17 October 2025

AMTA
Australian Mobile Telecommunications Association

Submission to Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts

AMTA submission on Draft legislation to support Universal Outdoor Mobile Obligation (UOMO)

[redacted]
Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts
GPO Box 594
Canberra ACT 2601

Via: 'Have your say' web portal

17 October 2025

Dear [redacted],

The Australian Mobile Telecommunications Association (AMTA) welcomes the opportunity to provide this submission in response to the consultation on Universal Outdoor Mobile Obligation (UOMO).

If you have any queries or comments in relation to the content of our submission, please contact [redacted], Head of Spectrum and Network Infrastructure on [redacted]

About AMTA

The AMTA is the peak industry body of Australia's mobile telecommunications industry. Our purpose is to be the trusted voice of industry, promoting the adoption, monetisation and sustainability of mobile telecommunications technology for the benefit of all Australians.

AMTA members include the mobile network service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry.

Summary

The mobile industry is critical to the proper functioning of a modern Australian society and economy that are highly dependent upon digital mobile communications. There are over 30 million mobile devices active in Australia today that help to meet the daily connectivity needs of Australian citizens and businesses. AMTA supports the Government's commitment to modernise the universal service framework.

Such reform opens the prospect of realising a productivity and social dividend by removing costly legacy universal service arrangements that are no longer fit for purpose but have acted as a dead weight on regional investment for so long.

However, AMTA notes that this Bill is not designed to do the heavy lifting of reform. Rather it seeks to expand the existing universal service framework to cover mobile services and to mandate a significant expansion of mobile coverage through the UOMO.

As currently presented, the Bill raises significant potential risks to a sector that is subject to intense cost pressure and is responding to several new and significant regulatory requirements. It is critical for these risks to be addressed or mitigated to ensure UOMO is set up for long-term success and

delivers its anticipated public benefits. Failure to do so risks UOMO simply becoming an extension of the legacy universal policy arrangements that are widely acknowledged as not being fit for purpose.

AMTA makes the following recommendations for Government to consider before the legislation is introduced into Parliament.

- Consultation on the draft legislation is paused, and a more detailed industry consultation is undertaken to consider the fuller implications of the UOMO, including the fundamental changes to longstanding policy concepts, costs and benefits, the customer value proposition and reliance on overseas LEOsat providers.
- Given the importance of the Direct to Device (D2D) LEOsat technology in the delivery of universal outdoor mobile coverage, obligations should be applied to the providers of those services. Failure to do so will create unacceptable commercial, operational and legal risks for the mobile operators and will undermine the viability of UOMO.
- Additional checks and balances are required on the broad powers that are conferred on the Minister to make future determinations.
- Further clarification is required on whether and how Triple Zero obligations will apply to services carried over the D2D LEOsat technology.
- Government should expedite reform of the legacy universal service obligations so that the UOMO can take its place within a modern and fit for purpose universal service framework that is sustainable over the long term.
- Further consideration is required on the complexities of meeting UOMO with a D2D solution given the complexity of delivery due to technology maturity, spectrum suitability and timing.

Broader consultation is required

AMTA notes that the UOMO involves some fundamental changes to longstanding policy concepts around the delivery of universal service that will have wide ranging implications for MNOs, LEOsat providers and consumers. But at the time the policy was announced, and since, the government has not consulted with industry on the proposed arrangements.

This Bill is being presented for industry comment now in the absence of such a fuller consultation particularly on the implications of introducing a UOMO that mandates the provision of service coverage over the entirety of the Australian continent. This is a significant oversight and creates the risk that policy is being designed and implemented without the consequences being fully assessed.

Of specific concern is the fact that UOMO essentially involves the regulation of a service that has very limited commercial application today and is dependent for its delivery on third party providers with limited history in the Australian market. This raises several important issues for further consideration. A number of these issues are discussed further below.

Reliance on third parties

The three mobile network operators (MNOs), Telstra, TPG Telecom and Optus have been designated as the Primary Universal Outdoor Mobile Providers (PUOMPs) under the draft Bill. Given the designated service is the provision of mobile voice and text services it can be expected that they are unlikely to have difficulty meeting the UOMO requirements across their primary networks today subject to any changes in expectations about the quality of service and resiliency of their networks.

However, this cannot be assumed for the broader coverage requirements. Outside of the mobile network footprint the PUOMPs ability to meet their obligations is dependent on third party suppliers of the D2D services they will need to access to provide coverage over an additional 5 million square kilometres of the Australian continent. This is acknowledged in the Explanatory Information paper. It is also acknowledged in the paper that LEOsat D2D is an emerging technology with very limited commercial applications or use today. Whilst there is justifiable optimism about the potential for the service, especially given the success of fixed broadband LEOsat services, it remains unproven and there are many aspects of the D2D technology that are unknown. The MNOs will be carrying the risk associated with these uncertainties.

Costs and pricing

AMTA also notes that the obligations to expand mobile coverage Australia wide, including the very remote areas and across difficult terrains as well as uplifting service standards will likely require significant new investment in infrastructure, spectrum, technology and operational support systems. However, no cost benefit analysis has been undertaken to assess the costs to MNOs of meeting the obligations. Further, no consideration has been given to the price implications of these costs on services and consumers and whether government funding is likely to be required to help PUOMPs meet affordability expectations.

Similarly, the Bill introduces the concept of “equity”, but it is unclear how this will be determined and what implications this will have for different consumer groups and the PUOMPs. Questions that ought to be considered in this regard include governments expectations around the usage and pricing of services on the D2D technology. Roaming on LEOsat technology in remote parts of Australia is likely to be more costly than standard voice and text services.

Devices

Equally there are questions about the availability and cost of handsets that are compatible with D2D services. Whilst current D2D services are understood to be backward compatible with some existing high-end smartphones, this is unlikely to be the case for all the many variants of handsets. As a consequence, many customers may need to upgrade their handset to access the extended coverage. The recent 3G switch-off demonstrated the complexities of encouraging customers to upgrade handsets. Again, further consideration of the implications of this issue is required, and this is further explored in the section on devices in the Appendix.

LEOsat providers

Whilst there are currently several potential LEOsat service providers in Australia (all of which are based overseas and apply global business models), there is no guarantee which, if any, of the providers will stay the course in Australia. Given the history of telecommunications in Australia, it is likely that the market can only support one or two providers at most. Such reliance on overseas entities for the delivery of essential services in Australia also raises potentially important sovereign risk issues. But again, these issues have not been considered.

In summary, whilst the concept of the UOMO is clear, important issues that will impact the successful implementation of the policy need further consideration. AMTA recommends that the draft Bill is paused whilst targeted industry consultation is undertaken to address some of these issues. This would help to clarify these threshold questions about the new arrangements and enable the Bill to be modified accordingly. Whilst AMTA is confident that such a consultation can be accommodated without having to change the default commencement date for UOMO, ensuring the policy is sustainable is far preferable than expediting flawed policy.

Obligation rests with Mobile Network Operators but solution rests with third parties

As noted earlier, underpinning the UOMO is the expectation that whilst PUOMPs will use their existing mobile infrastructure to meet the obligations within the current mobile footprint, outside of this they will need to access the emerging D2D technology provided by third party LEOsat operators.

Whilst it is acknowledged in the Explanatory Information paper that LEOsat providers will be fundamental to PUOMPS meeting the UOMO outside of their existing mobile networks, the Bill is silent on the LEOsat providers and D2D technology. As currently framed, the draft UOMO Bill creates open-ended commercial and operational risk for PUOMPs that may undermine the viability of the policy.

Specifically, the obligations fall solely to the PUOMPs to provide expanded coverage in reliance on services provided by third party LEOsat providers. This creates significant bargaining asymmetries in favour of LEOsat providers to dictate commercial terms. LEOsat providers have no legal obligation to provide a service that meets the price or service expectations of the UOMO or to even provide a service at all. PUOMPs may have little if any ability to negotiate acceptable terms and will essentially be price takers at the behest of the large global LEOsat providers.

This is brought into sharper focus by the fact that the Bill confers powers on the Minister to set various standards relating to UOMO services, including the terms and condition of supply, prices, reliability, quality of service, benchmarks etc. Whilst MNO's will have an ability to ensure UOMO services carried over their networks can meet these standards they may have no such ability to ensure that the underlying D2D services are designed and delivered to do so over time. It raises the prospect of PUOMPs being subject to enforcement action for breaching UOMO when the wholesale input might not meet or be capable of meeting those requirements. Equally the wholesale input

service might be changed overtime at the discretion of the LEOsat provider such that a compliant service becomes non-compliant.

This creates substantial commercial, operational and regulatory risk for the PUOMPs and represents a fundamental flaw in the construct of the Bill that should be addressed. AMTA recommends that the Bill is amended to either:

- Create a regulatory power for the Minister to ensure that obligations on MNOs flow through to the LEOsat providers (for example, power to enable the Minister to designate LEOsat providers as whole PUOMPs and the power to set matching wholesale standards); or

- The application of the UOMO obligation outside of an MNO's existing mobile network is made conditional on having access to a D2D service on commercial terms that will enable an MNO to meet its UOMO.

AMTA recommends that the first option above is preferable as it would provide the most certainty that D2D services will be designed to be complaint with the UOMO requirements.

Regulatory framework

The Explanatory Information paper to the Bill acknowledges that there will be differing capabilities between D2D s and terrestrial services and that capabilities of the LEOsat services will emerge over time. Accordingly, the Bill provides extensive powers for the Minister to determine future matters relating to the delivery of UOMO. This includes the ability to:

- Amend the expected start date;
- Add services to the UOMO as the LEOsat technology develops;
- Designate additional PUOMPs;
- Set standards for the supply of the service.

Given that LEOsat technology is only now emerging it is understandable that many matters cannot be defined today and that the establishment of a power is required to enable these matters to be settled in the future. However, AMTA is concerned with the broad nature of the discretion that the Bill gives to the Minister, with limited checks and balances on the exercise of those powers. This creates significant risk and uncertainty for the sector.

AMTA recommends that where a power is conferred on the Minister to make future determinations it should be subject to a number of reasonable checks and balances, such as the requirement for industry consultation and seeking advice from an appropriate regulator. This should help to ensure that the exercise of Ministerial power is reasonable and consistent with the public interest.

AMTA considers that the following Ministerial powers create a greater level of risk and, therefore, warrant a different approach.

Commencement date

The Bill allows the Minister to bring forward the commencement date for UOMO from the default date of 1 December 2028. Given that the D2D technology is only emerging, has limited commercial take-up, and there are key technical considerations to be resolved, it is not clear why this power is required nor whether industry is likely to be able to meet obligations prior to this date. AMTA recommends that this power is not required and the provision should be removed from the Bill.

Power to set prices

The Bill confers on the Minister the ability to set the terms and conditions of supply of a designated service, including price or the method of ascertaining price. Given that the designated service includes basic mobile voice and text messages, this effectively gives the Minister broad discretion over the future pricing for the delivery of commercial mobile services. Such a power is unprecedented and unwarranted. Prices for mobile voice and text services are set commercially by mobile operators that are subject to strong competition.

AMTA anticipates that government's objective in respect of this power might be a concern to ensure the affordability and equity of pricing of services, particularly those delivered over D2D technology (for which the cost is unknown today). Rather than confer a broad power for the Minister to set prices, this could be better addressed by a more targeted power that focuses on the specific consumer protection need the government believes may arise. Such a power would also be better exercised by an independent regulator with experience in setting prices, such as the ACCC.

AMTA recommends that this provision is removed and replaced with a power for the Minister to request the ACCC to set a price methodology for a designated service provided over D2D technology. In the exercise of that power the ACCC should have regard to certain specified criteria, including the retail and wholesale costs of supply, affordability, advice from the ACCC and having undertaken consultation with industry.

Such an approach will also ensure that MNOs can reasonably pass through the costs that will be imposed on them by the LEOsat operators for a D2D service. AMTA also recommends that the Minister is given a similar power to set a wholesale price methodology since this would help to ensure that costs and prices are fair and reasonable.

Emergency service obligations

The Explanatory Information paper makes it clear that the Bill makes no reference to the provision of Triple Zero services as the obligation to supply these are established in the Emergency Call service Determination. It is unclear whether an implication of this is that the Triple Zero obligations will apply in the extended coverage areas that are supported by the D2D services.

This is an important issue that requires clarification. If it is expected that the full range of obligations under Triple Zero apply to D2D delivered services, then further consideration is required on the capability of D2D technology to meet these obligations. This should include consideration of the ability for "camp-on" arrangements to apply, especially in circumstances where there may only be one LEOsat provider offering commercial services. It should also consider the ability of MNOs to meet the various Triple Zero information obligations that may now rely in part on third party supply arrangements.

Consideration should also be given to setting appropriate customer expectations around the availability of emergency calling, given the service limitations of the D2D service, such as requiring line of sight, no inbuilding coverage and likely handset requirements.

Spectrum

The Explanatory Information paper notes that the Bill makes no specific reference to the provision of spectrum aspects of UOMO and that the Minister has asked ACMA to consider these separately when it uses its powers under the Radiocommunications Act.

AMTA notes that there are emerging spectrum issues that will impact the successful implementation of UOMO. This includes continued access to expiring spectrum licences by the PUOMPs, the availability of additional low band spectrum, and access to mobile satellite service (MSS) spectrum band. These issues are discussed in greater detail in a **technical appendix** to this submission.

A critical point AMTA would like to highlight is that MNOs should be allowed to bid for the MSS spectrum. The ability for MNOs to acquire such spectrum may help in part to address concerns about the asymmetry of bargaining power for access to D2D services. Nevertheless, AMTA has taken the opportunity to highlight in the Appendix to this submission, certain spectrum issues that must be considered in the successful operation of UOMO.

Reform of the legacy universal service arrangements should be expedited

The legacy telecommunications universal service obligation (USO) has been subject to several detailed reviews over the decades. Whilst consumers value the concept of universal connectivity, in practice few now rely on the service, and many criticise it for what it doesn't offer. It is seen as archaic, delivering little for the people and businesses which require broadband and mobile communications. Reflecting these criticisms, successive governments have developed programs to augment the USO and address modern needs. This has resulted in the overall costs of universal service delivery exceeding $1 Billion annually[1], an expense ultimately worn by taxpayers and consumers.

Industry has also long voiced concerns that the USO distorts competition and acts as brake on regional investment. Put simply, notwithstanding the significant cost the legacy universal service delivers little value for consumers, industry and taxpayers.

The need to overhaul the legacy universal service is not in dispute. After an extensive review, in 2017 the Productivity Commission concluded that it was not only "not fit for purpose" but was no longer needed since the vast majority (more than 99 per cent) of premises have access to superior services over the NBN or mobile networks. More recently, in March 2024 Minister Rowland noted the need for reform: "*As far back as 2015, I said the USO needs to respond to changes brought on by the roll out of the NBN. While the USO is here to stay, our Government wants to ensure it is fit-for-purpose and encompasses new and emerging technologies like quality fibre connections and satellite services".* Similarly, the most recent Regional Telecommunications Review recommended that government "expedite modernising the USO".

In announcing that it would establish the UOMO, the Government noted that this would be the first step towards modernising the universal service framework. This was reiterated in the Government's response to the Regional Telecommunications Review in September 2025, noting that UOMO is not a *"silver bullet"* and that Government is *"considering potential approaches to improve delivery and funding of baseline fixed services provided to homes and businesses".*

These public commitments to reform by the government are welcome since the legacy universal service is costly and acts as an unproductive tax on the sector with limited public benefit.

Ideally a reform of the legacy universal service arrangements would precede the introduction of the UOMO, since it would address the most urgent issue of delivering better solutions for the relatively small number of customers in remote locations that continue to rely on Telstra's copper continuity obligation. It would also remove the significant unproductive cost burden on industry of these legacy

[1] Telecommunications Universal Service Obligation Productivity Commission Inquiry Report April 2017, page 6 and 111

arrangements, thereby assisting mobile operators in meeting the UOMO and future investment requirements, including for the AI productivity revolution that is ultimately dependant on capacity in telecommunications networks.

AMTA urges government to expedite the reform of the legacy universal service arrangements, which should be implemented ahead of the commencement of the UOMO obligation. Failure to do so will mean the productive benefits of such reform are not realised and UOMO will simply add to the cost burden of the sector.

Appendix

Spectrum

National Spectrum Licences

The interference management framework for spectrum licences is predicated on the deployment of terrestrial mobile networks and how these interact with adjacent spectrum users. As there is no consideration of space-based emissions, AMTA members agree with the ACMA's guidance that "the operation of an IMT satellite direct-to-mobile service would likely only be practical under an Australia-wide spectrum licence."[2]

The Australian Spectrum framework currently provides national licences in the low band, 700 MHz, 850 MHz and 900 MHz Bands, and in the midband 2.5 GHz band. Only Telstra and Optus hold 2.5 GHz band licences.

Radio Astronomy

The CSIRO have submitted papers to the ACMA via the Satellite direct-to-mobile services: regulatory issues consultation[3] and the Expiring spectrum licences (stage 3) – preliminary views[4] outlining the impacts of D2D services to their ability to operate and host radio astronomy. AMTA members agree with the technical assertions in these papers. AMTA has summarised the CSIRO views per IMT band as:

- Low band (700 MHz, 850 MHz and 900 MHz Bands): These bands are currently used by the CSIRO's ASKAP (Australian Square Kilometre Array Pathfinder) Telescope in the Radio Quiet Zone and any use of D2D in these bands would demonstrably reduce the ability of the ASKAP to service the scientific community.
- Midband 2.5 GHz Band: This band is currently in operation via the Telstra/ SpaceX commercial deal and collaborative mitigation work has been undertaken by CSIRO, Telstra and SpaceX. The CSIRO's view is that whilst the mitigation efforts are somewhat effective in the lower portion of the band, the upper portion remains problematic.
- 1800 MHz and 2 GHz: The 1800 MHz band currently presents limited radio astronomy utility due to existing terrestrial mobile service deployments. CSIRO supports national licence conversion with the aim of moving IMT D2D into these bands.

The 2 GHz MSS Band offers an alternative to the IMT bands. The 2 GHz MSS Band was identified in the European Union's Decision ECC/DEC/(06)09 in 2006 to prepare the band for future use of satellite communication services. As this is a native 3GPP NTN solution, it does not pose the same risks to radio astronomy as the other IMT bands.

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2 https://www.acma.gov.au/publications/2024-09/guide/regulatory-guide-operation-imt-satellite-direct-mobile-service p4

3 https://www.acma.gov.au/consultations/2023-11/satellite-direct-mobile-services-regulatory-issues

4 https://www.acma.gov.au/consultations/2025-04/expiring-spectrum-licences-stage-3-preliminary-views CSIRO input to review of expiring spectrum licences (Stage 3)

Vendor Support and Timeframes

AMTA notes that of the small number of LEOsat vendors currently operating, band support and timing vary. These present their own constraints and challenges in the delivery of the UOMO as envisaged in the proposed Bill.

By way of example, AST currently supports only low band solutions and SpaceX currently supports midband solutions.

MNO Issues

To enable the provision of IMT D2D services, MNOs must remove IMT spectrum from their terrestrial networks. This will have the effect of negatively impacting customer experience for terrestrially delivered services as the available spectrum is reduced to support UOMO. It is also noteworthy that as more capability is required on UOMO, the more spectrum will need to be removed from the terrestrial networks, further eroding customer experience for terrestrially delivered services.

The technical solutions to deliver D2D are complex and the timeframes uncertain, therefore it is important that multiple options remain viable so that Australians can continue to benefit from the long-term advantages of both terrestrial and non-terrestrial services.

AMTA's members view is that the D2D solution will need to evolve as global standards, vendor, device and regulatory frameworks change.

To assist and facilitate the delivery of UOMO in the draft Bill, AMTA members suggest that the Department engages the ACMA as soon as possible to consider the possibilities of:

- Conversion of the 1800 MHz Band to national licences to support D2D delivery; and
- Allocate the 2 GHz MSS Band to terrestrial operators as the obligation to deliver UOMO is squarely placed on the PUOMPs and not the LEOsat service providers

Standards

Today, NR-NTN standards only support MSS spectrum bands rather than IMT terrestrial spectrum bands. The MSS bands currently specified by 3GPP are set out in Table 1 below.

REL	WI	NR band	Uplink (UL) operating band Satellite Access Node receive / UE transmit $F_{UL,low}$ – $F_{UL,high}$	Downlink (DL) operating band Satellite Access Node transmit / UE receive $F_{DL,low}$ – $F_{DL,high}$	Remarks
REL-17	NR_NTN_solutions	n256	1980 – 2010 MHz	2170 – 2200 MHz	FR1, FDD, S-band
REL-17	NR_NTN_solutions	n255	1626.5 – 1660.5MHz	1525 – 1559 MHz	FR1, FDD L-band
REL-18	NR_NTN_LSband	n254	1610 – 1626.5MHz	2483.5 – 2500MHz	FR1, FDD, LS-band
REL-18	NR_NTN_enh	n512*, n511*, n510*	27.5 – 30.0GHz 28.35 – 30.0GHz 27.5 – 28.35GHz	17.3 -20.2GHz 17.3 -20.2GHz 17.3 -20.2GHz	FR2, FDD, Ka-band

Table 1: A list of 3GPP NR NTN bands specified in TS 38.101-5[5]

In Australia, the 2 GHz MSS band is currently the only band that will become available for NR-NTN use, because bands n254 and n255 are already allocated and in use (largely to Inmarsat and

[5] TS 38.101-5, User Equipment (UE) radio transmission and reception; Part 5: Satellite access Radio Frequency (RF) and performance requirements. Ver 18.5.0, May 2024. Available at: https://www.etsi.org/deliver/etsi_ts/138100_138199/13810105/18.05.00_60/ts_13810105v180500p.pdf

Globalstar for legacy satellite phone services) and bands n510, n511 and n512 are Ka bands intended for fixed satellite services (FSS). This leaves the n256 band as the only lightly encumbered[6] band suitable for future use with NR-NTN.

Devices

Due to constraints on available spectrum for LEO D2D, it is unlikely to be possible to simultaneously run 4G and 5G satellite networks. It is understood that D2D Voice will most likely only be available on bands that have been standardised for NR-NTN capability, while SMS services are possible under 4G (LTE) operating over LEO satellites.

If a UOMO SMS service is designated before SMS over NR-NTN is available, consumers will no doubt acquire handsets capable of 4G D2D SMS in the expectation that they will have access to the benefits of that Government-mandated service for the lifetime of that handset. However, if UOMO service providers (PUOMPs) have to withdraw 4G satellite services to free up spectrum to deliver UOMO Voice, customers with handsets capable of accessing the UOMO SMS service will need to replace (upgrade) their handset to retain access to the UOMO SMS service (because it D2D SMS is delivered over NR-NTN standards).

This is directly analogous to closure of 3G networks in 2024, where consumers who did not have a device capable of accessing 4G had to upgrade their devices.

Commencement (declaration) of a UOMO SMS Service ahead of commencement of a UOMO Voice Service, where the UOMO SMS Service is delivered using 4G capability over LEO Satellite risks a very poor customer experience, akin to 3G closure, that could force consumers to upgrade their phones to retain access to the UOMO SMS Service.

[6] As of 1 March 2026 onwards when TOB services in the band must cease. Excluding the grandfathered point-to-point links and the 2 x 5 MHz shared narrowband MSS allotment.

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