



AUSTRALIAN COMPETITION
& CONSUMER COMMISSION

Public inquiry into the declaration of the Domestic Mobile Terminating Access Service

Discussion paper

August 2018

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1. Introduction

This document begins the Australian Competition and Consumer Commission's (ACCC) public inquiry into the declared domestic mobile terminating access service (the MTAS Declaration Inquiry).¹

The MTAS Declaration Inquiry will examine whether the current MTAS declaration should be extended, varied, revoked, allowed to expire or whether a new declaration should be made. The current MTAS declaration expires on 30 June 2019, and the ACCC is required to hold a public inquiry in the 18 month period before expiry, pursuant to subsection 151ALA(7) of the *Competition and Consumer Act 2010* (Cth) (CCA).

The MTAS Declaration Inquiry is also relevant to the separate MTAS access determination inquiry, which will examine whether to extend, vary, or revoke the MTAS Final Access Determination (FAD).² The MTAS FAD sets out the regulated prices of the MTAS services and the non-price terms of access to the MTAS and also expires on 30 June 2019.

This paper:

- sets out the legislative framework for declaration and the economic rationale for declaring services like the MTAS,
- provides information on the current MTAS declaration and issues considered during that inquiry,
- provides information on the current state of the most relevant downstream market to the MTAS, i.e. the mobile services market, and
- raises issues relevant to the ACCC's consideration of the MTAS declaration and seeks comment from stakeholders

1.1. Consultation process

This paper raises the key issues the ACCC considers relevant to the MTAS declaration and invites submissions on these, as well as any other issues that you may consider relevant. A number of questions are asked in the final chapter of this paper and a consolidated list of these is provided at **Appendix A**. You may wish to address any or all of these questions and any other matter relevant to mobile terminating access services.

The ACCC will accept submissions until 5pm, Friday 14 September 2018. Submissions received after this time may not be given due consideration.

The ACCC prefers to receive submissions in electronic form, either in PDF or Microsoft Word format, which allows the submission to be text searched.

Submissions should be sent to: MTASinquiry@acc.gov.au and copied to:

Tara Morice
Director
Infrastructure Regulation Division, ACCC
(02) 9230 3857
tara.morice@acc.gov.au

Bashi Hazard
Senior Analyst
Infrastructure Regulation Division, ACCC
(02) 9102 4006
bashi.hazard@acc.gov.au

¹ See section 498 of the *Telecommunications Act 1997* (Cth).

² See subsection 152BCI(3) of the *Competition and Consumer Act 2010* (Cth)(CCA).

The ACCC will consider all submissions as public submissions and will post them on the ACCC's website. If you wish to submit commercial-in-confidence material, please submit both a public and commercial-in-confidence version of your submission. The confidential version should clearly identify commercial-in-confidence material and the public version should clearly identify where commercial-in-confidence material has been removed.

The ACCC has published a guideline setting out the process parties should follow when submitting confidential information to the ACCC. The *ACCC/AER Information Policy June 2014* sets out the general policy of the ACCC and the Australian Energy Regulator (AER) on the collection, use and disclosure of information. A copy of the guideline and policy are available on the ACCC website.

After considering submissions, the ACCC expects to release a draft report for public consultation later in 2018 and a final report in the first half of 2019.

1.2. What is the MTAS?

The MTAS is a wholesale service provided by a mobile network operator (MNO) to fixed line operators and other MNOs to connect or 'terminate' a call on its mobile network. In essence, the MTAS is a wholesale interconnection service. It enables voice calls and SMS to be made or sent by an end-user on one network to an end-user on a mobile network.

When a person (the A-Party) makes a call or sends an SMS to another person's mobile number (the B-Party), the A-Party's network provider completes the call by purchasing MTAS from the B-Party's network provider. The A-Party's network provider will recover those costs, and the costs it incurs from originating the call, from the A-Party in the form of the retail price it charges its customers for providing the call or SMS. This commercial arrangement is known as the 'calling party pays' or 'termination' model.

In 2014, the ACCC decided to amend the MTAS service description by including short message service (SMS) termination. The ACCC found that each MNO had a monopoly over SMS termination services and that there were no available substitutes. The ACCC concluded that SMS termination markets were not competitive and that declaring SMS termination services would ensure that access is provided on reasonable terms and conditions and that the prices for these services are more closely aligned with the costs of providing them.

1.3. Current MTAS service description

Domestic Mobile Terminating Access Service

The domestic mobile terminating access services 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 capacity in the voice signalling channel of a mobile network.

2. Legislative framework and economic rationale for regulation

This section sets out the legislative framework under which the ACCC considers whether to declare a service and the approach we take when assessing whether declaration will be in the long-term interests of end-users (LTIE).

It also sets out the economic rationale for regulating services like the MTAS.

2.1. Declaration framework

There is no general right to access telecommunications services in Australia. Consequently, access to telecommunications services is usually unregulated unless the services are declared. Once declared, an access seeker can seek access to that service and the access provider (the owner of the service or facility) must provide access in accordance with the access obligations set out in the *Competition and Consumer Act 2010* (Cth)(CCA).

We can declare a telecommunications service if (among other things) we are satisfied that doing so will be in the LTIE.

Once declared, the ACCC may also make an access determination for that service. An access determination can set out both price and non-price terms in relation to access to the service. Parties can rely on the terms and conditions set out in an access determination, or they can negotiate commercial terms and conditions. An access determination usually serves as a fall back that parties can rely on if they are unable to otherwise reach agreement about access.

In deciding whether declaration will promote the LTIE, we must consider the extent to which declaration is likely to result in the achievement of the following three objectives:

- promoting competition in markets for telecommunications services;
- achieving any-to-any connectivity; and
- encouraging the economically efficient use of, and economically efficient investment in, telecommunications infrastructure.

We are required to consider only the above objectives when determining whether declaration would be in the LTIE. We discuss these objectives in more detail below.

2.1.1. Promoting competition

To determine the extent to which declaration will promote competition, we:

- identify and define the relevant markets;
- assess the current state of competition in those markets; and
- assess how declaration may affect competition in those markets.

In identifying the relevant markets, we consider the market(s) that are relevant to the supply of the service and any downstream markets that may rely upon this service. We generally give most attention to the markets for downstream (or retail) services, as these (rather than the upstream or wholesale markets) are usually the markets in which declaration may promote competition. When defining a relevant market, we also consider whether there are effective substitutes for the relevant service.

However, the ACCC does not need to take a definitive position on market definition, and market analysis under Part XIC of the CCA should be seen in the context of shedding light on how declaration would promote competition.

When assessing the current state of competition in a relevant market, we will consider a number of factors including market share and concentration levels, whether there are any barriers to entry, and any dynamic market characteristics such as growth, product differentiation and the potential for competition to emerge.

In considering the effect that declaration will have on competition in a relevant market, we consider the likely future state of competition in the relevant market, with and without declaration of the service. Among other things, this requires consideration of whether declaration will establish conditions under which competition will improve and whether these conditions would develop without declaration.

2.1.2. Achievement of any-to-any connectivity

Declaration of a service will promote any-to-any connectivity if it allows end-users of a telecommunications service to communicate with other end-users, whether or not they are connected to the same network. This is particularly relevant when considering services that require interconnection between different networks.

Interconnection is the handover of telephone calls and data traffic between telecommunications network operators. Through interconnection arrangements, network operators provide end-users with access to other end-users, services or content on other networks. As the MTAS is essentially an interconnection service, this objective is particularly significant.

2.1.3. Economically efficient use of, and economically efficient investment in, infrastructure

We must have regard to a number of matters when assessing whether declaration will promote the economically efficient use of, and economically efficient investment in, telecommunications infrastructure. For example, we must consider:

- whether it is technically feasible to supply the service,
- the legitimate commercial interests of suppliers of the service, and
- the incentives for investment in the infrastructure used to supply the service under consideration, and other telecommunications services.

The economic concept of efficiency consists of three components:

- **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** refers to the allocation of goods and services across the economy in a way that is most valued by consumers. It can also refer to the allocation of production across firms within an industry in a way that minimises industry-wide costs.
- **Dynamic efficiency** refers to the 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 so that the welfare of society is maximised over time.

When considering incentives for investment in infrastructure, we will consider how declaration may impact incentives for investing in existing infrastructure as well as how it

may impact decisions about maintenance, improvement and extension of this infrastructure, and investment in new infrastructure.

2.1.4. Further information

The ACCC's Guideline to the declaration provisions for telecommunications services under Part XIC of the CCA provides further guidance about the declaration process and the ACCC's general approach to declaration decisions.

2.2. Economic rationale for declaration of the MTAS

Issues of access in telecommunications markets generally arise when one or more operators control upstream facilities that provide a service or other input that is necessary for the provision of downstream services. Operators seeking to enter the downstream market must either purchase the upstream input from an operator who provides the good or service, or produce the upstream input themselves, in order to be able to offer retail services to end users. However, regulatory intervention to require access to an essential input will only be required if it is unlikely that competition will develop in the upstream market, as is the case with MTAS.

The MTAS is regulated because each network has a monopoly in controlling access to its subscribers. When a person (the A-Party) makes a call or sends an SMS to another person (the B-Party), the A-Party's network provider has no option other than to purchase MTAS from the B-Party's network provider in order to complete fixed-to-mobile (FTM) and mobile-to-mobile (MTM) calls.

Every network provider therefore has control over connecting calls to its own customers. In effect, they have monopoly power over access to the end-users on their network. This means that a network operator could restrict access to its own customers by imposing unreasonable terms or very high prices to terminate calls or SMS on its network. This could limit the services available to consumers and distort competition in downstream markets.

The ACCC has historically viewed the MTAS as a bottleneck to any-to-any connectivity for mobile network end-users. The MTAS was regulated to ensure that termination rates are not a barrier to competition, and that consumers on different networks can call each other.

Network effects or economies were also relevant to the ACCC's prior consideration of MTAS. These arise when there are lower costs, or benefits to consumers, from being part of a larger customer base. Telecommunications networks are often characterised by network externalities because a network with a large customer base allows customers to make and receive calls from more people on the same network. If there are barriers to interconnection between networks, end-users will tend to prefer networks with larger customer bases because the costs of communicating with others will be lower when the communicating parties are on the same network.

In the context of mobile networks, network effects can have implications for competition in downstream markets as they operate to the advantage of large dominant networks, potentially to the point that a natural monopoly may be established. Declaration of the MTAS seeks, in part, to counter this potential effect.

However, the Australian mobiles market consists of three well-established mobile network operators. As such, market convergence towards a monopoly is much less likely in the present competitive landscape. What is more likely, and what has been reflected in previous declaration decisions, is that there are incentives for MNOs to deny interconnection, or to set unreasonable terms for providing interconnection, particularly to smaller networks or providers with less bargaining power.

3. The 2014 MTAS Declaration

The ACCC deemed the MTAS to be a declared service in 1997, shortly after the introduction of the Part XIC telecommunications access provisions of the *Trade Practices Act 1974*.³ In 1997, the mobile networks in operation were the analogue advanced mobile systems (AMPS) network and the digital global system for mobiles (GSM) network.

In 2002, the ACCC varied the declaration and redefined the service description to make it effectively technology-neutral.

In 2004, the ACCC re-declared the MTAS following the Mobile Services Review. The ACCC found that competition, any-to-any connectivity and efficient investment (particularly in fixed-to-mobile (FTM) calls) would be promoted by declaration. At the same time, the service description was made to be technology neutral.

In 2009, the ACCC re-declared the MTAS again, largely because of the mobile termination bottleneck. Relevantly, the ACCC also considered issues of whether to include SMS, MMS and data services termination, and whether to declare FTM termination but not mobile-to-mobile (MTM) termination, but decided against these measures.

In 2014, the ACCC decided that the declaration of mobile voice termination services was in the LTIE. The ACCC also examined whether to declare SMS termination services. The ACCC considered that declaration of SMS termination services, including application-to-person (A2P) SMS, was in the LTIE.

Industry participants expressed different views about the proposal to declare SMS termination services for the first time in 2014. The mobiles sector is generally perceived to be competitive, with each operator actively competing to gain customers. However, there was significant evidence to suggest that SMS termination markets were not competitive. The ACCC found that SMS termination rates were priced well above cost, and had remained constant for ten years despite a steep increase in SMS use by consumers. In the downstream market for mobile services, the ACCC also considered that price competition was subdued, and that most SMS offers, particularly to low spend consumers, were priced well above cost.

This section examines in more detail the reasoning for declaration in 2014.

3.1. Declaration of mobile voice termination services in 2014

Promoting competition

In determining whether competition in the telecommunications markets would be promoted by declaring mobile voice termination services, the ACCC first identifies the relevant markets, and then assesses the effect that continued declaration would have upon competition in these markets.

The ACCC found that the markets in which mobile voice termination services are supplied are the separate wholesale markets for voice termination services on each MNO's mobile network. This was because the ACCC found that each MNO had exclusive control over access to mobile voice termination services on their network, and that there were no substitutes for these services.

The ACCC also identified two downstream markets in which declaration of the service may promote competition: the retail market for mobile services, and the retail market for fixed voice services.

³ Prior to this, mobile services were regulated under the *Telecommunications Act 1991* (Cth) access regime.

Wholesale markets for voice termination services on each MNO's mobile network

In the 2013 Declaration Inquiry, the ACCC concluded that wholesale voice termination markets were not competitive, due to each MNO having a monopoly in the wholesale market for voice termination services on its network, with no effective substitutes available. The ACCC found that continued declaration would ensure access to mobile termination services on each MNO's network remained on reasonable terms, and promote competition in the downstream retail markets for fixed voice services and mobile services.

Downstream retail markets for fixed voice and mobile services

The ACCC considered that continued declaration of mobile voice termination services, when coupled with regulated pricing, would ensure that the price of mobile voice termination services remained close to the cost of providing those services. The ACCC considered that this would promote competition in the mobile services market by preventing on-net/off-net price differences at the retail level, which would disadvantage smaller MNOs, or potential new entrants, as their customers need to make more off-net calls when compared with customers on a larger network.

Secondly, in the fixed voice services market, the ACCC found that regulation of mobile voice termination services would reduce the advantage that a horizontally-integrated operator has over its non-integrated competitors. This is because a non-integrated fixed network operator has to pay termination for all FTM calls, while a horizontally-integrated operator only needs to pay termination for FTM calls that terminate on mobile networks other than its own.

Thirdly, in both fixed voice and mobile services markets, the ACCC considered that declaration of mobile voice termination services would provide operators with greater flexibility when making retail offers, which encourages competition. When an operator lowers its retail prices or offers greater inclusions in its retail plans, subscribers are likely to make more voice calls, leading to an increase in interconnection payments to other operators. Consequently, high termination rates can lead to significant costs to an operator.

The ACCC found that continued declaration of mobile voice termination services would enable operators to compete on price and increase plan value more freely than without declaration. The ACCC also considered that the regulation of mobile voice termination services had contributed to the long-term decline in retail prices for mobile and fixed services. Between the start of MTAS regulation in 1997 and the declaration in 2014, the average retail price of calls from fixed line phones to mobiles fell by 67 per cent in real terms. In the same period, prices for mobile phone services also fell by around 52 percent.⁴

Achieving any-to-any connectivity

In the 2013 Declaration Inquiry, the ACCC considered that, in light of MNOs' ability to deny interconnection or set unreasonable terms for providing termination services, particularly to smaller operators with less bargaining power, continued declaration of mobile voice termination services was likely to promote the achievement of any-to-any connectivity.

Economically efficient use of, and economically efficient investment in, infrastructure

The ACCC found that extending the declaration of mobile voice termination services, combined with pricing regulation, was likely to promote economically efficient investment in, and use of, infrastructure by which mobile and fixed voice services are provided. The ACCC considered that setting prices for mobile voice termination services that are closer aligned to the cost of providing the services promotes allocative efficiency, productive efficiency and

⁴ ACCC, *Changes in the prices paid for telecommunications services 2013-14*, 82-85.

dynamic efficiency in the market, which in turn encourages efficient use of, and investment in, infrastructure.

3.2. Declaration of SMS termination services in 2014

Promoting competition

In determining whether competition would be promoted if SMS termination services were declared, the ACCC first identified the relevant markets, and then assessed the effect that declaration would have upon competition in those markets.

The ACCC found that SMS termination services are supplied on separate wholesale markets for SMS termination services on each MNO's network. The ACCC determined that SMS termination services are sold to MNOs separately from other services, and are required for an MNO to supply SMS to end-users. The ACCC also found that each MNO had a monopoly over such services, and that there were no available substitutes. The ACCC considered that wholesale markets for SMS termination services incorporated both the termination of MTM and A2P SMS, because MNOs did not distinguish between them.

A2P service providers deliver automated or semi-automated SMS messages from a software application to mobile subscribers, using an internet connection and access to a mobile network. A2P services are commonly used by businesses to contact customers, for example, to confirm appointments or provide password verification. The end-user receiving an A2P SMS may be on the same network as the MNO providing the A2P service or on another network. The MNO providing the A2P SMS service will need to acquire SMS termination from other MNOs.

The ACCC identified the following downstream markets to be relevant to declaring an SMS termination service: the mobile retail services market, the wholesale A2P SMS services market, and the downstream A2P services market.

Wholesale markets for SMS termination services on each MNO's mobile network

The ACCC concluded that wholesale SMS termination markets were not competitive, with each MNO having a monopoly over the provision of SMS termination services on their network, and no effective substitutes available. The ACCC considered that declaration of SMS services would not change the structure of this market, but would ensure that access to SMS services would be provided to MNOs on reasonable terms and conditions, and that the prices for the service would be more closely aligned with the costs of providing it. The ACCC considered that these outcomes would be likely to promote competition in the downstream retail market for mobile services.

Downstream retail markets for mobile services

In the 2013 Inquiry, the ACCC concluded that the declaration of SMS termination services, coupled with regulated pricing in the MTAS FAD, would promote competition in the downstream retail market for mobile services. The ACCC considered that there were imbalances in SMS traffic between networks, and that high termination rates were impacting competition in the retail market. The ACCC considered that declaration would reduce the wholesale costs of SMS termination services, and that this could be passed onto consumers in the form of lower retail prices and improved retail offers for lower spend consumers.

Markets for A2P SMS services

The ACCC concluded that declaring an SMS termination service, coupled with pricing regulation, would promote competition in the wholesale market for A2P SMS services, and

that this would promote greater pricing competition in the downstream A2P SMS services markets. The ACCC considered that reductions in the wholesale A2P prices charged by MNOs would reduce the cost to SMS aggregators and A2P service providers in downstream markets.

Achieving any-to-any connectivity

The ACCC concluded that declaration of SMS termination services would be likely to promote the achievement of any-to-any connectivity by ensuring that MNOs provide access to SMS termination services on reasonable terms to smaller MNOs and new entrants.

Economically efficient use of, and economically efficient investment in, infrastructure

The ACCC concluded that declaration of SMS termination services was likely to encourage economically efficient use of, and economically efficient investment in, infrastructure. The ACCC considered that aligning prices with the cost of providing the service plus a normal rate of return would provide an appropriate incentive for access providers to maintain, improve and invest in efficient provision of the service. The ACCC considered that this would promote allocative efficiency, productive efficiency and dynamic efficiency in the market.

4. Developments in the mobiles sector since the 2014 declaration

The following section sets out some of the changing dynamics in the mobiles services market in 2018, relevant to the current inquiry, and notes developments since the last declaration.

Since the last MTAS declaration inquiry, the mobile services market has continued to change and develop. Among the most significant changes are the rollout of the National Broadband Network (NBN), closure of 2G mobile networks and increased investment in 4G/LTE networks, forthcoming deployment of 5G mobile networks and the imminent entry of a new MNO, TPG Telecom. Other developments include the continuing growth of over-the-top (OTT) services, and the current pricing of retail mobile services, including calls and SMS.

Growth of the market for retail mobile services

The number of consumers who prefer to use mobile voice services over fixed voice services has continued to grow. The Australian Communications and Media Authority (ACMA) estimated in June 2017 that 36 percent of Australians relied solely on a mobile phone for voice services.⁵ This trend is likely to continue with increasing mobile data inclusions and the deployment of 5G, predicted to be widely offered from 2020.⁶ This new generation of wireless broadband technology will deliver higher speeds and lower latency than 4G, and is likely to increase competition with fixed line services.⁷ Most retail service providers now offer unlimited calls and texts on mobile plans, while many fixed voice services are pay-as-you-go, or include calls for an additional fee.⁸ Fixed line originating call volumes are continually declining, while mobile originating call volumes continue to rise.⁹

There are currently three national MNOs: Telstra, Optus and Vodafone Hutchison Australia (VHA), with TPG Telecom currently building its mobile network.¹⁰ TPG Telecom will not initially be offering traditional voice calls on its network,¹¹ which is perhaps a strong indication of the growing substitutability of over-the-top (OTT) services for messages and voice calls, and the disruption of traditional service models in the market.¹² The three existing MNOs have recently invested billions of dollars to upgrade their mobile networks, indicating their increasing prominence, and the credible threat posed to fixed line networks by mobile networks with comparable speed and reliability in the delivery of voice and broadband services.¹³

Demand for data services has increased dramatically, with the ACMA recently reporting that mobile phones are now the most popular, and most frequently used devices, for accessing the internet.¹⁴ The ACMA also reported that, in the six months to June 2017, 80 per cent of

⁵ ACMA, *Communications Report 2016-17*, 2017, 7.

⁶ ACCC, *Communications Sector Market Study Final Report*, April 2018, 7.

⁷ ACCC, *Communications Sector Market Study Final Report*, April 2018, 49.

⁸ ACCC, *Communications Sector Market Study Final Report*, April 2018, 146.

⁹ ACCC, *Communications Sector Market Study Final Report*, April 2018, 146.

¹⁰ Australian Financial Review, *TPG to build own mobile network after \$1.2b spectrum splurge*, 12 April 2018, accessed on 27 June 2018 at <https://www.afr.com/it-pro/tpg-to-build-own-mobile-network-after-12b-spectrum-splurge-20170404-gvd6xr>

¹¹ Australian Financial Review, *TPG Telecom mobile network to launch without voice services*, 24 May 2018, accessed on 27 June 2018 at <https://www.afr.com/business/telecommunications/tpg-telecom-mobile-network-to-launch-without-voice-services-20180523-h10g5j>.

¹² ACCC, *Communications Sector Market Study Final Report*, April 2018, 151.

¹³ ACCC, *Communications Sector Market Study Final Report*, April 2018, 49-50.

¹⁴ ACMA, *Communications Report 2016-17*, 2017, 4.

Australian internet users had used an app to communicate. Of these consumers, more than 50 per cent had used an app to make voice calls.¹⁵

OTT communications

OTT communications service providers (such as WhatsApp, Facebook Messenger, Skype and Viber) typically offer voice and messaging services, supplied over existing fixed and mobile broadband services.¹⁶ The ACCC considers there to be competition between OTT services and mobile voice services, despite some differences in quality and service standards, which arise partly from the fact that OTT service providers do not control the access network.¹⁷ For instance, the ACCC has noted that OTT services currently suffer technical limitations, particularly with any-to-any connectivity, such as the inability to call 13/1300/1800 numbers or make emergency calls (except Skype).¹⁸

As a result, OTT services are not yet considered to constitute a full substitute for voice services, and the ACCC has not seen any basis for regulating the originating or terminating functions of OTT services.¹⁹ The ACCC has, however, previously indicated concern over the potential for mobile service providers to foreclose these innovative services.²⁰ In the recent Communications Sector Market Study, the ACCC found that, to the extent that competing OTT services constrain pricing, there may be a case for reducing or removing existing economic regulation of traditional telecommunication services. For instance, the use of OTT services may reduce the need for SMS regulation to continue.²¹

Market concentration and competition

The retail market for mobile services is still dominated by the three MNOs: Telstra, Optus and Vodafone. Their respective market shares have remained relatively stable in the last five years.²² Telstra remains the clear market leader in the national mobile services retail market, having the highest overall market share of 43 per cent, and a higher share in regional areas.²³ Optus follows with a 28 per cent share, Vodafone with 18 per cent and lastly, several smaller mobile virtual network operators (MVNOs) providing services using leased infrastructure, together comprise 11 per cent.²⁴ Despite the high level of market concentration, the ACCC considers that the market remains outwardly competitive, with mobile service providers competing on a range of differentiated price and non-price factors.²⁵ In particular, market shares in metropolitan areas are much closer. The extent of non-price competition in mobile services is evidenced by significant product differentiation in terms of data inclusions, network coverage, customisation and bundling, and multi-product offerings.²⁶

¹⁵ ACMA, *Communications Report 2016-17*, 2017, 17

¹⁶ ACCC, *Communications Sector Market Study Final Report*, April 2018, 21.

¹⁷ ACCC, *Communications Sector Market Study Final Report*, April 2018, 151.

¹⁸ ACCC, *Communications Sector Market Study Final Report*, April 2018, 41

¹⁹ ACCC, *Communications Sector Market Study Final Report*, April 2018, 42.

²⁰ ACCC, *Communications Sector Market Study Final Report*, April 2018, 151.

²¹ ACCC, *Communications Sector Market Study Final Report*, April 2018, 152.

²² ACCC, *Competition and price changes in telecommunications services in Australia 2016-17*, February 2018, 25.

²³ ACCC, *Domestic Mobile Roaming Declaration Inquiry Final Report*, October 2017, 55.

²⁴ ACCC, *Competition and price changes in telecommunications services in Australia 2016-17*, February 2018, 25.

²⁵ ACCC, *Domestic Mobile Roaming Declaration Inquiry Final Report*, October 2017, 22, 55.

²⁶ ACCC, *Competition and price changes in telecommunications services in Australia 2016-17*, February 2018, 5.

Pricing

Pricing variation between the mobile service providers has become more subdued in the past five to seven years, while data inclusions have increased significantly.²⁷ Overall, prices for (post-paid) mobile services have continued to decline.²⁸ Telstra still generally charges higher prices for its services compared to the other MNOs, although the difference has decreased in the past 5 years.²⁹ The entry of OTT voice and messaging services has exerted competitive pressure on the pricing of mobile voice and messaging services by providing a lower cost alternative.³⁰ The ACCC has predicted that TPG's entry is likely to increase competitive tension with respect to pricing, at least in metropolitan areas.³¹

At the time of the last MTAS inquiry, the price of mobile voice calls were declining overall.³² However, the ACCC considered that retail price competition was generally less vigorous, with all mobile operators keeping retail price points at about the same level, but changing the 'included value' components of some plans.³³ For most retail plans, consumers paid a dollar amount for an included amount of calls, SMS and data.³⁴ Under these retail plans, consumers were charged for establishing calls, in addition to per minute charges, although these were included in the bundle.³⁵

In contrast, most plans now offer unlimited local and national calls, with many also including international minutes or included calls to specific countries.³⁶ The ACCC considers that generous call inclusions on mobile phone services are likely a response to OTT services offering free calls between users of the same app.³⁷ In particular, OTT services have displaced international calls which are generally expensive.³⁸

²⁷ ACCC, *Domestic Mobile Roaming Declaration Inquiry Final Report*, October 2017, 22.

²⁸ ACCC, *Communications Sector Market Study Final Report*, April 2018, 31.

²⁹ ACCC, *Domestic Mobile Roaming Declaration Inquiry Final Report*, October 2017, 55.

³⁰ ACCC, *Communications Sector Market Study Final Report*, April 2018, 32.

³¹ ACCC, *Domestic Mobile Roaming Declaration Inquiry Final Report*, October 2017, 3.

³² ACCC, *Review of the declaration of the Domestic Mobile Terminating Access Service Discussion Paper*, May 2013, 15.

³³ ACCC, *Review of the declaration of the Domestic Mobile Terminating Access Service Discussion Paper*, May 2013, 16; ACCC, *Telecommunications Report 2012-13*, 12-13.

³⁴ ACCC, *Review of the declaration of the Domestic Mobile Terminating Access Service Discussion Paper*, May 2013, 15-16; ACCC, *Telecommunications Report 2012-13*, 35.

³⁵ ACCC, *Review of the declaration of the Domestic Mobile Terminating Access Service Discussion Paper*, May 2013, 15.

³⁶ ACCC, *Communications Sector Market Study Final Report*, April 2018, 31.

³⁷ ACCC, *Communications Sector Market Study Final Report*, April 2018, 31.

³⁸ ACCC, *Communications Sector Market Study Final Report*, April 2018, 31.

5. Issues for this declaration inquiry

The mobile sector is characterised by low prices, a wide range of products and innovative offers, which may be seen as a sign of a competitive market. It could be argued that the sheer volume of voice and SMS traffic on mobile networks creates commercial incentives to ensure that networks interconnect with each other.

A key question for the ACCC in conducting this inquiry is whether the mobile termination bottleneck persists and whether MNOs are constrained in their ability to use their monopoly by the power of consumers to switch provider if they are unable to make calls from their service provider's network to another network.

Additionally, there have been developments since the previous declaration inquiry that mean that the ACCC will closely consider a number of relatively new issues in considering whether declaration will promote the LTIE.

SMS termination has now been declared for over four years and the ACCC is interested to explore the effect of this declaration on competition in relevant markets.

The ACCC is also keen to understand the impact of technological developments since the last declaration inquiry. In particular, whether the service description is fit-for-purpose and remains accurate given different ways in which voice calls can now be delivered to a mobile handset. The ACCC's preference is to describe the service in functional terms using a technology neutral basis as far as possible. This provides the access provider with the flexibility to determine the most efficient way of supplying the service. It also ensures that, with technological or innovative developments, a bottleneck service continues to be declared.

Additionally, the ACCC is keen to understand whether innovative voice and SMS services can be delivered by service providers under the current regulatory arrangements. These services, which may offer voice calls or SMS from a mobile number or to a mobile number, may require network operators to acquire termination from the provider of the services who may be a carriage service provider or a small network. In these cases, smaller providers may not have sufficient bargaining power to force mobile networks to acquire termination from them. This may affect the supply of innovative products and services in the retail markets that can compete with traditional mobile services.

If the ACCC declares the MTAS service again, it would also be necessary to consider what the appropriate service description should be, the appropriate coverage of the declaration and when the declaration should expire.

Stakeholders are encouraged to address the questions below but are also welcome to provide comments on any other issues relevant to the declaration inquiry.

5.1. Technological and industry developments since the last declaration inquiry

Mobile voice calls

There have been significant technological and industry developments since the last MTAS Declaration Inquiry in 2013. All MNOs are now offering Voice Over Long Term Evolution (VoLTE) and Voice over WiFi (VoWiFi). A new mobile network operator, TPG Telecom, is entering the market in 2019.

There are many ways to deliver a voice call to a mobile handset and the ACCC is interested in whether the current service description remains fit-for-purpose.

Traditionally, voice calls used Circuit Switched (CS) technology. Mobile networks supporting CS calls used 2G and 3G technology. When 4G/LTE IP networks were first introduced, they could not support VoLTE voice calls. Voice calls were carried using CS fallback arrangements over 2G or 3G networks.

All MNOs introduced VoLTE services in Australia during the current declaration period. VoLTE uses Session Initiated Protocol (SIP) technology to support voice calls over their core IP networks. SIP is also used to deliver voice calls over fixed line networks. The ACCC understands that the Time Division Multiplexing (TDM), CCS#7 signalling and 2.048Mbit/s interconnection standards are still being used for IP-based voice services, and there is currently no accepted industry standard for IP-based interconnection.

All MNOs have also introduced VoWiFi. This enables an end-user to receive calls on their mobile handset when connected to a WiFi network. Calls delivered by this technology are not carried over radio access networks.

To make any of these calls, an A-Party need only know the B-Party's mobile number. The mobile handset can be reached from any telephone with an E.164 format telephone number.

The final way in which voice calls are delivered to an end-user is by using an application on a smart phone over a LTE or WiFi connection. These apps deliver voice calls over the internet and service provider core IP networks by utilising the mobile handset's data connection. They are third-party providers, independent of the mobile service provider.

Generally, a person using one of these apps can only contact another person using that app and will not be able to contact another end-user using only a mobile number. However, there are some apps, such as Skype, that enable their subscribers to do this.

Questions

1. What kind of voice calls require acquisition of termination access by the originating network? What are the technical characteristics of these calls?
2. Who can provide the MTAS? Can non-mobile network operators who use mobile numbers to provide voice services terminate calls?
3. Is the current service description fit for purpose and does it adequately address the issue of monopoly power held by mobile network operators? Is the service description technologically neutral?
4. Do smaller network operators have difficulty securing commercial arrangements to terminate voice calls on behalf of their customers?
5. What percentage of voice traffic is carried by:
 - a. CS technology?
 - b. VoLTE?
 - c. VoWiFi?

Short message service

The ACCC understands that SMS are provided using the spare capacity in the mobile network reserved for voice signalling. In contrast, Media Messaging Services (MMS) are provided using the non-voice capacity set aside for data communications or via SIP.

These ways of delivering SMS and MMS require access to the mobile network. In these ways, they exhibit bottleneck characteristics similar to voice calls.

Questions

6. What kind of short message services require acquisition of termination access by the originating network?
7. Is the current service description fit for purpose and does it adequately address the issue of monopoly power held by mobile network operators?
8. Does the current service description encourage the supply of innovative services?
9. What percentage of SMS traffic is carried by each technology used to deliver it?

5.2. Should the MTAS continue to be declared?

Should mobile voice termination continue to be declared?

The increase in the number of calls from mobile phones (at the expense of calls from fixed lines), along with reductions in the retail prices of mobile voice calls and SMS, may be seen as a sign of a competitive market. It can be argued that each mobile network operator maintains sufficient market power to ensure voice interconnection with each other, on reasonable terms, without declaration.

However, the ACCC notes that a new MNO is entering the market and is likely to offer voice and SMS services at some stage. Further, smaller networks may wish to offer voice calls to mobile numbers and will require other larger networks to purchase termination from them. Absent regulation, incumbent operators may have the incentive and the ability to increase MTAS prices which, in turn, would place pricing pressure on smaller networks.

Questions

10. Do network operators continue to have a monopoly over the termination of mobile voice calls on their respective networks?
11. Do smaller networks have, or are they likely to have, sufficient market power to negotiate sound commercial outcomes without declaration?
12. Are there wholesale substitutes for mobile voice call termination?
13. Are there retail substitutes for mobile voice call termination?

Should SMS termination continue to be declared?

A key issue for this inquiry is whether SMS termination should continue to be declared. In 2014, there was evidence that retail prices for SMS were very high, in some cases, between 25 and 30 cents to send a single SMS. This was particularly the case for consumers who spent less on their mobile service, with evidence suggesting that most SMS offers to low spend consumers were priced well above the cost of providing the service. The average cost of plans offering unlimited SMS was relatively high, at around \$63 per month. The majority of these unlimited SMS plans also required consumers to commit to a long term contract of one to two years.

Since then, the ACCC has reported that price competition in SMS is very strong, and most service providers now offer unlimited SMS and some international SMS inclusions at lower prices in order to compete with OTT services. The declaration of SMS services, including A2P services, was relatively controversial, before the ACCC disclosed the high charges being imposed on users of SMS services. In the 2013 Declaration Inquiry, the ACCC found that slightly less than half of Australians used a smartphone, meaning that OTT messaging was not an effective substitute for SMS services. In the April 2018 Communications Sector Market Study Final Report, however, the ACCC found that there may now be a case for reducing or removing existing economic regulation of traditional communications services,

including because consumers' use of OTT messaging services may have diminished the need for ongoing SMS regulation.

As noted in the section above, smaller networks may still find it difficult to negotiate SMS termination with large mobile networks and the ACCC is keen to know if this is the case.

Questions

14. Do network operators continue to have a monopoly over the termination of SMS on their respective networks?
15. How are wholesale agreements for SMS termination currently structured?
16. Are there wholesale substitutes for SMS termination?
17. Are there retail substitutes for SMS termination?

5.3. Relevant markets

As noted in section 2.1.1 above, in determining whether declaration will promote competition in telecommunications markets, the ACCC first defines the relevant markets.

Mobile voice

In 2014, the markets that the ACCC considered relevant to declaration were:

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

Access to mobile voice termination services on each mobile network likely continues to remain in the exclusive control of a respective mobile service provider. To date, the ACCC has considered that each MNO's mobile network is a separate wholesale market for voice termination services because, on the supply side, there are no substitutes for these services in the event that an MNO refuses to provide access.

Since the 2013 MTAS Declaration Inquiry, however, the power of end-users has grown substantially through the availability of substitutes like OTT and VOIP services. Customers can switch, with relative ease, to another communication service if they are unable to make calls from their service provider to another network. This power of consumers is growing, and is being enhanced by the increased availability, and quality, of OTT and VOIP voice and messaging services.

It appears that the power of consumers is proving to be an effective constraint on the market behaviour of network operators and is reflected in the increased offerings of services and data bundles, combined with subdued pricing models.

In 2014, the ACCC considered that downstream markets most likely to be affected by a declaration of mobile voice termination services were MTM calls and FTM services markets.

This was because mobile voice termination services were considered an essential input to the two downstream retail markets. With fixed line services continuing to decline and mobile services uptake continuing to rise, there is growing evidence of increased diversification in the communication services used, and specifically, a marked decline in the number of consumers who rely on fixed voice services. The ACMA has estimated that approximately 36 per cent of the population is now utilising mobile-only communication services.

A persistent issue raised in past MTAS inquiries has been the extent to which reductions in MTAS prices are being passed through to end-users of fixed-to-mobile services. This is important to consider in assessing whether the continued declaration will promote the LTIE, and particularly, whether it will promote competition in the relevant markets.

In 2014, the ACCC considered that reductions in the MTAS rate were being passed on to end-users and that, overall, declaration of voice services had promoted competition in the fixed voice services market. This issue was further considered in the MTAS Final Access Determination inquiry, with the ACCC's analysis showing that Telstra had largely passed on price reductions in the MTAS. The ACCC decided not to impose a mechanism mandating integrated operators to pass through reductions in the price of MTAS, as this may not promote the LTIE.

This issue remains relevant, given the progressive move from Telstra's copper network to the NBN and other next generation fibre networks, and fixed voice services increasingly being delivered using internet protocol rather than the PSTN.³⁹ The ACCC has previously observed that terminating access services are independent of the underlying network technology, which gives rise to an ongoing need for regulation.⁴⁰ In the future, it may be possible to have one technology and network-neutral voice terminating service.

SMS

In 2014, the ACCC considered that each MNO had a monopoly over the provision of SMS termination services on its network and that there were no effective substitutes for these services. The ACCC did not agree with submissions asserting that commercial negotiations were working well and that MNOs were constrained in their ability to use their monopoly power over the service due to countervailing bargaining power.

As noted above, in 2014, the ACCC decided that declaration of SMS termination was in the LTIE. A point of contention during the inquiry was whether A2P SMS services should be excluded from the declared SMS termination service.

The ACCC considered that wholesale markets for SMS termination services incorporated both the termination of MTM and the termination of A2P SMS, because MNOs did not distinguish between them.

However, following the declaration of SMS, and the decision to include A2P service providers, the ACCC issued an explanatory note to provide clarification on the scope of the declaration.⁴¹ Based on the information available at the time, the ACCC considered that A2P SMS providers could not access the MTAS. The ACCC understood that only MNOs had the capability to interconnect to the access provider's network. The ACCC also noted that A2P SMS providers and aggregators acquired A2P SMS services as an end-to-end service, rather than as a standalone SMS termination service within the meaning of the service description. However, the ACCC also noted that it could be open to service providers other than MNOs to invest in building or acquiring the necessary infrastructure for access to the MTAS, but that this would be a matter for commercial decision.

Questions

18. How has the MTAS declaration affected competition in each of the relevant markets since the 2014 Declaration?

³⁹ ACCC, *Communications Sector Market Study Final Report*, April 2018, 22.

⁴⁰ ACCC, *Communications Sector Market Study Final Report*, April 2018, 42.

⁴¹ <https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/mobile-terminating-access-service-declaration-review-2013/final-decision>

19. Are the markets identified in 2014 still relevant for the MTAS?
20. Is the MTAS still an essential input to the MTM market? Is mobile voice termination still an essential input to FTM market? Will continued declaration of the MTAS promote competition in these markets?
21. Do MNOs distinguish between termination of MTM SMS and A2P SMS termination? Why?
22. Have reductions in the MTAS rate been passed on to consumers in the downstream markets?

5.4. How long should an MTAS declaration apply?

Under the CCA, a declaration must specify an expiry date. This decision will be made based on the issues explored in this inquiry.

In specifying an expiry date, the ACCC must have regard to the principle that an expiry date for declarations should occur sometime between three and five years after making the declaration.⁴² The ACCC can specify an expiry date shorter than three years, or longer than five years, if it considers the circumstances warrant it.⁴³

The current MTAS declaration has a term of five years and expires on 30 June 2019. An MTAS declaration made in June 2019 with an expiry date of five years would result in a regulated MTAS until June 2024, while an expiry date of three years would result in a regulated MTAS until June 2022.

The ACCC recognises that a five year term provides significant regulatory certainty which facilitates investment decisions. A longer period may also enable all-IP networks to be established which may mean that it may no longer be necessary to specify a difference between mobile or fixed voice termination. The ACCC also recognises, however, the rapid pace of change in the telecommunications sector and, in that context, a shorter duration for MTAS regulation may be more appropriate.

Questions

23. What is an appropriate duration for a declared MTAS? Why?

⁴² Paragraph 152ALA(2)(a) of the CCA.

⁴³ Subsection 152ALA(2) of the CCA.

APPENDIX A Consolidated list of questions

1. What kind of voice calls require acquisition of termination access by the originating network? What are the technical characteristics of these calls?
2. Who can provide the MTAS? Can non-mobile network operators who use mobile numbers to provide voice services terminate calls?
3. Is the current service description fit for purpose and does it adequately address the issue of monopoly power held by mobile network operators? Is the service description technologically neutral?
4. Do smaller network operators have difficulty securing commercial arrangements to terminate voice calls on behalf of their customers?
5. What percentage of voice traffic is carried by:
 - a. CS technology?
 - b. VoLTE?
 - c. VoWiFi?
6. What kind of short message services require acquisition of termination access by the originating network?
7. Is the current service description fit for purpose and does it adequately address the issue of monopoly power held by mobile network operators?
8. Does the current service description encourage the supply of innovative services?
9. What percentage of SMS traffic is carried by each technology used to deliver it?
10. Do network operators continue to have a monopoly over the termination of mobile voice calls on their respective networks?
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12. Are there wholesale substitutes for mobile voice call termination?
13. Are there retail substitutes for mobile voice call termination?
14. Do network operators continue to have a monopoly over the termination of SMS on their respective networks?
15. How are wholesale agreements for SMS termination currently structured?
16. Are there wholesale substitutes for SMS termination?
17. Are there retail substitutes for SMS termination?
18. How has the MTAS declaration affected competition in each of the relevant markets since the 2014 Declaration?
19. Are the markets identified in 2014 still relevant for the MTAS?
20. Is the MTAS still an essential input to the MTM market? Is mobile voice termination still an essential input to FTM market? Will continued declaration of the MTAS promote competition in these markets?
21. Do MNOs distinguish between termination of MTM SMS and A2P SMS termination? Why?
22. Have reductions in the MTAS rate been passed on to consumers in the downstream markets?
23. What is an appropriate duration for a declared MTAS? Why?