



1 March 2024

By Electronic Submission

The Secretary  
Department of Infrastructure, Transport, Regional Development, Communications and the Arts  
Commonwealth Government of Australia

**RE: Better delivery of universal services  
Comments of Starlink Internet Services Pte. Ltd.**

Dear Sir/Madam

Starlink Internet Services Pte. Ltd. (**Starlink**) welcomes the opportunity to comment on the “Better delivery of universal services” discussion paper (**Discussion Paper**) issued by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (**Department**).

Below is a general overview of Starlink and its product in Australia, together with Starlink’s responses to each of the questions raised in the Discussion Paper.

## **Background on Starlink**

Starlink has been providing non-geostationary, low-earth orbit (**LEO**) satellite internet services to residential, commercial and government customers in Australia since late 2020. Today, just over three years later, Starlink’s network has close to 100% coverage in Australia and there are over 2.3 million Starlink customers on all seven continents using Starlink as a broadband connectivity solution for homes and offices, recreational vehicles, offshore and maritime vessels and private and commercial aircraft.

As a global provider of internet services to regions that until now have been unserved or underserved with high-speed broadband, Starlink is proud of our track record of serving consumers in these areas. Starlink customer premises equipment, known as Starlink Kits, are simple to deploy, install and use, with no professional experience or formal training needed. Starlink’s standard residential service plan in Australia has no data rate limits and provides the maximum speeds the network can provide at any given time (subject to standard network management practices). Our plans do not require a long-term contract, and service may be cancelled at any time by the customer. Moreover, the network is routinely upgraded without any need for changing/upgrading the Starlink Kit.

Starlink provides unlimited high-speed, low-latency internet through its Standard plan, which can be used by households to support multiple users simultaneously conducting voice and video calls, browsing the Internet, video streaming, gaming and accessing essential services such as government services, online banking and health services. For business and government use, Starlink also offers Priority service plans, which are higher tiers of service that can support over 100 users and are intended for high-demand use cases that require in-motion use, open ocean coverage, network priority and priority support features.

A description of the Starlink service plans currently offered in Australia can be found at <https://www.starlink.com/service-plans>.

Starlink supports reform of the Universal Service Obligation (USO) to make it technology-agnostic and pro-competition so that customers are empowered to choose from multiple services, including LEO satellite broadband, that enable full participation in modern civic life. To this end, we have set out below our responses to each of the questions in the Discussion Paper.

1) What do you consider are the key outcomes that a modern universal service framework should deliver?

Establishing, as the Discussion Paper says, a “modern universal service framework [that] 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” requires a complete redesign of the universal service framework in Australia.<sup>1</sup>

As SpaceX has engaged in programs designed to expand universal connectivity worldwide, it has found that the most successful programs incorporate a consumer-choice model that fosters competition, agnostic of technology, and expands the connectivity options for consumers, businesses, and government entities. This type of model provides a direct reimbursement to an eligible service provider that a household, business or community organisation selects for a service that meets the minimum standards.<sup>2</sup>

To achieve this model, the redesigned universal service framework should not appoint a single USO provider for the entirety of Australia, or a single network to be subsidised for the purpose of supplying USO services. Instead, the Department should adopt a technology-neutral, consumer choice model involving a selected panel of telecommunications service providers, each of which must be capable of supplying services that meet minimum requirements on a non-exclusive basis within their respective network footprints. These competitive USO providers could include operators of a variety of different telecommunications networks that are capable of supplying qualifying services, including LEO satellite networks such as Starlink, fixed wireless networks and mobile networks, as well as new networks that may be launched in the future. As technology advances, the Department can periodically increase standards.

A consumer-choice model such as this would promote access to affordable service plans by placing control in the hands of consumers and encouraging operators to compete for those consumers. This competition would drive operators to improve their networks to meet evolving consumer needs. And, if a particular service provider does not meet a household’s broadband needs, the household would have the ability to change carriers to a more desirable service offering. Further, as consumer needs evolve, this model will foster ongoing competition between service providers to offer better network performance and pricing to maintain support for consumers in remote and regional areas.

Alternatively, or in addition to the above approach, the reformed USO could take a tool kit approach to future projects allowing technologies to compete to serve unserved areas or community anchor institutions like schools, libraries, and health care facilities. Depending upon terrain, population

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<sup>1</sup> Discussion Paper, page 1.

<sup>2</sup> One example of such an approach is the Universal Service Fund in the United States of America. A high level summary of that program is set out here: <https://www.fcc.gov/general/universal-service-fund>.

density and other factors, certain technologies will be more cost-effective than others. This will arm the Department with more options to best select connectivity solutions.

For example, countries like Taiwan, India and Chile have universal service programs that fund projects from numerous providers depending upon numerous factors. First, Taiwan operates the Universal Service Fund that provides funding to make carriers whole for providing service at a loss in rural and remote areas.<sup>3</sup> Next, India administers the Universal Service Obligation Fund (USOF) that leverages innovative technology for fixed and mobile service to rural and remote areas.<sup>4</sup> India's USOF provides funding for projects that offer non-discriminatory access to the supported network to all telecom providers to enable applications including e-health, e-education, and e-governance. Further, Chile oversees the Telecommunications Development fund that funds deployment projects from numerous providers.<sup>5</sup>

Starlink is firmly of the view that this move to a pro-competition model cannot be achieved through the existing USO scheme in Australia. Put bluntly, there is no point in attempting to incorporate new technologies into the existing legislative scheme. It needs a complete re-write, with a greater focus on competition, multiple providers and multiple robust service offerings for consumers, rather than a focus on a single provider of limited legacy services, as is currently the case.

## 2) What safety-net services does a modern universal service framework need to address?

The universal service framework should establish minimum standards to ensure that consumers can use applications and services that are critical for economic and civic participation. While demand for high-speed, low-latency broadband has been growing for years, the COVID-19 pandemic has accelerated the trend, making access to high-quality broadband essential to daily life. As was noted in the 2021 Regional Telecommunications Review Report, consumers today increasingly depend on "digital platforms for business, study and work, as well as for access to essential services like groceries, banking, health care and government services".<sup>6</sup>

To ensure that USO services meet these growing needs, the USO scheme should require USO providers to provide services with sufficient bandwidth to meet reasonable consumer needs as well as latency that is sufficiently low to allow reasonable, foreseeable, real-time, interactive applications.

In particular, Starlink recognises the importance of USO services being capable of supporting voice functionality in an effective way without excessive latency. However, the USO scheme should be designed in a manner that recognises, as the Discussion Paper does, that the availability of reliable

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<sup>3</sup> See *Telecommunications Universal Service Regulations, Amendment* (dated Jul. 10. 2020), Laws & Regulations Database of the Republic of China (Taiwan) website, available at:

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=K0060059> (adopting cost formulas for telephone and data communication access service in uneconomic areas and uneconomic public payphone service).

<sup>4</sup> See *Department of Telecommunications, Ministry of Communications, Government of India, Universal Service Obligation Fund* website, available at: <https://usof.gov.in/en/functions> (providing a description of USOF functions including: designing an intelligent subsidy support model for reducing or closing the viability gap; leveraging of innovative and emerging new technologies; and ensuring adherence to USOF guidelines).

<sup>5</sup> See *The World Bank, Digital Regulation Platform* website; available at: <https://digitalregulation.org/chiles-telecommunications-development-fund-monitoring-and-evaluation/> (describing Chile's Telecommunications Development Fund and its monitoring and evaluation processes).

<sup>6</sup> 2021 Regional Telecommunications Review Report, page 7.

quality voice functionality is no longer limited to legacy technologies and can now be provided over a variety of different network technologies. Indeed, as the Discussion Paper states, voice services are already often provided over broadband networks.<sup>7</sup>

Beyond setting the essential minimum requirements for qualifying USO services, the USO scheme should avoid imposing non-essential requirements on USO providers that will limit the services available to consumers under the scheme.

3) To what extent do you consider mobile services are important to complement fixed services supported under the existing framework?

As set out above, the USO should be technology-agnostic. It should not be concerned with the provider or the specific technology used by that provider to deliver telecommunications services, whether they be fixed line, mobile, fixed wireless or satellite broadband. It should be focussed on the consumer's ability to rely on the provision of services under the USO scheme which meet the minimum standards. These minimum standards will ensure that those consumers can use voice services and other applications and services that are critical for economic and civic participation.

4) Which existing requirements under the current universal service framework should be retained, or changed?

As set out above, the universal service framework in Australia requires a complete redesign.

In particular, the updated USO scheme should not establish a single USO provider or a single network or technology to be funded. Instead, the USO scheme should facilitate consumers' right to choose services under the USO scheme that meet the minimum standards, whether they be fixed line, mobile, fixed wireless or satellite broadband. In the alternative, or in addition to this approach, the Department can determine supported projects to connect unserved areas or community anchor institutions from a more expansive selection of technologies and providers.

5) What role do you consider payphones should play in a modern universal service framework?

We have no comment in relation to payphones.

6) How should affordability be considered?

By adopting a consumer-centric approach, affordability can be addressed for consumers with targeted subsidies based on the customer's location or other qualifying circumstances (e.g. eligibility for specified Centrelink programs).

6) How can a modern universal service framework deliver better outcomes and meet digital inclusion needs of First Nations Australians?

The universal service framework in Australia will deliver better outcomes to meet the digital inclusion needs of First Nations Australians by creating incentives for providers of high-speed, low-latency broadband to compete to supply services to these communities, and by empowering these communities to switch providers to more desirable service offerings.

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<sup>7</sup> Discussion paper, page 1.

Across the globe, Starlink has extensive experience working to provide broadband solutions to First Nations people and is keen to work with the Department and First Nations communities to explore what similar solutions Starlink may be able to deliver in Australia.

Some examples of the projects that Starlink has helped deliver to First Nations and indigenous people in other countries include:

- in Alaska, Starlink has engaged in a number of broadband deployment and adoption projects, including with consortia that represent over a hundred tribal governments. Some of these projects will deliver Starlink broadband services directly to households and community locations, while other projects will enable fixed wireless network services to Alaskan tribes using Starlink for backhaul;
- in Canada, Starlink has provided connectivity to over 100 remote First Nations communities such as Pikangikum and Manitoba; and
- in Nigeria, Starlink provided satellite backhaul services to Connecting Africa Mobile Networks' mobile network base stations to deliver mobile broadband services across 700 rural communities.

Please let us know if you have any questions in relation to this submission. We would welcome the opportunity to meet with the Department to discuss these matters and our experience with similar universal service arrangements in other jurisdictions.

Yours sincerely

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