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Department of Infrastructure, Transport,
Regional Development, Communications and the Arts

Better delivery of universal services

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Introduction

The Government is seeking stakeholder input on ways to better deliver baseline universal telecommunication services.

On 27 October 2023, the Minister for Communications, the Hon Michelle Rowland MP, announced a consultation process to consider options for better delivery of telecommunications universal voice services. The Australian Government has an existing framework in place to provide people across Australia with access to baseline fixed voice and broadband services.

- The Universal Service Obligation (USO) is a long-standing regulatory requirement on Telstra, as the statutory primary universal service provider, to supply fixed voice services and payphones to people nationally on reasonable request. Telstra provides the majority of USO services over the National Broadband Network (NBN) using NBN Co's fixed line technology, however it continues to deliver USO voice services over copper and other legacy networks in regional and remote areas.
- Access to fixed broadband is supported by the Statutory Infrastructure Provider (SIP) regime, which provides that NBN Co and other similar providers connect premises to their networks and supply wholesale services that allow retail providers to provide broadband services with peak download and upload speeds of at least 25/5 megabits per second (Mbps).

It is essential that a modern universal service framework delivers telecommunications services that are reliable, robust and able to meet the needs and expectations of consumers, particularly for those in regional and remote areas. Accordingly, the Government is commencing a process to seek views on what services a modern universal service framework should cover and the best way to deliver those services. A key principle for Government is that any change to existing arrangements will only be considered if there are tested and proven alternatives to existing technologies and services.

While in recent years there have been reviews and other work undertaken to examine potential ways to deliver voice services over existing or newer and forward-looking technologies¹, there have also been some stakeholder concerns about the quality, reliability, redundancy and likely cost of alternative solutions, as well as the ongoing expense of maintaining the copper network in regional and remote areas.

The Government is aware that the market, technology and consumer expectations have evolved since voice services were last considered in detail. In particular, the Government's recent \$480 million investment to extend and improve NBN Co's fixed wireless network offers a pathway to provide better services to tens of thousands of consumers, while expansion of existing terrestrial mobile coverage continues to be supported through significant co-investment between Government and industry. Further, emerging technologies such as Low Earth Orbit satellite (LEOSat) networks are already providing new opportunities, with further developments expected in coming years. At the same time, consumer preferences are evolving, with many Australians increasingly relying on mobile and high-speed broadband services as their primary telecommunications services (with voice services often provided over broadband networks).

To provide time for all stakeholders to have their say, there will be a number of stages of consultation. In parallel, technical trials will be undertaken to obtain data about the real-world performance of potential alternative services. Further consultation would be expected on issues such as regulatory safeguards, in the event that potential changes are identified through the initial consultation phase.

¹ This includes the 2015, 2018 and 2021 regional telecommunications reviews, and in 2017, a public inquiry by the Productivity Commission and an Australian National Audit Office audit of administration of USO contractual arrangements. Further, over the past seven to eight years, key consumer groups such as the Australian Communications Consumer Action Network and the Regional, Rural and Remote Communications Coalition have consistently highlighted through their policy priorities that universal service arrangements should be examined and modernised.

Table 1: Key steps

Key step	Timeframe	Lead/responsibility
Initial consultation on key elements of a modern universal service framework	October 2023 - March 2024	Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA)
Regional Telecommunications Review (RTR) – provide advice and input to support Government consideration of universal services	Throughout 2024	Independent Committee established by the Government
Consultation on funding arrangements that underpin delivery of universal services, incorporating the statutory review of the Regional Broadband Scheme	February - April 2024	DITRDCA
Technical trials of alternative technologies	From early 2024	DITRDCA
Summary report on stakeholder feedback	July 2024	DITRDCA

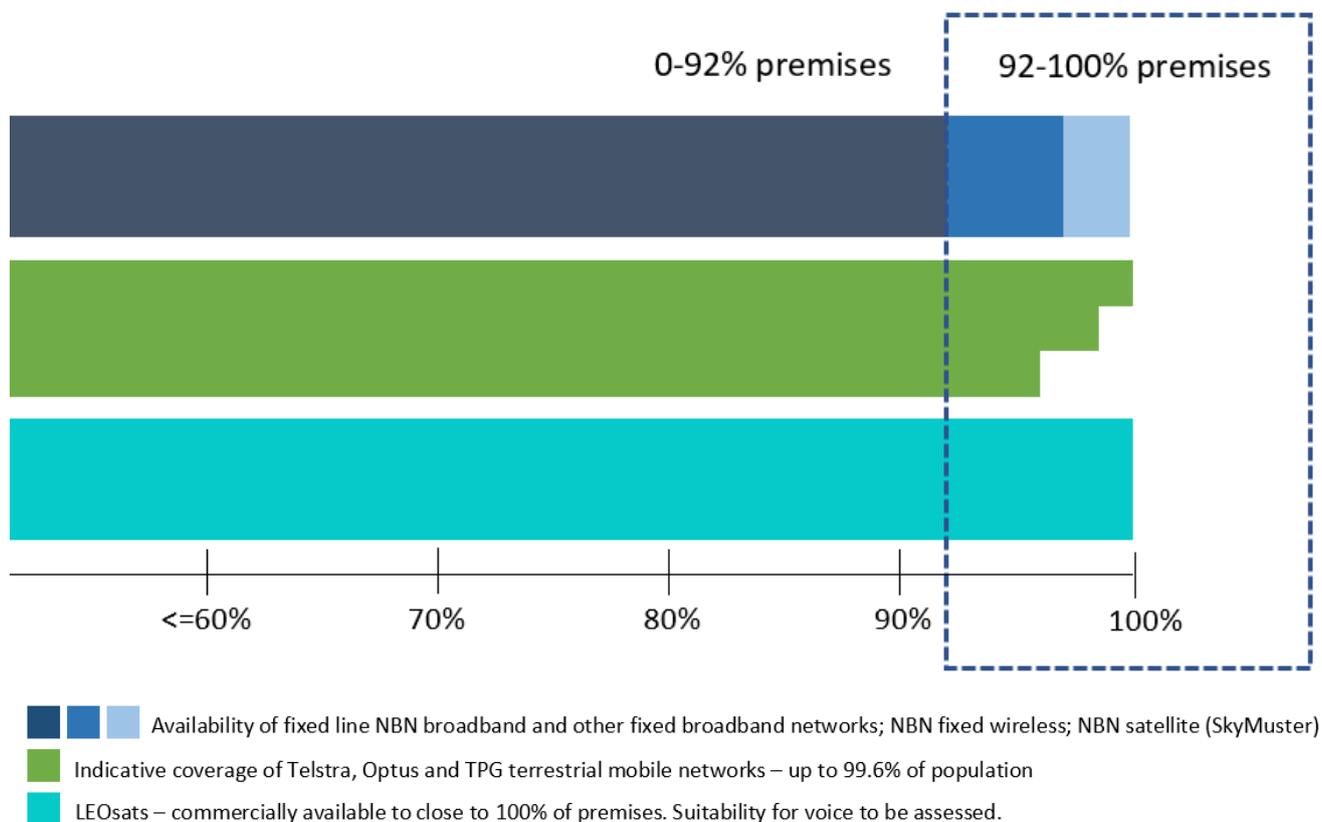
Specific input on the issues raised in this paper is sought by 5pm, **Friday 1 March 2024**. The Department is also interested in meeting stakeholders throughout the process to better understand their views. Please reach out if you would like to arrange a time to talk to the Department about the process, or provide your views. Submissions or requests to meet with the department can be emailed to usb@infrastructure.gov.au.

The Department would also appreciate early feedback or discussion with interested stakeholders before the end of 2023 if they have views on service characteristics that should be assessed, or other issues that should be considered as part of setting up technical trials of alternative technologies referenced in the table above.

Background

Availability of telecommunications networks

Telecommunications services in Australia are delivered over a number of different networks. The majority of fixed services are delivered over the NBN. NBN Co's fixed line network, which can service around 11.5 million premises nationally (around 92% of NBN Co's total network), supports quality voice calls. In these areas, Telstra uses the NBN fixed line broadband network to deliver the majority of USO voice services. Outside the fixed line network, NBN Co's fixed wireless and satellite networks are available to around 1.1 million premises, typically in regional and remote areas. NBN fixed wireless and satellite are not currently used to deliver USO voice services. Instead, Telstra continues to use its own legacy networks to provide around 300,000 USO voice services as of September 2023, mostly over its copper network (reflecting contractual arrangements to continue to maintain that network to supply voice service). Telstra also supplies a proportion of voice services using radio, mobile and satellite technologies. Telstra's legacy networks can generally only support voice calls, although lower-speed ADSL broadband services are available to some regional and remote premises on a commercial basis.

Figure 1: Indicative network availability outside the NBN fixed line footprint (end 2024)

As Figure 1 above shows, by the end of 2024 many regional and remote premises will have access to the expanded NBN fixed wireless network that will provide access to faster broadband (including the option of supporting quality voice services). While mobile coverage is not uniform, alongside fixed networks, many regional and remote premises have the option of accessing mobile voice (and data) services from one or more of the three competing terrestrial networks. LEOsats are currently commercially available to close to 100% of premises in Australia, and subject to validation and testing through technical trials, may be a viable future solution to support voice services for those outside the current fixed line footprint.

Current universal service framework

Policy context

In Australia, most telecommunications services are supplied on a commercial basis in a competitive market. However, it has long been recognised that industry may lack sufficient incentives to service non-commercial areas, particularly in more remote and less-populated areas, given the relatively high costs of providing and supporting those services and the limited revenue available. As a result, safeguards such as the USO for voice and SIP laws for broadband are in place so that people across Australia, including in non-commercial areas, can choose to access baseline fixed services at their premises.

The Government has supplemented investment in universal service delivery through tailored investments in regional connectivity, totalling \$2.2 billion over five years. The [Better Connectivity Plan for Regional and Rural Australia \(Better Connectivity Plan\)](#) – a key part of this investment – is providing \$1.1 billion to regional and rural communities. This includes \$480 million towards NBN Co's Fixed Wireless and Satellite Upgrade Program, which is rolling out the latest 4G and 5G wireless technology to expand coverage of the NBN fixed wireless network from existing towers. By the end of 2024, this upgrade will see 120,000 additional premises able to access NBN fixed wireless services instead of NBN Sky Muster satellite services. This will improve

service quality and speeds in the expanded NBN fixed wireless footprint, but also service quality and products available on the NBN satellite network by reducing congestion.

Under the Better Connectivity Plan, the Government has also invested in the expansion of mobile coverage and regional connectivity through targeted funding initiatives, such as the [Mobile Black Spot Program](#) and [Regional Connectivity Program](#). These investments are supporting the supply of alternative services in areas where Telstra is also still required to maintain copper to support USO voice services. At the same time, the Government is continuing to invest in upgrades to NBN Co's fixed line network which will deliver high-speed NBN broadband, including to up to 660,000 regional homes and businesses.

Fixed voice services

The USO ensures that fixed standard telephone services (STS) and payphones are accessible to all people in Australia regardless of where they reside or carry on business. The fundamental USO requirement is set out in the *Telecommunications (Consumer Protection and Service Standards) Act 1999* (the TCPSS Act). Telstra is the designated universal service provider and has a statutory obligation to provide access to STS and payphones on reasonable request nationally on an equitable basis. These regulated retail obligations are supported by a contract between Telstra and the Commonwealth, the Telstra Universal Service Obligation Performance Agreement (TUSOPA), that commenced on 1 July 2012² and expires on 30 June 2032. Under the TUSOPA, Telstra is paid \$230 million per annum for the supply of STS and \$40 million per annum for the supply of payphone services. The contract also contains the copper continuity obligation, which requires Telstra to maintain copper services to supply voice services outside the fixed line footprint of the NBN that were in operation on 1 July 2012.

Payments to Telstra under the TUSOPA are funded in part through the [Telecommunications Industry Levy](#) (TIL). This requires eligible carriers to contribute towards the cost of the USO and other contracts and grants³ entered into under the TCPSS Act. Each year, the Department determines the Overall Levy Target Amount (OLTA) that needs to be collected from eligible carriers (those with eligible revenue of at least \$25 million). This is based on the expenditure on public interest telecommunications services delivered by contracts and grants in the previous financial year, plus associated administrative costs, less an annual Government appropriation of \$100 million. Contributions of individual eligible carriers are then determined by the Australian Communications and Media Authority (ACMA), based on an assessment of their relative contributions to overall industry eligible revenue for the previous financial year. Telstra currently contributes around 50% of TIL funds.

Access to fixed STS under the USO is also supplemented by a number of additional safeguards. The [Customer Service Guarantee](#) (CSG) sets timeframes and associated benchmarks for connection, repair and appointment-keeping for fixed STS. Where Telstra or another retail provider supplies CSG services, it must meet specified maximum timeframes or otherwise pay compensation to customers, unless an interim or alternative service is offered. Telstra is required to offer CSG services given its USO requirements, but other providers typically require new voice customers to waive their CSG rights. Providers that provide more than 100,000 CSG-eligible services (currently Telstra and Optus) are also required to meet 90% performance benchmarks in relation to the CSG timeframes and submit annual compliance reports to the ACMA. Telstra's level of compliance with CSG standards and benchmarks (and with payphone safeguards detailed below) is an important part of the Government's assessment of Telstra's performance in providing USO services under the TUSOPA. The Government recently reviewed sunseting CSG instruments and decided to roll over the existing

² The agreement was originally called the Telecommunications Universal Service Management Agency (TUSMA) Agreement. The TUSMA was a separate agency that was established from 1 July 2012, but ceased operations from 1 July 2015 as its functions and staff transferred to what is now the Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

³ More detail on TIL arrangements is available on the [Department's website](#).

arrangements with minimal changes for a further three years. If there are significant changes to universal service arrangements following this consultation process, it is expected that the ongoing suitability of the CSG will need to be further considered.

Telstra is also required to offer [Priority Assistance](#) to households with people diagnosed with a life-threatening medical condition. Telstra must endeavour to connect and repair voice services for Priority Assistance services in shorter timeframes than required by the CSG, and test services of Priority Assistance customers that have experienced repeated faults. These arrangements are only in place to support the connection and repair of fixed STS (not mobile or broadband services).

Specific carrier licence conditions imposed on Telstra require it to monitor service availability and faults, and remediate poorly performing voice services, under the Network Reliability Framework. Under further carrier licence conditions made in 2021, Telstra is also required to report on key metrics relating to the supply of voice services, primarily in regional and remote areas outside the NBN fixed line footprint. Telstra's public reports are available on its [website](#).

USO payphones

Beyond providing fixed connections to individual premises on reasonable request, USO arrangements also require Telstra to supply, install and maintain USO payphones nationally. Payphones have historically provided alternative and publicly accessible communications options, including to areas outside mobile coverage, recognising not all consumers may be able to access or afford a fixed service at their home or business. They remain of particular importance to more vulnerable members of the community. Telstra currently maintains around 14,500 USO payphones nationally. Broadly, the number and usage of payphones had been in decline for a number of years, but usage has now increased following Telstra's commercial decision to make all local and national calls from USO payphones free of charge from 3 August 2021. This has seen average calls from payphones increasing from approximately 7 million calls in FY2020-21 to around 23 million calls⁴ in FY2022-23. Despite the net overall increase in calls from payphones, usage of individual payphones is variable, depending on where payphones are located and the community's demand.

Telstra's provision of USO payphones is subject to regulatory safeguards to help ensure that it provides an appropriate quality of service and meets accessibility requirements. The [Telecommunications \(Payphones\) Determination 2022](#) sets out the service characteristics and supply requirements that Telstra must follow, including providing access to local, national and international calls, 24 hour/day availability, free access to the '000' Emergency Call Service and provision for operator assistance. There are also rules for the location of payphones, mandatory processes for consultation and complaint-handling, and performance standards (maximum timeframes) and related benchmarks for the installation and repair of payphones in specific geographic areas.

Telstra has also made commercial decisions to enhance the functionality of some USO payphones. Although not required or directly funded under USO arrangements, since August 2022 Telstra has made data from around 3,300 of its Wi-Fi enabled payphones across Australia free of charge⁵. Telstra is also making targeted investments to bolster the power resilience of around 1,000 payphones in disaster-prone areas, and to add Wi-Fi if not already available at those payphones.

⁴ More information on recent usage of free payphones is available on [Telstra's website](#).

⁵ Further information about the availability of free Wi-Fi on selected payphones is available on [Telstra's website](#)

Fixed broadband services

Access to fixed broadband is supported by the [SIP regime](#) set out in the *Telecommunications Act 1997*. This is a wholesale obligation to provide connectivity. NBN Co is the default SIP nationally and provides broadband infrastructure to premises across Australia using a combination of fixed line, fixed wireless and satellite technology. Other carriers become SIPs generally where they are contracted to service an area such as a new development, or through Ministerial designation.

All SIPs have obligations to connect premises to their networks and supply wholesale services that allow retail providers to provide broadband services with peak download and upload speeds of at least 25/5 Mbps.

On fixed line and fixed wireless networks, wholesale services supplied by SIPs must be able to support retail voice services. This reflects that these technologies are able to support baseline voice services such as those delivered under the USO. The requirement does not apply to satellite broadband services supplied by SIPs. While it is the case that NBN Co's Sky Muster satellites, and other geostationary satellites available in Australia, can support voice calling, and may be used for this purpose by some customers, they have broadly not been seen as a suitable primary platform for USO voice services. This has reflected that there are inherent technical limitations, such as higher latency (delay), for services supported over geostationary satellites, which can impact the quality and customer experience of voice calls.

NBN Co's provision of fixed wireless and satellite services, which are non-commercial overall, is subsidised by the Regional Broadband Scheme (RBS). Under the RBS, carriers (including NBN Co) that have active local access links that provide a high-speed superfast broadband service are required to pay a monthly charge for each premises connected to their telecommunications network. There are some transitional concessions under the scheme during the first five years of the scheme, as well as exemptions for small networks. There is also an offset arrangement for NBN Co's charge liability. In effect, this means NBN Co's fixed line network and other relevant high-speed fixed line broadband services provided by other carriers, contribute financially towards meeting the costs of providing NBN Co's fixed wireless and satellite services.

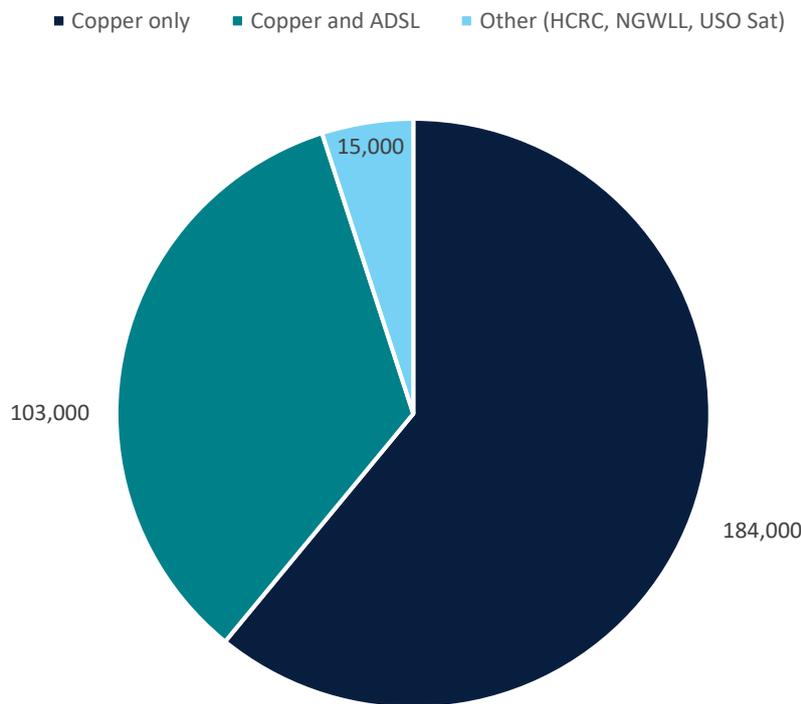
How many fixed voice services are supplied under the USO?

As the USO is a national obligation, Telstra supplies USO services throughout Australia in urban, rural and remote areas. Telstra supplies around 3.5 million STS to which the CSG is applicable, which is commonly used as a proxy for USO services.

The majority of USO services are provided over the NBN fixed line network, mostly in urban areas of Australia. Telstra is required under the TUSOPA to use the NBN fixed line network to deliver STS within the fixed line footprint, where there are active NBN services at a premise. Outside NBN Co's fixed line footprint, in rural and remote areas, Telstra uses its own networks to supply around 300,000 USO voice services as at September 2023.

As shown in Figure 2 below, most of these services are primarily supported by Telstra's copper network as required by contractual arrangements, but there are currently around 15,000 voice services supplied over non-copper networks – either high-capacity radio concentrator (HCRC), 3G wireless local loop⁶ (NGWLL) or satellite (USO Sat). Around a third of regional and remote voice services are currently bundled with ADSL services, noting that ADSL services are supplied on a commercial basis and are not required under the USO or any other regulatory arrangements.

⁶ Telstra has made a commercial decision to close its 3G network after June 2024. It is progressing migration options to provide continuity for existing USO customers that currently obtain voice services over its 3G NGWLL service.

Figure 2: Technology mix of Telstra’s legacy regional and remote USO services – September 2023

Pressures and opportunities for change

A range of reviews have identified shortcomings of the current voice USO framework

A range of prior reviews and stakeholder consultations have questioned whether existing USO arrangements are sustainable for the long-term delivery of voice services in regional and remote areas. In particular, concerns have been raised that Telstra’s legacy networks are not able to provide the type and quality of services that consumers increasingly expect.

With Telstra subject to the copper continuity obligation, significant costs are involved in maintaining copper infrastructure to deliver basic voice services in regional and remote areas. While copper is a known and well-established technology, it is also prone to deterioration, particularly in harsh climatic conditions. There are also questions about the practical ability to maintain and service Telstra’s copper network in the long term, including if equipment is available to continue to maintain and repair the network.

The 2015 Regional Telecommunications Review noted that the expansion of the NBN and mobile coverage provided new ways to provide USO services and potentially achieve savings. The Productivity Commission published a report in 2017 that recommended abolishing the TUSOPA, migrating most customers to the NBN and mobile networks, and running a tender to provide services to the remaining people who could not receive acceptable voice over these networks. The [2021 Regional Telecommunications Review](#) also proposed that, due to ongoing stress on Telstra’s infrastructure due to ageing technology, the Government and Telstra needed to consider the long-term performance and delivery of voice services. The review suggested that a technology agnostic approach for the future delivery of USO services be considered, subject to alternative delivery platforms being able to exceed existing reliability standards.

Trials undertaken in 2021-22 through the [Alternative Voice Services Trials](#) (AVST) program aimed to test acceptable alternatives for rural and remote consumers. Concerotel, NBN Co, Optus, Pivotel, Telstra and Zetifi were involved in delivering a range of trial services. The trial services typically involved applications of existing technologies like fixed wireless, 4G and satellite, but often provided new functionality, such as the ability to make and receive calls using the customer's mobile handset in the home, even if mobile network coverage was poor or absent. These trials generally demonstrated that good quality voice services could be delivered over alternative technologies, particularly fixed wireless. However, they also identified a range of issues that still needed to be worked through, including issues with outages and customer support. A key limitation was that LEOSats were not able to be widely tested as they were not commercially available in Australia at the start of the trials.

This large body of previous work and past stakeholder engagement, and current views and feedback from interested stakeholders, will help to inform the Government's consideration of options to better deliver USO services in the future. As noted elsewhere, the Government will also progress work to undertake further technical trials in 2024, drawing on stakeholder views on how these trials can be best structured.

Supporting First Nations communities

Beyond broader issues raised in reviews mentioned above, there have also been specific concerns raised about the practical effectiveness of current USO arrangements, particularly for First Nations communities. This reflects that existing USO arrangements are based on a model of providing fixed services to specific premises or businesses, with ongoing service charges falling to the consumer or business owner. However, as the Government's [First Nations Digital Inclusion Advisory Group](#) (FNDIAG) has identified in its initial report to Government, some First Nations people and communities may not be able to afford post-paid fixed plans, and may end up relying on relatively more expensive pre-paid mobile plans, or on community-based solutions. The FNDIAG will continue to provide broader advice to Government on a range of digital inclusion issues, but the Government is interested as part of this consultation in gaining further stakeholder views and insights on how a future USO could best support First Nations Australians, particularly in remote communities.

New opportunities

The number of services delivered over Telstra's legacy networks in regional and rural areas has reduced significantly over recent years. In September 2018, the Government estimated Telstra provided approximately 600,000 retail fixed voice services (and 235,000 ADSL broadband services) outside the NBN fixed line footprint.⁷ As noted earlier, as of September 2023, the corresponding figures are around 300,000 retail fixed voice services, including around 100,000 bundled voice and ADSL services outside the NBN fixed line footprint.

The quality of broadband services over the NBN has also improved in regional and remote areas, with NBN Co's scale rollout completed and significant upgrades across its fixed line, fixed wireless and satellite networks currently being rolled out. Most significantly, NBN Co is currently undertaking a \$750 million upgrade of its fixed wireless network (of which \$480 million has been provided as a grant from the Government), which will use the latest 4G and 5G wireless technology to extend the coverage range from existing towers by up to 50 per cent and significantly increase the minimum speeds on the network. This will enable 120,000 additional premises to access fixed wireless services, which as noted earlier, are considered to be technically suitable for supporting reliable retail voice services.

New technologies

Other technologies have emerged that could be considered as potential future alternative platforms for USO delivery. Notably, high-speed broadband services provided over LEOSat technology have become widely

⁷ This estimate was provided in the Government's [summary report](#) on the development of the USG, published in November 2018.

available across Australia, including in rural and remote areas. Due to their lower altitude orbits, LEOsats services generally have significantly lower latency compared to geostationary satellites, which is important in supporting quality voice communications. Starlink LEOsats services are now available in close to 100% of Australia, and there are reportedly around 130,000 Starlink subscribers nationally. Although Starlink has predominantly marketed its residential services directly to customers as a retail product, Telstra announced in July 2023 that it plans to begin offering bundled voice and broadband services over Starlink from late 2023. Other LEOsats platforms are also in the process of being rolled out globally and are expected to be widely available in Australia in coming years, including OneWeb likely in early 2024 and Amazon's Kuiper network likely in 2025.

Direct-to-device (D2D) satellite technology has also emerged as a potential future alternative or complementary service to existing USO services. In July 2023, Optus announced a partnership with Starlink to deliver D2D mobile connectivity in areas without existing mobile coverage. Optus has indicated it plans to roll out SMS capability over Starlink from late 2024, and voice and data applications from late 2025.

While many satellite services, including LEOsats, are configured to establish a fixed connection at a premises, D2D technology can provide mobile solutions by communicating directly to an end-user's mobile phone or device. While purpose-specific satellite phones have been commercially available for decades, supported by geostationary or other satellites, they involved specific plans and the purchase of dedicated satellite handsets or other equipment (such as satellite sleeves that can be used with existing smartphones). As a result of these factors, satellite phones have not been widely taken up.

The deployment of LEOsats promises to support both high-quality, low-latency voice services and high-speed broadband, and it is therefore important to consider what role these platforms should play in supporting better delivery of USO services. A key issue is that these platforms, as well as other technologies, will need to be shown to deliver an acceptable baseline level of service in Australian conditions that regional and remote consumers can rely on before any decision is made to adjust existing USO arrangements. The Government will also consider the adequacy of the regulatory framework that applies to LEOsats, given their potential role in delivering USO services.

What should a modern universal service framework be able to deliver?

As a starting point for considering the suitability of new platforms, it is important to determine the service needs that should apply in the future. By establishing what an acceptable baseline universal service looks like, the Government will be better equipped to assess the suitability of new technologies for existing services in regional and remote areas.

Presently, significant aspects of USO service delivery are currently supported through various complementary regulatory and co-regulatory mechanisms. For example, connection, repair and appointment-keeping timeframes are set through the CSG and Priority Assistance arrangements described earlier, and basic voice quality metrics for STS are set out in an industry code developed by the Communications Alliance⁸. Telstra's network availability is monitored through the Network Reliability Framework. Consumer protections, including for billing, sales, customer service, complaints-handling and financial hardship matters, are managed through industry codes or directly regulated by the telecommunications regulator, the ACMA. The Australian Consumer Law applies across the economy, including to most telecommunications services, and provides general consumer rights and guarantees, such as how providers market and represent goods and services.

⁸ This code – *End-to-end network performance for the STS* – is available on the [Communications Alliance website](#).

Current arrangements do not specify a particular level of network resiliency or necessitate the provision of redundancy options. On pricing, while Telstra has previously been subject to price controls, it currently sets prices for USO voice services on a commercial basis.

Key questions for stakeholders

- What do you consider are the key outcomes that a modern universal service framework should deliver?
- What safety-net services does a modern universal service framework need to address?
- To what extent do you consider mobile services are important to complement fixed services supported under the existing framework?
- Which existing requirements under the current universal service framework should be retained, or changed?
- What role do you consider payphones should play in a modern universal service framework?
- How should affordability be considered?
- How can a modern universal service framework deliver better outcomes and meet digital inclusion needs of First Nations Australians?

Background to assist responses to key questions

The Government is interested in hearing from stakeholders about the characteristics and outcomes that a modern universal service framework should be able to deliver. Current arrangements and potential areas for consideration are outlined below to help inform stakeholder feedback, and to assist with responding to the questions set out above.

Connection, repair and appointment-keeping

Timeframes for connection, repair and appointment-keeping for existing USO services are currently regulated under the CSG. Where Telstra supplies an STS under the USO, it must meet specified maximum timeframes under the CSG or otherwise pay compensation directly to customers. Timeframes vary across urban, rural and remote areas, recognising the distances involved and given carriage service providers may need to arrange to transport necessary infrastructure or technicians to the location. Where a provider is not able to meet a timeframe, it can make a reasonable offer to supply an interim service (such as a mobile or satellite service at standard landline rates) or an alternative service (such as a call redirection to a mobile or additional landline service).

These arrangements are designed to provide an incentive for service providers to connect and repair services quickly, and compensate consumers when they experience delays without a working service. Detailed information about the CSG arrangements, including the maximum timeframes and relative compensation payable to consumers, is available on the [ACMA's website](#) or in the [Telecommunications \(Customer Service Guarantee\) Standard 2023](#).

Service quality

Telstra currently has requirements under the CSG to repair voice services that experience a fault or service difficulty. This may constitute fixing a range of specified issues with a service, including where customers are unable to make or receive calls as well as other disruptions such as excessive noise levels or repetitive drop-outs. However, other than the requirement under the USO to provide STS nationally, there are no specific standards or requirements under the CSG on the level of service Telstra must provide. As a comparison, the

SIP laws require the networks of NBN Co and other SIPs to support retail services that can meet peak broadband speeds of at least 25/5 Mbps.

Most commercially available services delivered over terrestrial infrastructure have low latencies that are able to easily support quality voice calls, including mobile services, fixed line and fixed wireless broadband. Data reported by the Australian Competition and Consumer Commission (ACCC) through the [Measuring Broadband Australia program](#) shows latencies for broadband services delivered over the NBN are typically in the range of 8-14ms over the fixed line network and 40-45ms over the fixed wireless network, noting latency can also be impacted by a range of issues such as the configuration of a router or network load.⁹ Mobile services have typically been expected to have higher latencies than fixed line connections, within the broad range of 25-50ms, although 5G is seen to provide significantly lower latency. As geostationary satellites like NBN Sky Muster orbit at a great distance from Earth, they provide high-latency services that are not typically considered to be as suitable for voice applications as other telecommunications platforms. However, many consumers use Sky Muster for video conferencing. LEOSat networks orbit much closer to the Earth and are therefore generally able to provide services with lower latency that may be broadly comparable with typical latencies for mobile and fixed wireless broadband services. As at October 2023, Starlink states that its standard fixed services are expected to provide latencies of between 31-86ms in Australia, depending on the location of the service.

Service availability

While no telecommunications service will be 100% available, service availability (uptime) is another metric that is commonly raised as an important indicator of voice and broadband performance. Regardless of what platforms and networks are providing voice services to customers, it is important that services are available when customers need them.

Service uptime is usually measured as the total percentage of time for which a service is available. Services with high availability generally experience very few disruptions from network outages, dropouts or service faults. While Telstra is not currently subject to any requirement to maintain a specified level of service availability, under the Network Reliability Framework it is required to monitor service availability and publish data on a monthly basis. Based on this information, Telstra's annual average service availability nationally since 2013 has generally ranged between 99.6% and 99.9%, with Telstra having a monthly average national availability of 99.64% in FY2021-22.

NBN Co's Wholesale Broadband Agreement (WBA4, and WBA5 from 1 December 2023) includes performance objectives for network availability over the NBN, which are 99.9% for its fixed line and fixed wireless networks and 99.7% for its satellite network. As at October 2023, Starlink expects services in Australia to be available at least 99% of the time, although it states that uninterrupted use of services is not guaranteed. The ACCC's Measuring Broadband Australia program also reports information about outages of NBN services. The average rate of outages per day lasting longer than 30 seconds is typically within the range of 0.2-0.4 for both fixed line services and fixed wireless services (i.e. services on these networks experience outages roughly every 2.5-5 days on average), although results generally differ depending on the retailer offering the service.¹⁰ The ACCC does not currently report information about satellite services as part of the Measuring Broadband Australia program.

⁹ The ACCC publishes performance reports for the Measuring Broadband Australia program on [its website](#).

¹⁰ The ACCC publishes performance reports for the Measuring Broadband Australia program on [its website](#).

Network resilience

Voice services are often vital during emergencies to keep communities safe, connected and informed. While no communications network is 100 per cent resilient to weather events, climatic conditions, or natural disasters, it is important that networks are prepared as much as possible against the impacts of power outages and other disruptions to ensure people remain connected.

There are no regulatory requirements on telecommunications network operators to maintain a level of network resiliency or provide redundancy options on their networks. This reflects in part the difficulties involved with guaranteeing power to all key network elements in all cases. However, network operators actively plan to minimise disruptions to services and determine the most effective way to mitigate any risks to their operations. This may involve maintaining permanent generators at critical infrastructure sites; battery power for secondary network elements; and inventory of, and access to, backup generators to recharge batteries during extended power loss.

Customer support

The Government understands the community generally expects the market to provide some level of information and assistance to make sure customers can easily access and use telecommunications services. This can extend to service providers advising customers on any equipment or devices that may be necessary to support a connection, and being reasonably available to assist customers if they require further information. These expectations may be further heightened where services are offered under universal service arrangements. It is also important that customers receive appropriate assistance when an existing service is disrupted, including when fault reports are made. While the Government expects retailers of telecommunications services to use their best efforts to resolve most complaints directly with consumers, the [Telecommunications Industry Ombudsman](#) (TIO) is available to help resolve escalated complaints between customers and service providers.

Telstra is not currently subject to any specific standards for customer service and support under the USO. However, like other carriage service providers (CSPs), it is subject to the *Telecommunications Consumer Protections Code* (TCP code). The TCP code is designed to protect the rights of consumers, and to make clear the obligations of service providers of landline, mobile and broadband services. It contains safeguards on issues like sales and customer service, contracts, billing, credit and debt management and changing suppliers. Telstra, like other CSPs, is also subject to the *Telecommunications (Customer Complaints Handling) Industry Standard 2018*, which establishes how service providers handle and respond to complaints by customers. More information on the [TCP Code](#) and the [Consumer Complaints Standard](#) is available on the ACMA's website.

Affordability

The telecommunications-specific competition provisions in the *Competition and Consumer Act 2010* aim to promote the long-term interests of consumers by creating a more competitive industry with lower prices, service innovation and greater service choice. As in other industries, competition drives prices down, and providers have flexibility to offer and price services to reflect demand and consumer needs, including supplying standalone or bundled voice and broadband services to customers.

Telstra is not currently subject to any explicit legislative requirements on the pricing of fixed voice services (or related customer equipment) provided under the USO. However, given its USO requirement to provide reasonable access to STS, Telstra's national pricing ensures that customers pay the same price for a baseline service regardless of whether they reside in an urban, regional or remote area of the country. Telstra's plans and costs for STS are available on the ['Home Phones' page](#) of its website. From November 2023, Telstra basic

voice-only landline services will be priced at \$50 per month, although there may be additional costs for connection and delivery, and customers may need to rent or purchase a handset to use the service.

Under its carrier licence conditions, Telstra is required to maintain a suite of products and services for people on low incomes. It currently offers a range of products, discounts and free services for eligible customers, including low-cost services for pensioners and individuals with a Health Care Card, as well as bill assistance and alternative structured payment options for people experiencing financial hardship. More information is available on the [‘Access for everyone’ page](#) on Telstra’s website.

Under NBN Co’s Special Access Undertaking that was accepted by the Australian Competition and Consumer Commission on 17 October 2023, NBN Co will introduce long-term pricing commitments that will provide greater price stability, keeping prices in line with inflation and protecting consumers from unexpected sharp price hikes.

Under universal service arrangements, consumers are responsible for individual service charges, and ultimately need to select the service (or combination of services) that best meets their needs. In some cases, consumers may prefer to rely on mobile services rather than fixed services available under universal access arrangements, or use mobile services to complement fixed services. However, if there is greater access to reliable and proven platforms that can support both reliable voice and broadband, this may provide opportunities for some consumers to rationalise services.

Table 2: Summary of prices for telecommunications services

Fixed line voice	ADSL (<25 Mbps)	NBN fixed line / fixed wireless (<50 Mbps)	NBN fixed line / fixed wireless (>50 Mbps)	NBN SkyMuster (12-25 Mbps)	NBN SkyMuster Plus (>25 Mbps)	Mobile
\$25-\$60 per month	\$79 per month	\$65 per month	\$97 per month	\$35-\$155 per month	\$50-\$200 per month	\$35 per month

Note: Prices in the table above are drawn from the [ACCC communications market report 2021-22](#), and are primarily median advertised prices, while fixed voice and SkyMuster prices reflect ACCC analysis.

Future consultation and related processes

Investigating performance and reliability of new technologies

The Government considers it is important to establish a clear and transparent body of evidence on whether alternative and emerging networks are capable of delivering the required levels of service. Accordingly, the Government intends to undertake trials to test the suitability of emerging technologies. This will gather quantitative data on a range of matters which may impact the availability, accessibility, quality and reliability of alternative platforms, including how technologies are impacted by geographical location, weather, climate, topography, equipment types and power requirements.

The Government intends to undertake these trials throughout 2024 as part of existing delivery and administrative arrangements for the USO and other public interest telecommunications contracts. More detail will be released separately in coming months; however, the Department would welcome any early stakeholder views on the design of the trials.

Considering sustainable funding arrangements

As part of work to consider a more modern USO, the Government will also consider and seek stakeholder views on the best mechanism for delivering sustainable, long-term funding of services in rural and remote areas.

This work will incorporate the required statutory review of the RBS, which under legislation¹¹ must be undertaken in the first four years of the scheme (i.e. by May 2024 or as soon as practical thereafter).

The Government is aware that there may be different views on the merits of maintaining two different funding mechanisms (RBS and TIL) to support different aspects of universal service delivery. If services can increasingly be provided through commercially-available networks, this may provide opportunities to reduce overall levels of subsidy, and instead direct funding to targeted needs in the community. There have also been concerns that funding arrangements should be designed to be administratively simple as possible, and to maximise competitive outcomes.

The Government plans to gather stakeholder views on how these arrangements are operating and opportunities for how they could be improved. A further consultation paper on funding arrangements, including on matters required to be considered as part of the review of the RBS, will be issued in early 2024.

Considering appropriate regulatory safeguards

If community consultation and the technology trials demonstrate that there are suitable alternative technologies for the delivery of voice services, it will be important to consider what regulatory safeguards are needed to safeguard consumer interests and ensure as far as possible that any transition to new technologies is smooth and streamlined. Issues that could be examined through this process include the extent to which different providers could have roles in supporting universal service outcomes, and what would be an appropriate mix of wholesale and retail obligations.

The Government will separately consult further on these matters as required at a future point, once the suitability of alternative platforms has been further considered.

¹¹ This requirement is set out in s152ZFA of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.