



**Australian
Competition &
Consumer
Commission**

Domestic Mobile Terminating Access Service Declaration Inquiry

Report of the ACCC's Draft Decision

13 December 2013



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List of abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
AMPS	advanced mobile phone system
CDMA	code division multiple access
FAD	final access determination
GSM	global system for mobiles
IP	internet protocol
LTIE	long-term interests of end-users
MMS	multimedia messaging service
MNO	mobile network operator
MTAS	mobile terminating access service
POTS	plain old telephone service
SIOs	services in operation
SMS	short message service
CCA	the <i>Competition and Consumer Act 2010</i>
VoIP	voice over internet protocol

1 Executive Summary

The Australian Competition and Consumer Commission (ACCC) has formed the preliminary view that the declaration of the domestic mobile terminating access service (MTAS) should be extended for five years. Further, based on the information provided during the inquiry so far, the ACCC has also formed the preliminary view that the MTAS service description should be varied so that it not only covers mobile voice termination services but also short message service (SMS) termination services.

The ACCC considers that mobile network operators (MNOs) have a monopoly over the provision of voice and SMS termination services on their networks and that there are no effective substitutes for such services or for the voice or SMS services that termination services are used to supply. As a result the ACCC is of the preliminary view that MNOs have the ability and incentive to deny, or set unreasonable terms of, access to these termination services in the absence of declaration.

The ACCC therefore considers that declaration of both mobile voice termination and SMS termination services is in the long-term interests of end-users (LTIE).

Mobile voice termination services

The ACCC considers that declaration of mobile voice termination services will be in the LTIE because:

- It will promote competition in the downstream markets for retail mobile services and fixed voice services. This is because MNOs will not be able to deny or frustrate access to wholesale termination services that are essential inputs to downstream services. Declaration will also facilitate regulated pricing which will bring access prices closer to their underlying costs, with cost savings able to be passed on to end-users in the form of lower retail prices, improved service quality or innovations.
- It will promote the achievement of any-to-any connectivity by ensuring that MNOs are unable to refuse access to mobile voice termination services to other network operators.
- It will promote the economically efficient use of and investment in telecommunications infrastructure. This is because the ACCC considers that in the absence of regulation MNOs have the ability and incentive to set above cost mobile voice termination prices, which would result in inefficient use of and investment in infrastructure.

SMS termination services

In previous MTAS declaration inquiries, the ACCC did not consider that declaration of SMS termination services was in the LTIE. However, the ACCC has reconsidered this view due to developments in the SMS termination market and evidence provided to the ACCC during this inquiry. In particular, information the ACCC has received suggests that SMS termination rates have remained constant for a significant time, SMS termination services may be priced inefficiently and commercial negotiations have been unsuccessful in lowering SMS termination rates.

Based on the information currently available, the ACCC is of the preliminary view that declaration of SMS termination services, when coupled with regulated pricing, will be in the LTIE because:

- It will promote competition in the downstream retail market for mobile services, by aligning wholesale prices more closely with efficient cost of the service.
- It will promote the achievement of any-to-any connectivity by ensuring that no MNOs are able to set unreasonable terms or conditions of access to SMS termination services.
- It will promote the efficient use of, and investment in, telecommunications infrastructure, as in the absence of declaration MNOs have the ability and incentive to set above cost SMS termination prices, which is likely to lead to inefficient investment in and use of infrastructure.

The ACCC therefore proposes to vary the MTAS service description such that it covers both termination of voice calls and termination of SMS messages. The proposed amended service description for the MTAS is at **Appendix A**.

Detailed discussions of the reasons for these findings are set out in this report.

2 Introduction

This report forms part of the ACCC inquiry into the MTAS declaration.

The current MTAS declaration will expire on 30 June 2014. In May 2013, the ACCC commenced an inquiry into whether the MTAS declaration should be extended, varied, revoked, allowed to expire or a new declaration made. This report explains the reasons for the ACCC's preliminary views on the MTAS declaration inquiry.

The MTAS declaration inquiry is also relevant to the separate MTAS access determination inquiry when the ACCC will make a final access determination (FAD).¹ The MTAS FAD sets out the regulated price of the MTAS and the non-price terms of access to the MTAS. It is also due to expire on 30 June 2014.

All issues relating to the price of the declared MTAS, including whether a fixed-to-mobile pass through mechanism is required, will be considered in the MTAS FAD inquiry.

2.1 Consultation Process

On 27 May 2013, the ACCC released a discussion paper commencing the MTAS declaration inquiry.² The discussion paper invited submissions on whether the MTAS should continue to be declared, whether other mobile services like SMS and multimedia messaging services (MMS) should also be declared, and whether 4G and NBN developments have, or will, impact the MTAS.

The ACCC received submissions from eight stakeholders in response to the discussion paper. Public submissions are available at the [ACCC's website](#). In August 2013, the ACCC sought further information from industry about SMS, MMS and voice termination services. This information was provided on a confidential basis and is not publicly available.

The ACCC is required to prepare and publish a report presenting its findings in the inquiry.³ The ACCC has decided to publish a report setting out its preliminary views on whether the MTAS should remain declared, whether the service description should be amended to apply to other mobile termination services, and whether any other changes to the service description are necessary.

The ACCC invites submissions on the matters raised in this report and any other issue stakeholders consider relevant. The ACCC will take submissions into account in reaching its final decision in the MTAS declaration inquiry. The ACCC expects to issue a report and final decision in early 2014.

¹ See subsection 152BCI(3) of the *Competition and Consumer Act 2010*.

² This was done in compliance with Division 3 of Part 25 of the *Telecommunications Act 1997*.

³ Under Division 3 of Part 25 of the *Telecommunications Act 1997*.

Submissions will be accepted until **5:00pm on Friday 14 February 2014**. Submissions received after this time may not be considered.

All submissions received will be considered public and will be published on the ACCC's website. Any confidential material must be included in a separate commercial-in-confidence version of the submission. Confidential materials must be identified in the public version of the submission by replacing them with an appropriate symbol or 'c-i-c'.⁴

Stakeholders submitting a commercial-in-confidence version of their submission must also provide details of the contact person to whom enquiries can be directed.

The ACCC prefers to receive electronic copies of the submissions in either Adobe PDF or Microsoft Word format. Please send submissions by email to MTASDeclarationinquiry@acc.gov.au.

3 Background

3.1 What is the MTAS?

Every phone call involves an 'origination' from the network making the call and a 'termination' onto the network receiving the call. The MTAS is a wholesale service provided by a MNO to fixed line operators and other MNOs to receive and then terminate voice call on its mobile network. The MTAS is essential for calls to be made between subscribers connected to different mobile networks, and for calls to be made from fixed networks to mobile networks.

If a caller on a fixed line calls a person on a mobile phone, the fixed line service provider needs a MTAS from the mobile phone user's MNO in order to complete the call. Similarly, for a mobile phone user on one network to call a mobile phone user on another network, the MNO of the person making the call needs a MTAS from the MNO of the person receiving the call.

The network owner that originates the call will purchase terminating access from the network owner that completes or terminates the call. The originating network owner will recover these costs, and the costs it incurs from originating the call, through the retail price it charges its customers for providing the call.

The MTAS currently limits the service declared to the termination of voice calls and does not extend to SMS termination or data services. The current service description is reproduced below:

⁴ The ACCC and AER general policy on the collection, use and disclosure of information is set out in the *ACCC-AER Information policy: The collection, use and disclosure of information guide*. A copy of the guide is available on the ACCC website.

“The **Domestic Mobile Terminating Access Service** is an access service for the carriage of voice calls from a point of interconnection, or potential point of interconnection, to a B-Party directly connected to the access provider’s digital mobile network.

Definitions

Where words or phrases used in this declaration are defined in the *Trade Practices Act 1974* or the *Telecommunications Act 1997* or the *Telecommunications Numbering Plan 1997*, they have the meaning given in the relevant Act or instrument.

Other definitions:

B-Party is the end-user to whom a telephone call is made.

Digital mobile network is a *telecommunications network* that is used to provide *digital mobile telephony services*.

Point of interconnection is a location which:

- (a) is a physical point of demarcation between the access seeker’s network and the access provider’s digital mobile network, and
- (b) is associated with (but not necessarily co-located with) one or more gateway exchanges of the access seeker’s network and the access provider’s digital mobile network.”

3.2 Why has the ACCC regulated the MTAS?

The ACCC has previously found that each MNO has exclusive control over the termination of voice calls on its own network and that there are no substitutes for such voice termination, which means each MNO has a monopoly over voice termination on their network. It has also found that an end-user making a call to another person cannot select the mobile carrier who will terminate the call, as this choice has already been made by the other party. As a result, the ACCC has previously concluded that each MNO has a monopoly over access to end-users on their network, and the ability and incentive to set unreasonable terms and conditions of access to the MTAS.

Therefore, the ACCC has previously considered the MTAS is an essential bottleneck service and that regulation is necessary to ensure that access to the MTAS is not denied and that terms and conditions of access are reasonable.

Because the MTAS is a declared service, MNOs are required to provide the service to another party if requested to do so and must take reasonable steps to ensure it provides the service at a technical and operational quality equivalent to that which it provides itself. MNOs must also take reasonable steps to ensure it provides fault detection, handling and repair for the MTAS at a technical and operational quality and timing equivalent to that which it provides itself.⁵

⁵ Subsection 152AR(3) of the *Competition and Consumer Act 2010*.

3.3 Previous MTAS declaration inquiries

The ACCC first regulated the MTAS in 1997 by deeming it to be a declared service. At this time, all mobile networks were analogue advanced mobile phone system (AMPS) networks or digital global system for mobiles (GSM) networks, and the ACCC deemed voice termination services offered over both networks to be declared. The ACCC explained that these services should be declared so that end-users on either AMPS or GSM were able to connect with end-users on any other network (i.e. so that any-to-any connectivity could be achieved).

In 2002, the ACCC varied the MTAS declaration to include voice termination services provided on code division multiple access (CDMA) mobile networks. In 2004, a new MTAS declaration was made to include voice termination on 3G mobile networks. In 2002 and 2004, the ACCC concluded that the MTAS should be regulated as it was an essential bottleneck service, regardless of the underlying mobile network technology.

The ACCC held its most recent MTAS declaration inquiry in 2009 (the 2009 Declaration Inquiry), when it extended the 2004 MTAS declaration for five years until June 2014.

3.4 The ACCC's approach to declaring services

The ACCC may declare a service if it is satisfied that declaring the service would promote the LTIE.⁶

As required by the *Competition and Consumer Act 2010* (CCA), when determining whether declaration will be in the LTIE, the ACCC will have regard to the extent to which extending, varying or revoking the existing declaration is likely to achieve the following objectives:

- promoting competition in markets for listed services (telecommunications services);
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users; and
- encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure by which telecommunications services are supplied.⁷

These objectives are related, and in many cases the LTIE will be promoted because declaration is likely to result in the achievement of all of these criteria. However, in other cases, the ACCC may find the LTIE is promoted by balancing the achievement of the different criteria against each other.

When considering whether declaration will promote competition in markets for listed services, the ACCC identifies the market for the eligible service and the markets in which competition will be promoted (which are generally downstream markets relying on the eligible service). The

⁶ Subsection 152AL(3) of the CCA.

⁷ Subsection 152AB(2) of the CCA..

ACCC looks at whether a declaration will remove obstacles to end-users gaining access to services.⁸ The ACCC assesses the likely effect on competition in the market(s) if the service is declared or remains declared.

When considering the achievement of any-to-any connectivity, the ACCC assesses whether declaration will ensure end-users of the service are able to communicate with other end-users of the service, regardless of the network they are connected to.

Finally, encouraging the economically efficient use of and investment in infrastructure requires analysis of three types of economic efficiency. These are productive efficiency, allocative efficiency and dynamic efficiency.⁹ The ACCC also considers the technical feasibility of the service, the legitimate commercial interests of service providers and the incentives and risks involved in investing in the necessary infrastructure.¹⁰

If the existing market conditions indicate a service, such as the MTAS, is competitively provided, or is likely to be competitively provided, regulated access may not be necessary. Regulation of services will generally only be necessary if it leads to benefits in terms of lower prices, better services, more efficient investment or improved service innovation and quality for end-users, and this outweighs the costs of regulation.

The ACCC has taken this approach in considering whether to declare mobile voice termination, SMS termination, and MMS termination services in this inquiry.

4 Should mobile voice termination services continue to be declared?

The primary issue in the MTAS declaration inquiry is whether termination of a voice call on a mobile network should continue to be a declared service. Based on information considered during this inquiry, the ACCC has formed the preliminary view that voice termination on a mobile network, whether originating from another mobile network or a fixed-line network, should continue to be a declared service as it is in the LTIE. The reasons for this view are explained below.

⁸ Subsection 152AB(4) of the CCA.

⁹ Productive efficiency refers to the efficient use of resources within each firm to produce goods and services using the least cost combination of inputs. Allocative efficiency is the efficient allocation of resources across the economy to produce goods and services that are most valued by consumers. It also refers to the distribution of production costs amongst firms within an industry to minimise industry-wide costs. Dynamic efficiency refers to efficiencies flowing from innovation leading to the development of new services, or improvements in production techniques. It also refers to the efficient deployment of resources between present and future uses, such that the welfare of society is maximised over time.

¹⁰ Subsection 152AB(6) of the CCA.

4.1 Promoting competition

As discussed above, the CCA requires the ACCC to consider whether declaring a service is likely to promote competition in markets for listed services.¹¹ This involves identifying the markets in which the eligible service is supplied and in which declaration is likely to promote competition. To define the market, the ACCC considers the service in question and substitutes for that service. In determining whether competition is likely to be promoted the ACCC considers whether declaration will remove obstacles to end-users gaining access to services.¹²

Market definition and substitute services

The ACCC is not required to define the scope of relevant markets precisely for the purpose of a declaration inquiry. It is sufficient to broadly identify the scope of the markets likely to be affected by the declared service, having regard to the product, function, geographic and temporal dimensions of the market.¹³

In the MTAS declaration discussion paper, the ACCC proposed that the markets relevant to mobile voice termination declaration were the same markets identified in the 2009 MTAS declaration inquiry:

- the markets for wholesale mobile voice termination services
- the downstream market for retail mobile services, and
- the downstream market for retail fixed-to-mobile services.

Submissions on relevant markets

Submissions that addressed this issue agreed that there continues to be a separate wholesale market for mobile voice termination services and there are no substitutes for that service. Apart from Telstra, submissions also generally agreed the two relevant downstream markets are the retail market for mobile services and the retail market for fixed to mobile services.¹⁴

Telstra has expressed a different view. It asserts that the relevant downstream market is a single ‘voice market’ and not two distinct voice markets (i.e. a fixed to mobile service and a retail mobiles service market). It claims fixed-to-mobile services are provided in a bundle of services and are not a separate downstream market. It also claims that convergence between fixed and

¹¹ Subsection 152AB(2) of the CCA.

¹² Subsection 152AB(4) of the CCA.

¹³ See ACCC, *Telecommunications services – Declaration provisions – a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999, pp. 41-42; *Foxtel Management Pty Ltd v Australian Competition and Consumer Commission* [2000] FCA 589 at [172] per Wilcox J.

¹⁴ See for example, Optus, *Submission in response to ACCC Discussion Paper: Review of the declaration of the mobile terminating access service (MTAS)*, July 2013 (Optus Submission); AAPT Limited, *Submission by AAPT Limited to ACCC Review of the declaration of the Domestic Mobile Terminating Access Service Discussion Paper*, 4 July 2013 (AAPT Submission).

mobile services and the availability of alternative services, such as voice over internet protocol (VoIP), mean voice markets should not be defined based on the technology platform used to make the call.¹⁵

Macquarie Telecom agreed the relevant markets were the markets for wholesale mobile voice termination, a downstream market for retail mobile services, and a downstream market for fixed-to-mobile services. It also claimed these markets should include terminating access where the Australian mobile customer receiving the call is out of the country and roaming internationally. Macquarie Telecom claims MNOs price the termination of calls originating on international networks above their underlying cost and provide the service on unreasonable terms.¹⁶

Submissions on substitute services

Most parties agreed that there are no effective substitutes for the voice termination service, or for fixed-to-mobile or mobile-to-mobile voice calls. Most submissions considered that the uptake of VoIP services was too low for VoIP services to be considered an effective substitute for traditional voice services.

For example, VHA argued that mobile VoIP usage remains small compared to conventional mobile voice services and is not a viable substitute at this time.¹⁷ Macquarie Telecom argued that VoIP was not an effective substitute as it only allowed users to connect with end-users using the same VoIP software.¹⁸ The Australian Communications Consumer Network (ACCAN) argued that the quality of VoIP services and their reliance on a strong data signal for a mobile user means that they are not effective substitutes for conventional voice services.¹⁹

In contrast, Telstra claimed consumers increasingly see VoIP services as substitutes for traditional voice services.²⁰ It argued that the take up of mobile VoIP is being facilitated by the upgrade of existing mobile networks and the availability of Wi-Fi networks. It also argued that the roll out of 4G networks will increase the use of mobile VoIP services.

¹⁵ Telstra Corporation Limited, *Response to the Commission's Discussion Paper on the Review of the declaration of the Domestic Mobile Terminating Access Service*, 5 July 2013, pp 10-11 (Telstra Submission).

¹⁶ Macquarie Telecom Pty Ltd, *Submission to review of the declaration of the domestic mobile terminating access service*, 5 July 2013, p 2, 8-9 (Macquarie Telecom Submission).

¹⁷ Vodafone Hutchison Australia, *Declaration of the Domestic Mobile Terminating Access Service: Response to the Australian Competition and Consumer Commission*, 5 July 2013, p. 4 (VHA Submission).

¹⁸ Macquarie Telecom Submission, p 5.

¹⁹ Australian Communications Consumer Action Network (ACCAN), *Review of the Declaration of Domestic Mobile Terminating Access Service: Submission by the Australian Communications Consumer Action Network to the Australian Competition and Consumer Commission*, July 2013, p 8 (ACCAN Submission).

²⁰ Telstra Submission, p.11.

Fixed-to-mobile substitution was not discussed in many submissions. AAPT and Optus both acknowledged that mobile voice traffic volumes continue to grow and fixed-line voice traffic volumes continue to fall. However, both claimed this did not warrant deregulating the mobile voice termination because the volume of fixed-to-mobile voice traffic remains substantial. As noted above, Telstra argued there is a single market for voice services and convergence between fixed and mobile voice services.

ACCC's preliminary views on relevant markets and substitute services

Wholesale voice termination market

The ACCC considers that MNOs continue to have exclusive control over access to end-users on their networks and because of this only an MNO can terminate a voice call on its own network. Further, as discussed below, the ACCC does not consider that there are currently effective substitutes for wholesale voice termination services or the voice services which require voice termination (i.e mobile-to-mobile and fixed-to-mobile voice services). As a result, the ACCC is of the view that service providers must acquire a wholesale voice termination service from MNOs in order to allow their customers to call end-users on mobile networks.

Submissions agreed there are no substitutes for the wholesale MTAS in the foreseeable future and most parties also agreed that currently VoIP services are not substitutes for fixed-to-mobile or mobile-to-mobile voice calls. Parties also agreed that the MTAS is generally sold separately to other telecommunications services, and that there is a separate wholesale market for mobile voice termination.

Therefore, because the MTAS remains necessary to provide voice calls to users connected to each MNO's network, and there are no substitutes for this service, the ACCC considers there is a separate wholesale market for mobile voice termination on each MNO's network. This is consistent with the approach the ACCC has taken in previous decisions relating to the MTAS, and the views of the Australian Competition Tribunal.^{21,22}

Downstream retail markets

Mobile voice termination remains an essential input to downstream mobile services. In particular, mobile termination services are essential inputs to calls from end-users on one mobile network to end-users on another mobile network, and calls from end-users on a fixed-line network to end-users on a mobile network. The network that originates the call purchases terminating access from the network that 'terminates' the call. The originating network, whether another mobile network or a fixed-line network, recovers these costs from its customers in the price it charges them for providing the call. Therefore, the downstream markets affected by mobile voice termination are the downstream market in which mobile-to-mobile calls and the

²¹ See, ACCC, *Inquiry to make a final access determination for the Domestic Mobile Terminating Access Service (MTAS): Access Determination Explanatory Statement*, 7 December 2011, p. 15.

²² Application by Optus Mobile Pty Limited and Optus Networks Pty Limited [2006] ACompT 8 at [80].

downstream market for fixed-to-mobile calls are supplied.

The ACCC recognises that mobile-to-mobile calls and fixed-to-mobile calls are often provided in bundles of retail voice services. Mobile-to-mobile calls are provided in a bundle of retail mobile services which includes a mobile connection (i.e. the ongoing service), voice services, SMS, MMS and mobile data services. Fixed-to-mobile calls are provided in a bundle of retail pre-selected fixed line services which includes national long distance calls and international calls.²³

The ACCC considers that the different mobile services provided to consumers in bundles are complementary to each other. This is because to provide a mobile voice call service, a mobile connection is also needed, which also enables SMS, MMS and other mobile services to be provided. As the services are acquired in a bundle and used together, demand for one service leads to demand for the other. This complementarity means the separate mobile services should be considered in the same market, notwithstanding that the separate services are not substitutes for each other. As mobile-to-mobile calls are a part of this market and the MTAS is an essential input to mobile-to-mobile calls, it follows that declaration of voice termination services may affect competition in the retail mobile services market.

Similarly, fixed-to-mobile voice services are provided with other fixed line pre-selected voice services. These pre-selected calls are also complementary services. Therefore, the market for retail fixed-to-mobile voice services includes other pre-selected fixed-line voice services provided at the retail level. As voice termination remains an essential input to fixed-to-mobile calls, competition in the market for fixed-to-mobile calls is likely to be affected by declaration of mobile voice termination services. It is more accurate to refer to this market as a market for retail fixed voice services because it includes fixed line calls other than fixed-to-mobile calls.

Substitute services - VoIP

Voice over Internet Protocol (VoIP) refers to using packet switching Internet Protocol technology to deliver voice signals rather than traditional circuit switching technology used in traditional telecommunications networks. This technology has allowed VoIP to be used on various fixed and mobile devices connected to packet switched networks such as the internet.²⁴

Broadly speaking, there are three kinds of VoIP services available to end-users:

- POTS emulation - The access seeker connects a standard telephone and copper line to

²³ Pre-selection is required under section 349 of the *Telecommunications Act 1997*. It allows any consumer with a standard telephone service to choose a service provider for national long-distance calls, international calls and calls to mobile phones, other than the supplier of the phone line and local calls. A customer can choose (pre-select) an alternative fixed-line provider either by ongoing nomination or using dedicated dial codes. Mobile services are exempted from pre-selection, however, fixed and point-to-point wireless services are not.

²⁴ Communications to mobile handsets may involve both circuit switched networks and IP switched networks. For example, calls from a 2G handsets access a circuit switched network before being carried over the core mobile network which is a packet switched network. However, 2G handsets are unable to use VoIP services.

special equipment in exchanges that can terminate both DSL and voice-band traffic. This type of VoIP service is substitutable for a traditional voice service because the end-user experience is identical and the costs are likely to be similar because the same customer premises equipment can be used.

- VoIP using customer premises device - End-users use a device, such as internet phone or DSL modem, to convert a voice call to VoIP at the end-user premises. End-users need special equipment which may involve upfront costs that limit the substitutability of these services, although some service providers offer the equipment at low cost for customers on longer term contracts. This type of VoIP service is likely to be substitutable for traditional voice-only services for end-users.
- Application layer VoIP (also sometimes referred to as 'over-the-top' VoIP) - The access seeker provides a voice service using a special VoIP-handset or software to emulate a telephone (such as Skype). This type of service is also available in a number of mobile apps. This type of VoIP generally provides a lower quality of service than POTS emulation VoIP and is a weak substitute for fixed voice services. Application layer VoIP has grown rapidly and is discussed below.

Consumer uptake of VoIP services has grown rapidly since the 2009 declaration inquiry. While the Australian Communications and Media Authority (ACMA) does not distinguish between different types of VoIP service, it reports VoIP mobile subscribers grew 226 per cent between 2010 and 2011, and a further 133 per cent from 2011 to 2012.²⁵

While growth rates for VoIP services are high, subscriber numbers are growing from a low base. In relation to fixed VoIP subscribers, the ACMA reports 2 million fixed VoIP subscribers in 2010, 3.8 million in 2011 and 4.3 million in 2012. This compares with 10.6 million fixed-line subscribers in 2010, 10.5 million in 2011 and 10.4 million in 2012.

Similarly, the ACMA reports 100,000 mobile VoIP subscribers in 2010, around 274,000 in 2011, and 616,000 in 2012, which compares with 22.5 million mobile subscribers in 2010, 24.5 million in 2011 and 24.3 million in 2012.²⁶ Thus, a significant number of end-users are not currently using VoIP services.

In addition, as VoIP services require access to a packet switched network such as the internet, the uptake of VoIP is related to the availability (and cost) of broadband internet access. ADSL broadband accounts for approximately 40 per cent of the 12 million fixed-line internet connections in 2012. Similarly, smartphones represent around half (49 per cent) the total mobile

²⁵ ACMA, *Communications report 2010-2011* and *Communications Report 2011-2012: Report 3 – Smartphone and tablets Take up and use in Australia*.

²⁶ ACCC, *Telecommunications Competitive Safeguards*, 2011-2012.

phone subscribers in 2012.²⁷ As a result, a significant share of mobile services end-users and fixed voice services end-users are unlikely to be able to benefit from reliable, high quality VoIP services at this time.

Furthermore, VoIP over internet access device and application layer VoIP services have technical limitations that reduce their substitutability for traditional voice services. For example, their reliance on an intermediate device (VoIP handset, modem, software) means they are not available during power outages and may not facilitate connection to point of sale services such as EFTPOS. Application layer VoIP services are also subject to quality issues due to the ‘best efforts’ nature of IP delivery, which can cause quality to drop when there is congestion.

Substitute services - fixed-to-mobile substitution

More end-users are replacing fixed line voice services with mobile voice services. The total number of fixed line voice services in operation (SIOs) has declined over the past few years, falling from 10.7 million in June 2009 to 10.4 million in June 2012.²⁸ In contrast, the number of mobile handsets in operation grew from 22.5 million in June 2009 to 24.3 million in June 2012.^{29,30}

The ACMA reports that people who do not have a fixed-line home phone and only use a mobile phone voice service grew 24 per cent in 2012, and people who are mobile-only for both voice and internet services grew by 70 per cent in 2012.³¹

The degree with which mobile telephones are used to make calls has also increased, with the total number of call minutes from mobile telephones increasing by 16 per cent in 2011–12.³² The rapid growth in call minutes from mobile telephones has been associated with significant falls in call minutes from fixed line telephone calls.³³

The ACCC’s telecommunications services index shows that since 1997-98 the average real price of mobile services has declined at a greater rate than the average real price for fixed voice services.³⁴ Further, the use of fixed voice services is declining. Between 2010-11 and 2011-12 the number of call minutes made from fixed phones fell by 16 per cent. In contrast, the number of call minutes made from mobile phones increased by 14 per cent.³⁵

²⁷ ACMA, *Communications Report 2011-2012: Report 3 – Smartphone and tablets Take up and use in Australia; ACMA Research Snapshots – Australians on the move becoming mobile-only*, 2012.

²⁸ ACCC, *ACCC Telecommunications reports 2011-12*, February 2013, p. 12.

²⁹ The ACCC is using ‘handsets in operation’ rather than ‘services in operation’ because the latter category includes non-voice services such as dongles, datacards and USB modems.

³⁰ ACCC, *ACCC Telecommunications reports 2011-12*, February 2013, p. 14.

³¹ ACCC, *ACMA Research Snapshots – Australians on the move becoming mobile-only*, July 2013.

³² ACCC, *ACCC Telecommunications reports 2011-12*, February 2013, p. 17.

³³ *ACCC Telecommunications reports 2011-12*, February 2013, pp. 13-14.

³⁴ See, ACCC, *ACCC Telecommunications reports 2011-12*, February 2013, pp. 75 and 13.

³⁵ ACCC, *ACCC Telecommunications reports 2011-12*, February 2013, p 13.

Despite these trends, the number of end-users that have adopted mobile voice services at the expense of fixed voice services is relatively low. Mobile only users totalled 3.3 million Australians in 2012 and those who are mobile only for both voice and internet services totalled just 480,000 Australians in 2012. Furthermore, many end-users, particularly older and more vulnerable consumers such as those relying on a fixed-line connection for medical alarms, rely on their fixed line to contact mobile users. The ACMA reports that eight per cent of Australians have access to a fixed-line phone but not a mobile phone, and only three per cent of those 65 and over have replaced their fixed-line phone with a mobile phone.³⁶

In addition, the replacement of fixed service by mobile services is tending to occur in only a segment of the market rather than the entire market. While just over 18 per cent of the adult population in Australia were without a fixed line telephone service in their home, the majority of these end-users were between the ages of 18 and 34; the number of mobile-only users was significantly lower for people over 35.³⁷ The ACMA's findings suggest that the majority of Australians use various communications devices to suit their specific needs and circumstances rather than relying on one individual communication device.

Business end-users may also be less likely than residential end-users to make a complete substitution from fixed to mobile. Some businesses prefer to offer customers a fixed line voice contact number over a mobile number, reflecting the lower cost of untimed local calls on the fixed line network compared to the cost of timed calls to mobile numbers. Some businesses may also require fixed services for alarms, metering equipment and point of sale equipment like EFTPOS. These services are not currently available on a mobile network.

The ACCC therefore considers that for the majority of end-users mobile services are a complement to fixed voice services.

Is there a single downstream retail voice market?

Telstra claims the relevant downstream market is a single 'voice market' rather than two distinct retail markets. They argue that as fixed-to-mobile services are provided in a bundle of services they are not a separate downstream market, and because alternative services, such as VoIP, are available, voice markets should not be defined based on the platform used to make the call.³⁸

The ACCC accepts that fixed-to-mobile calls are provided in a bundle of fixed-line voice services which makes it difficult to define a market for fixed-to-mobile calls that is separate to a market for other fixed voice services. However, this does not mean that fixed-to-mobile calls are provided in the same market as mobile voice calls.

The ACCC considers that there are separate markets for mobile voice services and fixed voice

³⁶ ACCC, *ACMA Research Snapshots – Australians on the move becoming mobile-only*, July 2013.

³⁷ ACMA, *Communication report*, 2011-12, p 30.

³⁸ Telstra Submission, pp 10-11.

services, due to differences between the services.³⁹ Mobile services allow customers to use their phone in nearly any location, while fixed services only allow a customer to use services in a fixed location. As a result, the ACCC does not consider that fixed voice services are a substitute for mobile voice services.

Further, as discussed above, the ACCC does not consider that mobile voice services are currently substitutes for fixed voice services.

Therefore, the ACCC considers that fixed and mobile calls are provided in separate markets and does not think that there is a single ‘voice market’ that includes both fixed voice services and mobile voice services.

International mobile roaming services

As noted earlier, Macquarie Telecom raised concerns about wholesale international roaming services being provided above cost and on unreasonable terms, which the ACCC recognises are reflected in community concerns about high roaming charges.

However, the ACCC notes that Australian MNOs do not provide the MTAS for mobile services terminating on a mobile network in another country. For international mobile roaming services, an Australian mobile network acquires an MTAS from a mobile operator in another country so that Australian customers can receive calls while roaming on a network in another country. This means the domestic MTAS will not affect the prices paid by Australian end-users using mobile services in another country, although it may affect the prices paid by visitors to Australia using mobile services in Australia.

State of competition in relevant markets

The second part of the ACCC’s analysis of whether declaration will promote competition, is to make an assessment of the current state of competition in the relevant markets. In undertaking this assessment the ACCC will generally consider the concept of effective competition, rather than perfectly competition. The ACCC considers that effective competition:

- is more than the mere threat of competition—it requires that competitors be active in the market, holding a reasonably sustainable market position,
- requires the existence of market power (a party may hold a degree of market power from time to time),
- requires that barriers to entry are sufficiently low and that any degree of market power will be competed away in the long run, so that any degree of market power is only transitory,

³⁹ In this context, the mobile voice product includes both origination and termination of a call. End-users seek a service that allows them to make (originate) and connect (terminate) a call to another end-user. This is different to the supply of mobile voice termination, which is only concerned with terminating a call on a mobile network and is fundamentally the same for calls originating on a mobile network and calls originating on a fixed network.

- requires that there be independent rivalry in all dimensions of price, product and service, and
- does not preclude one party holding a degree of market power from time to time, but that power should pose no significant risk to present and future competition.

The ACCC has had regard to these characteristics when making its assessment of the current state of competition in the discussion below.

Submissions

Telstra claimed that competition has increased since the 2009 declaration inquiry and submitted there is increasing demand for mobile voice services and for mobile data services, and that consumers are more willing to switch between providers. It argued these trends mean service providers are competing more vigorously to win and retain customers. Telstra claimed the continued declaration of the mobile voice termination has helped achieve this level of competition.⁴⁰

Other submissions were also positive about competition in the mobile services market. VHA claimed that declaration of mobile voice termination has promoted competition and growth in the mobile market.⁴¹ Macquarie Telecom noted retail prices for mobile services have continued to fall, and that decreases in the mobile voice termination rate have contributed to this.⁴² AAPT also acknowledged there have been positive changes to the mobile retail services market since 2009.⁴³

In contrast, Optus argued competition in the retail mobile market has decreased since the 2009 declaration inquiry. It submitted Telstra has grown its retail mobile market share to 47 per cent, price competition has fallen, competition is now based on service quality, and revenue growth is now based on data usage rather than voice services. It argued that these factors create a greater need to invest in network upgrades, which favours Telstra because it can leverage the scale and scope of its larger network. Furthermore, Telstra's position in the mobile market is strengthened by its position in the fixed line market and its commercial agreement with the Government in relation to the NBN.⁴⁴

⁴⁰ Telstra Submission, 5 July 2013, pp 6-8.

⁴¹ VHA Submission, p 6.

⁴² Macquarie Telecom Submission, pp 4-5.

⁴³ AAPT Submission.

⁴⁴ See, Optus Submission, pp. 3-4, 6-16.

ACCAN also argued that competition in the retail mobile market is low. It claimed that since the last declaration there has been greater market concentration, with Telstra increasing its market share. It also claimed the level of price competition has decreased, with the average price for mobile service declining only one per cent during 2011-12, while the voice termination rate dropped 33 per cent in the same period.⁴⁵

Submissions generally agreed that the level of competition in the fixed-to-mobile market has not changed since 2009 and that this market is still not effectively competitive. Some submissions also argued that Telstra has an advantage in this market and that a mechanism to require MTAS reductions to pass through to retail prices is required.⁴⁶

ACCC's preliminary views

When considering the state of competition in a market, the ACCC has had regard to a number of factors including the market structure, concentration levels, barriers to entry and the link between the declared service and downstream services.

Wholesale voice termination markets

In both the 2004 and 2009 declaration inquiries the ACCC considered that the wholesale market for mobile voice termination services on each MNO's network was not competitive.⁴⁷ The ACCC continues to have this view for the following reasons.

Firstly, while the MTAS rates have declined in line with the rates set out in the MTAS FAD since the previous inquiry, the ACCC considers that this would not have occurred in the absence of regulation. Each MNO continues to have exclusive control over access to subscribers on their networks and mobile voice termination remains essential for downstream voice services. This creates a potential obstacle to end-users gaining access to services that rely on voice termination because MNOs may exercise monopoly power over access to their end-users by providing voice termination services on unreasonable terms or at inefficiently high prices.

Secondly, as discussed earlier, there do not appear to be effective substitutes for wholesale mobile voice termination services on different mobile networks. This means that there are no other wholesale services which would constrain the ability of MNOs to deny or set unreasonable terms of access to the MTAS.

Therefore, as each MNO continues to have a monopoly over voice termination services and as there are no substitutes for these services, the ACCC considers that the markets for wholesale mobile voice termination services on each MNO's network are not effectively competitive.

⁴⁵ See, ACCAN Submission, p.4-5.

⁴⁶ See for example, VHA Submission, p6.

⁴⁷ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p. 19.

Downstream retail market for mobile services

The retail market for mobile services has changed considerably since the 2009 declaration inquiry. The ACCC considers the market for retail mobile services is in a state of transition for a number of reasons. It shows some signs of effective competition and some signs of more subdued competition.

On the positive side, there are a large number of mobile services in operation (SIOs) and mobile call volumes are high. The number of mobile voice services in operation has grown from 21.3 million in June 2008, to 24.3 million in June 2012.⁴⁸ Furthermore, the number of mobile call minutes has increased from 28 billion minutes in 2009 to well over 41.4 billion minutes today.⁴⁹

There are also a number of service providers providing retail services. Retail consumers benefit from a wide range of retail service offers from the three MNOs and a range of mobile virtual network operators (MVNOs) reselling MNO's services. MVNOs account for around 8 per cent of mobile phone subscribers and include Virgin Mobile, Amaysim, TPG and Boost, among others. MVNOs generally target niche consumer segments, such as price sensitive consumers, and while their market share is small compared to the three MNOs (indicated in the figure above), they provide choice to different consumer segments and an alternative to the MNO's retail offers.

Optus is the largest supplier of wholesale mobile services with 72 per cent of the wholesale mobile services market, followed by VHA with 18 per cent and Telstra with 10 per cent.⁵⁰ There is also an emerging market for wholesale 4G mobile services, with a number of MVNOs now retailing Optus' 4G services.⁵¹

Another positive is that retail prices for mobile calls have fallen considerably since the current MTAS declaration was made in 2004. The average price for mobile services declined 24.6 per cent between 2004 and 2012. In the 2009 inquiry, the ACCC expressed the view that MTAS regulation had been a major contributor to the increased competitiveness of the retail mobile services market since 2004.⁵² The ACCC continues to hold the view that the regulation of mobile voice termination services has contributed to this decline in retail prices.

The ACCC also recognises that MNOs have invested heavily in improving the quality and coverage of their networks. Since 2009, all three MNOs have continued to invest in 3G networks, extending coverage and upgrading technology. Further, all three MNOs have launched

⁴⁸ ACCC, *ACCC telecommunications communications reports 2011-12*, p. 12.

⁴⁹ ACCC, *ACCC telecommunications communications reports 2011-12*, p. 17.

⁵⁰ Ovum, *Australian Mobile Market Statistics and Analyser: 1H 2013*, 27 September 2013

⁵¹ iiNet introduces speedy 4G Mobile for all, media release, 6 June 2013,

<http://www.iinet.net.au/about/mediacentre/releases/2013-06-06-iinet-introduces-speedy-4g-mobile-for-all.pdf>;

Exetel, Residential Mobile Voice Plans, viewed on 31 October 2013, http://www.exetel.com.au/residential-mobile-plans_4G.php#3G_plans.

⁵² ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p 25.

4G services, which offer better data rates and lower latency than 3G networks.

For example, in September 2011, Telstra launched its 4G network, which it now claims covers 66 per cent of the population.⁵³ In 2012-13, Telstra invested \$1.2 billion in its 3G and 4G mobile networks.⁵⁴ Optus launched 4G services in September 2012 and has announced plans to expand 4G coverage to 70 per cent of the population by 2014.⁵⁵ Optus has also upgraded its 3G network and expanded coverage to 98 per cent of the population.⁵⁶ VHA launched 4G services in July 2013 in five capital cities and some regional centres and plans to expand this by the end of 2013.⁵⁷ VHA has also invested \$1 billion in its 3G network in recent years.⁵⁸

MNOs have also invested in radiofrequency spectrum in recent years. In April 2013, Telstra and Optus both purchased spectrum in the 700 MHz and 2.5GHz bands. It is likely that they will use this spectrum to provide 4G services in metropolitan and regional areas.

However, against these positive signs, the ACCC notes there are some signs that the retail mobiles services market is in a state of transition.

In particular, retail price competition has become more subdued in recent years.⁵⁹ In the years between 2010-2011 and 2011-2012, there was just a one per cent reduction in the average real price of mobile services, compared to a 5.7 per cent reduction in 2007-2009.⁶⁰

In addition, it appears that the retail mobile services market is more concentrated today than in the previous inquiry. In 2009, VHA merged with Hutchison Australia, reducing the number of MNOs in Australia. As a result, there are now only three MNOs in Australian (Optus, Telstra and VHA) compared to four during the previous inquiry. The three MNOs currently account for over 90 per cent of subscribers.

Since the 2009 inquiry, Telstra's retail mobile market share has consistently increased, VHA's has consistently decreased, and Optus' share of the market has remained steady. Between June 2010 and June 2012, Telstra's retail market share for mobile services increased from 37 to 42 per cent, Optus' remained at 30 per cent, while VHA's fell from 27 to 23 per cent. This is shown in the figure below.

⁵³ Telstra, *Telstra Annual Report 2013*, 7 August 2013, p.6.

⁵⁴ Ibid.

⁵⁵ SingTel Optus, *SingTel Annual Report 2013*, p.13.

⁵⁶ See Optus, *Optus strengthens 3G networks and launched 4G business services*, media release, 31 July 2012,

⁵⁷ VHA, *Vodafone flies into the future*, media release, 10 July 2013,

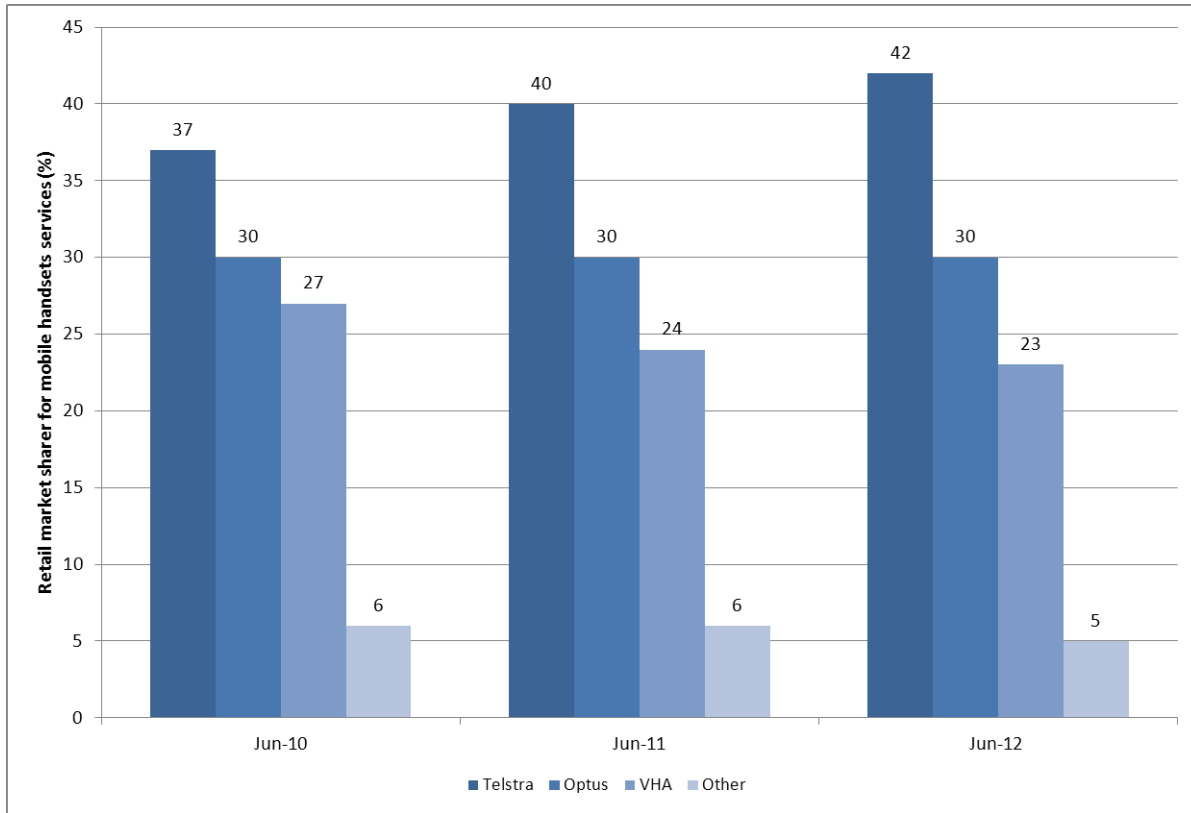
<http://www.vodafone.com.au/doc/VodafoneFliesIntoTheFutureWith4G.pdf>

⁵⁸ Vodafone, *Vodafone outlines plans to give customers improved coverage and higher speed Vodafone 3G + and 4G services*, media release, 26 June 2012.

⁵⁹ Prices have fallen, in real terms, by 1.9 per cent since 2009, *ACCC telecommunications communications reports 2011-12*, pp. 91-94.

⁶⁰ There was a one per cent reduction in prices in 2011-2012, *ACCC telecommunications communications reports 2011-12*, pp. 91-94.

Figure 4.1: Retail market shares of the mobile network operators from 2009-12



Source: Data obtained from the ACCC Division 12 RKR data and from carriers.

There has also been some consolidation among MVNOs in recent years. In 2012 and 2013, low cost MVNOs such as ispONE, Kogan Mobile and Savvytel exited the market, and VHA closed its Crazy Johns and ‘3’ brands, while Optus ended its wholesale agreement with Woolworths.

The ACCC notes that growth in mobile services, particularly data services, is placing greater demand on networks. MNOs are increasingly competing on factors other than prices, such as network quality and coverage. This is reflected in the significant investments MNOs have made to improve their networks to meet consumer demand and consolidate or increase their market share in a more concentrated market.

Downstream retail market for fixed voice services

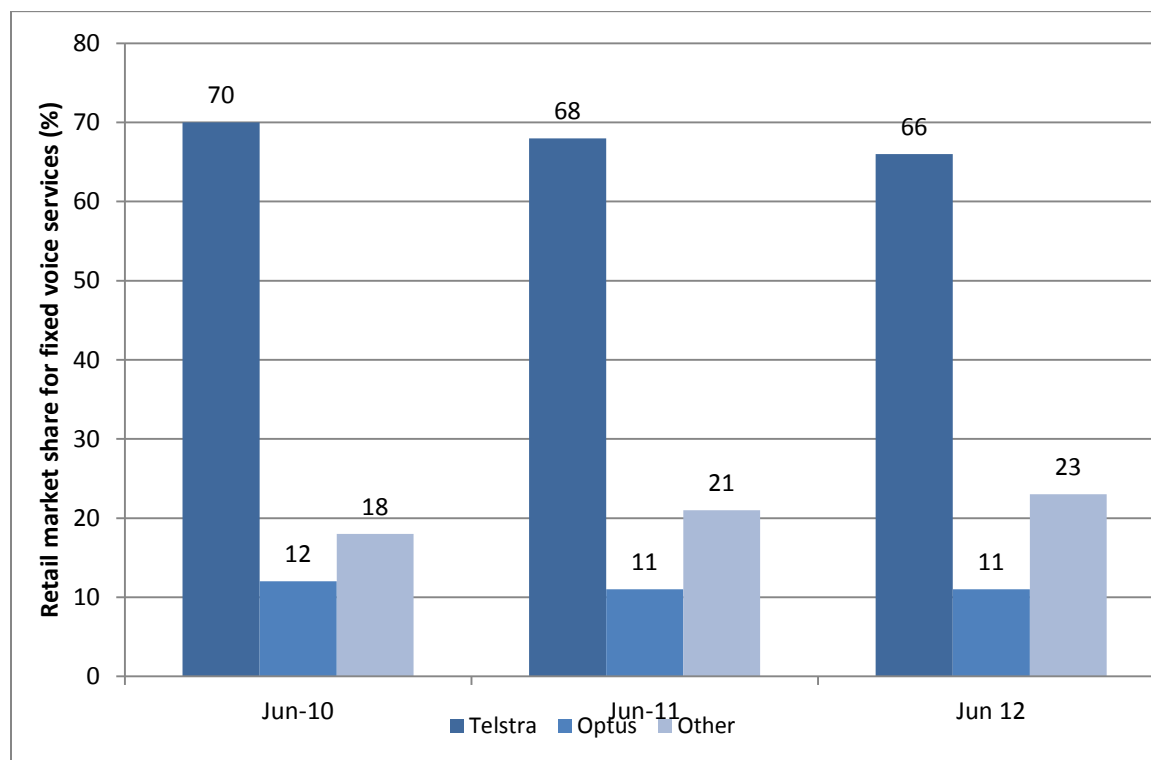
The ACCC has also considered the state of competition in the downstream retail market for fixed voice services because, as explained above, the market for fixed voice services includes fixed-to-mobile calls which require the MTAS.

In this context, there were 10.44 million fixed line voice SIOs at June 2012, compared to 10.54 million services at June 2011, a net decline of around one per cent. Telstra’s fixed line voice SIOs continued to decline, with 8.06 million services in June 2012. This is a decline of 3.7 per cent (around 310,000) for 2011–12, compared with 3.3 per cent during 2010–11.⁶¹

While the total number of fixed line voice SIOs is declining, the number of providers offering these services increased during 2011–12 by 18 per cent (from 179 to 212 providers).⁶²

However, the fixed line voice market still remains highly concentrated. As shown in figure 4.2, Telstra remains the dominant player in the provision of retail fixed voice with a market share of 66 per cent, despite losing a small share of the market to its non-Optus competitors.

Figure 4.2: Retail fixed voice service shares by subscriber numbers from 2009 – 10 to 2011 – 12



Source: Data obtained from the ACCC Division 12 RKR data and the ACMA *Communications Report 2011-12*.

How will continued declaration affect competition?

Submissions

All submissions considered declaration of mobile voice termination services would have a positive impact on competition. There was general agreement that the declared MTAS has had a

⁶¹ These SIOs include voice lines where other services are also provided on the same line, such as broadband services.

⁶² ACMA, *Communications Report 2011-12*, p. 29.

positive impact on competition in the mobile market. For example, Telstra argued declaration has meant that interconnection pricing more closely reflects the costs of access, and this has been a factor in increased investment in voice network technologies, coverage and quality.⁶³ VHA submitted that declaration has promoted competition in the mobile services market and contributed to overall market expansion.⁶⁴

All industry submissions referred to the enduring monopoly that each mobile network operator has over terminating voice calls on their network. Industry submissions also agreed that declaration was needed to ensure mobile network operators set termination prices that are more reflective of the underlying cost. Many argued that integrated operators had the ability and incentive to charge smaller mobile network operators and competing fixed-line networks higher prices to terminate calls on their mobile networks.⁶⁵ Optus argued that declaration is needed because MNOs continue to have a monopoly over the termination of voice calls on their network and competition in the market for mobile services has decreased since 2009.⁶⁶ ACCAN also argued that retail competition was low and declaration was needed to support the development of substitute VoIP services.⁶⁷

ACCC's preliminary views

Wholesale market

As explained above, the ACCC recognises MNOs continue to have a monopoly over terminating voice calls on their networks which means they have the ability and incentive to exercise market power and set unreasonable terms of access including inefficiently high prices. The ACCC also recognises that integrated operators in particular, have the ability and incentive to exercise their market power in this manner.

The ACCC considers that declaration will continue to ensure access to mobile voice termination on reasonable terms is not denied to any party and that prices for the services will be set closer to the underlying costs. While this will not impact competition in the wholesale markets for voice termination services, it will impact competition in the relevant downstream markets.

Downstream markets

As noted earlier, the ACCC considers that competition in the market for mobile retail services has improved since regulation of the MTAS began, but that competition in this market is more moderate today than it has been in previous years. In the 2009 inquiry, the ACCC expressed the view that the declaration of mobile voice termination services has been a significant contributor to improving competition in the mobile retail services market, and that if mobile voice

⁶³ Telstra Submission, p9.

⁶⁴ VHA Submission, p 4.

⁶⁵ See for example, Optus Submission, VHA Submission, Macquarie Telecom Submission, and AAPT Submission.

⁶⁶ Optus Submission, 19.

⁶⁷ ACCAN Submission, p7-8.

termination services were no longer declared many of the competitive gains that had been observed in the market may be lost.⁶⁸ It also found that declaration of voice termination services would promote competition in the fixed to mobile voice market because it would eliminate the ability of vertically integrated carriers (that is MNOs who also offer fixed services) to raise the wholesale costs of their fixed service rivals.

The ACCC considers that declaration of mobile voice termination services will continue to promote competition in both of these markets. This is because regulation of voice termination services ensures that the price of mobile voice termination services is kept close to the cost of providing the service. The ACCC expects that any savings made by mobile or fixed service providers will be passed onto consumers in lower retail prices or service innovations.

In addition, the ACCC considers that declaration will promote competition in the retail fixed services market as it will impact the provision of fixed-to-mobile services. In previous inquiries the ACCC has concluded that declaration combined with regulated pricing would promote competition in the provision of fixed-to-mobile services because many fixed operators did not provide mobile voice termination services.⁶⁹

Operators of both fixed and mobile networks face the actual costs of fixed-to-mobile calls terminating on their own networks but are able to set above cost prices for rival operators that are only fixed network operators. This means that fixed-only operators would pay above cost prices to terminate all fixed-to-mobile calls, while fixed operators that are also MNOs only pay above cost prices for calls terminating on other MNOs networks. This gives integrated network operators an advantage over non-integrated operators.

The ACCC considered that declaration and regulated pricing eliminates the ability of MNOs to raise the wholesale costs of their fixed network rivals by increasing mobile voice termination rates above efficient costs. It concluded that this would likely promote competition in the provision of fixed-to-mobile services by ensuring that fixed operators could obtain access to mobile voice termination at prices closer to cost, and that this would allow them to pass on any savings to consumers in the form of retail price reductions or service innovations.

The ACCC considers that for these reasons, declaration of mobile voice termination will continue to promote competition in the market for fixed voice services by leading to lower costs for fixed operators providing fixed-to-mobile voice calls.

Without declaration, the ACCC considers voice termination rates would not be aligned closer to the costs of supply and MNOs will have the ability and incentive to increase rates. This would impact competition in the downstream retail markets as savings from cost based voice termination rates may not be passed on to consumers, and smaller operators and new entrants may be denied access to mobile voice termination services on reasonable terms.

⁶⁸ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p. 25.

⁶⁹ *Ibid.*

Conclusion

Accordingly, the ACCC agrees with submissions that extending the declaration of mobile terminating access will promote competition in both the downstream markets for mobile retail services and fixed voice services.

4.2 Any-to-any connectivity

Under the CCA, declaration of the mobile voice termination service should ensure voice termination enables each end-user to communicate with each other end-user, whether or not they are on the same network.⁷⁰ This was the justification for the deemed declaration of the MTAS in 1997.⁷¹

Submissions

Submissions agreed that declaring the MTAS will still promote the achievement of any-to-any connectivity, both between MNOs and between MNOs and fixed line operators. Many argued that integrated operators had the ability and incentive to refuse or frustrate access by charging higher prices to terminate calls from smaller MNOs and competing fixed-line networks.⁷²

ACCC's preliminary views

The ACCC acknowledges interconnection is likely to be agreed between MNOs in the absence of declaration, but considers MNOs could exercise monopoly power over access to end-users on their networks by imposing unreasonable terms of access or inefficiently high prices. This has the potential to prevent the achievement of any-to-any connectivity. The end-users of mobile networks and fixed-line service providers with fewer subscribers may be more vulnerable in this context because their small subscriber bases mean they will not have the same bargaining power as operators with a larger number of subscribers. Fixed-line operators who are not vertically integrated will also have less bargaining power than integrated operators.

The ACCC therefore considers continued declaration of the MTAS is necessary to achieve any-to-any connectivity.

4.3 Encouraging economically efficient use of, and investment in, infrastructure

Paragraph 152AB(2)(e) of the CCA requires the ACCC to have regard to the extent to which declaration is likely to encourage the economically efficient use of, and the economically efficient investment in, infrastructure.

⁷⁰ Subsection 152AB(2) of the CCA.

⁷¹ ACCC, *Deeming of Telecommunications Services*, June 1997.

⁷² See for example, Optus Submission, VHA Submission, Macquarie Telecom Submission, and AAPT Submission.

Submissions

Few submissions addressed this issue directly. VHA, the Competitive Carriers Coalition and ACCAN argued that declaration of the MTAS would promote the efficient use of and investment in infrastructure.⁷³ VHA claimed it would promote allocative efficiency by preventing MNOs from exploiting monopoly power over access to end-users on their networks.⁷⁴

ACCC's preliminary view

The ACCC seeks to ensure that regulation does not discourage investment in networks or network elements where such investment is efficient. However, where it is inefficient to duplicate investment in existing networks or network elements, regulation may play an important role in ensuring that existing infrastructure is used efficiently.

Paragraph 152AB(6)(a) of the CCA requires the ACCC to have regard to specific matters in examining whether declaration will lead to the achievement of this objective. These matters include the technical feasibility of supplying and charging for particular services, the legitimate commercial interests of the supplier(s) and the incentives for investment in infrastructure

As the MTAS is currently supplied and charged for, it clear that it is technically feasible to do so.

With regard to a supplier's legitimate commercial interests, the ACCC recognises this encompass a supplier's obligations to its owners, including the need to recover the cost of providing services and to earn a normal commercial return on the investment in infrastructure. Allowing for a normal commercial return on investment will provide an appropriate incentive for the access provider to maintain, improve and invest in the efficient provision of the service. The ACCC considers that this objective can be met for the MTAS by setting the price terms in an FAD at a level that reflects costs plus a nominal commercial return. This will be considered further in the upcoming FAD inquiry.

The ACCC considers carriers should have the incentive to invest efficiently in the infrastructure by which the MTAS is supplied. Declaration allows the ACCC to regulate the price of access to the declared service through the associated FAD. It is through declaration and regulated prices that access providers are constrained from charging monopoly rents for access to the infrastructure used to provide the MTAS. In this way, declaration and regulated pricing provides a framework for access providers to recover the efficient costs of investing in infrastructure and a normal commercial rate of return. This framework provides an incentive to invest efficiently and discourages inefficient investment.

⁷³ VHA Submission, p 4; Competitive Carriers Coalition, *Submission on Mobile Terminating Access Service*, 4 July 2013, p 3 (CCC Submission); ACCAN Submission, p 8.

⁷⁴ Ibid.

The ACCC considers that MNOs' exclusive control over terminating services on their own networks effectively gives them monopoly power over access to end-users on their networks. This gives MNOs the ability and incentive to charge access seekers – who may be fixed network operators or other MNOs – above-cost prices for terminating calls on their networks. The ACCC notes that the MTAS declaration has led to a decline in the MTAS price which is more closely aligned with its underlying costs. This has led to cost savings for access seekers which they can re-direct to invest in other products and innovations that are valued by the market.

5 Should SMS termination services be declared?

The second major issues for the MTAS declaration inquiry is whether the MTAS service description should be varied to cover SMS termination services. Currently, the MTAS service description only covers termination of voice services and does not apply to SMS termination services. Based on the information currently available, the ACCC is of the preliminary view that the MTAS service description should be amended to cover SMS termination so that these services are also declared. The reasons for this are discussed below and the proposed amended service description is at **Appendix A**.

5.1 Background

What are SMS termination services?

SMS is a short messaging service that allows a mobile user to send text messages to other mobile users. SMS messages may comprise up to 160 characters of text and are sent using spare capacity in the signalling part of the mobile network when voice services are not needed. When the network is providing voice services, this may result in delays in receiving SMS messages. SMS messages require significantly less network resources than voice services.

Industry estimates suggest the network capacity needed to provide one minute of voice calls is able to provide several hundred SMS messages. This figure is based on confidential information provided by MNOs. For example, VHA estimates that [c-i-c]. Optus refers to [c-i-c]. The ACCC also notes that the 2007 WIK Model of a 2G mobile network assumes 432 SMS can be sent per minute of voice calls.⁷⁵

SMS termination services are wholesale services provided by an MNO to other MNOs, to receive and terminate an SMS on their network. SMS termination is required each time an end-user sends an SMS to an end-user connected to a different mobile network, and as such are essential to providing retail SMS services. The calling party pays approach that applies to voice calls also applies to SMS messages. The network that originates an SMS message pays the network that terminates the SMS message on their network.⁷⁶ In these ways, SMS termination

⁷⁵ WIK, Mobile Termination Cost Model for Australia, 2007

⁷⁶ See, Optus Submission and Macquarie Telecom Submission, p 9.

has many of the same characteristics as mobile-to-mobile voice termination services.⁷⁷

Previous consideration of SMS termination

In the 2009 declaration inquiry, the ACCC decided not to extend the MTAS service description to include SMS termination services. This was because it considered that SMS termination services were still exhibiting significant growth, were subject to ongoing commercial agreements and there had been no demonstrable market failure.⁷⁸

In the discussion paper the ACCC sought submissions on whether these reasons for not declaring the service still applied, or whether there were reasons the ACCC should now give further consideration to declaration SMS termination services.

Why the ACCC is now considering declaring SMS termination

As mentioned above, the ACCC will only declare a service where it considers it is in the LTIE. The ACCC is more likely to find declaration of a service is in the LTIE where that service is an essential bottleneck service, and the market is not operating effectively (i.e. there are signs of market failure).⁷⁹ In these circumstances declaration ensures that service providers are able to gain access to the bottleneck service on reasonable terms and conditions and that prices for the service are not inefficiently high. In this way declaration will likely promote the LTIE.

Based on the information currently available, the ACCC considers it is now necessary to re-examine whether the service should be declared. Firstly, it appears that SMS termination is an essential bottleneck service for which there are no substitutes. Secondly, there are indications that SMS termination rates have not change for many years, commercial negotiations have been unsuccessful in lowering these rates, and that SMS termination prices are inefficiently high.

As a result of these findings the ACCC has given further consideration to whether SMS termination should be declared.

5.2 Will declaration promote competition

The relevant markets

The ACCC generally consider two types of markets as relevant in a declaration inquiry:⁸⁰

- The market in which the eligible service is supplied, in this case the markets in which SMS termination services are supplied, and

⁷⁷ Fixed networks do not generally provide SMS messages using a mobile network (although they may provide SMS messages using the data component of a network).

⁷⁸ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p11.

⁷⁹ *Ibid*, pp. 13-14.

⁸⁰ See, See ACCC, *Telecommunications services – Declaration provisions – a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999, p 42.

- The markets in which declaration may promote competition, in this case downstream retail markets.

In considering how to define such markets, the ACCC will consider whether there are any substitutes for either the eligible service, or the services for which the eligible services are used to supply. The following outlines the ACCC's approach to defining the markets relevant to SMS termination.

The markets in which SMS termination services are supplied

Submissions

Some parties submitted there are separate wholesale markets for SMS termination services. Optus argued that the reasons for identifying a separate wholesale market for the supply of mobile voice termination apply to SMS termination, and submitted that there is unanimous acceptance (among international regulators) that the relevant product market is the market for SMS termination on each individual mobile network.⁸¹ AAPT submitted:

'The [SMS termination] market is separate to the MTAS market. While some callers may view SMS as a cheaper option than making a voice call, it is not an effective substitute. Due to the functional differences between a voice call and a SMS, a SMS does not constrain MTAS charges sufficiently for these services to be included in the same market.'⁸²

Submitters expressed different views about the availability of substitutes for SMS termination services and downstream SMS services. AAPT, iiNet, Optus, and Macquarie Telecom all submitted that each MNO has exclusive control over the termination of SMS on their network and that SMS termination services were essential to providing SMS services.⁸³

However, Telstra and VHA submitted that SMS termination services are not a bottleneck because there are effective substitutes for SMS services. Telstra and VHA submitted that smartphone messaging applications, which send messages using IP technologies and therefore use data to send text messages, offer consumers an effective substitute for SMS.⁸⁴ VHA submitted that these services and email are effective substitutes for SMS that constrain the SMS market.⁸⁵

Macquarie Telecom submitted that smartphone messaging applications are only a partial substitute for SMS services. This is because SMS can be sent between any two mobile users but smartphone messaging applications require both parties to have a smartphone, the same

⁸¹ See, Optus Submission, p 21 and Optus, *Optus additional submission on declaration of SMS termination*, 15 August 2013, p 2.

⁸² AAPT Submission, p 5.

⁸³ Optus Submission p. 20-21, Macquarie Telecom Submission p. 9, Herbert Geer, *Review of MTAS Declaration: Submission on behalf of the iiNet Group*, 5 July 2013, p 1, and AAPT Submission p 5.

⁸⁴ Telstra Submission, p. 9-10; Telstra Additional Submission, 8 August 2013; VHA Submission p. 8.

⁸⁵ VHA Submission, p 8.

messaging application and a data connection.⁸⁶

ACCC's view

As mentioned above, the ACCC has previously considered there are separate markets for voice termination services on each MNOs network for the following reasons:⁸⁷

- mobile voice termination services are sold to MNOs separately from other mobile services, and
- there are no substitutes for mobile voice termination services because:
 - each MNO has exclusive control over access to users on their end network, meaning that mobile voice termination services are essential to make a voice call to an end user on another network , and
 - there are no effective substitutes for calls to mobile users which mobile voice termination services are used to supply.

The same factors appear to apply to SMS termination. Submissions indicate SMS termination services are sold to MNOs separately from other mobile services and not in a bundle with other mobile services. The ACCC did not receive any submissions which suggested SMS termination was sold to parties other than MNOs, or in a bundle with complementary services.

Also, it is clear from submissions that SMS termination services are required for an MNO to provide SMS services that will allow mobile users to contact end-users connected to different networks. This is because an SMS cannot be delivered to an end-user connected to another network unless the originating network can access SMS termination services on the other network. Therefore, there do not appear to be any alternative services which would allow an MNO to send an SMS to a user on another MNO.

Further, the ACCC does not consider that at this point in time, there are any effective substitutes for SMS services. The ACCC acknowledges that smartphone messaging applications are similar to SMS services, as they allow mobile users to communicate by sending short text messages. However, SMS services and smartphone messaging applications differ in ways that mean they are not effective substitutes.

For example, smartphone messaging applications require a smartphone and data connection. In contrast, SMS messages can be sent and received using any mobile phone and do not require a data service. The ACMA reports that 92 per cent of Australians used a mobile phone as at May 2013, whereas 49 per cent of adults were using smartphones.⁸⁸ This means that a significant

⁸⁶ Macquarie Telecom Submission, pp. 9-10.

⁸⁷ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p. 15.

⁸⁸ ACMA, *Communications Report 2011-2012: Report 3 – Smartphone and tablets Take up and use in Australia; ACMA Research Snapshots – Australians on the move becoming mobile-only*, 2012.

proportion of mobile users will not be able to use smartphone messaging applications on their mobile phone and will rely on SMS to send and receive text messages.

In addition, both the sender and receiver of smartphone messages applications must use the same application in order to send messages to each other. As there are many different messaging applications, some of which can only be used on specific smartphones, not all users with smartphones will be able to contact each other using these services. However, SMS services can be sent between any two users of a mobile phone capable of making and receiving voice calls.

Therefore, ACCC considers that based on the information available there are separate national markets for wholesale SMS termination services on each MNO's network.

The relevant downstream retail market

The ACCC did not receive any submissions that directly addressed the question of relevant downstream markets related to SMS termination services. However, considering the submissions received on the relevant downstream markets for voice termination services, the ACCC's preliminary view is that the relevant downstream market in which declaration of SMS termination services is likely to promote competition is the market for retail mobile services.

As discussed earlier, the ACCC considers that the market within which retail SMS are provided is the same market as in which other mobile services, including voice and data services, are provided. This is because these services are generally sold as part of a single bundle of complementary mobile services. As SMS termination services are necessary to provide retail SMS services, the ACCC considers that the relevant downstream market which will be affected by declaration is the market for retail mobile services.

Finally, the ACCC notes that unlike voice termination services there is no relevant retail fixed to mobile market for SMS termination services, as SMS are not generally sent from fixed line phones.

Conclusion

For the reasons outlined above, the ACCC considers the following markets are relevant to SMS termination:

- the wholesale markets for SMS termination services on each MNO's network, and
- the downstream retail market for mobile services.

State of competition in the relevant markets

The wholesale markets for SMS termination

Submissions

Parties expressed different views on the state of the SMS termination markets. Optus submitted that the wholesale markets for SMS termination services are not operating effectively. It states that it has recently attempted to negotiate lower SMS rates with other MNOs and has been unable to do so. It also submitted that the SMS termination rates charged by each of the MNOs are well above cost and that these rates have not changed in over a decade.⁸⁹ Optus argued that the behaviour of MNOs demonstrates that they are willing to use their market power over the termination of SMS on their network and the exploitation of this monopoly power is likely to damage to competition in the retail mobile market.⁹⁰ Macquarie Telecom also made submissions that SMS termination rates are excessive.⁹¹

Telstra and VHA both argued that commercial arrangements in the SMS termination market are functioning effectively. VHA submitted that it is unnecessary to declare SMS termination because the markets in which SMS are supplied are functioning effectively absent declaration.⁹² VHA also submitted that mobile operators have limited ability and little incentive to exploit any market power associated with SMS termination.⁹³ Telstra also made submissions that commercial agreements are longstanding and continue to work well.⁹⁴

The ACCC received confidential information from industry that suggests SMS termination rates are above cost. Submissions agreed that SMS services require fewer network resources than voice services and provided a range of estimates of the number of SMS that can be sent with the same network capacity required to provide one minute of voice calls. All estimates are in the order of several hundred SMS messages or more can be sent in the same network capacity needed to provide 1 minute of voice calls.

VHA estimated that [c-i-c]. Optus claimed [c-i-c]. The ACCC notes that the *2007 WIK Consult Mobile Termination Cost Model for Australia* assumed 432 SMS can be sent per minute of voice calls provided using a 2G mobile network.

⁸⁹ Optus Submission, p 5.

⁹⁰ See, Optus Submission, p. 24 and Optus Additional Submission

⁹¹ Macquarie Telecom Submission, p. 8.

⁹² VHA Submission, p 7.

⁹³ VHA Submission, p 8.

⁹⁴ Telstra Submission, p 9.

This suggests the efficient cost of SMS termination should be lower than the efficient cost of voice termination. Under the MTAS FAD, the regulated price of mobile voice termination is 4.8 cents per minute in 2013 and drops to 3.6 cents per minute in the first half of 2014. According to confidential information from industry, SMS termination rates range between [c-i-c] and SMS termination costs are [c-i-c].

ACCC's view

The ACCC does not consider the SMS termination markets are currently competitive. As mentioned above, the ACCC considers that each MNO has a monopoly over the provision of SMS termination services on their network, and there are no effective substitutes for these services. Further, it appears that commercial negotiations have been unsuccessful in lowering SMS termination rates, and that these rates may be priced above efficient levels.

The ACCC does not consider that the SMS termination markets are operating effectively or that MNOs have little incentive or ability to exploit their market power over SMS termination. Submissions and confidential information the ACCC received in the inquiry show that SMS termination prices are well above cost. Further, although there has been a continual increase in SMS use by consumers since 2003, SMS termination rates have remained constant in this time.⁹⁵ Finally evidence presented to the ACCC appears to show that commercial negotiations have not been successful in lowering SMS termination rates.

The retail market for mobile services

Submissions

Submissions received on the state of competition in the retail market for mobile services were discussed earlier. In addition, Telstra and VHA both submitted that retail SMS offers are very competitive. Similarly VHA submits that retail prices for SMS are low and decreasing.⁹⁶ Telstra submits that end users have a wide choice of plans, many of which offer unlimited SMS as part of the included value.⁹⁷

Telstra also noted that, unlike in other jurisdictions where SMS termination is regulated, Australia does not set SMS termination rates differently for SMS messages originating on the same network (i.e. SMS sent between end-users on the same network) and for SMS messages originating on other networks (i.e. SMS from one network to another).⁹⁸

Optus provided confidential information on the impact that SMS termination pricing is having on the retail market. It submitted that [c-i-c].

⁹⁵ Ovum estimates the total number of SMS has grown from 12,829 million in the first half of 2009, to 17,115 million in the first half of 2013. Ovum data also suggests that the rate of growth in SMS use is slowing. See, Ovum, *Australian Mobile Market Statistic and Analyzer: 1H 2013*, September 2013

⁹⁶ VHA Submission, p 8.

⁹⁷ Telstra Submission p 9.

⁹⁸ Telstra Additional Submission, p 8.

ACCC's preliminary views

As discussed above, the ACCC considers that competition in the retail market for mobile services is more moderate than it has been in previous years. In particular, we also note that it appears that price competition has been more subdued in recent years.

Looking specifically at SMS retail offers, the ACCC does not consider that the SMS offers available to consumers are as competitive as Telstra and VHA submitted. The ACCC's preliminary analysis of retail mobile plans shows that while many retail plans do offer consumers unlimited SMS for a monthly fee, there are also many plans where the costs of sending an SMS appear high.

The ACCC has reviewed the current price of SMS in approximately 115 retail mobile services plans. This includes retail plans at low, medium and high spend plans, prepaid and postpaid products, and plans from all three of the MNOs and a selection of resellers such as Amaysim, Boost, Go Talk, TPG and TransACT.

Approximately 50 of the reviewed plans offer unlimited SMS. Of these unlimited SMS plans, most were offered by MNOs. The prices of these plans ranged from \$25 to \$130 per month, however the average cost is around \$60 per month. Many of the plans with unlimited SMS are postpaid which require users to commit to a long term contract.

Of approximately 60 plans which did not offer unlimited SMS, around 40 plans charged between 25 and 30 cents per SMS. Many of these plans are at low spend price points, for example \$9.95 per month, \$20 per month and \$30 per month.

This preliminary analysis of SMS offers supports the ACCC's conclusion that competition in the market for mobile retail services appears to be more moderate today than it has been previously. In particular, the ACCC considers that price competition for SMS is not as intense as VHA and Telstra argued in their submissions.

How will declaration affect competition

The final step in the ACCC's analysis is to look at the effect that declaration of SMS termination services will have on the relevant markets.

Wholesale SMS termination markets

Based on the information currently available, the ACCC considers that declaration of SMS termination services, when coupled with price regulation in an FAD, will ensure that access to SMS termination services is not denied to any MNO and that the services are provided on reasonable terms and conditions. Further it will lead to a closer association between wholesale charges and the price of providing the service. While this is unlikely to increase competition in the wholesale markets for SMS termination services, as each MNO will maintain their monopoly over the service, it will promote competition in the downstream market for retail services.

As discussed earlier, each MNO has a monopoly over the provision of termination services on

their network. Further, the ACCC considers that similarly to mobile voice termination services, MNOs have the ability and incentive to set unreasonable terms of access to SMS termination services. This conclusion is supported by the confidential information provided to the ACCC as part of the inquiry which indicates SMS termination rates are above the costs of providing the service, and that commercial negotiations have not resulted in lower rates in a number of years.⁹⁹

VHA argued that because each of the MNOs both offer and purchase SMS termination services, ‘suppliers of SMS termination face countervailing buyer power when negotiating terms of access’, and that this makes declaration of an SMS termination services unnecessary.¹⁰⁰ The ACCC does not agree with this view.

In order to better understand the SMS markets, the ACCC sought information from Optus, Telstra and VHA on the SMS market. Information sought included data on SMS, MMS and voice traffic flows and revenues. Optus Telstra and VHA each provided the ACCC with such information on a confidential basis. The ACCC also sought more limited information from MVNOs who resell the MNO’s services, including Macquarie Telecom and iiNet, who both provided the ACCC with information on a confidential basis.

Based on this confidential SMS traffic and revenue data the ACCC has come to the preliminary view that that each MNO does not necessarily have sufficient countervailing bargaining power to lower SMS termination rates. In addition, the ACCC does not consider that SMS traffic is so evenly balanced that MNOs have little incentive to keep SMS prices above cost. The data shows that the imbalance in SMS traffic between operators has resulted in some MNOs consistently making a profit from SMS termination.

Further, we also consider that each MNO’s monopoly over SMS termination means that they may deny access to SMS termination services, or set unreasonable terms and conditions of access, to new entrants or smaller MNOs. This is because such parties will not have the same degree of countervailing bargaining power as an established MNO. The ACCC made similar findings in relation to mobile-to-mobile voice termination services in the 2009 declaration inquiry, expressing concern that established MNOs may have an incentive to refuse access to termination on their network (or provide it on unfavourable terms and conditions) to new entrants to the retail mobile services market.¹⁰¹

Based on the information that is currently available to the ACCC, we consider that without declaration, MNOs will continue to price SMS termination above efficient costs. While these outcomes would not necessarily impact competition for wholesale termination services, they are

⁹⁹ Optus has submitted that it has been unable to negotiate a change of SMS termination prices with any MNO, that SMS termination rates have not changed for over a decade, and these rates are well above the costs of providing the service. Further, additional information provided by the other parties also indicates that SMS termination rates are currently well above the costs of providing the service.

¹⁰⁰ VHA Submission, pp. 7-8.

¹⁰¹ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p 24.

likely to affect competition in the downstream retail market.

Conclusion

Considering the information currently available to the ACCC, the ACCC's preliminary view is that declaration of SMS termination will lead to SMS termination charges being closer to costs, and will ensure that MNOs are unable to deny access to SMS termination services to new entrants or smaller MNOs. The ACCC considers that these outcomes will promote competition in the downstream retail market, which is discussed in detail below.

Retail market for mobile services

Submissions

Telstra and VHA submitted that declaration of SMS termination will not promote competition in the retail market for mobile services. They argue that SMS offers are already very competitive, with a large number of unlimited SMS plans, and SMS rates low and decreasing.¹⁰² Further, they submitted that SMS traffic between operators is symmetric, meaning that SMS termination rates have little impact on MNOs or their retail offers.¹⁰³

Optus submitted that declaration of SMS termination services will promote competition in the downstream retail market. It submitted that declaration of the service, coupled with appropriate FAD prices, will result in retail pricing that has a closer association with the underlying costs and that this in turn, promotes a greater level of competition in related markets.¹⁰⁴ Optus also argued that MNOs may be under pressure to offer unlimited SMS plans in order to remain competitive, which can result in them providing SMS services at a loss¹⁰⁵

Finally, Macquarie Telecom also submitted that declaration of SMS termination would promote competition in the downstream retail market, arguing that lower wholesale charges will have a flow on impact to retail charges.¹⁰⁶ It submitted that declaration would result in lower of wholesale SMS charges, which would allow MVNOs to compete more effectively with MNOs.

ACCC's preliminary view

Based on the information that is currently available, the ACCC considers that declaration of SMS termination charges will promote competition in the market for retail mobile services for a number of reasons.

¹⁰² VHA Submission, p 8.

¹⁰³ VHA Submission, p 8 and Telstra Additional Submission, pp. 3-6

¹⁰⁴ Optus Submission, p. 27.

¹⁰⁵ Ibid.

¹⁰⁶ Macquarie Telecom Submission, p. 8.

Firstly, the ACCC does not agree with the argument that SMS termination rates have no impact on MNOs or the retail market because SMS traffic is balanced. The ACCC has reached this view based on confidential SMS traffic data received from MNOs during this inquiry. This SMS data shows that traffic between operators is not even and that MNOs do not send the same number of SMS as they receive from other networks. There is therefore an imbalance in SMS traffic which results in profits and losses for different MNOs which provides an incentive for MNOs to keep SMS termination charges high.

We also note the imbalance in SMS traffic is similar to imbalances in mobile-to-mobile voice traffic, which all MNOs agree should continue to be regulated.

Secondly, the ACCC considers the revenue outcomes of uneven SMS traffic flows have the potential to be passed on to downstream retail markets. This is because these costs may be passed on to consumers as higher retail prices or foregone investments in service innovations. This means there is a potential direct impact on end-users in terms of prices and available services. It also means an MNO with higher wholesale costs may be restricted in its ability to compete with an MNO with lower wholesale costs.

Thirdly, high SMS termination rates may impact the ability of downstream service providers to compete with the retail offers of the MNOs. In particular, all three MNOs provide wholesale access to their 2G and 3G networks which MVNOs generally resell in the retail market in competition with the retail offers of the MNOs. Optus is the largest supplier of wholesale mobile services with 72 per cent of the wholesale mobile services market, followed by VHA with 18 per cent and Telstra with 10 per cent.¹⁰⁷ There is also an emerging market for wholesale 4G mobile services, with a number of MVNOs now reselling Optus' 4G services.¹⁰⁸

The ACCC understands MVNOs are not charged for SMS or voice termination. However, the ACCC also understands that the rates MVNOs pay to acquire services from MNOs to resell in the retail market may limit MVNO's ability to provide competitive retail services. For example, an MNO that pays SMS termination on behalf of an MVNO will pass on this cost to the MVNO in the price the MVNO pays for the SMS it resells. Confidential information provided to the ACCC shows that MNOs may charge MVNOs wholesale SMS rates that are similar to the MNOs own SMS termination rates. This limits an MVNO's ability to provide retail prices below termination rates and places pressure on an MVNO's retail margin.

¹⁰⁷ Ovum, Australian Mobile Market Statistics and Analyser: 1H 2013, 27 September 2013.

¹⁰⁸ iiNet introduces speedy 4G Mobile for all, media release, 6 June 2013; Exetel, Residential Mobile Voice Plans, viewed on 31 October 2013, http://www.exetel.com.au/residential-mobile-plans_4G.php#3G_plans.

The ACCC considers that declaration of SMS termination and regulated prices would lower SMS termination rates which would directly benefit end-users in terms of lower retail prices, but also enable retail service providers to compete on the basis of lower wholesale costs. If SMS termination services are declared, MVNOs may be able to obtain lower rates for sending SMS from MNOs. Lower wholesale rates for MVNOs would in turn increase the ability of MVNOs to offer more competitive retail services to end-users. Such developments would promote competition in the retail services market.

Fourthly, the ACCC considers there is evidence that high SMS termination prices are impacting the mobile retail plans available to consumers and that declaration of the service coupled with cost based pricing is likely to improve competition in this market.

While there are a number of unlimited SMS plans available, the evidence currently available shows that retail SMS prices for a wide range of plans are high. As discussed above, the ACCC's preliminary assessment of a wide sample of retail plans shows that in approximately 35 per cent of sampled plans, the cost of sending an SMS is 25 to 30 cents per SMS. Confidential information provided to the ACCC suggests that these retail charges are [c-i-c] than the costs of providing an SMS services.

Further, the ACCC received confidential information from service providers that high SMS termination charges may affect the price of other services in the bundle of mobile services (voice, SMS, data). In this context, the ACCC notes all three of the MNOs reduced the amount of voice calls and data included in their retail mobile services plans in 2012. Optus did this again in July 2013. VHA also reduced its included calls in March 2013.

While changes in included calls and data may be due to a range of reasons, such as a commercial decision to compete on network quality rather than on price, it is reasonable to conclude that wholesale costs may affect the prices of other services provided in the retail bundle (i.e. voice, SMS and data).

The ACCC has reached the preliminary view that that without declaration of SMS termination services, the prices charged for the service will remain inefficiently high. We consider that this is likely to mean that where unlimited SMS services are offered, the prices for other elements of the bundle will be unlikely to decrease, and that where SMS are charged per message, these prices will remain above costs. Further, the ability of some MNOs and MVNOs to effectively compete in the retail market may be constrained if SMS termination services are not declared.

Conclusion

As a result, the ACCC considers that based on the information currently available, declaration of SMS termination service, coupled with cost based pricing in an FAD, will ensure that wholesale prices are more closely associated with costs. This will promote competition in the retail services market as it is likely to lead to lower prices for SMS services, and the other elements of the bundle of mobile services. This is because the ACCC expects that the lower costs for SMS termination charges would be passed on to consumers and would not be retained by the MNOs. We also consider declaration would improve the ability of MNOs and MVNOs to compete in the retail mobile services market.

5.3 Achievement of any-to-any connectivity

Submissions

VHA submitted that declaration of SMS termination services is unnecessary as SMS termination services are provided on a reciprocal basis and therefore that any-to-any connectivity will continue to be achieved in the absence of declaration.¹⁰⁹ Optus submitted that declaration of SMS termination will promote the achievement of any-to-any connectivity, as it prevents any possibility of a carrier being refused access to the mobile termination services of other operators in the case where a commercial agreement cannot be reached.¹¹⁰

ACCC's preliminary view

The ACCC has consistently found that declaration of mobile-to-mobile voice termination services promotes any-to-any connectivity by ensuring that MNOs do not deny smaller MNOs, or new entrants, access to the MTAS.¹¹¹ SMS termination has the same bottleneck characteristics as mobile-to-mobile voice termination, and both services are also supplied on a reciprocal basis. As a result, the ACCC considers that it is also likely that declaration of SMS termination will promote the achievement of any-to-any connectivity. In the absence of declaration, it is possible that smaller MNOs, or new entrants, with a smaller market share and SMS traffic than a larger MNO could be denied access to SMS termination services or be subject to unreasonable terms of access, such as inefficiently high prices.

The ACCC acknowledges that interconnection is currently achieved between the MNOs in the absence of declaration. However, MNOs have the ability and incentive to deny access to SMS services in the future for a number of reasons.

Firstly, it appears that SMS termination rates have remained unchanged for an extended period of time and appear to be above cost.

¹⁰⁹ VHA Submission, pp. 7-8.

¹¹⁰ Optus Submission, p 27.

¹¹¹ See, ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, pp. 27-28.

Secondly, in recent years there has been increasing disparity between the market shares of the MNOs. If this difference in market shares continues to increase, it may result in some MNOs having greater bargaining power in SMS termination negotiations than they currently do. In turn this may mean that they are able to deny access to SMS termination unless unreasonable terms and conditions are agreed to.

Finally, as with mobile-to-mobile voice termination, declaration of SMS termination services will ensure that access to SMS termination will not be denied to new entrants to the mobile services market. Therefore, the ACCC considers that declaration of SMS termination will likely promote the achievement of any-to-any connectivity by preventing any MNO denying access to the service.

Conclusion

For the reasons outlined above the ACCC considers that declaration of SMS termination will promote any-to-any connectivity by ensuring that access to SMS termination services is not denied to any other party.

5.4 Encouraging efficient investment in and use of infrastructure

Submissions

VHA submitted that the current treatment of SMS termination has not been an impediment to the efficient use of SMS retail services or investments in associated infrastructure. Further, it notes that the network demand from SMS is insignificant compared to voice and data services more generally and does not significantly affect the need for investments in new infrastructure and technology.¹¹²

Optus submitted that declaration of the service will promote these objectives, stating that without declaration, MNOs would continue to price SMS termination services above the cost of providing the services, which would likely distort consumption decisions and lead to an inefficient use of telecommunications infrastructure.¹¹³

ACCC's preliminary view

As discussed above, the ACCC looks at number of factors when considering whether declaration will promote the efficient investment in and use of infrastructure.

The technical feasibility of supply and charging for SMS termination

While SMS termination has not previously been declared, the information provided to the ACCC is submission clearly shows that it is technically feasible to supply and charge for SMS termination services.

¹¹² VHA Submission, p 8.

¹¹³ Optus Submission, p 27.

The legitimate commercial interests of SMS termination suppliers

As with mobile voice termination, the ACCC considers aligning prices with the cost of providing the service (plus a nominal commercial return) would provide an appropriate incentive for the access provider to maintain, improve and invest in the efficient provision of the service. Pricing matters will be considered in the upcoming MTAS FAD inquiry.

Incentives for investment

The ACCC considers that allocative, productive and dynamic efficiency are promoted when the prices of a service reflect the costs of providing that service.

As noted earlier, the ACCC has received confidential information from industry that suggests SMS termination rates are above cost. Submissions agree that SMS services require fewer network resources than voice services and have provided estimates of the number of SMS that can be sent with the same network capacity required to provide one minute of voice calls. All estimates are in the order of several hundred SMS messages or more can be sent in the same network capacity needed to provide 1 minute of voice calls.

VHA estimates that [c-i-c]. Optus claims [c-i-c]. The ACCC notes that the *2007 WIK Consult Mobile Termination Cost Model for Australia* assumed 432 SMS can be sent per minute of voice calls provided using a 2G mobile network.

This suggests the efficient cost of SMS termination should be lower than the efficient cost of voice termination. Under the MTAS FAD, the regulated price of mobile voice termination is 4.8 cents per minute in 2013 and drops to 3.6 cents per minute in the first half of 2014. Confidential information from industry is that SMS termination rates are between [c-i-c] and SMS termination costs are [c-i-c].

As noted earlier, the ACCC is concerned about evidence that SMS termination services are being priced above costs. Above cost pricing means there is less incentive for service providers to provide services efficiently because they can over-recover their costs. It also means access seekers invest in inefficient services and are unable to invest in other products or innovations that may be more efficient or more highly valued by the market.

The ACCC also has previously concluded that cost based pricing of both fixed-to-mobile and mobile-to-mobile voice termination services will promote the efficient use of infrastructure, stating that '[t]he potential disassociation between price and costs [which would occur without regulation] is also likely to distort consumption decisions and lead to an inefficient use of infrastructure.'¹¹⁴ The ACCC considers that this reasoning applies to SMS termination, and that the above cost pricing of this service is leading to the inefficient use of mobile infrastructure.

¹¹⁴ ACCC, *Final Report on reviewing the declaration of the MTAS*, May 2009, p. 29-30.

In the absence of declaration, the ACCC considers MNOs will continue to price SMS termination prices well above cost. Declaration of SMS termination, coupled with cost based pricing in an FAD, will result in SMS termination prices being brought closer to the efficient costs of providing the service

As a result, the ACCC is of the view that declaration of SMS termination may promote efficient investment in, and use of, telecommunications infrastructure.

5.5 Conclusion

The ACCC considers that SMS termination services are essential bottleneck services, and that declaration of the services will promote the LTIE because:

- It will promote competition in the downstream market for mobile retail services, by ensuring that wholesale prices are more closely aligned with costs.
- It will promote the achievement of any-to-any connectivity by ensuring that no operator is able to deny access to the service to other operators, particularly new entrants or smaller MNOs.
- It will promote the efficient investment in, and use of, infrastructure by ensuring that prices for SMS termination are more closely aligned with the efficient costs of providing the service.

6 Other issues

A range of other issues, including whether MMS termination services should also be declared, whether 4G and NBN developments would impact the MTAS, the declaration of international mobile roaming termination and MOAS services, and the period of the declaration have also been considered by the ACCC in reaching the draft decision. These issues are outlined below.

6.1 Should MMS termination services be declared?

In the discussion paper the ACCC also sought views on whether MMS termination services should be declared. The ACCC has determined that declaration of these services would not be in the LTIE, and that therefore the services should not be declared. The ACCC reasons for this are outlined below.

What are MMS termination services?

MMS allows mobile users to send messages containing multimedia content, such as images, audio and video files. MMS messages are transmitted over a mobile network using capacity set aside for data, whereas SMS are delivered using spare capacity in the signalling part of the mobile network. While MMS messages are sent using packet switching technology, they differ from smartphone messaging applications because they are not sent over the public internet.

As with voice and SMS termination services, MMS termination services are provided by an MNO to receive and terminate a MMS message on its network and are therefore required for an MMS to be sent between two users on a different network.

Submissions

Few parties made detailed submissions on whether MMS termination services should be declared. Telstra submitted that MMS services were the subject of effective commercial arrangements between parties, that the retail market for MMS services is competitive, and that there are effective substitutes for MMS services in the form of smartphone messaging applications.¹¹⁵ VHA made similar submissions, arguing that the markets in which MMS are supplied are functioning effectively absent declaration. While Optus made strong submissions that SMS termination should be declared, it did not comment on MMS termination. Macquarie Telecom submits that MNOs have a monopoly over MMS termination and that the commercial wholesale rates for MMS are excessive.¹¹⁶

ACCC's preliminary views

MMS termination services appear to have the same bottleneck characteristics as mobile voice termination services and SMS termination services (i.e. they are necessary to send MMS to mobile users connected to another network, and each MNO has a monopoly over the provision of MMS services on their network). However, for a number of reasons the ACCC considers that MMS termination services should be treated differently to SMS termination services, and that declaration of these services is currently not necessary.

With the exception of Macquarie Telecom, submissions did not raise concerns about MMS termination services being above cost, or that MNOs are using their monopoly power to restrict access to MMS termination services.

In relation to above cost pricing, MMS messages vary in size (in terms of megabytes) because, unlike SMS which are limited to 160 characters of text, MMS messages can be in any multimedia form, including text, pictures, music and video. This variability in size has led to tiered pricing structures with different prices for MMS of different sizes. Based on information available, it is not clear that these pricing structures are resulting in inefficient prices.

In addition, consumer take-up of MMS services is low compared with consumer use of SMS services. MMS usage is currently about two per cent of the number of SMS being sent. This suggests declaration of MMS termination is unlikely to have a significant impact on the relevant downstream retail markets.

¹¹⁵ Telstra Submission, pp. 8-9.

¹¹⁶ Macquarie Telecom Submission, pp. 8-9.

For these reasons the ACCC does not consider that the MTAS service description should be varied to apply to MMS termination services at this time.

6.2 The impact of 4G mobile networks and the NBN on the MTAS

The current MTAS service description is intended to be technology neutral so that it applies to termination of voice services offered on any type of mobile network. Since the 2009 declaration inquiry 4G mobile networks and the NBN have developed. These services will use IP switching technology to deliver voice services.

In order to assess whether the development of these 4G networks and the NBN would impact the MTAS the ACCC sought submission on:

- when it is likely voice services would be provided on 4G networks
- whether voice termination services would still be required for voice services offered on 4G networks
- if voice over 4G networks did require voice termination services, whether the current service description would cover such services, and
- whether the current service description would cover services originating on the NBN and terminating on a mobile network.

Submissions

Parties who made submissions on the issue agreed that when voice services were offered over 4G networks voice termination services would still be required.^{117, 118} Further, most parties also agreed the current service description was technology neutral and would cover termination of voice services on 4G networks.

However, AAPT and the Competitive Carriers Coalition submitted that the service description would need to be amended to cover voice termination services on 4G networks.¹¹⁹ AAPT submitted that the definition of point of interconnection should be changed. It argues that the references to gateway exchanges in the service description should be removed as it may exclude IP-based mobile networks. In response to this submission, Telstra argued that the MTAS service description refers to the handover of calls to the access provider's mobile network at a gateway exchange established at a point associated with the access providers' mobile switching centre, which is a long standing technical and commercial arrangement. Telstra submits there are no plans to change existing interconnection arrangements to any IP based interconnection.¹²⁰

¹¹⁷ See for example, Telstra Submissions, Optus Submissions, iiNet Submission and VHA Submissions.

¹¹⁸ 4G networks are currently used for data purposes only.

¹¹⁹ See AAPT Submission, pp.5-6 and CCC Submission p. 3-4.

¹²⁰ Telstra Submission, p 9.

Few parties addressed the issue of when voice services would be offered over 4G networks. However, Optus did submit that it did not expect to start offering such services until 2015.¹²¹

Most submissions on the issue also agreed that the current MTAS service description would cover mobile termination of voice calls which originated on the NBN.¹²² A number of parties noted that this was because the network that a call originates on does not impact the provision of voice termination services.

ACCC's view

The ACCC does not consider that changes to the service description are necessary due to 4G or NBN network developments. The ACCC is satisfied that voice termination services offered over 4G networks or originating on the NBN are covered by the MTAS service description.

Further, the ACCC does not consider that references to gateway exchanges need to be removed from the MTAS service description because the reference to gateway exchange is understood within industry to be a point of interconnection between networks and as there are no plans to change mobile interconnection arrangements, there is no need to remove this term from the service description to ensure that it is technology neutral.

The ACCC notes parties' submissions in relation to the effect that 4G services may have on the costs of providing mobile termination services. Submissions about the pricing of services will be considered in the MTAS FAD inquiry.

6.3 Mobile originating access service

In response to the discussion paper, AAPT submitted that the ACCC should commence an inquiry into whether a mobile originating access service (MOAS) for calls to freephone and local rate numbers should be declared.¹²³ AAPT considers that such an inquiry is necessary due to the Australian Communications and Media Authority's (ACMA) proposed changes to the Telecommunications Numbering Plan.

Currently calls to freephone (1800) and local rate (13/1300) numbers from mobile phones are charged at a local rate. The ACMA's proposed changes to the Numbering plan would make mobile phone calls to freephone numbers free (as they are to fixed line phones). The ACMA is also considering changes to the treatment of mobile calls to local rate numbers, and is currently continuing discussions with stakeholders on this issue.¹²⁴

Unlike other phone calls, the cost of calls to freephone and local rate numbers are borne by the called party rather than the calling party. The called party will be billed by its service provider

¹²¹ Optus Submission, p.28.

¹²² Telstra Submission, pp 14-15; VHA Submission, p. 9; Optus Submission p. 32-33; CCC Submission, p. 4.

¹²³ AAPT Submission, pp. 7-8.

¹²⁴ See ACMA media release, *Free means free calls from mobile phones to 18/1800 freephone numbers*, 22 May 2013.

for such a service. In order to receive the call, the called party's service provider will need to purchase originating access from the calling party's service provider. In this way it can compensate the originating service provider for the use of its network.

AAPT stated that the ACMA's plan is likely to result in a loss of revenue for MNOs that will no longer be able to recover the costs of providing calls to freephone and local rate numbers from its end-users by charging for the use of the service. AAPT is concerned that because of this MNOs may seek to recoup revenue losses via increased charges for mobile originating access services. The ACCC does not consider that it is necessary to conduct an inquiry into declaration of a MOAS at this time. This is because the ACMA has yet to make a final decision on any changes to the Numbering Plan and it has indicated that any new arrangements would not be implemented until 1 January 2015.¹²⁵ The ACCC will continue to monitor the situation and will give further consideration to the issue if the changes to the Numbering Plan are implemented.

6.4 Duration of the MTAS declaration

Under the CCA, a service declaration must specify an expiry date.¹²⁶ The CCA also provides that an expiry date should occur between three and five years after the declaration was made.¹²⁷ The current MTAS declaration has a term of five years and expires in June 2014.

Most submissions considered that the MTAS should be declared for five years.¹²⁸ However, VHA submitted that three years represents a good balance between providing certainty and retaining flexibility during a time of rapid change in the mobile environment.¹²⁹

The ACCC's preliminary view is that the MTAS declaration will be extended and varied to cover SMS termination for a five year term commencing when the current MTAS declaration expires. Assuming the current MTAS declaration is not extended, this means the varied and extended MTAS declaration would commence in July 2014 and expire in July 2019. The ACCC can vary the declaration if there are changes in the market that warrant a variation (subject to a public inquiry). The duration of the related MTAS FAD will be considered in the MTAS FAD inquiry in 2014.

6.5 References to the Trade Practices Act 1974

The current MTAS service description refers to definitions set out in the *Trade Practices Act 1974*. The Trade Practices Act was replaced by the CCA from 1 January 2011. The amended MTAS declaration will therefore refer to the CCA.

¹²⁵ ACMA, *Free means free calls from mobile phones to 18/1800 freephone numbers*, media release, 22 May 2013

¹²⁶ Section 152ALA(2)(a) of the CCA.

¹²⁷ Section 152ALA(2) of the CCA.

¹²⁸ Telstra Submission, p16; Optus Submission p.19; Macquarie Telecom Submission p. 17; AAPT Submission p. 7; CCC Submission p 4; ACCAN Submission p. 9.

¹²⁹ VHA Submission, p. 10.

Appendix A – Proposed service description

MTAS Declaration service description - 2009

The domestic mobile terminating access service is an access service for the carriage of voice calls and short message service (SMS) messages from a point of interconnection, or potential point of interconnection, to a B-Party directly connected to the access provider's digital mobile network.

Definitions

Where words or phrases used in this Declaration are defined in the *Competition and Consumer Act 2010*, or the *Telecommunications Act 1997* or the *Telecommunications Numbering Plan 1997*, they have the meaning given in the relevant Act or instrument.

Other definitions

B-Party is the end-user to whom a telephone call is made or an SMS message is sent.

Digital mobile network is a *telecommunications network* that is used to provide *digital mobile telephony services*.

Point of interconnection is a location which:

- (a) is a physical point of demarcation between the access seeker's network and the access provider's digital mobile network, and
- (b) is associated with (but not necessarily co-located with) one or more gateway exchanges of the access seeker's network and the access provider's digital mobile network.

Short message service (SMS) is the provision of messages up to 160 characters of text using spare capacity in the voice signalling channel of a mobile network.