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Dear Secretary

**ACMA submission to the Inquiry into the Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) Bill 2025**

Thank you for inviting the Australian Communications and Media Authority (ACMA) to provide a submission to assist the Senate Committee's inquiry into the Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) Bill 2025 (the Bill).

The ACMA is Australia's regulator for telecommunications, broadcasting, radiocommunications and some online content.

As Australia's sector-specific regulator for telecommunications, our responsibilities include administering key elements of the consumer safeguards framework (including registering industry codes, making standards and determinations, and addressing issues of non-compliance). We also administer reporting requirements under the *Telecommunications Act 1997* and would take on new responsibilities if the Bill were to be passed by the Parliament.

**Modernising Australia's universal service framework**

The ACMA has long noted that Australia's universal service and consumer protection frameworks remain anchored in the era in which they were first established, in 1997. At that time Australia had a single, fixed-line, vertically-integrated, monopoly telecommunications provider – Telstra – providing voice-only services to its 9.6 million customers.<sup>1</sup>

As a consequence, the 1997 legislative framework was directed towards opening up a then concentrated telecommunications market to competition to deliver consumer benefits including innovation, choice and competitive prices, performance and service offerings. That purpose has arguably been met and while some parts of that framework have stood the test of time, other components have become outdated when considered against the contemporary mobile and broadband service markets and consumer expectations and use of products present in today's much larger, more complex and competitive market.

In 2026, consumers overwhelmingly depend on mobile and broadband services for work, health, education, business and safety, highlighting the importance of ensuring telecommunications coverage is available across Australia. The Bill's proposed establishment of the UOMO therefore represents an important evolution toward a modern universal service model.

The ACMA welcomes the Government's efforts, including the introduction of the Bill, to modernise Australia's universal service framework to reflect new industry structures and technologies and in keeping with contemporary community expectations about telecommunications services.

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<sup>1</sup> Australian Communications Authority, Telecommunications Performance Monitoring Bulletin, Issue 3 - December 1997 quarter

### **The ACMA's role in UOMO**

The ACMA has an ongoing role in managing access to spectrum used by LEOSat network operators to supply telecommunications services, including those required for the UOMO.

Subject to the passage of the Bill, the ACMA will also be responsible for the enforcement of the UOMO. The *Telecommunications Act 1997* provides the ACMA with powers to take enforcement action, including to investigate breaches and impose penalties for non-compliance.

The ACMA would also be responsible for the enforcement and, in certain circumstances, the creation of any UOMO standards, rules or benchmarks that may be applied to UOMO services. The Bill's approach is consistent with the ACMA's current responsibilities in relation to, among other matters, existing universal service and statutory infrastructure provider (SIP) regulation, with the exception that SIP standards, rules and benchmarks can only be made by the Minister.

### **Satellite direct-to-device services**

A satellite direct-to-device (D2D) service is a recent advancement in communications technology that provides direct connectivity between a mobile phone and a satellite network. This enables a mobile phone to communicate with satellites when it is outside the coverage area of both terrestrial cellular and Wi-Fi networks. Previously, a dedicated device such as a satellite phone was required for mobile communication with satellites.

The ACMA has been closely monitoring these developments and acted quickly to ensure our regulatory frameworks support delivery of D2D services in Australia.

### **Delivery models**

From a spectrum management perspective, there are two categories of D2D services. The first, mobile satellite services (MSS)-based D2D services, use frequency bands allocated internationally to MSS. Use of this service requires a mobile phone with dedicated hardware for satellite communications that is currently only available in a few high-end devices (for example, Apple iPhone 14 and later, and Google Pixel 9/10).

These services are delivered under agreements between device manufacturers and satellite network operators (SNOs) that have access to MSS spectrum. Examples of these include later-model Apple iPhones that can communicate with the Globalstar network and certain Google Pixel phones that can communicate with the multi-network Skylo satellite service. SNOs must hold an ACMA radiocommunications licence to operate these services in Australia. At this stage, services include emergency alerting and/or messaging via built-in SOS applications provided by device manufacturers, as well as location sharing and limited messaging functionality (for example, iMessage on iPhones and WhatsApp on Google Pixel 10). Current ACMA processes regarding MSS spectrum are outlined later in this submission.

The second type, International Mobile Telecommunications (IMT)-based D2D services, use frequency bands allocated to terrestrial mobile services, known internationally as IMT. This service is delivered by a new generation of satellites that can communicate directly with standard mobile phones, without the need for built-in satellite communications hardware.

Since IMT-based D2D services rely on existing device capabilities, such as the current SpaceX D2D service provided to certain devices on the Telstra network, they use conventional 4G technology that is not optimised for satellite delivery. As a result, given the long distances between devices and satellites, and the dynamic nature of Low Earth Orbit (LEO) satellites, these services are currently limited to SMS (send and receive) and low-data applications such as some types of instant messaging.

Given that the intent of IMT-based D2D services is to operate in frequency bands used by terrestrial services with no allocation for satellite services in domestic or international regulations, this raises technical and regulatory considerations that are not applicable to MSS-based D2D services.

### **Regulating IMT-based D2D services**

The ACMA's technology-neutral and flexible spectrum licensing framework provides for IMT-based D2D services to operate under existing Australia-wide spectrum licences without additional approvals. These licences authorise the delivery of national terrestrial mobile broadband services by Australia's 3 mobile network operators (MNOs).

In September 2024, the ACMA published a regulatory guide to operating IMT-based D2D services in Australia.<sup>2</sup> This confirmed that these services can be deployed under existing spectrum licences. The guide provides clarity on spectrum use, interference management, and relationships between MNOs and SNOs.

This timely regulatory guidance helped underpin rapid commercial progress, with Australia's first IMT-based D2D service commencing in mid-2025 through Telstra's partnership with SpaceX Starlink. We understand that Optus and TPG Telecom are also pursuing their own plans to deploy IMT-based D2D services.

### **D2D services and UOMO**

The ACMA also has a role under the *Radiocommunications Act 1992* to consider appropriate planning, licensing and allocation of spectrum to support the UOMO. For example, we are developing a work program for 2026–27 to examine how the provision of D2D services covered by the UOMO could be facilitated in Australia's external territories, which are not currently covered by spectrum licences issued to MNOs.

We are also facilitating the effective management of potential interference from D2D services into the nationally significant Australian Radio Quiet Zone Western Australia (ARQZWA) to support radioastronomy observations using the Square-Kilometre Array (SKA). Our view is that bilateral coordination between SNOs and the CSIRO, which has responsibility for the SKA, is the best way to manage this interference, and we are working proactively with those operators to ensure coordination occurs. We plan to publish this work program in Q3 2026 and commence implementing soon after.

### **Non-terrestrial networks**

Non-terrestrial networks (NTN) is a new type of D2D standard<sup>3</sup> that is being developed by 3GPP, the international standardisation body for mobile wireless broadband technologies such as 4G, 5G and 6G. Unlike current IMT-based D2D services, NTN is a variant of 5G that is optimised for satellite delivery, enabling voice and enhanced data services (although still modest compared to terrestrial networks). Some MSS bands are already included in the NTN standard and we expect this to extend to IMT bands in coming years.

### **Spectrum allocations**

The ACMA is undertaking a range of activities to ensure that MNOs have access to spectrum to deliver on the UOMO. This includes making spectrum available that can support new NTN-based D2D services through the allocation of the 2 GHz MSS band, developing a work program to allow the MNOs to deliver the UOMO in Australia's external territories, and ensuring that our consideration of renewal of expiring spectrum licences (ESLs) supports the UOMO and other public interest factors.

### **2 GHz band**

The ACMA is currently undertaking work to allocate the 2 GHz band (1980–2010 MHz and 2170–2200 MHz) for MSS. This band has already been incorporated into the 3GPP NTN specification, establishing it within global 5G standards as a recognised band for D2D services. This creates a

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<sup>2</sup> ACMA, [Regulatory guide: Operation of an IMT satellite direct-to-mobile service](#), September 2024

<sup>3</sup> The term 'NTN' is often also used interchangeably with D2D, however in the equipment standards context it refers to a specific variant of D2D technology.

pathway for future licensees to use the band for additional D2D services covered by the UOMO in remote areas where terrestrial coverage could be less viable than satellite services. It is likely to be the frequency band used by next-generation satellite direct-to-device constellations, including on SpaceX satellites, until the 3GPP NTN standards expand to existing IMT frequency bands.

In January 2021, we announced our decision to replan the 2 GHz band for MSS, with:

- 2 x 25 MHz (1980–2005 MHz paired with 2170–2195 MHz) replanned for MSS Australia-wide under apparatus-licensing arrangements. Our preliminary view was that demand for this spectrum was likely to exceed supply, and an auction would be the most appropriate mechanism to resolve competing demand
- 2 x 5 MHz (2005–2010 MHz paired with 2195–2200 MHz) dedicated for satellite Internet of Things (IoT) and similar narrowband services to be used on a shared basis between operators. This arrangement provides spectrum access with a low barrier to entry for innovative satellite applications and will assist in growing the Australian space industry.

In Q4 2023, we started preliminary consultation with industry on draft technical design principles and preliminary views on specific allocation design issues, particularly around spectrum requirements and lot configuration. We also sought updated information on the level of demand for 2 GHz MSS spectrum to assist in determining the appropriate approach to the allocation. We also sought stakeholder views on the availability of suitable equipment for deployment of MSS in the 2 GHz band.

In Q3 2025, we completed a further consultation on allocation, licensing and technical design matters. The consultation included the following key proposals as our preferred method for conducting the allocation:

- A price-based allocation (that is, an auction), as our preliminary analysis indicated that demand for the spectrum was likely to be greater than supply.
- A requirement that, in order to participate, prospective licensees needed to have access to a sufficiently mature satellite system that could operate in the 2 GHz band to deliver services to Australia. This was to ensure that the spectrum could be put into use as soon as possible after the allocation. In practice, this would most likely mean that only SNOs could bid in the auction, and that MNOs and other telecommunications service providers would need to enter into independent commercial agreements with SNOs to access services available under the licence.
- Making 2 licences available (by dividing the available 2 x 25 MHz of spectrum into lots of 2 x 15 MHz and 2 x 10 MHz) to ensure each licence was capable of facilitating a range of possible use-cases, including D2D services. However, we sought stakeholders' views on whether other configurations would still allow a range of use-cases, including the intended use-case for a single 2 x 5 MHz lot.
- A relatively short licence duration of 5 or 10 years, to balance the evolution of the technology and market with investment certainty for operators, and the ACMA's ability to return licences to market sooner should the spectrum not be used efficiently.

#### *Next steps*

We are working through the complex issues and diverse perspectives arising from feedback from the Q3 2025 consultation and will consult again prior to a future allocation of the spectrum.

There have also been a range of developments in the satellite industry since we consulted on allocation arrangements. These include announcements of proposed mergers between satellite entities, major transactions involving spectrum and associated international regulatory filings, partnerships between SNOs and Australian MNOs to deliver services, and technological

developments. These add to the complexity of the allocation, indicating an industry adjusting to a rapid rate of technological change, and will inform our approach.

### ***Expiring spectrum licences***

Between June 2028 and October 2032, 69 of the 81 current spectrum licences will expire. These expiring spectrum licences (ESLs) cover a range of bands and are used for wireless broadband (WBB), rail safety and control communications, and television outside broadcast. These ESLs cover most of the spectrum relied on for mobile networks and the NBN and enable around 34 million mobile services to call, text and access the internet.

Under reforms made in 2020 to the *Radiocommunications Act 1992*, the ACMA, rather than the Minister for Communications, is responsible for decision-making on applications for renewal of spectrum licences.

We have [developed public interest criteria](#) to guide our consideration of the long-term public interest derived from the spectrum, and we must also have regard to Commonwealth Government communications policy objectives specified in the [Radiocommunications \(Ministerial Policy Statement – Expiring Spectrum Licences\) Instrument 2024](#) (MPS). Relevantly, one of the ACMA's public interest criteria is “supporting relevant policy objectives and priorities”, and an objective in the MPS is “facilitating opportunities for new entrants and use cases, including for low earth orbit satellites”. The potential benefits of D2D services were also a consideration in relation to other public interest criteria and policy objectives.

ESLs with national footprints, that is, those in the 700 MHz, 850 MHz and 2.5 GHz bands, are likely to be the most conducive to facilitating initial deployments of D2D services using MNO spectrum (IMT-based D2D) as mentioned above. The 2.5 GHz band is already being used for this purpose under the Telstra/SpaceX partnership.

In December 2025, the ACMA released its preferred views on outcomes for ESLs, indicating a preference to renew licences for MNOs. These views will act as a policy and decision-making framework for assessing ESL renewal applications. Our preferred views include that renewal of ESLs used for mobile phone services is likely to promote the long-term public interest. These preferred views have the capacity to support implementation of UOMO, as they allow MNOs to retain their licences that are currently being used for D2D services, and which are also candidate bands for further deployments of these services.

### **Standards, rules and benchmarks for mobile telecommunication services**

The ACMA supports the empowerment of the Minister to make telecommunications service standards, rules and benchmarks that apply to carriers and carriage service providers in relation to mobile telecommunication services. Almost all Australians (98 per cent<sup>4</sup>) use mobile technology for their communications, and many depend on it as their only form of connectivity. With approximately 78 per cent<sup>5</sup> of emergency calls originating from mobile phones, the ability to set minimum enforceable requirements for the provision of this service at both a wholesale and retail level is an important evolution in modernising Australia's telecommunications regulatory framework.

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<sup>4</sup> ACMA, [Communications and media in Australia series: How we communicate Executive summary and key findings](#), February 2026

<sup>5</sup> Department of Home Affairs, [Advanced Mobile Location \(AML\)](#), July 2025

### **Implementation and ongoing regulatory engagement**

The ACMA supports the policy intent of the Bill and considers that the proposed framework represents a significant and welcome step in modernising Australia's universal service arrangements to reflect contemporary telecommunications usage and community expectations. The ACMA will continue to engage with the Government, industry participants and consumer groups to support the effective implementation of the UOMO and associated regulatory arrangements in a way that promotes connectivity, safeguards consumers and supports innovation across the telecommunications sector.

I trust this information is of assistance to the Committee.

Yours sincerely



Nerida O'Loughlin PSM

15 April 2026