Universal Service for the Twenty-First Century

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Abstract: The Australian Government is asking Australians for their views on the existing telecommunications universal service obligation. Fifty years ago, that obligation was on Telecom (now Telstra) to provide payphones and a voice service that would best meet the social, industrial and commercial needs of all Australians who reasonably require those services, so far as it is reasonably practicable to do so. The obligation is still the same: the provision of payphones and voice telephony. If the universal service obligation is to have any continuing relevance in the Australian communications framework, however, it must reflect the social, industrial and commercial needs of Australians in 2024 and beyond. Research shows that Australians are using broadband services for a wide range of services in their lives: access to government services, health, finances, education, entertainment, and social and family connections. And for the large majority of Australians, that communication is by mobile telephony. A new definition of the service for all Australians must be upgraded to reflect how Australians now communicate. And it must be continually reviewed and upgraded as necessary to meet the changing communications needs of all Australians.

Keywords: telecommunications, universal service, broadband, mobile telephony.

Introduction

Almost 50 years ago, the Australian Government's universal service regime charged the newly established Australian Telecommunications Commission with making its 'telecommunications services available throughout Australia for all people who reasonably require those services' (Telecommunications Act 1975, s 6). Fifty years on, the Government is asking the public for input on 'ways to better deliver baseline universal telecommunications services' (Department of Infrastructure, Transport, Regional Development Communications and the Arts, 2023b, p. 1). Specifically, the Government is seeking discussion on what an updated universal service framework would look like.

> 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

http://doi.org/10.18080/jtde.v12n2.936

> 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 (DITRDCA, 2023b, p. 1).

One of the early court decisions (Re Daisy Yarmirr, 1990) confirmed that the Government's use of the term 'community service obligations' (CSOs) (Australian Telecommunications Corporation Act 1989al) (ACTA 1989), s 27) did not give individuals a private right of action to compel the CSO provider to provide an individual with service. Ultimately, it is the Government's responsibility to ensure the public's needs for telecommunications services are understood and met.

Over the years, a patchwork of Acts, regulations, determinations and contracts have interpreted the universal service obligation (USO) to mean the provision of a voice telephone service and payphones by a privatised Telstra as the provider of last resort. And in that patchwork, the provision of a universal service 'that best meets the social, industrial and commercial needs of the Australian people for telecommunications services' has been lost.

This inquiry is seeking the public's views on what those services are. The place to start must be to understand what telecommunications services Australians 'reasonably require' for their 'social, industrial and commercial needs', then reform the existing regulatory framework to deliver those services to all Australians.

What Service?

'Universal service' – the 'CSO' in 1975 – was the basic public switched voice traffic service provided by the Government-owned, newly formed monopoly provider, Australian Telecommunications Commission (Telecom), to roughly five million telephone subscribers out of a population of 15.8 million (Committee of Inquiry into Telecommunications Services in Australia, 1982, p. 36).

Sixteen years later, the obligation changed. It was to 'ensure that the standard telephone service' and payphones are reasonably accessible to all people in Australia 'on an equitable basis wherever they reside or carry on business' (Telecommunications Act 1991, s 288). The service was defined as a public switched telephone service supplied by a carrier and supplied by means of a telephone handset that does not have switching functions unless regulations provide otherwise (Telecommunications Act 1991, s 5). More importantly, the actual provider was no longer specified: the Minister would declare the universal service provider for the whole of Australia or for a specified service area(s) (Telecommunications Act 1991, s 290). Importantly, the legislation also provided for an industry levy on other 'participating carriers' as their share of the cost of providing USOs (Telecommunications Act 1991, pt 13).

http://doi.org/10.18080/jtde.v12n2.936

The latest legislative change (so far) is to define the obligation as the provision of a carriage service for the purpose of voice telephony that passes the connectivity test, and the provision of payphones (Telecommunications Act 1997, s 17). The expanded definition of Standard Telephone Service now includes another form of communication 'equivalent' to voice telephony for end users with a disability (Telecommunications (Consumer Protection and Service Standards) Act 1999, ss 8(1)). The 'connectivity test' is to ensure that end users of the relevant communications service can communicate with all other users of the same service, regardless of the provider of that service (Telecommunications (Consumer Protection and Service Standards) Act 1999, ss 8(2)).

In 2021, the obligation was renamed the Universal Service Guarantee (DITRDCA, 2021, pp. 1–2) but the components (and legislation) remain as the provision of the standard telephone service and payphones. The 50-year-old universal service framework still 'guarantees' a 'voice telephony' service and payphones that are 'reasonably accessible' that can be used by all Australians to communicate with each other. Is that enough? The answer is no.

Universal service in 2024 and beyond

The objective must remain: ensuring the provision of telecommunications services that all Australians reasonably require for their 'social, industrial and commercial needs wherever they reside or carry on business'. What are those services in 2024?

The latest report from the Australian Communications and Media Authority (ACMA) on how Australians communicate suggests that the communications service most used by Australians is mobile telephony (ACMA, 2023a, p. 2). Ninety-six per cent of Australians used mobile and messaging/calling apps as the main services for personal services. Usage of landline services is down to 18%: less than one in five Australians use a landline for calls at home (ACMA, 2023a). The statistics cited in ACMA Digital Services' companion report (ACMA, 2023b, p. 3) underscore the highly significant role that access to the Internet and mobile telephony plays in the life of Australians. In January 2022, Australians spent close to six hours per day online; 81% of Australians had social media accounts; and Australians spent close to five hours every day on their smart phones (mobiles) (ACMA, 2023a)

Part of that ACMA report looks at Australians' use of the Internet. Some of those key findings underline the overwhelming use of the Internet, particularly using mobile phones, by most Australians (ACMA, 2023b). Ninety-nine per cent of Australians went online; as at June 2023, 98% had home access to the Internet, with the majority connected via the national broadband network (NBN). Mobile phones were the most used device to connect to the Internet (95%) with older Australians (75 years and older) moving from 33% in 2017 to 81% using their mobile phones to connect. As the report highlights, Australians are online for news, information, the

http://doi.org/10.18080/jtde.v12n2.936

purchase of goods and services, access to health and education and other services (ACMA 2023b, p. 1). Other reports say much the same thing. Most Australians regularly use a range of online services and products. For example, the final Digital Platforms Report said that, each month, 19.2 million Australians use Google search, 17.3 million access Facebook, 17.6 million watch YouTube and 11.2 million access Instagram (ACCC, 2019, p. 5).

Interestingly, the ACMA summary reports (ACMA, 2023a; 2023b) on communications do not mention the public's use of payphones. Telstra's Chief Customer Advocate's recent report (Telstra, 2023), however, demonstrates their continuing importance for many Australians. Two years ago, Telstra made all local and national calls on public payphones free of charge. Since then, over 40 million calls have been made. The destination of the calls underscores their importance to many Australians: calls to the Salvos' Assistance line, to emergency services, to banks, to Centrelink's Indigenous call centre, to Headspace, to Lifeline, to Centrelink and most often to police (Telstra, 2023, p. 11). Under its Universal Service Obligation Performance Agreement, Telstra is paid $44 million per annum for providing the payphone services (Telstra, 2012).

Reasonably accessible service for all Australians

The term 'reasonably accessible' has many meanings for Australians. It includes the timely provision and repair of a requested service. It includes services that are reasonably priced. It includes the accessibility and comprehensibility of information about available equipment and services, allowing customers to make informed choices. It includes selling practices that do not mislead customers. It includes the provision of accessible complaints mechanisms that both address the complaint and provide information about those complaints back to the service provider and the regulator.

The term 'reasonably accessible' also includes raising issues for people with special needs. Those needs can include special communications services, special features on communications equipment, special policies to assist those who are in financial difficulties and those with language difficulties.

All of those concerns – general or specifically targeted – have been addressed (more or less well) by various mechanisms allowed for in legislation. Industry has developed a range of co-regulatory industry codes that address both general and specific needs of consumers. Those codes can be enforced by the regulator and, if compliance is a concern, turned into a compulsory standard by the Minister (T(CPSS) Act, 1999, pt 6). Indeed, because of the Government's view of industry non-compliance with existing code requirements, ACMA developed a mandatory code requiring service providers to inform their customers of their arrangements in place to address customers' financial hardships (see

http://doi.org/10.18080/jtde.v12n2.936

https://www.legislation.gov.au/F2024L00133/asmade/text). Other consumer protections are addressed (well or otherwise) in legislation, determinations or standards made under that Act and licence conditions on one, several or all carriers and/or carriage service providers. The real concern is the services that are needed – and should be accessible – to all Australians in regional, rural and remote Australia.

The imminent closure of the 3G network by the three major mobile service operators (Telstra, Optus and TPG) raises one very important accessibility issue. After the closure of the network (by the end of 2024), the owners of mobile handsets using the 3G network will no longer be able to access the '000' emergency call number. The Government's advice is that relevant customers should check their network operator's website to see if their mobile device will be impacted. That advice also suggests network operators may notify their relevant customers but, to date, this has not been made a requirement on those operators. This raises the prospect of customers solely reliant on their older mobile handsets for communications unable to access emergency services (see https://www.infrastructure.gov.au/emergency-calls).

Rural, regional and remote communities – the challenge

Regional telecommunications reports tell us what services people outside of the metropolitan areas need; not surprisingly they are the services used – and accessible – in the metropolitan areas: mobile services and broadband. They are just harder and more expensive to provide, and less available (if at all) in rural and remote Australia.

For a country as large as Australia with most of its population living near its coasts, the provision of telecommunications services, even the basic telephone service, was (and is) an expensive challenge. While the task of building the telecommunications network and providing services was the responsibility of a government department or government-owned entity, the costs were the Government's concern. However, in 1997, the Government began the process of privatising Telstra, with the sale of one-third of its shares in Telstra, and a further sale of 16% of its shares in 1998, leaving the Government with 51% ownership of Telstra. The Government met strong opposition to any further sale of Telstra shares over concerns, particularly from Parliamentarians and their constituents living in rural and remote Australia. Their concerns were that the pressures on a private sector provider, particularly in a competitive environment, would mean fewer resources would be directed to the more difficult and expensive areas to serve – rural and remote Australia.

Those concerns were expressed in submissions to an inquiry established by the Government to 'assess the adequacy of telecommunications services in regional, rural and remote Australia' (Estens Report, 2003, pp. 4–15). The inquiry's many recommendations were about continued

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improvement to the services provided by Telstra, and calls for an expansion of affordable mobile services, improved speed of Internet services and the reliability of current services.

To address those concerns (and complete the sale of the remaining Telstra shares into private hands) the Government passed legislation (Telecommunications Legislation Amendment (Future Proofing and Other Measures) Act 2005, schs 1 and 2) to establish a Regional Telecommunications Independent Review Committee (RTIRC) and a Communications Fund to implement recommendations from RTIRC. RTIRC would be required to 'conduct reviews of the adequacy of telecommunications services in regional, rural and remote parts of Australia' and in doing so, 'have regard to whether people in regional, rural and remote parts of Australian have equitable access to telecommunications' that are both 'significant to people in those parts of Australia' and are 'currently available in one or more urban parts of Australia' (TLA Act, 2005, s 158P). Further, the first review must be held by the end of 2008 and be held within three years of the completion of the last review (TLA Act, 2005, ss 158P(3)).

What was very clear from the very first RTIRC report was that the existing services in regional, rural and remote Australia were no longer adequate. In the view of that report:

> … the existing legislative and regulatory arrangements for universal service are increasingly strained by the importance of mobile telephony and broadband services, the privatisation of Telstra, and the ongoing development of a competitive telecommunications environment (RTIRC, 2008, p. v).

The Labor Party, in opposition, announced its policy for the creation of a new national broadband network (ALP, 2007). Two years later, the Rudd Government announced the establishment of a company that would build and operate an NBN that would connect 90% of homes, schools and offices with broadband speeds of 'up to 100 megabits per second and connect all other premises with 'next generation wireless and satellite technologies that would deliver broadband [*sic*] speeds of up to 12 megabits per second' (Prime Minister, 2009). Aside from basic utilities, the NBN Co could supply its 'eligible services' only to carriers and carriage service providers and only on a wholesale basis; it could not supply either content services or other non-communications goods and services (National Broadband Network Companies Act 2011, pts 2 and 3).

Importantly, the enacted legislation envisages the possibility of more than one provider of an NBN (NBN Act, divs 2 and 3). That provider would have to undertake functional separation between its provision of the network and its other activities, as well as gain approval from the Finance Minister and the Minister for Communications for those arrangements (NBN Act, div. 3).

At about the same time, the Government entered into a contract with Telstra (Telstra, 2012) that continued its obligation to provide payphones and a 'standard telephone service' that is

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'reasonably accessible to all people in Australia on an equitable basis'. This included offering customers the option of purchasing or hiring a handset and gave Telstra funding to 'operate and maintain' its existing copper network to provide the standard telephone network where the NBN fibre fixed network would not be deployed. The implication: Telstra would remain as the universal service provider for voice services, but using both its own copper network, and increasingly, the network of the newly created NBN. The 20-year contract would be overseen by the Telecommunications Universal Service Management Agency in what was seen as the 'transition to the national broadband network' (Telecommunications Universal Service Management Agency Bill 2011, p. 2).

Rural, regional and remote communities now

Four RTIRC reports provide a detailed look at the services available in regional, rural and remote Australia: what telecommunications services are needed, what services are provided and what the gaps are. The latest report (RTIRC, 2021, p. 4) lists headings for RTIRC's recommendations:

- the 'patchwork quilt' of connectivity;
- reliability, resilience and redundancy;
- the demand for data;
- connectivity literacy and digital inclusion.

The 'patchwork quilt' refers to the mixture of federal, state/territory and local provision of services that are not well coordinated and consequently leave gaps in services provided. What the report recommends is more long-term and coordinated planning and investment to address the gaps in connectivity (RTIRC, 2021, p. 11).

In the reliability discussion, the report particularly highlights the inadequacy of Telstra's provision of the copper landlines (primarily to regional Australia) provided under its USO Performance Agreement. Those lines are deteriorating, their reliability has been impacted, and it is increasingly difficult to undertake repair and maintenance on the 'ageing technology' (RTIRC, 2021, p 6). As the report notes:

> … with more than 10 years remaining on the TUSOPA contract, it is clear to the Committee that the current USO arrangements are under significant stress and require strengthening or a new approach in order to effectively service consumers to 2032 and beyond (RTIRC, 2021, p 6).

The report also discusses alternative delivery systems including the geostationary Sky Muster Plus Satellite system of NBN and the possibility of other satellite options, including Low Earth Orbit satellites (LEOs). Both satellite systems have their issues. As the RTIRC report keeps highlighting, the Sky Muster system uses geostationary orbits, which raises latency problems for communications. The use of Low Earth Orbit satellites addresses that issue but raises other

http://doi.org/10.18080/jtde.v12n2.936

issues of poor (or no) reception particularly during heavy rain – a real issue for much of Australia. The expansion of land-based communications must still be a goal for communications in rural and remote Australia (RTIRC, 2021, p. 56*ff*).

The report highlights the enormous growth in the demand for data in regional and rural Australia. The rising demand for data was exaggerated by COVID-19, with average monthly downloads up a further 11%. And, as the report observes, 'as flexible work arrangements continue into the future, upload data consumption is likely to continue to increase' (RTIRC, 2021, p. 50).

In summary, Australians in regional, rural and remote Australia need the same access to voice and data services that are available in metropolitan areas as business and government services are moving online. As the several RTIRC reports document, they are not getting it.

Remote Aboriginal communities

The RTIRC report also dealt with telecommunications services for Aboriginal and Torres Strait Islander peoples. It recognised that there are 'significant social, cultural and economic factors' that limit Indigenous Australians' digital patriation (RTIRC, 2021, p. 78). These include issues such as infrastructure provision, low-income households' access to services, ability to control household usage and English literacy.

A recent project funded by ACCAN (Australian Communications Consumer Action Network) also looked particularly at the communications needs of remote Indigenous communities. In the report (Featherstone, 2020), Featherstone considered both the federal and state/territory programs to address the connectivity issues. The paper discusses what must be described as a piecemeal approach to addressing the communications needs of those communities. The paper provides details on the various federal programs that have variously addressed (or not) communications needs of the communities. It also addresses what the various states have done, ranging from the many and effective strategies put in place by the West Australian Government to Featherstone's observations about South Australia:

> SA Government have not been visibly proactive in identifying or addressing the needs of remote SA communities beyond co-investment in mobile services in the APY Lands. (Featherstone, 2020, p. 89)

Featherstone's recommendations start with a deeper understanding of what telecommunications services should be available to all Australians. The definition of that service or services 'must be regularly reviewed to reflect both advances in technology and, much more importantly, changes in the services being used'; and avoid the 'piecemeal approach' of federal, state and territory governments to ensure the requisite infrastructure is in place to underpin universal access for all Australians (Featherstone, 2020, p. 90*ff*).

http://doi.org/10.18080/jtde.v12n2.936

Where Are We Now?

The focus of this paper is on the provision of universal service, which was and still is defined as the provision of voice telephony and payphones. Quoting DITRDCA's discussion paper, the USO is to supply 'fixed voice services and payphones to people nationally on reasonable request' (DITRDCA, 2023, p. 1). That is not to say that the Government has not initiated programs to provide broadband services in regional and rural Australia apart from the universal service policy.

Starting in 2005, the Government introduced its Higher Bandwidth Incentive Scheme, followed in 2006 with the Broadband Connect program, in 2007 with the Australian Broadband Guarantee program, and then enhancement of the program in 2010. Under the programs, incentives were available for retail service providers to supply residential and business customers access to metro-equivalent broadband at an affordable price where it was otherwise not available (largely outside metro areas). Under that program, almost 95% of the subsidies were for satellite broadband connections, with 18 registered providers of the service. The program ended in 2011. (For discussion of the program, see Australian National Audit Office, 2011, pp. 13–15.)

There have been a range of subsequent Government initiatives to address the many issues raised over the years by the regional, rural and remote communities. The latest is the Government's 'Better Connectivity Plan for Regional and Rural Australia' which targets multi-carrier mobile coverage on regional roads, and infrastructure plans for regional communities. (See https://www.infrastructure.gov.au/media-communications-arts/better-connectivity-plan-regional-and-rural-australia.)

The issue is not that successive governments have not tried to address the many communications issues of regional, rural and remote Australians. The issue starts with a policy that does not mandate the provision of services that reflect how Australians communicate in 2024. It is then about the 'patchwork' of state, territory and federal government policies that are there to fill in the gaps left by private sector communications providers – as highlighted in the RTIRC reports and, for example, the Featherstone report on the specific issues raised by remote Aboriginal communities. It is about the failure to treat communications services now used by most Australians as essential for participating in almost all aspects of Australian life in 2024.

The Future of Universal Service

Fifty years ago, the USO was on the (then monopoly) provider to provide the underlying transmission capacity and service that would best meet the social, industrial and commercial

http://doi.org/10.18080/jtde.v12n2.936

needs of all Australians who reasonably require those services, so far as it is reasonably practicable to do so. Fifty years later, there is a still a universal service transmission provider in NBN Co. There is also a service provider for all Australians (Telstra) but of voice telephony, not the service required by most Australians: a mobile broadband service. While there was coordination of the provision of a universal service by the monopoly provider, 50 years later the competitive environment has produced a patchwork of federal and state communications legislation and policies that more (or less) successfully meet the communications needs of all Australians.

The service

We know the services that best meet the needs of Australians: broadband services which are portable. ACMA confirms that the vast majority of Australians already enjoy those services. What the RTIRC reports tell us, however, is that the communications services in rural, regional and remote Australia, particularly in remote Aboriginal communities, are poorly provided, too expensive or not available at all.

If government policy is to provide all Australians with the communications services that best meet their social, commercial and industrial needs in 2024 and beyond, an updated universal service policy must do two things: it must mandate the provision of broadband transmission capacity to all Australians and it must mandate a universal service provider *of those services*.

Government policy has delivered the former. The transmission provider of last resort is NBN Co. Amendments to the Act introduced the Structural Infrastructure Provider (SIP) regime (Telecommunications Act 1997, pt 19) and declared that NBN Co is the SIP for the general service area (Telecommunications Act 1997, s 360G) – defined to mean the whole of Australia other than those areas that have been 'nominated' or 'designated' (Telecommunications Act 1997, s 360F). There are now 32 SIPs listed in the SIP register. For all SIPs, whether providing the transmission service by fixed line, fixed-line wireless or satellite, to qualify as a SIP they must provide download transmission speed of 25 megabits per second and 5 megabits per second of upload speed (Telecommunications Act 1997, ss 3600A and 360AA).

What is missing is the second element of a universal service for the future: a mandated provider of broadband services – not just a provider of voice services.

Under the Universal Service Performance Agreement, Telstra must supply *voice* services 'that are reasonably accessible to all people in Australia on an equitable basis'. Interestingly, the Government's discussion paper on universal service continues to discuss Universal Service Guarantee (USG) reform in terms of voice services – not broadband (DITRDCA, 2023). Given

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the many ACMA and RTIRC reports, amongst others, on the almost universal demand for broadband services, this is a puzzling omission.

The other element of the USO is payphones – still a critical part of universal service for many Australians. As Telstra's report shows (Telstra, 2023), the free local and national call service Telstra provides has been used by over 40 million people in the past two years, giving access to important services including police, health and employment services for people on low incomes. The contract Telstra has with the Government for those services could continue until its expiry in 2032 or be folded into a revised regime which must include continued Government support.

An essential service?

In the European Union, access to digital communications is considered as one of the essential services. While communications are traditionally not considered as one of the essential services in the various Australian states and territories, there are arguments that communications should be one of them. Certainly, during the COVID-19 epidemic, communications were critical in the lives of Australians – for health care, for employment, for food, for security and safety and to retain contact with friends and family.

There are Australian precedents for managing the provision of essential services in the states and territories. Victoria's Essential Services Commission (Essential Services Commission Act 2001 (Vic)) is a good example of such a framework. Once a service is declared as essential, it comes under the jurisdiction of the Essential Services Commission that then has regulatory powers over price, conditions of service, access issues, information collection, and complaints and reporting requirements. Its value as a model is that, as in telecommunications, there are providers of different components of the service: initiation of the service, its transmission, wholesale markets and retail providers. All of them are covered by the Essential Services Act, giving the Commission oversight and regulatory power to ensure the regulated service is provided in a way that is reasonably accessible to all Victorians.

Conclusion: A Framework for 2024 and Beyond

The 'patchwork' regulatory framework – using the RTIRC description – must be addressed. There is one provider of copper transmission (under contract until 2032); there is one SIP of broadband services for the whole of Australia, with 31 other providers of infrastructure also providing broadband services in designated areas; and there is one retail service provider of voice services for all Australians, using deteriorating copper infrastructure or infrastructure provided by the NBN. There is one provider of payphones, under separate contractual arrangements, for the provision of payphones. There is no provider of last resort for the retail

http://doi.org/10.18080/jtde.v12n2.936

provision of broadband services even though the infrastructure supporting such provision must be provided by an SIP.

The regulatory structures for the installation and provision of infrastructure and services are, at the federal level, a mixture of technical standards, licence conditions, industry codes and industry standards, some of which are registered and some of which are enforceable by the ACMA as communications regulator and/or by Government. There are also state and territory policies on infrastructure provision (that may or may not) be coordinated with federal policy on communications.

The goal of 50 years ago must remain – all Australians must have reasonable access to telecommunications services that meet their business, community and family needs.

The critical first step must be a government policy that ensures that broadband services are reasonably accessible to all Australians. This could be done be extending Telstra's universal service contract to make Telstra the provider of last resort for a minimum standard of broadband services throughout Australia. And, as the research data above would argue, as much as possible those broadband services should be mobile. As in the SIP scheme discussed above, the expanded USG policy could include the ability of other retail service providers to become USG providers of last resort for specific areas within Australia.

The next step must be coordination of regulators so that the provision of a 'patchwork' of programs is replaced by coordinated federal and state programs that support other programs in reaching common agreed goals. The reframed regulatory structure(s) must have the ability to regularly monitor the provision of required services, at a granular enough level to ensure there are not significant gaps in service provision. There must be regular and detailed reporting on service provision, including complaints data and responses to that data. There should also be programs to assist people with issues in accessing the services.

Finally, any regulatory framework must regularly review what services should be accessible to all Australians – looking in detail at both new services that are being adopted by the population and new technologies that can deliver those services. This should lead to regular upgrading of the services that should be reasonably accessible to all people in Australia on an equitable basis, wherever they reside or conduct business.

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