Voxbone (now part of Bandwidth Inc.)

Submission to the Discussion Paper on the Review of the Numbering Plan and other instruments

Voxbone (now part of Bandwidth Inc.) (hereinafter 'Voxbone') welcomes the opportunity to comment on ACMA's Discussion Paper on the review of the Numbering Plan and other instruments. This submission addresses the topics and responds to the questions most relevant to Voxbone as raised by ACMA in the Discussion paper.

1. Preliminary remarks

Voxbone is a global provider of public telecommunications services and has been operating in the Australian market as a Carriage Service Provider ('CSP') since 2006. We have since partnered with other local CSPs and have also been allocated numbers directly by the Australian Communications and Media Authority ('ACMA') to ensure direct and seamless provision of service over our proprietary IP network. In November 2020, Voxbone was acquired by Bandwidth Inc., significantly strengthening its presence in the international cloud communications market.

In the context of ACMA's revision of the Numbering Plan, Voxbone seeks equal regulatory and operational treatment for all Carriers and CSPs, particularly regarding access to and provision of services over digital mobile numbers and ensuring that anti-fraud regulations are not misused to block legitimate traffic.

Bandwidth has been an active leader in the industry's efforts to protect consumers from fraud and abuse for a number of years and continues to do so through Voxbone post-acquisition. We look forward to supporting ACMA's efforts to combat the proliferation of illegal activity in the global communications marketplace while advancing policies that support valuable consumer-driven communications in Australia. Voxbone firmly believes that consumers will benefit most from the continued adoption of IP networks and services, which include the benefits of STIR/SHAKEN in restoring trust in global voice calling and advancing robust consumer-driven features. We are of the opinion that counter-fraud initiatives are best handled within the scope of the *Reducing Scam Calls and Scam SMS Industry Code (C661:2022)* (the 'Scam Code') and invite ACMA to revisit discussions on STIR/SHAKEN to further enhance trust and innovation in the telecommunications sector.

2. Voxbone's response on key issues raised in the Discussion Paper

Numbering Plan as a principles-based document.

Voxbone supports the view that moving towards a principles-based framework aligns with the direction the industry is heading, as seen with the increasing number of Industry Codes that address the main requirements outlined in the Numbering Plan. This approach acknowledges the enduring nature of the Numbering Plan, which would be more cumbersome to amend if needed, and supports the industry's need for a responsive and agile regulatory environment.

Regulation and use of digital mobile numbers.

Digital mobile services have long been used as mainstream telecommunications services. Voxbone supports listing digital mobile numbers as a discrete number type in a revised Numbering Plan, reflecting their established role and importance in the telecommunications landscape. In reviewing which rules should apply to these numbers, ACMA should, among others:

- Continue to allocate and allow the sub-allocation of digital mobile numbers by both MNOs and non-MNOs to preserve a healthy competitive landscape. Just as mobile services have largely supplanted fixed services as basic communications types, the industry has seen how non-MNOs can serve the mobile market independent of network technologies. Constraining non-MNOs from accessing digital mobile services will be detrimental to the long-term interest of end-users, halting competition and distancing from achieving any-to-any connectivity.
- Account for the challenges that technological developments pose in the context of A2P services provided over digital mobile numbers, such as the need to provide emergency services for services used in connection with A2P voice services. With the increasing need for businesses to use software platforms to better connect with their customers, there has been a spike in demand for numbering resources that support both voice and messaging. However, Voxbone questions the relevance of maintaining Emergency Service requirements in connection with a service that is provided to an 'application' as opposed to an individual end-user. We believe that in reviewing which rules should apply to this number type, ACMA should consider this and similar issues but, we understand that such an update may require amending the Telecommunications Act 1997 and the Telecommunications (Consumer Protection and Service Standards) Act 1999.

While outside of the scope of this consultation, we believe there may be a need to revisit the definition of Public Mobile Telecommunications Services (PMTS) in the Telecommunications Act

1997 - concretely regarding requirements for inter-cell handover functions. During past and recent public inquiries into the declaration of Mobile Terminating Access Service (MTAS) led by the Australian Competition and Consumer Commission (ACCC), stakeholders acknowledged that voice calls can reach mobile subscribers through technologies other than the radio access network, such as voice over WiFi (typically using fixed access technology) and satellite technology.

Furthermore, the PMTS definition was identified by ACMA as an outdated concept over a decade ago. At the time, ACMA stated that the definition was still applicable to digital mobile networks but there was no guarantee that inter-cell handover would remain relevant as IP-based services became more widely adopted.[1] Nearly 15 years later, technological advances, including VoIP, continue to challenge this outdated definition. This situation has led MNOs to refrain from conditioning mobile numbers allocated by ACMA to non-MNOs into their networks, which further undermines convergence.

Voxbone emphatically disagrees with the view that mobile numbers should only be used by MNOs to originate calls over mobile networks based on the flawed argument that "*the majority of scam calls using mobile numbers come from fixed-line networks*". In Australia, the counterfraud ecosystem mandates that both Carriers and CSPs uphold obligations to prevent scam calls and SMS from reaching consumers. This regulatory framework ensures that non-MNOs adhere to the same standards and regulatory requirements as any other telecommunications service provider, fostering a level playing field where all providers are equally accountable for preventing fraudulent activities.

As previously stated, Voxbone has actively engaged in efforts to protect consumers from fraud and abuse, especially in the United States, and is in favor of the measures adopted by ACMA to date, including the Scam Code and the SMS Sender ID Registry. These measures serve as effective tools in combating fraud and ensuring the security of telecommunications services and are applied uniformly across all service providers.

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.

> **Application-to-Person (A2P) uses** *(Short-codes, Pooled numbers, Internet of Things and Machine-to-Machine services).*

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[1] ACMA (2013), 'Broken Concepts—A 2013 update on the Australian communication legislative landscape'.

In line with the preceding section, Voxbone advocates for the continued use of digital mobile numbers to support businesses rather than introducing shortcodes, pooled numbers, or IoT/M2M numbers into the Numbering Plan for direct customer communication. Business customers are increasingly seeking seamless connectivity to interact with their clientele, and as such need numbers that support 1-way and 2-way voice and messaging communications. Today this is only achievable in Australia over digital mobile numbers, making any of the proposed alternatives (Short codes or Pooled numbers) limited to messaging services.

The use of Alphanumeric Sender IDs has also surged globally in recent years, offering a cost-effective solution compared to the development required for Short Codes or Pooled numbers. Alphanumeric Sender IDs support 1-way messaging services and based on the stakeholders' arguments outlined by ACMA in its Discussion Paper, serve a similar purpose as Short codes and Pooled numbers. Voxbone seeks further clarification on stakeholders' concerns prompting this proposal.

Furthermore, Voxbone is of the view that introducing Short codes or Pooled numbers into the Numbering Plan could potentially complicate industry efforts to combat fraud. Especially when shared, a breach of the rules (i.e. Spam) by one business could lead to the entire number being blocked or suspended, disrupting messaging for others. Such actions can last weeks or months, proving costly and disruptive. Additionally, having different numbering resources serving the same purpose may create confusion for recipients. If ACMA considers introducing these resources, careful consideration must be given to ensure their usage is clearly differentiated from how digital mobile numbers and Alphanumeric Sender IDs are currently used in the market. Failure to do so may erode trust among users, impacting how business customers effectively engage with their clients.

Finally, regarding proposals to allocate numbers for IoT and M2M services, Voxbone advises ACMA to clearly define these terms to avoid confusion with existing A2P use cases that already leverage digital mobile numbers and Alphanumeric Sender IDs effectively. Introducing separate numbering resources for IoT and M2M services should be accompanied by clear distinctions in their use cases and regulatory requirements to maintain the integrity and efficiency of existing telecommunications services.

Standard Zone Units (SZUs).

Voxbone recognizes the enduring consumers' preference for telephone numbers tied to specific geographic areas. This continues to hold significance today, as many business customers derive

operational and marketing value from using local numbers that are recognized and trusted within specific areas, enhancing customer engagement and local presence.

While we acknowledge concerns about local versus long-distance call charges, Voxbone does not agree that eliminating SZUs or transitioning to broader zones is the optimal solution. Broadening geographic zones may not effectively address the disparity in call charges between local and long-distance calls, as the underlying pricing structure would likely face the same issues.

Historically, discussions on the relevance of eliminating SZUs have centered around two primary factors:

- Addressing the consumer demand for greater mobility. However, ACMA addressed this issue over a decade ago by establishing a framework to govern the use of geographic numbers for services beyond their designated areas.
- Tackling concerns over number scarcity, which based on the Discussion Paper, does not seem to be a core element in the debate over maintaining SZUs.

Therefore, unless ACMA identifies efficiency gains or simplifications in numbering management as a priority, Voxbone maintains that there is no immediate urgency to alter SZUs. If, however, ACMA determines that addressing number scarcity is a primary concern, Voxbone agrees that eliminating SZUs or broadening them could play a pivotal role in effectively managing numbering resources on a national scale. This approach could also create a more equitable environment for all providers, particularly benefiting smaller operators who often struggle with the costs associated with accessing adequate numbering resources across the entire Australian territory compared to larger counterparts.

Depending on the scope and complexity of any changes required, Voxbone estimates that implementing such revisions, including reviewing and adjusting internal inventories and processes, could take at least six months.

VoIP, application-based messaging, and cloud-based services.

As a leader in VoIP and a provider of services to cloud-based entities, Voxbone supports maintaining a technology-neutral approach in reviewing the Numbering Plan. This fosters innovation, competition, and growth within the telecommunications market, which has long been acknowledged by ACMA, especially in addressing convergence pressures.

Technological developments continue to challenge the service- and technology-specific nature of traditional regulatory frameworks. Although the existing Numbering Plan was based on the principle of technical neutrality, over time, new technologies have made certain terms and definitions increasingly outdated and technology-dependent.

As digitalization continues to make service delivery largely independent of network technologies, Voxbone acknowledges the importance of revisiting key concepts to ensure they encompass as many technologies as possible but without explicitly addressing them to account for convergence. Voxbone is concerned that doing so could, among other things, constrain future technological developments from accessing numbering resources, trigger competition issues by creating barriers for new technologies, and lead to lengthier amendment processes whenever new technologies emerge or existing technologies evolve. We therefore encourage ACMA to consider these implications for future discussions on this topic.

Rules for number allocation.

During a previous review of the Numbering Plan in 2022, ACMA put forward a similar proposal on the grounds of combating fraud and improving number allocation efficiency. Similar to the concerns raised by stakeholders at the time, and consistent with our view that the Numbering Plan be a principles-based document, Voxbone believes that existing regulatory instruments are sufficiently prescriptive as they already require CSPs to maintain records of sub-allocations while preventing the misuse of numbers by scammers. This includes:

- The *Number Management: Use of Numbers by Customers Industry Code (C566:2023)* requires to maintain a record of numbers assigned to other CSPs to facilitate compliance processes aimed at ensuring that numbers are used in line with ROU provisions and not used in a way that is inconsistent with obligations relating to scam controls, data retention, and IPND and interception obligations. Consequently, ACMA has already tools to enforce compliance through this obligation.
- The *Reducing Scam Calls and Scam SMs Industry Code (C661:2022)* requires CSPs to investigate alleged cases of scam calls/SMS and to identify and notify the Originating CSP behind them, to determine whether fraud did or did not occur while keeping ACMA informed of the findings.

While Voxbone understands that the existing framework does not provide ACMA with a system to access all sub-allocation records instantaneously, we believe this could be improved within existing regulatory instruments. For instance, ACMA could consider expanding on the obligations under the Number Management Code, by requiring CSPs to provide this information annually,

similar to the requirements imposed by National Regulatory Agencies in countries like Hong Kong and Norway.

Furthermore, Voxbone is of the view that past proposals requiring CSPs to exert control over other CSPs' registration before sub-allocating numbers should be dismissed, including demanding any additional information from them. Imposing this responsibility on CSPs would introduce a significant administrative burden and could create friction in commercial relationships between market participants. Instead, Voxbone advocates for this oversight to remain under the jurisdiction of ACMA as the authority responsible for monitoring compliance and enforcing the telecommunications framework.

In line with the above and considering the extent of ACMA's questions, Voxbone suggests that any proposal to implement a comprehensive register of CSPs, for number management or other purposes, should stay current with similar regulatory developments. This includes recent efforts by the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts to consult on creating a CSP registry.[2]


Use of numbers by multiple CSPs.

Voxbone appreciates the opportunity to strongly support the use of numbers by multiple CSPs. We believe, however, that this issue would be better addressed in the upcoming review of the Scam Code.

The multi-service practice provides end-users with increased choice, fosters competition, introduces new services, and enhances redundancy in telecommunications offerings. This practice is not new and has become essential in the evolving cloud communications market, enabling a range of cost-effective opportunities for business end-users. While Voxbone encourages customers to port-in their numbers to mitigate this issue in the Australian market, it is ultimately the prerogative of the customer to determine the benefits of utilizing numbers in this manner.

Contrary to ACMA's position that section 4.2 of the Scam Code *"does not prevent the multiple-service practice"*, some incumbents have used this section to reject calls or introduce obstacles in the call termination process for numbers belonging to a different network than the one from which the call originates. Voxbone urges ACMA to provide clearer guidance on provision 4.2 to prevent such practices or expand these rules to mandate the implementation of whitelisting processes to prevent the blocking of legitimate traffic.

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[2] Department of Infrastructure, Transport, Regional Development, Communications and the Arts (2023), Discussion Paper: Carriage Service Provider (CSP) registration or licensing scheme for the telecommunications industry.
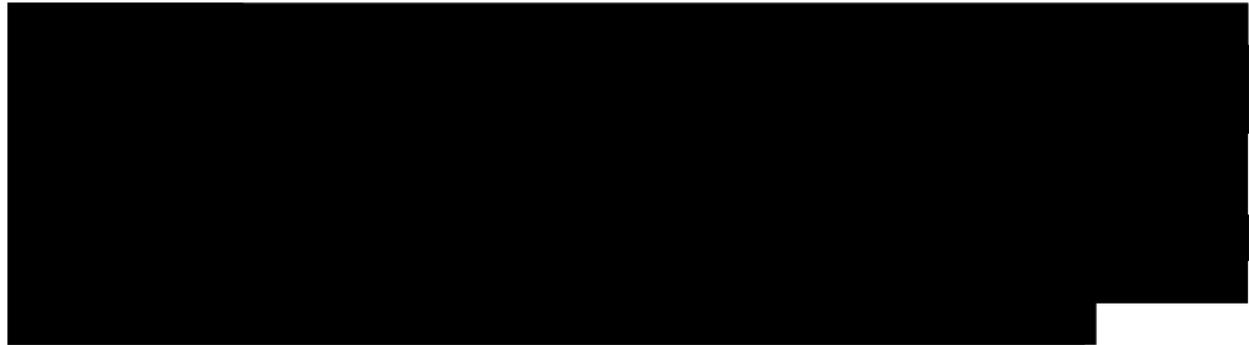
In conclusion, Voxbone advocates for the continued support of the multi-service practice under clear regulatory frameworks that protect consumer interests while promoting innovation and competition in the telecommunications sector. We endorse the 'no-change' option provided ACMA ensures and clarifies as needed that this practice is fully permissible under the Scam Code, thereby preventing incumbents from implementing any form of blocking. However, should ACMA determine that additional measures are necessary, we would favor a light regulatory approach, preferably within the scope of the Scam Code, that accommodates this practice and all the possible impacted use cases.