice services in the form of lower retail prices and more generous inclusions of calls in included-value plans.

Macquarie Telecom is strongly supportive of an approach which sees a short period of transition until 1 January 2016 and a single change to the voice termination rate for the declared service from that date. Given the MNOs are:

- (i) well aware of the substantial falls in the cost of delivering voice termination due to their adoption of more efficient technology 3G networks (which has improved their financial performance), and increasing usage of their networks for wireless data (which has prompted various investments);
- (ii) the significant price reductions for similar regulated mobile termination services globally; and
- (iii) the lengthy Mobile terminating access FAD inquiry where the ACCC has signalled that material reductions in MTAS prices were likely,

there are no compelling reasons for a drawn out transition period and/or the imposition of a glidepath. The MNOs have been overcompensated and will continue to be over-compensated for the rest of 2015. Likewise, with the introduction of VoLTE services which Macquarie Telecom expects will be very quickly adopted in Australia, the MNOs will be over-compensated during the period until further MTAS price reductions are mandated by the ACCC.

---

<sup>6</sup> See for example, [http://www.ericsson.com/news/150301-ericsson-and-telstra-continue-to-drive-australias-mobile-future\\_244069647\\_c](http://www.ericsson.com/news/150301-ericsson-and-telstra-continue-to-drive-australias-mobile-future_244069647_c)



#### 4. PRICE TERMS FOR SMS TERMINATION

Macquarie Telecom’s comments on the proposed costing methodology and related issues on SMS termination are detailed below.

##### **ACCC’s position on the pricing approach for SMS termination**

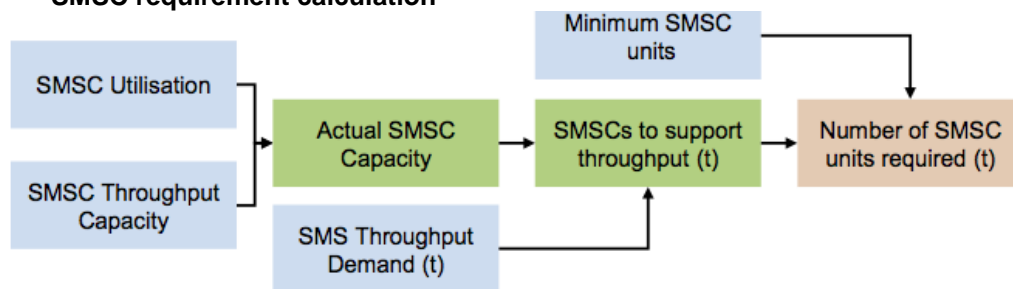
Macquarie Telecom is strongly supportive of the setting a regulated price for SMS termination in Australia. The approach adopted in the MTAS FAD Draft decision is reasonable and satisfies the respective legislative requirements.

##### **WIK Consult’s advice and derivation of SMS termination cost**

Macquarie Telecom supports the derivation of the costs of SMS proposed by WIK Consult. As indicated in its earlier submissions it is possible to set an SMS price based on the relative network capacity used by a voice call and an SMS. Macquarie Telecom also acknowledge and support an explicit inclusion of the costs of SMS centres (“SMSCs”) which contain the dedicated equipment required for the handling of large volumes of SMS through the network as proposed by WIK Consult.

However, if the MNOs dispute the estimation of their SMSC investment and alike detailed in Table 5-3 of the WIK Consult Report (which they may do), then Exhibit 1 below details the SMSC requirement calculation which should inform any subsequent adjust.

##### **Exhibit 1: SMSC requirement calculation**



(t) = by time

Source: Analysys Mason, 2012

On the computation of the total costs of terminating an SMS, namely 0.028 Australian cents for SMS, Macquarie Telecom has for some time, held the view that the cost to the MNO of SMS termination is very low and that the current commercially negotiated wholesale SMS termination prices in Australia are significantly above cost. For this reason, we do not consider WIK Consult’s computed cost per SMS to be low or unusual especially given other benchmarks which Macquarie Telecom has included in Section E of Appendix B. It is a well-known industry “secret” that SMS is the most profitable mobile service – other than perhaps international roaming.

That MVNO’s typically pay more than MNO retail customers for SMS demonstrates the market power that the MNOs possess and the inability for wholesale competition to constrain the upstream service providers. Given the approximately 200 times mark-up that the MNOs impose on MVNOs for SMS, Macquarie Telecom believes that the Commission must ensure pass through of the regulated SMS post January 2016 in order for consumers to ultimately be the beneficiaries of prices aligned to cost.

##### **Draft SMS termination rates for 2015-2019**

Macquarie Telecom notes the ACCC’s proposed decision to adopt a regulated SMS termination rate of 0.03 cents per SMS which will be a flat fee for the entire FAD period until 30 June 2019.

Macquarie Telecom is strongly supportive of an approach which sees a short period of transition. While the ACCC proposes a period of transition until 1 January 2016 Macquarie Telecom considers that the SMS termination rate should begin as soon as practicable, say 1 July 2015. Given that the ACCC has found that current commercially negotiated wholesale SMS termination prices are well above cost and Macquarie Telecom has provided evidence of this given the terms and conditions of its MVNO agreements with the MNOs, why should there be no price regulation of this service until next year?

Further, for the reasons noted above, the Commission ought to impose upon the MNOs a requirement to evidence that the regulated rate reductions ought flow to MVNOs to ensure that downstream retail competition is promoted.

Again, given the MNOs:

- (i) Are well aware of extreme margins that they enjoy on the wholesale SMS termination rates which Macquarie Telecom and other resellers/MVNOs have been offered;
- (ii) Are knowledgeable concerning the 2013 declaration inquiry which found that commercial SMS termination rates have been well above cost for many years and that this may have constrained the ability to offer more competitive retail SMS packages; and
- (iii) the lengthy Mobile terminating access FAD inquiry where the ACCC signalled substantial reductions in the SMS termination rate were likely;

there are no compelling reasons for a drawn out transition period and/or the imposition of a glidepath for SMS termination rates. The MNOs have been overcompensated and will continue to be over-compensated if the SMS termination rates only apply from 1 January 2016. Any further delay is not in the LTIE.

Macquarie Telecom also notes that:

- there is no justification in the Draft decision for an additional 7 percent markup above the computed WIK Consult SMS termination rate (ie 0.28 cents per SMS rising to 0.3 cents per SMS in the FAD MTAS). Macquarie Telecom supports the lower assessed figure being applied to regulated SMS termination rates; and
- Similar to the ongoing review of MTAS voice termination rates as a consequence of take-up of VoLTE, a similar approach is necessary for SMS over LTE. SMS is supported over LTE. The solution is twofold, covering both the full IP Multimedia Subsystem (IMS) case and a transition solution.<sup>7</sup> It is likely that SMS over LTE will be able to be provided at an even lower cost (close to zero) that circuit switched SMS termination meaning that regulated price will need to be reviewed in 2019 (or perhaps earlier depending on the penetration of SMS over LTE).

## **5. FIXED TO MOBILE PASS THROUGH**

Macquarie Telecom read with great interest the analysis contained in the section 5 of the MTAD FAD draft decision concerning the level of fixed to mobile pass through.

Macquarie Telecom continues to hold the view that the lack of competitive pressure means that integrated operators have little incentive to pass through savings from reductions in the MTAS directly to consumers in the FTM price. Dominant integrated providers also have the ability to use their savings from the regulated reductions in the MTAS voice and SMS rates to subsidize price reductions in services or geographic areas where competition does exist. As discussed in Macquarie Telecom's earlier submissions to the ACCC, we believe a pass-through measure on dominant integrated operators would be more effective in promoting the LTIE while adhering to a consistent cost-based pricing methodology. Additionally, we believe a pass-through measure would provide greater flexibility by allowing mandated pass-through to be imposed only on dominant integrated operators.

<sup>7</sup> See a good explanation in [http://cdn.rohde-schwarz.com/pws/dl\\_downloads/dl\\_application/application\\_notes/1ma197/1MA197\\_1e\\_voice\\_and\\_SMS\\_in\\_LTE.pdf](http://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ma197/1MA197_1e_voice_and_SMS_in_LTE.pdf)

Macquarie Telecom also continues to believe that the MTAS for both FTM and MTM should be passed through to all wholesale service operators and fixed and mobile virtual network operators. There should be an even playing field to ensure all operators have an opportunity to compete and deliver the highest possible value to customers. Specifically the ACCC should emphasis its expectations about the level of pass through of the new rates to wholesalers. As highlighted in recent submissions by Macquarie Telecom to the ACCC<sup>8</sup> there are fundamental issues related to the regulation of mobile and wireless services in Australia which need review.

Going forward, given the significant reductions in the MTAS regulated prices which will apply from 1 January 2016 and the likelihood that further material falls will be mandated in 2019 (if not earlier), Macquarie Telecom considers that it is in the LTIE for the ACCC to put in place mechanisms now to ensure the pass through of these latest reductions including incorporating them in the Record Keeping Rules ("RKR") as this is more likely to lead to retail competition and hence ultimately end users seeing rate reductions.

Additional measures which the ACCC could look to include but are not limited to imposing requirements to file wholesale agreements with the ACCC, notifications being required to be provided before/after rate drops, and the imposition of other reporting measures to ensure that the MNOs offer the MVNOs rates that align with the ACCC's regulated wholesale rates set out in the MTAS FAD.

## 6. DURATION OF REGULATED TERMS AND CONDITIONS

Macquarie Telecom supports the ACCC's view that the MTAS FAD should expire at the same time as the current MTAS declaration on 30 June 2019 subject to two comments, namely:

- (i) **Macquarie Telecom considers that the SMS termination rate should be begin as soon as practicable, say 1 July 2015.** Given that the ACCC has found that current commercially negotiated SMS termination prices are well above cost and Macquarie Telecom is able to provide further evidence of this given the terms and conditions of its MVNO agreements with the MNOs, why should there be no price regulation until 1 January 2016, especially since MNOs are typically only willing to include pricing changes in their agreements after a regulatory decision takes effect. This means that prices for SMS termination will only be negotiated after 1 January 2016 and are therefore unlikely to change until mid 2016.

Macquarie Telecom would strongly suggest to the ACCC that effectively leaving SMS termination unregulated until such time – another year plus - does not promote sector competition or LTIE. Transition arrangements that effectively delay the implementation of an appropriate forward-looking cost-based price would result in the over-recovery of costs, which would be detrimental to the LTIE. The time to arrive at draft decision stage has already been lengthy; and

---

<sup>8</sup> See *inter alia* Macquarie Telecom, *Case for an urgent review of Australia's mobile regulatory frameworks*, 21 October 2013 and WPC, *Analysis of competition and restrictive practices in Australia's mobile and MVNO market For Macquarie Telecom*, FINAL 23 July 2014



- (ii) Macquarie Telecom is of a view that ***there should be a formal trigger for a reduction in the voice and SMS termination rate when VoLTE penetration in Australia reaches 25 percent.***<sup>9</sup> If level of penetration is reached (and Macquarie Telecom estimates that the VoLTE penetration in Australia will be 50 percent in 2020), then based on the WIK Consult Report (and the discussion in Appendix B), the fixed termination rate should be adjusted downwards by more than 30 percent. Macquarie Telecom considers that a formal trigger should be set to increase regulatory certainty. It would also be in the LTIE for MTAS rates to be reduced to reflect the benefits from technological innovation and changes in consumer behaviour.

Post 2019 (or if the trigger is met), then a new MTAS price path should be adopted with an end point of close to zero (which is the cost of termination on a LTE-LTE-A network). While these issues are discussed further in Appendix B, it is likely that in an all 4G environment, the voice termination price will be below 0.5 cents per minute and SMS termination being *de minimis*.

## **7. NON-PRICE TERMS AND CONDITIONS**

This is noted. Macquarie Telecom has separately provided into comments on the Draft Decision on Non-Price Terms and Conditions to the ACCC on 29 May 2015.

**- END -**

---

<sup>9</sup> Given estimates from Telsyte that more than 10 million smartphones are sold annually in Australia, it is possible that such a trigger could be reached in early 2018, depending on the sales of VoLTE smartphones. See [www.telsyte.com.au/?page\\_id=706](http://www.telsyte.com.au/?page_id=706).

**SPECIFIC COMMENTS ON THE WIK CONSULT: FINAL REPORT  
BENCHMARKS FOR THE COST OF MOBILE TERMINATION ACCESS SERVICE IN  
AUSTRALIA  
15 April 2015**

**A. Introduction**

Accompanying the MTAS FAD Draft decision, is the ACCC's consultant's WIK Consult's Final Report *entitled Benchmarks for the Cost of Mobile Termination Access Service, 15 April 2015 ("WIK Consult Report")*. Having assessed in some detail the analysis undertaken in the WIK Consult Report *Macquarie Telecom ("Macquarie Telecom") strongly endorses, in general terms the conclusions on the MTAS benchmark rate including their recommendations in relation to the SMS termination rate.*

This is notwithstanding that WIK Consult Report and its recommendations are based on Total Service Long-Run Incremental Cost Plus ("TSLRIC+") costing models rather than pure LRIC costing models and are generally conservative in their assumptions. In Macquarie Telecom's view this results in WIK Consult's MTAS benchmark recommendations being on the high side in 2016 (arguably double)<sup>10</sup> and even higher in 2019. The over-compensation embedded in the regulated MTAS rate payable to the mobile network operators is then amplified significantly during the period to 2019 as a consequence of *inter alia* the 2G network switchoffs by the MNOs which remove costs, and the take-up of VoLTE which will materially reduce costs further.

Macquarie Telecom's specific comments on the WIK Consult Report are detailed below. The sections referred to are the sections of the Report.

**B. Criteria specified in the ACCC ToR (Section 2)**

Firstly Macquarie Telecom considers that a pure LRIC pricing methodology rather than TSLRIC+ methodology is the most appropriate approach for the pricing of voice and SMS terminating services. A pure LRIC approach will be most likely to promote the LTIE by ensuring operators do not over-recover costs, with resulting distortions in wholesale and retail prices. It therefore would have been preferable if the Terms of Reference provided to the Consultant specified the development of both pure LRIC as well as TSLRIC+ benchmarks.

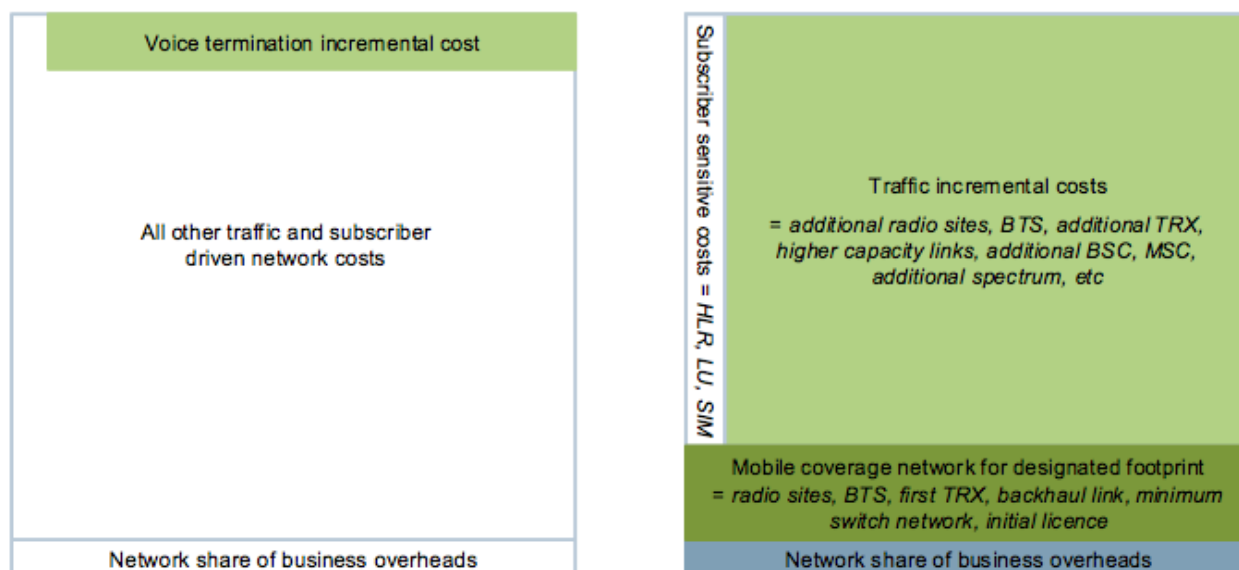
Globally, the purpose of an incremental cost model developed by industry regulators is to determine the cost a mobile operator would avoid if it did not have to provide a particular wholesale mobile terminating service. This can be understood conceptually using wholesale mobile voice termination as an example. Here, the incremental cost is the cost of a full network providing all services, including wholesale mobile voice termination, less the cost of a network providing all services except wholesale mobile voice termination.

Exhibit B.1 below shows how different cost bases are used to calculate the increment for pure LRIC and LRAIC+ (which is conceptually similar to TSLRIC+) for voice termination. The "+" in the LRAIC+ and TSLRIC+ designations indicates that common or organisational-level costs are included in the incremental cost of providing the voice termination service.

---

<sup>10</sup> WIK Consult on page 50 in relation to SMS costing states that LRAIC costs tend to be double pure LRIC costs meaning that any benchmarked MTAS rate based on TSLRIC+ and similar costing models is likely to be double the rate which would have applied if pure LRIC had been endorsed by the ACCC.

**Exhibit B.1: Comparison of cost increments used for pure LRIC and LRAIC+ LRAIC+**



Source: Analysys Mason, 2011

As acknowledged by WIK Consult in their report, primarily due to the large growth in the demand for data services in Australia, data comprises more than 98 percent of total traffic, with voice/SMS traffic the remainder.<sup>11</sup> This proportion of voice/SMS services of total traffic carried on Australian mobile networks is falling and falling fast.

Globally, mobile data traffic is estimated to increase 11-fold between 2014 and 2019.<sup>12</sup> In Australia, the growth is even more rapid with the ABS reporting in April 2015 that the volume of data downloaded via mobile handsets for the three months ended 31 December 2014 was 52,745 Terabytes, a 36 percent increase from the three months ended 30 June 2014.<sup>13</sup> If such growth continues to follow such a trend, then the voice (and SMS) services on the mobile networks will be less than 1 percent by end of 2015. It may indeed be materially lower if the current industry trend to offer significantly higher monthly mobile download caps to consumers continues.<sup>14</sup>

As a consequence, the carriage of voice and SMS traffic is incremental traffic and an incremental cost today. In the near future the costs of voice and SMS termination will be *de minimis* especially after the transition to an all-IP environment. The MTAS benchmarks ought reflect that reality.

Secondly, Macquarie Telecom notes that other elements of the benchmarking analysis by WIK Consult especially factors like “population density” throw cold water on arguments advanced by the MNOs for over a decade that MTAS rates should be materially higher in Australia due to the country’s unique circumstances. Such arguments have allowed a range of some common and organisational level costs when determining the price of the regulated MTAS to be included when there is little compelling rationale for do. Such arguments have even less weight going forward.

<sup>11</sup> WIK Consult, *ibid*, page 34.

<sup>12</sup> Cisco Visual Networking Index: Forecast and Methodology, 2014–2019, 27 May 2015. Mobile data traffic will grow at a CAGR of 61 percent between 2014 and 2019, reaching 15.9 exabytes per month by 2019.

<sup>13</sup> Australian Bureau of Statistics, 8153.0 - Internet Activity, Australia, December 2014, 1 April 2015. For the 21.0 million mobile handset subscribers, this equates to 0.8 GB of data downloaded per subscriber per month. This figure excludes fixed wireless, and mobile wireless via a datacard, dongle, USB modem or tablet SIM card and other wireless broadband which is reported by the ABS including satellite services at another 34,339 TB for December 2014.

<sup>14</sup> See fore example, [www.smh.com.au/business/telstra-ups-download-deals-to-challenge-competition-20150329-1ma9k6.html](http://www.smh.com.au/business/telstra-ups-download-deals-to-challenge-competition-20150329-1ma9k6.html)

Thirdly, the WIK Consult analysis in section 2.7 on spectrum allocations and section 2.9 on the cost of spectrum is also insightful. From Macquarie Telecom Telecom's perspective, we would make two comments, namely:

- The comparative low cost share which spectrum represents in Australia also fatally undermines an argument that mounted over the past few years that regulated MTAS rates needed to be higher due to large quantum of spectrum fees paid by Australian MNOs in recent ACMA spectrum auctions and for key IMT spectrum renewals; and
- The costs related to the 1800 MHz spectrum should be not allocated in any modelling to MTAS or SMS termination. This is because:
  - (i) The 1800 MHz spectrum band can, at the present time only be used for either 2G or 4G/LTE services, not 3G services. As such, with only 6 percent of all voice calls carried on 2G networks, it is likely that the use of 1800 MHz band for voice calls in Australia today is *de minimis*; and
  - (ii) All of the Australian MNOs have converted this band for LTE services in varying degrees since 2011.<sup>15</sup> The extensive use of the 1800 MHz band for LTE services has been acknowledged by ACMA as part of the decision to auction the 1800 MHz spectrum band in regional areas later in 2015.<sup>16</sup>

### **C. Selection of the Model (Section 3)**

Macquarie Telecom understands and supports the selection of the various costing models used by national telecommunications regulators to undertake the benchmark analysis in Section 3 of the WIK Consult Report. While it may have been better to have more models to benchmark, having 9 recent (less than 3 years old) models in the analysis makes such a benchmarking study empirically valid. This is notwithstanding that if such a study was done in say, 12 months time a number of the models would incorporate the impacts of introduction and proliferation of VoLTE.

### **D. Derivation of a benchmark for Voice (Section 4)**

Macquarie Telecom considered the analysis in Section 4 of the WIK Consult Report on the adjustments to modelling to address differences inter alia Australian dollars, spectrum fees, 2G/GSM versus 3G/UMTS costs, weighted average cost of capital ('WACC'), network usage, and geographic terrain and generally supports the systematic approach to benchmarking performed by WIK Consult.<sup>17</sup> We would however, highlight Section 4.7 by including in the analysis the costs of spectrum unrelated to MTAS services over-estimates the spectrum fee per minute of voice even if the adjustment is relatively small.

The computation of the benchmarks for the years 2016 through to 2020 does however require additional comment. Macquarie Telecom notes that the UK modelling undertaken for Ofcom cited by WIK Consult shows:

- The average cost of 4G (namely VoLTE) compared with UMTS/3G is only 30 percent, varying from 28 to 32 percent over the 4 years of the UK Ofcom study. This is a huge 70 percent reduction in the cost of call termination! While such comparative cost estimates for VoLTE are higher than other studies seen by Macquarie Telecom (which have been highlighted to the ACCC), this is a profound reduction which ought be reflected in the benchmark MTAS rates; and
- The UK model goes on to model that the share of voice being carried over 4G in the United Kingdom will rise from 1 percent to 24 percent by 2020.

---

<sup>15</sup> See State of Play from 2013 on LTE deployments.

[www.computerworld.com.au/article/433391/updated\\_4g\\_australia\\_state\\_nation/?pp=2](http://www.computerworld.com.au/article/433391/updated_4g_australia_state_nation/?pp=2)

<sup>16</sup> "1800 MHz band spectrum in the major cities is already licensed and used extensively, mainly for 4G mobile telecommunications". See [www.acma.gov.au/Industry/Spectrum/Spectrum-planning/About-spectrum-planning/regional-australians-set-to-benefit-with-proposal-to-auction-1800-mhz-band-spectrum-licences](http://www.acma.gov.au/Industry/Spectrum/Spectrum-planning/About-spectrum-planning/regional-australians-set-to-benefit-with-proposal-to-auction-1800-mhz-band-spectrum-licences)

<sup>17</sup> Macquarie Telecom would however query the inclusion of 2 percent opex costs on spectrum. This is unusual and not supported in earlier cost modeling. Arguments raised for its inclusion at this time are far from compelling.

Such factors are used by WIK Consult in Table 4-19 to compute the benchmark for cost in 2020 based on the component costs of 3G and 4G. This sees the costs of carrying termination over UMTS from 1.61 Australian cents to 1.16 Australian cents, a fall of nearly 31 percent.

Macquarie Telecom considers that such factors are very conservative in the Australian context. This is because LTE deployment is much better and much more extensive than in the United Kingdom. In March 2015, Opensignal reported that United Kingdom users only spent 42 percent of time on LTE compared with Telstra which rated as having the best 4G coverage in Australia, with users spending 77 percent of time on LTE. Singtel Optus users in comparison spent 73 percent of time on LTE, and Vodafone customers 65 percent<sup>18</sup>

Given extensive LTE deployments, the use of the 700/2600 MHz spectrum, the better quality HD voice services which VoLTE offers and the proliferation of affordable VoLTE capable handsets globally and in the Australian market<sup>19</sup> Macquarie Telecom estimates that VoLTE penetration in Australia in 2020 will be 50 percent.

Accelerating VoLTE now<sup>20</sup> is also the MNO's interest as cost reductions in delivering voice calls will flow through to the bottom line and most importantly, the migration to VoLTE will allow the refarming of more spectrum, eg say 850, 900 and 2100 MHz spectrum to LTE to support increasing demand for wireless data. ***If the Macquarie Telecom estimate is correct then the derived blended cost for MTAS services in 2020 will fall below 0.8 Australian cents – double the ACCC's proposed voice termination rate to 30 June 2019.*** If the WIK Consult report had undertaken any sensitivity analysis on take up rates then this risk would be highlighted.

#### **E. Derivation of a benchmark for the cost of SMS (Section 5)**

Macquarie Telecom supports the derivation of costs of SMS proposed by WIK Consult. As indicated in its earlier submissions it is possible to set an SMS price based on the relative network capacity used by a voice call and an SMS. This is consistent with the approach in other markets, where SMS is modelled as voice-equivalent traffic, but it has very little impact on the large-scale network.<sup>21</sup>

We also acknowledge and support an explicit inclusion of the costs of SMS centres ("SMSCs") which host the dedicated equipment required for the handling of large volumes of SMS through the network as proposed by WIK Consult.

On the computation of the total costs of terminating an SMS, namely 0.028 Australian cents for SMS, Macquarie Telecom has for some time, held the view that the cost to the MNO of SMS termination is very low and that the current commercially negotiated SMS termination prices in Australia are significantly above cost. Last year, Macquarie Telecom provided further evidence of this to the ACCC highlighting the low costs of delivering SMS the terms and conditions of its MVNO agreements with the MNOs,<sup>22</sup> For this reason, we do not consider WIK Consult's computed cost per SMS to be low or unusual. It is a well-known industry "secret" that SMS is most profitable mobile service – other than perhaps international roaming in the early years.

<sup>18</sup> See [http://opensignal.com/assets/pdf/reports/2015\\_03\\_opensignal-state-of-lte-report\\_mar\\_2015.pdf](http://opensignal.com/assets/pdf/reports/2015_03_opensignal-state-of-lte-report_mar_2015.pdf). This compares with Telstra's LTE coverage was greater than 90 percent population coverage in January 2015 and Singtel Optus reaching the same level in April 2015.

<sup>19</sup> For example, according to the GSA, 196 VoLTE capable devices including 177 smartphones have been announced as at 20 April 2015, and as at 9 April 2015 16 networks use VoLTE to enable HD voice calling on LTE networks in Canada, Germany, Japan, Hong Kong, Singapore (including Singtel), South Korea, and the United States with some 90 operators are investing in VoLTE in 47 countries. See [www.gsacom.com](http://www.gsacom.com)

<sup>20</sup> Macquarie Telecom would contend that regulatory issues, specifically this MTAS process, has prompted the delay in the introduction of VoLTE in the Australian market. Specifically, we consider that there are good arguments for the MNOs having held back their deployment of VoLTE in order to secure a positive decision on regulated MTAS rates until 2019/2020 which did not take into account in any meaningful way likely VoLTE penetration and subsequent reductions in termination costs in the promulgated MTAS FAD rates.

<sup>21</sup> [www.pts.se/upload/remisser/2011/telefoni/10-8320-final-model-with-tracks-mobile.pdf](http://www.pts.se/upload/remisser/2011/telefoni/10-8320-final-model-with-tracks-mobile.pdf)

<sup>22</sup> Domestic Mobile Terminating Access Service Declaration Inquiry ACCC's Final Decision June 2014, at page 39.



Macquarie Telecom also have a high degree of confidence in the figures because, it also notes that, in addition to the Kenyan benchmark highlighted by WIK Consult the benchmark cost for conveyance is also in a similar order of magnitude as indicative price generated by the TSLRIC+ costing model prepared by Ovum for the Malaysian regulator, the Malaysian Communications and Multimedia Commission in 2012.<sup>23</sup> It is also very similar to Danish Business Authority's regulated SMS termination rates set from January 2015 as detailed in Exhibit B.2 below.

**Exhibit B.2: Danish regulated SMS termination rates**

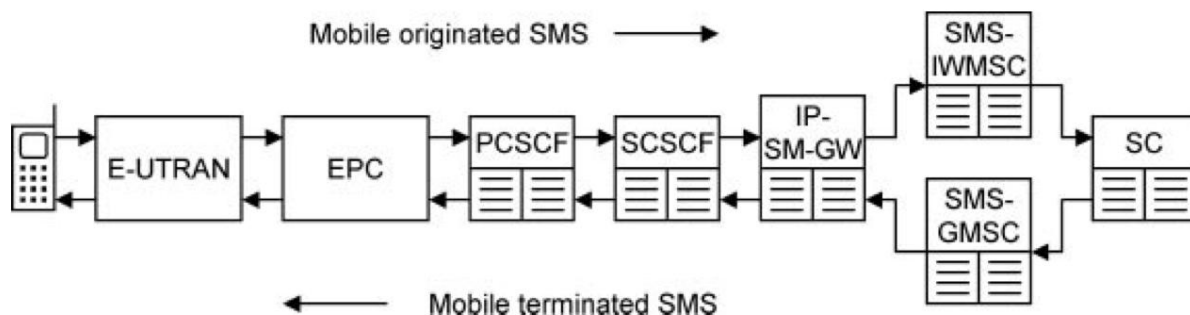
The Danish Business Authority reached an agreement in December 2014 with the MNOs to reduce wholesale prices for voice calls and SMS from 1 January 2015 in Denmark in order to facilitate competition in their mobile market and reduce costs for end-users. It reached agreements with TDC, Telia Denmark, Telenor Denmark, Lyca Mobile, 3 Denmark and the MVNO Mundio Mobile.

The Authority set the maximum price for voice call termination on their networks at DKK 0.0602 per minute (1.16 Australian cents), and the ceiling for texts terminating on their network at DKK 0.0111 (0.021 Australian cents) per SMS.<sup>24</sup> It is understood that such costs are derived from an upgraded cost modeling process undertaken by the Authority<sup>25</sup>

Going forward, and this may be a function of the ToR given by the ACCC to WIK Consult, Macquarie Telecom notes that there is no assessment similar to voice termination on the costing consequences of the future move to SMS over LTE. SMS is supported over LTE. The solution is twofold, covering both the full IP Multimedia Subsystem (IMS) case and a transition solution.

The IMS can deliver SMS messages using SMS over generic IP access technique. The only new component is the IP short message gateway (IP-SM-GW), which acts as an interface between IMS and the network elements that handle SMS messages. The architecture used to deliver SMS messages over the IP multimedia subsystem should shown in Exhibit B.3 below.

**Exhibit B.3 SMS over LTE**



Source: 3GPP

It is likely that SMS over LTE will be able to be provided at an even lower cost (close to zero) than circuit switched SMS termination meaning that regulated price will need to be reviewed in 2019 (or perhaps earlier depending on the penetration of SMS over LTE).

<sup>23</sup> Malaysian Communications and Multimedia Commission, *Public Inquiry Report: Review of Access Pricing*, 14 December 2012, page 111. Referenced in Macquarie Telecom Submission to the ACCC, Review of the Declaration of the Domestic Mobile Terminating Access Service, 5 July 2013

<sup>24</sup> See [www.telecompaper.com/news/danish-wholesale-mobile-voice-sms-prices-drop-on-01-january--1054296](http://www.telecompaper.com/news/danish-wholesale-mobile-voice-sms-prices-drop-on-01-january--1054296)

<sup>25</sup> See Analysys Mason, Report for the Danish Business Authority (DBA), 2011/2012 upgraded cost model – final version, Model documentation, 17 July 2012. Available at <http://danishbusinessauthority.dk/file/257081/modeldokumentation.pdf>