

Twilio reply to comments on the Numbering Plan review

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1. EXECUTIVE SUMMARY

- 1.1 This consultation presents the ACMA with a clear choice: promote competition, innovation and a contemporary telecommunications market or protect incumbent operators to the detriment of consumers and the broader economy. The choice it makes has almost nothing to do with scams. This is about ensuring that numbers are used in a way that benefits users rather than becoming an even more limited resource controlled by a dominant few.
- 1.2 The scourge of scams must be dealt with, but it would be wrong for the Numbering Plan to become an instrument to deprive users of the benefits of competition and innovation in a misguided attempt to limit scam. It won't work (as recent arrests for SIM-boxing and international precedent indicate) and there are far more effective and efficient ways to address the issue.
- 1.3 What will help is an approach that brings the IPND into the 21st century and provides the information industry and government needs about how numbers are actually being used. That is a win-win for customers and the industry.

2. USE OF MOBILE NUMBERS

- 2.1 The national MNOs all contend that digital mobile numbers should only be used to originate calls from a mobile network.¹ They also argue that mobile numbers should only be allocated to MNOs.²
- 2.2 There was not sufficient evidence provided given the significance of these policy proposals. The key points seem to be that only MNOs (and large MNOs at that) can be trusted to protect those numbers from scammers and that mobile numbers belong to MNOs because they paid for them. One of the national MNOs goes so far as to claim

¹ See Optus' submission (page 6), TPG's submission (page 20), and Telstra's submission (page 9).

² See Telstra's submission (page 12), Optus' submission (page 8), and the review of the Numbering Plan and other instruments (Discussion paper), page 12.

that the current market with multiple service providers using numbers is simply the result of the ACMA failing to enforce the law.³

2.3 Twilio asserts these positions are incorrect. In fact:

- the current market is the result of competition and innovation, not failed enforcement by the regulator;
- challenger telcos and trusted CPaaS providers are committed and aligned with the regulator, government and even national MNOs when it comes to protecting consumers against scams; and
- numbers belong not to a handful of licensed carriers but to the Commonwealth (the Australian people) and should be used in a way that promotes the objects of the Act.

2.4 Industry participants including Vocus, Voxbone, Pivotel, Commpete, and Symbio appear to agree.⁴ Vocus and Voxbone (both of whom are carriers) submit that:

Vocus disagrees that mobile numbers should only be used to originate calls from mobile networks. We submit that the imposition of such a limitation would stifle:

- *innovation in mobile products and services, despite customers' increasing demand for combined fixed-line and mobile offerings, and*
- *effectively reduce market competition between mobile network operators.*⁵

...

*Voxbone therefore opposes proposals aimed at allocating digital mobile numbers exclusively to MNOs. Such a move would stifle competition, hinder development, and disrupt the existing market ecosystem where numerous innovative services are currently provided by non-MNOs using these numbers.*⁶

[CiC]

What is the current position?

2.9 The definitions of “*digital mobile number*” and “*digital mobile service*” are contained in the Numbering Plan:

15 Dictionary of defined terms

...

digital mobile number means a special services number specified in Schedule 5 for use with a digital mobile service.

³ See Optus' submission, page 1.

⁴ See e.g. Vocus' submission (pages 2-3), Voxbone's submission (pages 2-3), Pivotel's submission (from page 4), Commpete's submission (pages 3-4), and Symbio's submission (page 3).

⁵ Vocus' submission, page 2.

⁶ Voxbone's submission, page 3.

digital mobile service means a public mobile telecommunications service supplied by a network using digital modulation techniques.

2.10 Any CSP wishing to use a mobile number then needs to refer to the Act, which defines a service as a “public mobile telecommunications service” if:

(a) an end-user can use a carriage service while moving continuously between places; and

(b) the customer equipment used for or in relation to the supply of the service is not in physical contact with any part of the telecommunications network by means of which the service is supplied; and

(c) the service is supplied by use of a telecommunications network that has intercell hand-over functions (a term which is also defined in the Act); and

(d) the service is not an exempt service.

2.11 It follows that, even now, mobile numbers are merely required to be used in connection with a service that satisfies the characteristics of a public mobile telecommunications service (including that the service is supplied by use of a network with intercell hand-over functions). There is no requirement that they be only used by MNOs; nor is there a requirement that the whole service be supplied on a PMTS. As Commpete rightly points out,⁷ these definitions do not require that the “entire end-to-end service” is provided over a PMTS. Rather they can (and should) capture services that originate over other networks but terminate on mobile networks.

2.12 The views of the national MNOs are not only incorrect as a matter of law but are also not reflective of the current treatment of mobile numbers by carriage service providers and the ACMA. As noted by Commpete,⁸ there are a large number of legitimate use cases already adopted by businesses that rely on the origination of calls, SMS or MMS over digital mobile numbers via service providers that are not traditional MNOs.

2.13 As Pivotel says:

CSPs that have legitimately been issued with mobile numbers should be able to use those numbers to originate calls and SMS. Recent innovations and technologies have enabled use cases that require origination of calls / SMS from sources other than a mobile handset directly connected to a mobile network and the numbering plan should accommodate these in order to maintain an efficient and competitive marketplace.⁹

[CiC]

Consumers have not lost trust in mobile numbers

2.22 Optus claims that the ‘illegitimate’ use of digital mobile numbers has seen a decrease in the level of trust that people have in these numbers,¹⁰ and TPG states that the growing use of mobile numbers for origination from non-mobile services is diluting trust in this number range.¹¹

⁷ See Commpete’s submission, page 4.

⁸ Ibid, page 3.

⁹ Pivotel’s submission, page 4.

¹⁰ Ibid.

¹¹ TPG’s submission, page 15.

- 2.23 Twilio recognises the importance of trust in numbers by the entire ecosystem. Its business model depends upon it. However, it does not agree that consumers have lost trust in mobile numbers. In 2023, almost all adults used their phone to make calls and text,¹² and Sinch estimates that SMS open rates are 98%, click-through rates are 64%, and that 65% of owners read a text message within 5 minutes.¹³ Also, the fact that complaints from phone and internet consumers to the TIO decreased in the financial year ending 30 June 2023 by 16.5%, is inconsistent with the idea that consumers are losing trust in mobile numbers.¹⁴ The number of “escalated complaints” (i.e. unresolved complaints that proceed to dispute resolution) also decreased by 10.2%.¹⁵
- 2.24 Even if there has been a decrease of trust in mobile services (which Twilio does not accept), it is more likely due to the impact of major network outages (e.g. the 2023 Optus network outage, or the recent Telstra outage in regional WA that prompted calls to make mobile phones an essential service),¹⁶ rather than the use of mobile numbers for non-traditional mobile services. Moreover, the solution to any perceived loss of trust is not to prohibit legitimate use cases, which would only stifle innovation and competition in the industry. This is not in the LTIE.
- 2.25 There is also a clear inconsistency in the position adopted by some MNOs regarding the use of mobile numbers by VoIP services. For example, Telstra proposes that the definition of a “local service” in the Numbering Plan be amended to clarify that IP voice services are a local service. It further suggests that a separate number range could be established for VoIP services, but that use of a number within a separate number range should not be compulsory for consumers.¹⁷ Why then is Telstra so reluctant to resolve any perceived ambiguity over the use of mobile numbers by VoIP services? After all, consumers are equally familiar with these types of services using mobile numbers, particularly given many VoIP and cloud-based services also offer text/SMS functionality, which is traditionally associated with mobile numbers.
- 2.26 Twilio agrees with Telstra’s premise that consumers should have greater choice but disagrees that this should be arbitrarily limited to “local services”. If consumers wish to use mobile numbers for VoIP and cloud-based services which are equally capable of being used “on the go” then they should be able to do so. It is Twilio’s experience that consumers want to engage with brands that connect both messaging and voice, and pushing different number types based on the communications channel would disrupt and disjoint the customer experience. This is also consistent with Twilio’s view that consumers hold rights of use in the numbers that they have been provided, and that numbers do not belong to carriers or carriage service providers irrespective of how that carrier/CSP has acquired the number in question.

3. TRAFFIC ORIGINATION OUTSIDE AUSTRALIA

- 3.1 Twilio agrees with Telstra’s general position that the use of Australian numbers from locations outside of Australia should be limited to legitimate use cases.¹⁸ However, it disagrees with the idea that that “*fundamental premise*” should be that the use of Australian numbers from offshore sources is not permitted.¹⁹ This ignores the importance of offshore traffic origination for both large Australian businesses and multinational corporations (as covered in more detail in Twilio’s original

¹² See Twilio’s original submission, paragraph 4.8, citing ACMA’s “How we communicate” report.

¹³ See Sinch’s guide to SMS marketing (available [here](#)).

¹⁴ See the TIO’s annual report for 2022-23 (available [here](#)), page 74.

¹⁵ Ibid.

¹⁶ Refer to this [article](#) by the ABC.

¹⁷ Telstra’s submission, pages 9-10.

¹⁸ Telstra’s submission, page 11.

¹⁹ Ibid.

submission).²⁰ To prohibit offshore origination for legitimate use-cases would be a classic Type 1 error.

- 3.2 There is widespread support for the legitimate use of Australian numbers offshore, including by Symbio, Virtutel, Vocus, and Pivotel and, to some extent, even the national MNOs.
- 3.3 Twilio disagrees with TPG's submissions which largely support limiting traffic that originates from outside Australia in order to combat scam (subject to certain exceptions) and raises concerns around traffic originating overseas "*that is mostly scam or spam traffic...*"²¹ Optus makes similar claims about the use of Australian numbers by scammers who are based offshore.²²
- 3.4 Twilio is committed combatting scam, but it does not consider that the solution to scam traffic is to prohibit legitimate use cases for offshore origination. Additionally, the Numbering Plan is not the appropriate place for such measures as initiatives already being undertaken will have (and already are having) a meaningful impact in reducing scam. Critically, the MNO's submissions also ignore that a very significant volume of scam traffic originates *onshore* through the use of SIM-boxes.²³
- 3.5 Optus' claim that international mobile roaming is the "*only logical exception*" to any proposal to prohibit the use of Australian numbers outside Australia (other than where an organisation has a direct SIP connection into its Australian provider) has little merit.²⁴ It also ignores the many genuine use cases for offshore origination, including those set out in the Guidelines to the Scam Code.²⁵

4. USE OF NUMBERS BY MULTIPLE CSP'S

- 4.1 Each of the three national MNO's (TPG, Telstra and Optus) oppose the use of numbers by multiple CSPs. Indeed, each of them asserts, incorrectly in Twilio's view, that the existing multiple-service practice is not consistent with Australia's regulatory framework. The position they each maintain is also inconsistent with the ACMA's own position as expressed in both the Discussion Paper and its own website.²⁶
- 4.2 The position that they adopt is contrary to the majority of the industry and relies upon unfounded assertions without any evidence or robust analysis to support their claims.

Allocatees of numbers do not 'own' those numbers

- 4.3 Each of the MNOs adopt a position that numbers that have been allocated to them by the ACMA belong to them. This is not the case. The Telecommunications Act 1997 makes clear at s.454B that "*Determination of a person as the numbering scheme manager does not confer any property rights in numbers used in connection with the supply of carriage services in Australia*". It follows that allocation of a number by the

²⁰ Refer to Twilio's original submission, heading 9.

²¹ TPG's submission, page 22.

²² Optus's submission, page 8.

²³ Refer to this [article](#) by the Sydney Morning Herald.

²⁴ Optus' submission, page 8.

²⁵ See Twilio's original submission, para 9.4.

²⁶ See <https://www.acma.gov.au/choose-your-phone-number>.

ACMA as numbering scheme manager to a carrier or carriage service provider cannot convey property rights in that number.

- 4.4 Communications Alliance has perhaps summarised the position best in the introductory statement to the *Number Management – Use of Numbers by Customers Industry Code* (the “**Use of Numbers Code**”). These state that:

Telecommunications Numbers are regarded as a national resource and are not in any sense owned by any party to whom they are Allocated, Assigned, Transferred or Issued. Ownership of Numbers is never passed to a Carriage Service Provider (CSP) upon Allocation, or to a Customer upon Issue, but remains with the Commonwealth of Australia.

[CiC]

National MNOs interpretation of industry codes

- 4.25 The national MNOs also make claims regarding the multiple-service practice and compliance with certain industry codes including the Use of Numbers Code and the Reducing Scams Code. Twilio considers that these claims lack foundation.
- 4.26 For example, TPG argues that a customer’s right of use does not extend to the use of that number on another network and relies upon section 4.3.4 of the Use of Numbers Code²⁷ to support its position. This conflicts with the views expressed by Telstra that, once a number has been issued, there is no obligation preventing another CSP from using the number to deliver a service to the same customer.²⁸ This highlights the flaws in TPG’s interpretation of paragraph 4.3.4 of the Use of Numbers Code.
- 4.27 TPG also overlooks section 4.3.2 of the Use of Numbers Code, which provides that:

A CSP must not make the use of a Number by a Customer subject to a condition that the Customer must:

- (a) discharge a debt owed to the CSP by a Customer who was previously Issued the Number;*
- (b) not request to Port the Number to another CSP (where Portability exists);*
- (c) discharge a debt before Porting;*
- (d) not change CSP.*

In referring to a customer being able to change CSPs outside of a porting arrangement, this provision clearly contemplates that an alternative CSP could provide services. The preamble also supports a customer’s freedom to deal with a number:

The Code clarifies that a Customer gains Rights of Use (ROU) of a Number when a CSP Issues a Number in association with a Listed Carriage Service and may enjoy beneficial use of the Number freely and without hindrance while a Listed Carriage Service is provided in association with the Number. Customers have an interest in the Numbers that are Issued to them. For example, individuals or organisations might advertise their Number in a public number directory. These Customers therefore

²⁷ TPG submission, page 29.

²⁸ Refer to paragraph 2.7 of this submission.

*have an interest in the advertised Number, irrespective of any change in their CSP.*²⁹ [our emphasis]

- 4.28 Twilio submits that most of the concerns raised by the national MNOs are less about the multiple-service practice, but rather about compliance with existing industry codes. For example, Telstra's concerns that CSPs are not satisfying themselves that an A Party has rights of use to a number as required by the Scam Code. These are not issues with the multiple-service practice *per se*. In any event, Twilio considers that the rules-based solutions that it has proposed in its original submission (Option B) would address many of these concerns. These solutions would robustly address concerns expressed by the MNOs while supporting the objects of the Numbering Plan and the Telecommunications Act by allowing for competition and innovation to thrive.
- 4.29 While both TPG and Optus claim that they will lose out on revenue as a result of the multiple-service practice, the fact is that they both continue to provide services in relation to those numbers. Indeed, if they no longer provided services, then the customer would lose ROU in that number pursuant to the Use of Numbers Code.³⁰ The multiple-service practice simply establishes a basis for competition for value-added outbound services. This is a point recognised by Australia's 4th MNO, Pivotel, which states that:

*It is common practice for customers to acquire outbound call and SMS termination services from multiple CSPs in a competitive marketplace. It is important to note that, in particular, predominantly business end-users are able to purchase these services on a competitive basis and they are not prevented from doing so under the so called rights of use argument put forward by some carriers. The end-user of the service should also be in a position to define the caller line identification (CLI) or sender ID that their communications will display to recipients, in accordance with the rules set by the SCAM Code.*³¹

- 4.30 Commpete also explains the benefit to consumers of the multiple-service practice:

Depending on the specific service, the customer then also relies on the ability to originate communications that will be identified with that number, and mostly also to receive inbound communications sent to that number. Note there is no substitutability for the inbound connectivity service provided to a number by the host CSP; communications sent to a number can only ever come to and via the network hosting it (and any CSPs that have subsequently resold it to an end-user)....

*... Restricting the use of numbers to only the CSP hosting that number will inextricably combine both inbound and outbound services, forcing end-users to navigate compromises to their services that will likely lead to increased costs and reduced functionality. Outbound traffic can currently be directed to whichever CSP provides the best service required by the end-user at any particular time or for any particular reason.*³²

Prohibition would not stop scam traffic

²⁹ Use of Numbers Code, page iii.

³⁰ Use of Numbers Code, page 14 and at paragraph 6.1.1.

³¹ Pivotel submission, paragraph 44.5.

³² Commpete submission, pages 7-8.

- 4.31 Each of the national MNOs claims that outright prohibition of this practice would significantly reduce scam traffic. Twilio has seen little evidence to support this.
- 4.32 For example, there is no evidence provided in support of Optus' assertion in paragraph 74 that "*both option 1 and 2 would be to accept a large volume of Scam Calls and Scam SMSs...*". While Telstra appear to have provided some information in support of its claims, without sight of the commercial in confidence material, it is very difficult for any participant in this process to test the veracity of those claims.
- 4.33 Twilio considers the experience in Singapore to be instructive. Restrictions on CLI masking have been in place in Singapore for a considerable period of time. This restriction is set out in the standard licence to provide telecommunications services.³³ CLI masking is only permitted to those entities that comply with Annex 15 and then only on strict conditions. The practice is now for all intents and purposes illegal. However, scam traffic has continued to rise. By way of example, scam traffic via telephone phone calls rose by 100% from 2022 to 2023.³⁴
- 4.34 In addition, as set out above, recent enforcement activities in NSW points to the real culprit – the use of SIM boxes by unscrupulous scammers.³⁵

ACMA's future options for multiple-service practice

- 4.35 Unsurprisingly, all of the national MNO's consider that the future Numbering Plan should prohibit the practice outright. Indeed, they go further in suggesting that the practice already contravenes existing regulatory instruments. For the reasons set out above, this is clearly incorrect and results from a misinterpretation of those instruments. For the reasons that the ACMA identified in its Discussion Paper, this is also dangerous. It would be disruptive to businesses throughout the economy that legitimately rely upon this practice. It would force businesses to receive bundled services from suppliers with market power and inevitably it would drive prices for those services up.
- 4.36 The MNO's submissions further reinforce Twilio's view that the status quo also cannot persist. The position must be clarified for all CSPs and sensible rules put in place to facilitate that practice. However, in creating a rules-based system, the ACMA will need to be careful not to provide CSP's commercially sensitive information to their competitors. This is why Twilio supports a general CSP register along with reforms to the IPND which should be overseen by the ACMA (or another independent regulator).

³³ Licence section 12.3(a).

³⁴ Singapore Police Force – Annual scams and cybercrime brief 2023.

³⁵ Refer to paragraph 2.18 of this submission.