

Summary of Telstra submission to the Regional Telecommunications Independent Review Committee on policy and initiatives to provide enhanced broadband to rural and remote areas outside the National Broadband Network footprint

Overview

The Regional Telecommunications Independent Review Committee (RTIRC) has been asked to review the adequacy of telecommunications services in regional, rural and remote parts of Australia. The Minister has also called for submissions to the RTIRC on policy and funding initiatives to provide enhanced broadband to rural and remote areas outside the National Broadband Network (NBN) footprint.¹

The Telstra submission recommends that the RTIRC should focus primarily on extending the reach of high capacity telecommunications networks to significant communities outside the NBN footprint. Presently many communities and isolated areas are served by low capacity radio or satellite that does not support high speed mobile and terrestrial broadband.

This is a long term and inclusive strategy that complements the development of the National Broadband Network. It is the best way of addressing the key concern of people in isolated communities to have access to the capabilities available in populated areas. These capabilities are not based on stand-alone technologies but are enabled by being connected to the highly integrated, end-to-end national network.

Extending high capacity national networks to towns and communities in isolated rural and remote areas allows new services to be deployed economically. It creates a permanent bridge over the digital divide. It will require investing in high capacity transmission and supporting infrastructure such as power. High capacity transmission is the foundation that allows access technologies such as mobile or terrestrial broadband to be provided based on local need.²

In weighing up the costs and benefits of investment, a long term view should be taken given that the extension of core network capabilities reduces the cost of future upgrades or service improvements.

Outcomes of the NBN will affect the scope of potential investment and need. It will affect the geography to be served, service standards, regulatory framework, network architecture and other aspects of any detailed proposal.

Telstra generally supports a customer subsidy-based funding model where government wants to improve access to communications for particular groups. However, this model is unlikely to be successful for supporting investment in transmission and related infrastructure in isolated areas. A direct funding model including competitive tender is more appropriate for this type of situation.

Telstra believes that the Government should encourage third party contributions from State and local government or commercial organisations for infrastructure upgrades.

¹ http://www.minister.dbcde.gov.au/media/media_releases/2008/025. The Australian Government's National Broadband Network Request for Proposals (RFP) includes an order [Section 11.1] that prohibits bidders from making public statements about the RFP. Telstra will comply with the requirement.

² Telstra recognises that satellite or other technologies will continue to service individual customers outside significant communities or small communities in the most isolated parts of Australia.

Progress in regional and rural telecommunications

Telstra has a long standing commitment to providing services to people in regional, rural and remote areas. Great progress has been made in improving those services since the year 2000. At that time, the Besley Inquiry stated that data speeds of between 14.4 kbps and 28.8 kbps provided a reasonable service for the current usage of most residential customers.³ Mobile services covered approximately 500,000 square kilometres.

TABLE 1: INDICATORS OF TELECOMMUNICATIONS PROGRESS 2000-08

Measure	Year 2000	Year 2008	Improvement
Mobile coverage	AMPS 500,000 sq km 91% population CDMA as originally planned 960,000 sq km 95% population	Next G™ network 2m sq km 99% population	Area covered 200% - 400% Population 2.6m – 3.4m people with additional coverage
Mobiles penetration	8.5m SIOs	22m SIOs	13.5m SIOs
Wireless data speed	CDMA WAP 40 kbps	Next G™ network average downlink speeds of 550 kbps to 3 Mbps	13 to 75 times faster
ADSL coverage	Nil	ADSL 92% population ADSL2+ 79% population	ADSL 92% population ADSL2+ 79% population
Fixed Internet speed	Narrowband 20 – 56 kbps ISDN 64 kbps	ADSL up to 8 Mbps ADSL2+ up to 20 Mbps Next G™ network 550 kbps to 3 Mbps	10 to 1000 times faster

Today 99 per cent of the Australian population has access to the world leading, Telstra Next G™ wireless network, providing voice and broadband services. The Next G™ network offers average download speeds of 550 kbps to 3 Mbps and covers approximately two million square kilometres.⁴ ADSL is available to 92 per cent of the population and provides speeds of up to 8 Mbps. ADSL 2+ is available to 79 per cent of the population providing speeds up to 20 Mbps.

Telstra has maintained a national approach to retail pricing. This means that the benefits of head-to-head competition in the capital cities, where prices are effectively set, flow-through to consumers and small businesses in rural and remote areas.

Progress has been enabled by major investments in new technology and infrastructure. Limited regulation of wireless has encouraged competitive investment by other providers and is providing extensive benefits to regional Australia. In the future, more investment will be needed to continue to bring the full benefits of telecommunications innovation to regional Australia.

Telstra is subject to the commercial disciplines faced by all global communications companies. Investments will be undertaken where returns meet global benchmarks taking into account regulatory and technology risk.

³ TSI, *Connecting Australia, Report of the Telecommunications Service Inquiry*, September 2000, p100.

⁴ With the use of a suitable antenna.

Examples of communities that could benefit from improved telecommunications

The RTIRC will form its view on how funding should be prioritised and develop a framework to support future policy decisions. Telstra has sought to assist by identifying examples of communities and areas that could benefit from improved communications.

Decisions on the NBN are needed before the next phase of analysis can be undertaken. The NBN may result in some communities receiving high speed broadband in an early phase of any rollout. NBN decisions will affect the geographic areas or communities within scope, future national network architectures, regulatory and contractual conditions, and the role of particular carriers.

Examples include:

- Indigenous communities located in isolated areas such as in the Plenty-Sandover region northeast of Alice Springs. Some of these communities have substantial populations spread over large areas and are among the most disadvantaged in Australia. They include centres for providing education, health and community services. Often they are provided with services today using low capacity radio links. Upgraded transmission and network infrastructure can underpin improved availability of a wide range of services in these communities.
- Small towns in remote or less populated areas such as Bedourie in Southwest Queensland that are currently connected to the main network by low capacity radio transmission systems. These radio links do not provide adequate capability for mobile or ADSL terrestrial broadband. Upgrading transmission links and providing power would support broadband and mobile services. It may allow transmission rings to be created, improving network diversity. Many of these towns are centres for education, health and local government, and support tourism and resource industries.
- Communities such as those in the Torres Strait that may have access to mobile services or ADSL currently using radio links. This form of transmission may limit future high bandwidth health and education services or the ability to provide urban standard consumer broadband.
- Small towns or communities that are connected to optic fibre transmission networks but where terrestrial broadband or mobile services have not been provided. Typically, these towns will be small and support broad-acre farming communities. , for example, Nungarin in the Western Australian wheat belt. Low population or particular local circumstances mean that broadband cannot be economically enabled even with support through the Australian Broadband Guarantee program.
- Highways or transport routes that do not currently have mobile coverage and underpinning transmission infrastructure. For example, the Landsborough Highway is an important transport route between Brisbane and Darwin. There is no optic fibre or high capacity transmission between Winton and Cloncurry. As a result, it has not been possible to provide mobile coverage. Small communities along this route would benefit from upgraded communications.

In addition, there are a number of main highways or transport routes in less populated areas of Australia where transmission is available but where mobile coverage cannot be provided economically. Examples include sections of the Great

Northern Highway in Western Australia, and the Monaro Highway in mountainous areas along the Victorian-NSW border.

The examples noted should be treated as indicative as they do not constitute an exhaustive list. There are many other isolated areas where communications upgrades may benefit people or communities.

Facilities access and impact of regulation

The regulatory framework will have a substantial influence on Telstra decisions and future communications investment in rural and remote areas.

Telstra has stated its commitment to an open access regime for the NBN, providing access to all competitors. Products would be available to Telstra retail and wholesale customers on equivalent terms.

TABLE 2: SUMMARY OF EXISTING ACCESS REGULATION

Regulation	Description
Facilities Access	Facilities Access is a service that allows access seekers to access: (1) Telstra equipment buildings (TEBA) (access seekers are collocated in over 500 Telstra exchanges), (2) underground facilities (ducts); (3) towers (mobile towers and sites) These requirements are set out in Parts 3 and 5 of Schedule 1 of the Telecommunications Act 1997.
Transmission Capacity	Carriers are required to provide access to E1, PDH and SDH transmission tails and inter-exchange transmission services on non-competitive routes.
Digital Data Access	Telstra is required to provide access to Digital Data Service (DDS) access tails.
ISDN Originating and Terminating Access	Telstra is required to provide access to ISDN data tails.
PSTN Originating and Terminating Access (PSTN OTA)	Carriers and carriage service providers are required to provide originating and terminating access to and from the PSTN network. This enables hand-over of calls between carrier networks so that end users on each network can call each other.
Unconditioned Local Loop Service (ULLS)	Fixed service providers must make available the use of unconditioned (metallic twisted) communications wire between the boundary of a telecommunications network at an end user's premises and a point on a telecommunications network that is a potential Point of Interconnection (POI). It allows service providers to connect their own networks to communications wires in order to deliver services.
Local Carriage Service (LCS)	Telstra and other suppliers of local calls are obliged to provide a wholesale end-to-end local call service that enables wholesale customers to provide untimed local calls to end users under their own brand, using a re-bill arrangement.
Wholesale Line Rental (WLR)	The Wholesale Line Rental (WLR) service allows access seekers to resell the basic line rental that allows an end-user to connect to the traditional voice network, make and receive voice calls, and have a telephone number.
Line Sharing Service (LSS)	Line Sharing Service provides carriers and service providers with access to non-voice frequency spectrum on a twisted metallic pair. Telstra supplies a fixed voice-band service to an end user and separately provides LSS on the same line to a carrier or service provider access seeker. The access seeker uses LSS to provide services, typically ADSL broadband, over the high frequency portion of the line.
Mobile Terminating Access Service (MTAS)	Mobile Terminating Access Service (MTAS) enables hand-over of calls between carrier networks so that end users on each network can call each other.

Facilities and services of Telstra, other carriers and carriage service providers are subject to extensive regulation that allows third parties access (see Table 2). Facilities access arrangements allow alternative mobile providers to locate their radio equipment on towers and have access to transmission and power. ACCC declarations

under Part XIC of the Trade Practices Act 1974 provide access to bottleneck and other services.

Other regulation impacting regional telecommunications acts against investment in rural and remote areas. Telstra has fundamental concerns about both USO regulation and the impact of the ACCC's wholesale price de-averaging policy. The present USO funding level is arbitrary and bears no resemblance to costs of delivery. An accurate costing of the USO cost is required to support future investment in rural areas.

The Standard Telephone Service definition that forms the basis of the USO is burdened with extensive requirements that discourage innovation and deployment of new technologies. This has occurred in response to short term issues and in a manner that targets Telstra as the USO provider. No changes have been made to the level of USO funding to reflect the costs of increased obligations. The level of the USO has ratcheted down by eight per cent per year as the number of obligations has increased, widening the gap between funding and costs.

De-averaging of wholesale access prices is removing cross subsidies that have historically supported rural networks and is inconsistent with a national approach to retail pricing.

The risk of new regulation of advanced communications raises the required return on future investment and ultimately increases costs to consumers. A pro-investment framework that provides increased certainty, consistent with an open NBN framework and existing facilities access, will promote investment.

Long term, national solutions

The RTIRC has the opportunity to recommend a long term strategy for improving rural and remote services. As set out in this paper, Telstra believes the key component of this is connecting important communities outside the NBN footprint to high capacity national telecommunications networks.

This strategy extends the reach of national infrastructure and creates sustainable solutions for providing future advanced communications. A long term view should be taken of benefits and costs, recognising that the costs of providing transmission and supporting infrastructure in isolated areas and rugged terrain are high.

Local communities will have different needs and preferences for wireless or terrestrial broadband access. A targeted approach should be taken to support for these services, with local or State involvement and contributions.

Great progress has been made in regional and rural telecommunications since the first review of regional communications in the year 2000. The RTIRC should recommend a pro-investment and strategic framework to build on this progress and extend urban communications capabilities across Australia.