



TELSTRA GROUP LIMITED

Telstra Submission – ACMA Discussion Paper – Review of the Numbering Plan and other instruments

Confidential version

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SUMMARY

Telstra welcomes the opportunity to respond to the Australian Communications and Media Authority's (ACMA) discussion paper as part of its review of the Telecommunications Numbering Plan, Telecommunications (Provision of Pre-selection) Determination 2015 and Telecommunications (Section of the Telecommunications Industry – Portability Service Suppliers) Determination 2015.

At Telstra, we are committed to delivering high-quality services to our customers. We continually strive to improve these services and drive innovation in our offerings. Telephone numbers and associated regulations are a crucial component of the services that consumers heavily rely on. They play an essential role in ensuring seamless telecommunications operations and a competitive market.

The ACMA discussion paper underscores the evolving consumer demands for enhanced connectivity, expansive coverage, and advanced devices. The telecommunications landscape is rapidly changing, with emerging innovations such as satellite networks that support two-way mobile messaging, increase in use cases involving Internet of Things (IoT) applications and machine-to-machine (M2M) communication and cloud services and the importance of cybersecurity.

It is imperative that the Numbering Plan evolves to meet the needs of both consumers and carriage service providers (CSPs) in today's telecommunications landscape, while continuing to uphold regulatory policy objectives.

The Numbering Plan review should aim to foster an environment that instils trust in the numbering system and where the Australian community can have confidence that the calling line identifier (CLI) presented on incoming calls is accurate. In recent years illegitimate spoofing of Australian numbers by scammers has seen confidence in the numbering system decline.

While the Numbering Plan does not need to deal with operational details, it does need to create a cohesive framework that sets out appropriate rules for the allocation and use of numbers.

The ACMA must ensure any changes to the Numbering Plan are managed in a way that supports both legacy and new numbering arrangements. It should have regard to any costs and other impacts associated with transitioning existing industry and customer arrangements.

Assessment of the existing numbering arrangements should take into account other related telecommunications policy and obligations, especially other regulations that may no longer be relevant.

We are especially concerned that this review must focus on measures to counter scam calls and messages, including supporting CSPs to disrupt scam traffic. To achieve this outcome, we believe additional clarity needs to be built into the Numbering Plan to stop:

- CSPs originating calls using a number held by another CSP;
- CSPs using mobile numbers to originate non-mobile network traffic; and
- The practice of using Australian numbers to generate traffic from abroad.

We are also making recommendations to clarify and enhance the arrangements related to emergency service numbers.

Our submission also responds to each of the consultation questions presented in the ACMA's discussion paper.

01 Issues impeding scam disruption initiatives

CSPs should not be able to originate calls using a number held by another CSP

The Numbering Plan should be clarified to address the practice of some CSPs offering services to customers using numbers held by other CSPs and without the knowledge or authorisation of those other CSPs.

Section 102 of the Numbering Plan states that:

"A carriage service provider must not issue a number to a customer unless the carriage service provider holds the number."

and the definitions in the Numbering Plan clarify that:

"a carriage service provider holds a number if:
(a) the number has been allocated to the carriage service provider or transferred to the carriage service provider; and
(b) the number has not subsequently been transferred to another carriage service provider, surrendered or withdrawn."

The Numbering Plan is clear that only the CSP holding a number (or their authorised delegate) can issue that number to a customer. However, as part of delivering a service to a customer, once the number has been issued, there is no explicit obligation preventing another CSP from subsequently using this number to deliver a service to the same customer.

The use of numbers by CSPs that do not hold the numbers is impeding other CSPs, including Telstra, from efficiently blocking scam calls in accordance with the requirements under section 4.6 of the Industry Code C661:2022 Reducing Scam Calls and Scam SMs.

We estimate that at least

[REDACTED]

A large proportion of this scam traffic could be easily stopped by each CSP simply blocking all calls from numbers held by them and which originate from other CSPs, other than those numbers which have been ported to, or authorised for use by, the other CSPs.

However, CSPs are cautious about taking such action as there is a risk it would also disrupt non-scam traffic generated by CSPs using numbers they do not hold and which have not been ported to or authorised for use by them, impacting genuine customer calls.

Telstra considers that the ACMA should remove any ambiguity by clearly stating in the Numbering Plan that numbers can only be used by the CSP (or their authorised delegate) holding them and must only originate calls via the number holding CSP. Such clarity will be a game changer in enabling CSPs to further disrupt scam traffic.

Stop the use of mobile numbers to originate non-mobile network traffic

The definitions in the Numbering Plan state that a:

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

and



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

Despite this clear definition, Telstra is concerned that some CSPs are allowing mobile numbers to originate non-mobile network traffic.

The use of mobile numbers to originate non-mobile network traffic is impeding CSPs, including Telstra, from blocking scam calls in accordance with the requirements under section 4.6 of the Industry Code C661:2022 Reducing Scam Calls and Scam SMS. [REDACTED]

However again, CSPs are cautious about taking such action as there is a risk it would also disrupt non-scam traffic generated where some CSPs are allowing mobile numbers to originate non-mobile network traffic, impacting genuine customer calls.

The issue is further exacerbated as the observed behaviour of scammers is to increasingly use mobile numbers, usually spoofing existing numbers, as mobile numbers have become more trusted than geographic numbers, i.e. a party receiving a call is more likely to answer a call received from a mobile number than a call received from a geographic number.

Telstra considers that the ACMA should clearly state in the Numbering Plan that mobile numbers can only be used for traffic originating from a mobile carrier’s network or authorised by a mobile carrier to originate from other networks. Such clarity will strongly support scam disruption initiatives.

Restrict the use of Australian numbers by offshore service providers

The use of Australian numbers from locations outside of Australia should be restricted to known, legitimate use cases. A blanket acceptance of Australian numbers from offshore sources should not be permitted.

As noted above we estimate that at least [REDACTED]

It’s worth considering that legitimate businesses making calls from outside Australia using Australian numbers may not be meeting consumer expectations regarding the use of these numbers.

Telstra recommends that the ACMA update the Numbering Plan to restrict the use of Australian numbers by offshore service providers. Regulations pertaining specifically to number usage should be incorporated that stipulate that the use of Australian numbers from offshore sources is not permitted, unless there is an agreement and suitable arrangements have been made with the holder of the number.

02 Emergency service numbers

The emergency call service (ECS) currently uses a unique 10-digit number from the range starting with 1262xxxxxx to facilitate the accurate routing of a customer’s location data from any mobile device across all mobile carriers to the emergency call person (ECP). [REDACTED]

[REDACTED] This number type is designated as an "Internal Network".

The decision to use a number from the "Internal Network" was an industry-wide choice, made necessary by the requirement for the number to be routable across all three mobile carriers.

We recognise that the allocation of this number type as an "Internal Network" could potentially lead to inadvertent allocation or repurposing, given that its usage is not documented in the Numbering Plan.

There is a need to implement measures to ensure that the [REDACTED] remains exclusively for carrier use, for emergency services. This will mitigate the risk of misuse and maintain the integrity of the emergency service routing system.

We believe the allocation for number type "Internal Network" is too large and a new number type (e.g. Public Safety Use) for use by emergency services can be carved out from this allocation.

Calling Line Identity for initiating calls to Emergency Services Organisations

Telstra's Emergency Call Person (ECP) platform for Triple Zero employs numbers from the 01510xxxx range as the CLI to initiate calls to Emergency Services Organisations (ESO). However, the current Numbering Plan does not explicitly designate the ownership of this range. Ideally, this range should be allocated from a new number type (for instance, Public Safety Use) to the ECP (currently Telstra) for this purpose.

Given that this range and its usage are not documented in the Numbering Plan, there is a potential risk of inadvertent allocation or repurposing. Therefore, it is necessary to put measures in place to ensure that the 01510xxxx range remains exclusively for use by the ECP for the ECS. This will help mitigate the risk of misuse and uphold the integrity of the emergency service routing system.

03 Discussion paper questions

3.1 Principles-based

1. Do you support a principles-based Numbering Plan where associated operational procedures and requirements are developed and managed by industry through codes and guidelines? Why or why not? Do you support these initiatives? Why? Why not?

Telstra is supportive of a simplified, principles-based Numbering Plan. By eliminating unnecessary administrative language and outdated provisions, and updating it to meet modern needs, the industry can better understand its obligations and cater to consumer needs. It's crucial that the Numbering Plan clearly specifies the numbers for public carriage service use and the principles for number allocation.

Allowing industry collaboration to define operational procedures and requirements in industry codes and guidelines offers greater flexibility, as codes and other documents can be updated more quickly than the Numbering Plan to meet evolving consumer and operational needs. It also helps avoid duplication and inconsistencies across numbering rules and regulations. Telstra, along with other industry stakeholders and the ACMA, actively participate in developing and reshaping these industry codes.

Any new potential operational procedures and associated obligations resulting from the revision of the Numbering Plan should be outlined in industry codes rather than in the remade Numbering Plan. This is crucial because well-intentioned new obligations often don't achieve their desired outcomes and need to be changed. Having operational procedures specified in an industry code allows for this flexibility.

2. What steps or changes to the current Numbering Plan or existing or new industry codes, would support the evolution towards a more simplified or principles-based document? Please provide details, including likely timeframes.

In parallel with revising the Numbering Plan to be a principle-based document, the ACMA would need to consult with industry to clarify the operational procedures and associated obligations that could be addressed in industry codes or other documents. This would likely require updates to existing industry codes, such as C566:2023 Number Management: Use of Numbers, and the development of new industry codes.



One possible approach would be to initially include these operational matters in an appendix of the Numbering Plan, with explicit provision for them to be superseded by industry codes over time.

3.2 Types of numbers for use

Removal of unused number types from the Numbering Plan

3. Of the number types listed in Table 2, are there any you consider are redundant or becoming less relevant in the industry? What number types that have minimal allocations are being used?

The Numbering Plan has undergone multiple revisions over the years, adapting to changing consumer and CSP needs over time. It defines numbers for service types that are either no longer in demand or have minimal usage, raising questions about their relevance to the broader community and whether they can be freed up for other uses. For instance, there is a noticeable lack of demand for premium rate and paging numbers, restricted access and premium numbers, paging numbers, and calling card numbers. Streamlining the Numbering Plan by eliminating redundant number types would enhance its simplicity and efficiency.

4. Could existing number types be repurposed for another use? If so which number types and for what purposes (for example, which services)?

Yes, premium rate and paging numbers, restricted access and premium numbers, paging numbers and calling card numbers could be repurposed.

However, it is important that any changes made as a result of the Numbering Plan review do not undermine the existing methods by which services are delivered to customers.

5. Are there any specific costs or impacts of removing specific number types and associated provisions from the Numbering Plan? If so, please provide details.

There are no particular costs associated with eliminating the number types we reference in our responses to questions 3 and 4.

However, the removal of other number types could potentially incur specific costs. The exact costs would depend on the type of number being removed.

Digital mobile numbers

6. Should digital mobile numbers be listed as a discrete number type? Why or why not?

Mobile numbers are obviously a key component of telecommunications numbering, and their proportion of 'numbers in use' is expected to continue to grow as the volume of mobile services in operation continues to increase. In this context, we consider it will aid clarity and transparency in the operation of the Numbering Plan for mobile numbers to be expressly and individually referenced as an important category of numbers relating to the supply of carriage services to the public, rather than continuing with their treatment as a component of "special service numbers" not warranting separate identification.

Telstra also recommends the reference to 'digital' be removed, with only the term 'mobile number' being retained.

7. Are there specific rules that should apply to this number type? If so, please provide details and reasons.

Consumers have an expectation that a mobile number is used in relation to mobile network services (voice and messaging).



This trust has been, and continues to be, exploited by some parties (e.g. use of mobile numbers by collection agencies, fraudsters, call centres, etc.). In recent years, illegitimate spoofing of Australian numbers by scammers has seen confidence in the numbering system decline, where mobile numbers, rather than geographic numbers, are now being increasingly illegitimately spoofed.

The rules associated with the definition of a public mobile telecommunications service in Section 32 of the Telecommunications Act 1997 (the Act) are sufficient but seem to be poorly understood by some parts of the industry and are not enforced.

Telstra considers that the ACMA should clearly state in the Numbering Plan that mobile numbers can only be used for traffic originating from a mobile carrier's network or authorised by a mobile carrier to originate from other networks. Such clarity will strongly support scam disruption initiatives.

Internet of Things / machine-to-machine services

8. What is the expected demand for mobile numbers for IoT purposes over the next decade?

Volumes will be driven by smart energy, water metering and connected cars. There exists the possibility of new use cases that are unknown or early-stage concepts today. Analysts suggest that the white goods segment will rapidly increase from 2028/9. Adaptions to regulations in other jurisdictions have resulted in significant increases of cellular IoT solutions. Some examples include connected smoke alarms and connected traffic alert beacons in all vehicles in Spain.

9. Do you support the introduction of different numbers for IoT and M2M communication? Why or why not?

Yes. Most IoT/M2M devices typically do not require voice services, with a few exceptions such as eCall, Personal Emergency Response, and in-cabin telematics. Similarly, while SMS is not commonly required, there are more exceptions to this than voice. The primary use case for IoT/M2M devices is data-only services. For these services, neither a public nor private number is necessary from a technical perspective.

Many of these applications, such as smart metering, use minimal data (less than 1MB per month), and associated business cases are very cost sensitive. As such, the cost of the public number can impact the adoption and uptake of some cellular IoT/M2M services. An alternative is to use inbound permanent roaming SIMs that are not subject to this cost. There is a strong case for the removal of the public number requirement (i.e. MSISDNless) for data-only solutions or a reduction of the annual fee for IoT/M2M use cases that require access to voice/SMS capability (as is the case in other markets).

The current public number allocation requirement and high yearly fee hinders the development of IoT/M2M solutions across many use cases in Australia. The lack of clarity regarding mobile number allocation for IoT/M2M also forces many international solution providers to continue using permanent roaming in Australia.

A suggested solution is to use the 09 range for IoT/M2M communications that require a public number, along with no fee or a substantially smaller fee. This would be in addition to CSPs continuing to use the 04 range (and the 05 range when released) for certain IoT/M2M applications.

10. Which of the 2 options do you support and why? If neither or another, please explain.

Telstra does not support the idea of introducing public numbers that exceed 10 digits. Such a change would affect both our customers and our IT systems.



Public numbers will continue to be necessary for certain IoT/M2M use cases. However, establishing a specific 10-digit private number range for IoT/M2M could facilitate large-scale deployments, thereby preventing potential consumer impact or deployment delays.

Alternatively, for data-only services, instead of using a number from a predefined range, a pseudo number could be generated. For example, this could be a combination of the SIM's integrated circuit card identifier (ICCID) and international mobile subscriber identity (IMSI). This approach could provide a flexible solution for identifying devices in IoT/M2M communications.

11. Is there an existing number range that would be suitable for this use, or should a new number range be introduced?

The 09 range could potentially be an option for IoT/M2M communications that require a public number. This would be in addition to CSPs continuing to use the 04 range (and the 05 range when released) for certain IoT/M2M applications.

12. If numbers were to be introduced to support IoT and M2M communication, how would the operation of these numbers differ from existing numbers and what specific rules would be required?

Telstra suggests that numbers for data-only IoT/M2M services should be exempt from Integrated Public Number Database (IPND) requirements. However, the policy on Permanent Roaming requires further consideration. Given that IoT/M2M services support mission-critical applications or those of national interest (such as electricity metering, water metering, connected cars, security applications, payment terminals, industrial sensors, vehicle telematics, location tracking, and more), it is recommended that all IoT/M2M devices operating in Australia adopt a common number type or range where lawful intercept and data retention (LI&DR) requirements are applicable.

Short codes

13. Should short codes be introduced for use in the Numbering Plan? Why or why not?

Yes, but not in the way outlined in the discussion paper, where short codes are suggested to be used for promotional and marketing activities, account alert notifications, one-time passwords, appointment reminders, or campaigns. There is minimal demand for short codes as described in the paper. The demand for short codes is primarily related to community services, such as 7226 for reporting scam SMS and 3498 for checking if a mobile handset will be affected by the 3G exit. In the Australian context, short codes are used to support community services.

In Australia, organisations already have well utilised options for communicating with constituents using recognisable branding. For example, they use 1800/13/1300 numbers for inbound calls and alphanumeric IDs for mobile SMS.

The development and use of short codes should be overseen by an industry body, such as Communications Alliance.

14. Are there any risks or benefits in introducing short codes, for example, on scam mitigation efforts?

It's uncertain whether the overall advantages of implementing short codes as described in the discussion paper would be greater than the potential opportunity cost of locking up larger range of numbers, considering the limited demand. The potential risks associated with this proposal are also not clearly understood, particularly concerning the concept of shared short codes used by multiple businesses. The implications of such shared usage would need to be thoroughly examined.

3.3 Specification of numbers



Calls over non-mobile networks

15. Do you agree or disagree that mobile numbers should only be used to originate calls from mobile networks? Why or why not?

See our response to question 7.

Consumers have an expectation that a mobile number is used in relation to mobile network services (voice and messaging).

The use of mobile numbers to originate non-mobile network traffic is impeding CSPs, including Telstra, from blocking scam calls in accordance with the requirements under section 4.6 of the Industry Code C661:2022 Reducing Scam Calls and Scam SMSs.

However, CSPs are cautious about taking such action as there is a risk it would also disrupt non-scam traffic generated where some CSPs are allowing mobile numbers to originate non-mobile network traffic, impacting genuine customer calls.

Telstra considers that the ACMA clearly state in the Numbering Plan that mobile numbers can only be used for traffic originating from an MNO's network. Such clarity will strongly support scam disruption initiatives.

Most scam calls using mobile numbers originate from fixed line networks so this change would allow Telstra and other MNOs to efficiently reduce scam calling by blocking all calls from mobile numbers that have not originated from their network.

16. Are there specific rules or updates that should apply to mobile numbers, including to support changes in technology and in the use of mobile numbers? If so, please provide details and reasons.

See our response to questions 7 and 15.

Telstra considers that the ACMA should clearly state in the Numbering Plan that mobile numbers can only be used for traffic originating from a mobile carrier's network or authorised by a mobile carrier to originate from other networks. Such clarity will strongly support scam disruption initiatives.

17. Is the definition of digital mobile services in the Numbering Plan still fit for purpose? If it should be updated, how?

Updating the definition of 'digital mobile services' as outlined in Section 32 of the Act would help clarify the Numbering Plan. This would also ensure consistency between the Act and the Numbering Plan.

VoIP, application-based messaging and cloud-based services

18. What specific changes or updates to the Numbering Plan, including definitions, should be made to accommodate these services?

The definition of Local Service needs to be updated to clarify that IP voice services or other virtual voice services are considered a Local Service, which includes their portable use across different locations.

This change is required to reflect current practice. Technological innovations have led to services that operate beyond the constraints of geographic numbers and Standard Zone Unit (SZU) areas as outlined in the Numbering Plan. VoIP technology, for instance, allows these numbers to be used irrespective of the recipient's geographic location, even if they are outside Australia. This is applicable to both business and consumer services. The traditional distinction between local and long-distance calling has largely disappeared, with the exception of international calls, due to the advent of bundled, unlimited usage plans and over-the-top (OTT) bypass services.

19. What types of numbering rules should be included in the Numbering Plan for these types of services?

While there might be a unique number range designated for VoIP or non-traditional Local Services, it should not be compulsory to use this range. Consumers may prefer to use numbers that allow them to identify with a geographic location. VoIP services can continue to co-exist with fixed line services using existing geographic numbering rules.

20. Should the definition of Local Service be changed? If so, how?

See our response to question 18. A suggested approach to changing the definition of a Local Service is provided below.

local service means a carriage service that:

- (a) is capable of voice telephony; and*
- (b) is provided for one or both of the following:*
 - (i) receiving incoming calls at a location;*
 - (ii) making outgoing calls at a location;*

where that location is:

- (iii) a fixed location at the premises occupied or used by a customer; or*
- (iv) a portable location, (as used in location independent services such as VoIP and application-based messaging and cloud-based services).*

Standard Zone Units

21. Are Standard Zone Units still required? Why or why not?

Yes, SZU are still required. There are several existing telecommunications policies and obligations that rely on the current SZU framework. These need to be considered comprehensively before any changes can be made to the SZUs.

For instance, there are regulations in place that depend on the current SZU arrangements. An example of this is when a CSP charges an eligible customer for eligible local calls made using a standard telephone service. In such cases, the provider must offer the customer an untimed local call option.

Additionally, there are location-based products (Inbound) that require geographic information. Pre-selection, which requires SZUs to determine call handling, has not been phased out. Similarly, STD barring, which requires geographic information, is still in place.

Furthermore, there may be existing commercial contracts with conditions related to local calls. All these factors support the ongoing need for SZUs.

While there is a need for untimed local call options, location-based products (Inbound), pre-selection, STD barring, and existing commercial contracts with conditions related to local calls, we will continue to require the current SZU framework. As these arrangements are phased out or replaced, industry can then consider replacing the existing SZU arrangements with a simpler one.

22. If it is possible, do you support the potential move to broader geographic zones and accompanying number ranges?

Yes, maintaining the existing SZU allocation for geographic numbers introduces considerable complexity and cost. If we can address and resolve the historical reasons that necessitate this allocation, it would lead to substantial simplification and efficiencies.

23. What costs or burdens could result from such a change?



We would expect significant costs to augment our IT systems and network to move to broader geographic zones, but these costs would potentially be offset in the longer term.

Traffic origination from outside of Australia

24. Should there be rules about the use of Australian numbers to originate calls from locations outside Australia? Why or why not?

The use of Australian numbers from locations outside of Australia should be restricted to known, legitimate use cases. A blanket acceptance of Australian numbers from offshore sources should not be permitted. We estimate that at least [REDACTED]

It's worth considering that legitimate businesses making calls from outside Australia using Australian numbers may not be meeting consumer expectations regarding the use of these numbers.

While international roaming and other legitimate use cases can be supported, with the implementation of industry developed processes, the fundamental premise should be that the use of Australian numbers from offshore sources is not permitted.

25. Noting stakeholders have cited scam calls originating offshore using Australian numbers as the reason for this suggestion, should any such rules be in the Numbering Plan or another instrument? Please explain your answer.

Regulations pertaining specifically to number usage should be incorporated into the Numbering Plan. This includes the stipulation that the use of Australian numbers from offshore sources is not permitted, unless there is an agreement and suitable arrangements have been made with the holder of the number.

26. What would be the effect of such rules on businesses and consumers?

Restricting the use of Australian numbers making calls from outside Australia would positively strengthen consumer trust in Australian numbers, as trust has been lost due to illegitimate spoofing of Australian numbers originating offshore.

Following consideration of alternative options and where appropriate arrangements are in place, businesses would be able to continue to use Australian numbers from offshore, where there is agreement and suitable arrangements have been made with the holder of the number.

3.4 Allocation of numbers

Availability of numbers

27. Are there any comments on the list of proposed numbers in Appendix B?

All of the numbers are suitable supplementary geographic ranges.

28. Should the ACMA withdraw unused numbers under section 94 of the Numbering Plan before releasing additional prefixes or numbers?

No, there are significant complexities in identifying and withdrawing large blocks of unused geographic number allocations so this is not a preferred path. Telstra urges caution in taking such an approach as it could have significant impacts on consumers. The ACMA must ensure any changes are managed in a way that supports both old and new uses of numbers.

29. Are there any number conservation strategies the ACMA should consider in a remade Numbering Plan?

As noted in our response to question 30, the Numbering Plan should explicitly lay out the criteria for number allocation to providers. The decision to allocate should be based on the information that the applicant provides, which should detail their proposed activities and how their network will operate. This includes how they plan to interconnect with other networks, the types of services they aim to offer, and whether these services align with the number ranges they're applying for, all in accordance with the rules specified in the Numbering Plan.

Implementing stronger or more prescriptive rules for number allocation inherently serves as a strategy for number conservation.

Rules for allocation

30. Should there be stronger, or more prescriptive, rules for allocating numbers to C/CSPs in the Numbering Plan? Why or why not?

Numbers should be allocated to a primary number holder who is responsible for use of that number on its mobile network. For instance, the allocation of digital mobile numbers should be limited to MNOs. Similarly, the allocation of carrier access codes, which are a scarce resource, should be restricted to genuine carriers who can utilise them.

Entities that are not MNOs should not be permitted to receive mobile numbers, especially if they cannot demonstrate how they will interconnect with other networks.

The Numbering Plan should clearly specify the criteria for allocating numbers to providers. The decision to allocate should be based on the information provided by the applicant, explaining their proposed activities and network operations. This includes how the applicant will interconnect with other networks, the types of services they intend to offer, and whether these services are suitable for the number ranges they have applied for, in accordance with the rules set out in the Numbering Plan.

31. Should the ACMA seek additional information from other CSPs during the application process for numbers? Would this strengthen the integrity of the numbering ecosystem?

Yes, only if the ACMA requires additional information to confidently process an application.

32. Should CSPs be required to seek additional information from other CSPs before being able to sub-allocate/assign numbers to them? Why or why not?

Telstra is receptive to the idea of requiring participants to obtain further information from other CSPs before they can sub-allocate or assign numbers, possibly in alignment with what the ACMA would need to satisfy themselves to allocate numbers to a CSP. If such requirements were to be mandated, Telstra would prefer these to be included in an industry code. This approach would offer more flexibility compared to incorporating them into the Numbering Plan, which should be principles based.

33. Should the ACMA consider enhancing its registers in the Numbering System to improve visibility of all current CSPs and the numbers they hold? Why or why not?

Numbers should be allocated to a primary number holder who is responsible for use of that number on its network.

The new record keeping rules in the industry code C566:2023 Number Management: Use of Numbers by Customers requires CSPs that assign a number to another CSP outside the Numbering System to maintain a record of the assignment. There is no need for additional registration in the Numbering System.

34. Do you support the ACMA revisiting its proposal for CSPs to be registered in the Numbering System before they can be assigned numbers?

We believe that alongside the implementation of stronger or more prescriptive rules for number allocation, as discussed in our response to question 30 (including that numbers should be allocated to a primary number holder who is accountable for the use of that number on their network), and possible new requirements on participants to seek additional information from other CSPs before being able to sub-allocate/assign numbers to them, as discussed in our response to question 32, there is no additional requirement for CSPs to be registered in the Numbering System before numbers can be assigned to them.

The sub-allocation of numbers can be tracked through the new record-keeping rules in the industry code C566:2023 Number Management: Use of Numbers by Customers.

35. Do you support provisions requiring annual audits in the Numbering Plan? Why or why not?

No. The ACMA possesses the authority to conduct audits and investigation as necessary. Annual audits often result in substantial, long-term regulatory burdens for all participants, including those who consistently comply with regulations. Therefore, if the ACMA deems an audit or investigation related to the Numbering Plan necessary, it should concentrate its efforts specifically on specific CSP or areas of concern. This approach ensures efficient use of resources and targeted resolution of issues.

36. What specific costs or burdens could arise due to these proposals? Please provide specific details.

At present, Telstra is unable to estimate the specific costs associated with an annual audit of allocated, issued, and ported numbers by the ACMA and CSPs to accurately record the current CSP against each number including matching against data in the IPND. The cost and long-term, ongoing regulatory burden could be substantial, given that the processes and systems for porting, number allocation, and IPND are separate and not interconnected.

Pooled numbers

37. Should any rules be introduced in the Numbering Plan for ‘pooled’ numbers? If so, why, and what should the rules be? If not, why?

No, the use of pooled numbers across multiple customers should not be allowed. Every public number used to provide a carriage service should have a clearly identified rights of use holder. Furthermore, these numbers should be accurately recorded in the IPND along with the correct customer data.

Eligible Party Identification codes (EPIDs)

38. What are your views about using the Numbering Plan to enforce the use of EPIDs?

The Numbering Plan should not be used to enforce the application of EPIDs. As previously mentioned, the Numbering Plan should be a principles-based, and operational matters, such as the use of EPIDs, should be addressed in industry codes and guidelines.

The discussion paper also acknowledges that there could be complexities in the potential enforcement arrangements by the ACMA.

39. What are the specific costs or burdens that may result from this suggestion?

The cost could be significant as EPIDs are utilised in various industry number processes, such as mobile number portability and local number portability, as well as in internal systems. Any attempt to regulate the use of EPIDs would need careful consideration. It would be most appropriate for the industry itself to undertake this task, as outlined in our response to question 38.



3.5 Special rules about smartnumbers

Enhanced Rights of Use

40. Do you support these initiatives? Why or why not?

Yes, Telstra supports the initiatives being considered in the discussion paper to cancel enhanced rights of use for numbers used for scam and fraud.

3.6 Number portability

41. Are the number portability provisions in the Numbering Plan still fit for purpose? Why or why not?

The number portability provisions, found in part 1 and 2 of chapter 10 in the Telecommunications Numbering Plan 2015, can be significantly simplified, as much of the detail is now covered in the registered industry code Number Management: Use of Numbers by Customers (UoN) Code (C566:2023). The numbering plan should focus solely on principles related to number portability in alignment with the UoN Code. This prevents duplication or conflicting regulatory instructions, providing clarity to CSPs regarding their obligations.

42. Are there any additional number portability provisions the ACCC should consider including in the Numbering Plan? Please explain.

No.

3.7 Use of numbers by multiple carriage services providers

43. Do you support the use of numbers by multiple CSPs? Why or why not?

Telstra does not support the multiple-service practice. Carriers/CSPs that originate or aggregate calls from other CSPs over SIP trunks with over-stamped or “spoofed” valid domestic or international CLI, are the primary enablers for large scale scam calling both within and from outside Australia.

Carriers/CSPs utilising the practice are clearly not complying with the rights of use confirmation requirement of clause 4.2.1 of the Scams Code.

We estimate that over the last few years, at least [REDACTED]

44. Can you provide some evidence / data of the benefits or harms of this practice? Please provide details and indicate if this information is provided in confidence.

The use of numbers by CSPs that do not hold the numbers is impeding other CSPs, including Telstra, from efficiently blocking scam calls in accordance with the requirements under section 4.6 of the Industry Code C661:2022 Reducing Scam Calls and Scam SMS.

We estimate that at least 80% of calls received by Telstra from domestic carriers, who don't hold the numbers, are scams.

Even whitelisted numbers are vulnerable. In October 2023, we observed a significant increase in the volume of calls made using the whitelisted Telstra mobile CLI. [REDACTED]



[REDACTED]

We also observe whitelisted numbers calling the same Telstra customer multiple times. Our concern is that once a fraudster identifies a whitelisted number, or manages to navigate the IVR, we're unable to prevent these calls from reaching our customers. The table below shows cases of Telstra spoofed numbers calling the same Telstra multiple times.

[REDACTED]

[REDACTED]

45. Which of the 3 potential options do you consider to be most viable in the circumstances and why? Please provide details.

Telstra supports option 3, which is to prohibit the multiple-service practice. However, if the multi-service practice is to persist, it is crucial to have rules that govern the process. The fight against scams and the protection of Australians can only be achieved through the correct and coordinated use of numbers.

Wholesale and retail acquirers of services must route terminating calls exclusively through the Carrier/CSP that holds the number. To control scams, calls must initially route via the number holding Carrier/CSP's networks. This approach not only ensures that Carriers/CSPs are held accountable for the upstream use of their numbers, but it also strengthens regulatory enforcement, enables more effective actions by the downstream Carriers/CSPs, and ensures that other measures, such as lawful interception, can operate effectively.

46. What are the potential benefits and costs to industry and end-users of each option?

Telstra supports option 3, which is to prohibit the multiple-service practice. Given the lack of demonstrable evidence of significant demand (see our response to question 51), the benefits to customers from combating scams will far outweigh any potential costs to the industry in prohibiting the multiple-service practice.

At present, each Carrier/CSP has its own 'whitelisting' process. Implementing a centralised list, coordinated by a single entity, would increase efficiency, prevent duplication, and reduce the overheads each Carrier/CSP incurs. However, to be clear, Telstra does not support whitelisting and has reluctantly accommodated this practice, which introduce costs and risks as outlined in our response to question 51 d)

47. If option 2 were preferred, what should the rules be and how would these best be achieved/implemented? Are different solutions required for voice and SMS or fixed and mobile services? What are the potential timeframes needed to implement these arrangements from an industry and consumer perspective?



Telstra supports option 3, which is to prohibit the multiple-service practice.

48. Are there other solutions or measures that could be implemented to address the concerns to date?

Telstra supports option 3, which is to prohibit the multiple-service practice.

49. Is legitimate use of the multiple-service practice a problem? Please explain and provide specific details.

There is no legitimate use of the multiple-service practice. It is Telstra's view that only the CSP that holds a number can issue that number to a customer for use in association with a carriage service that it supplies and no other service.

Fraudsters exploit this same practice for their illicit activities, which makes it challenging to distinguish between legitimate and illegitimate use. This misuse directly and negatively impacts customers as it compromises the effectiveness of initiatives aimed at reducing scams.

Even in cases of legitimate use, where the rights of use holder of the number approves the use of the number.

Answers to questions 50 and 51 can be provided to the ACMA in-confidence.

50. If you are a CSP that uses the multiple-service practice to originate calls/SMSs using numbers issued to your customers by another CSP:

- a) How many customers and how many numbers in total do you apply this practice to? What number types are used?
- b) What specific services do you provide to these customers using these numbers? What is the total volume of calls and/or SMS sent?
- c) What is the total revenue received from services provided to customers using this practice?
- d) Do you also offer similar services to customers using numbers you hold and have directly issued to customers?
- e) Would a customer be able to port their number to you and receive an equivalent service to that supplied by their current CSP? If not, why not?
- f) Do you have (or have you attempted to put) any agreements in place with the CSPs who hold the numbers of customers to whom you provide services? If not, do you notify the CSPs of your use of their numbers? If not, why not?

Telstra does not offer services using the multiple-service practice.

51. If you are a CSP that holds numbers being used by other CSPs to originate calls on another network (on behalf of a customer who has rights of use of the number) using this practice:

- a) How many of your customer numbers, that you estimate or are aware of, are being used by other CSPs for this practice? How did you become aware of this use?

Telstra has implemented a system where other carriers can whitelist numbers held by Telstra. This was introduced as part of an interactive voice response (IVR) challenge against spoofed Telstra CLI calls. The IVR system requires the caller to respond to prompts using their keypad before the call is allowed to proceed. A whitelisted number does not encounter the IVR challenge.

We have approximately [REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

b) If you are aware of another CSP using numbers you hold, have you taken any steps regarding that arrangement (for example, putting an agreement in place, contacting the customer, putting the customers' number on an 'allow' list etc)? If yes, please outline them; if no, why not?

When Telstra identified that other CSPs were using numbers held by Telstra, we had to take action as this compromised our efforts in combating scams using spoofed numbers. As set out in our response to question 51(a), we introduced an option for carriers to whitelist Telstra held numbers. This was a part of the implementation of an IVR system to combat the issue of spoofed CLI.

If calls are made from other carriers using what appears to be spoofed Telstra numbers and these numbers are not whitelisted, they are subjected to the IVR challenge. This measure is in place to uphold the integrity of the calling process and to prevent the misuse of numbers held by Telstra.

While we have accepted whitelisting requests from other CSPs for instances where they say that right of use has been confirmed, we do not contact our customers to confirm their use of the alternate CSP.

c) Do you provide similar services to those your customers are seeking to obtain from other CSPs? If so, do you know why your customer aren't obtaining these services from you?

Telstra does not offer services using the multiple-service practice.

d) What effect does this practice have on your business? What specific costs (if any) do you incur as a result of your numbers being used for this practice? Have there been any harms or detriments to your business or your customer because of this practice? Please provide specific details.

The use of Telstra held numbers by other CSPs interfered with our efforts to combat scams involving spoofed Telstra numbers. At Telstra we introduced an option for carriers to whitelist numbers that we hold. This was a necessary step for us to implement our IVR challenge.

The practice of whitelisting numbers introduces both costs and risks to our business. Operational costs are incurred for implementing a daily process for whitelisting numbers. This includes managing and negotiating terms and agreements with other carriers, exchanging and securing data, maintaining ongoing cadences to manage lists, and adding or removing numbers. At some point, an audit of the ongoing use of numbers will need to be considered.

Our response to question 51 demonstrates that there is very limited customer demand to justify these ongoing overheads for a practice that was not originally considered until technology allowed it. Only a small percentage of numbers whitelisted originate calls on other networks in any given week. This small percentage comes from an already limited set of numbers.

In addition to these costs, there are also risks involved. Specifically, there is a risk that scammers may discover and exploit whitelisted numbers. We have evidence that such exploitation has occurred in the



past. In October 2023, we observed a significant increase in the volume of calls made using the whitelisted Telstra mobile CLI. [REDACTED]

Our concern is that once a fraudster identifies a whitelisted number, we're unable to prevent these calls from reaching our customers.

While whitelisting numbers can have certain benefits, it also presents challenges in terms of additional costs and potential security risks, especially given the lack of significant demand. These factors must be carefully considered in the context of our overall business operations and customer service objectives.

Telecommunications (Provision of Pre-selection) Determination 2015

52. Is the Pre-selection Determination still fit for purpose? Please provide reasons.

No, the Pre-selection Determination (PD) is not fit for purpose and is no longer required.

Pre-selection regulation was made to encourage competition for the types of calls that carriers other than Telstra were able to provide (long distance, fixed-to-mobile and international), at a time when there was no other competitive constraint on Telstra's pricing of those call types. Without a pre-selection requirement, Telstra could leverage its unique ability to connect end users to its monopoly PSTN network to lock them into a voice service bundle including the pre-selectable call types. Since then, the following critical developments have occurred:

- The ACCC has declared fixed line services including services that require Telstra to offer to other carriers the ability to provide voice connection and local calling using Telstra's network.
- Most voice calling has migrated to mobile and fixed IP networks, particularly on the nbn. The PD does not apply to mobile or IP networks.
- Many voice plans now include unlimited domestic calls of all types, such that there is minimal competitive pressure on voice plan pricing.

The declared services deliver the ability for carriers other than Telstra to offer the full bundle of voice services to end users, including connection to the PSTN network. This has significantly diminished with the transition to the nbn and is limited to those areas outside the nbn footprint.

The PD applies only to Telstra's PSTN network. From the designated day, most of the premises in the nbn fixed line footprint (FLF) have migrated off the PSTN network onto the nbn or alternative networks (including mobile networks, and in the form of OTT voice services delivered over other fixed and mobile data networks). As the PD therefore applies to a small percentage of the population, it is not equitable to maintain the obligation for these customers.

Due to the implementation of IP core networks, the relative costs of providing the various call types are now trivial. Most voice plans now include unlimited calls for most domestic call types, and international calls are easily available at competitive prices either within the full bundle of voice services, or by using calling cards. In these market circumstances, the requirement to offer retail pre-selection is largely meaningless.

As a consequence of these fundamental market and regulatory changes, there is no longer any reason to maintain a regulated requirement for carriers to allow end users to pre-select calling services from another carrier.

53. Is the Pre-selection Determination still required to support the competitive delivery of long distance, international and fixed-to-mobile calls? What is the demand for pre-selection? Please provide details.

No, see response to question 52. End users can source their voice connection and calling bundle from any carrier, ensuring that there is competition.

[REDACTED]

The pre-selection obligations have historically been implemented through carrier interconnection. A PSTN originating access service is supplied using legacy TDM interconnection to a point of interconnect from a PSTN end-customer of the first carrier who makes a pre-selection or pre-selection override choice to a second carrier (the acquiring interconnect carrier). In this way, other carriers have supplied long distance services via pre-selection.

As the PSTN footprint has reduced, nbn and other IP based services have been exempt from pre-selection obligations and not demanded by end users or other carriers. Also, in recent years, as legacy TDM interconnection has progressively been migrated to SIP interconnection between carriers (which technically does not support PSTN pre-select originating access services), the demand to maintain legacy TDM interconnect for a very small and diminishing number of pre-selected lines has seen most interconnecting carriers who interconnect with Telstra wholesale choosing to exit PSTN pre-select originating access altogether rather than maintain separate “skinny routes” on TDM interconnect to continue to support a tiny amount of pre-select related traffic.

[REDACTED]

There is minimal demand for pre-selection from end users, as set out above. We believe remaining Telstra customers have not made recent conscious choices to take Voice Part plans in order to pre-select the pre-selectable services from another carrier; rather, most remaining end users contracted for Voice Part plans many years ago and have never bothered to reassess their voice service needs.

54. Should the ACMA remake the Determination? If so, are there any changes that should be made to the Determination?

No. As outlined above, the competitive landscape has fundamentally changed since the PD was first made, there is little to no demand, and we suspect what little Telstra customer demand there is, is a result of customers on Voice Part plans having likely never bothered to reassess their voice service needs.

55. What would be the likely effect of allowing the Determination to sunset on end users and/or to any other arrangements, including on the operation of the FAOS?

Telstra's view is that there would be no impact on end users or any other arrangements. This is due to the minimal to virtually nil demand from end users for pre-selection and the industry's shift away from TDM interconnect. The transition to SIP interconnect, which does not support pre-selection, has already been commercially negotiated and implementation is nearing completion. Therefore, the need for access to pre-selection has been effectively phased out with these ongoing SIP migrations.

56. Are there any other factors the ACMA should consider when reviewing the Determination?

We are not aware of any other factors that the ACMA should take into account.



Telecommunications (Section of the Telecommunications Industry – Portability Service Suppliers) Determination 2015

57. Is the Determination still fit for purpose? Please provide reasons.

Telstra's view is the Determination is still fit for purpose.

58. Should the ACMA remake the Determination?

Yes.

59. Are there any other factors the ACMA should consider when reviewing the Determination?

We are not aware of any other factors that the ACMA should take into account.