27 September 2002

Mr Dick Estens
Chairman
Regional Telecommunications Inquiry
Submissions

via email: rti@dcita.gov.au

Dear Mr Estens

Austar's Submission to the Regional Telecommunications Inquiry

Thank you for the opportunity to provide our comments to the Regional
Telecommunications Inquiry.

AUSTAR's submission is attached. Our submission does not comment on all of the
matters raised in terms of reference, but focuses on those areas that are relevant to
AUSTAR.

If you have any questions, please feel free to contact me on (02) 9394 9897, or by email
on dweir@austar.com.au.

Yours sincerely

Deanne Weir

Deanne Weir
Group Director
Corporate Development & Legal Affairs

Austar's submission to the
Regional Telecommunications Inquiry

1. Overview

Austar is a leading provider of integrated communications services in rural and regional Australia.

Since launching operations in 1995, Austar has grown to be the largest digital television operator in Australia – the sole operator in most of its market of regional and rural Australia – and a pioneer in the commercial delivery of interactive television. Austar also provides dial-up internet services, as well as mobile telephony services via reseller agreements.

Austar has invested almost $1 billion rolling out infrastructure and services in regional and rural Australia. Our goal is to ensure that consumers in these areas have access to the new and sophisticated products which metropolitan areas take for granted. Indeed, it is Austar's aim to provide better product offerings than those currently received in metropolitan environs.

Austar believes that the development of broadband infrastructure in rural and regional Australia is necessary to ensure that people living in these areas can share on an equitable basis with their metropolitan peers, in all benefits derived from future advances in telecommunications services.

The success of a ubiquitous broadband offering in regional and rural Australia is dependent on new and better technology choices and government action that encourages the development of sustainable broadband products and services to this market.

Austar believes that the rollout of new broadband access networks by new entrants using new technologies will result in a more competitive telecommunications access environment and will lead to the development of additional choice and services for consumers.

Further, Austar believes that the deployment of broadband services by fixed wireless broadband technologies is the most economic means of reaching consumers in regional areas, particularly those in areas which do not justify deployment of fibre systems or which may not have copper wire networks capable of supporting ADSL.

Accordingly, Austar's submission to the Regional Telecommunications Inquiry focuses on the additional Government action that may be taken to remove impediments to the delivery of wireless-based broadband technologies in regional, rural and remote Australia, thereby ensuring the people living in these areas can share the benefits derived from future advances in telecommunications.

2. Current impediments to, and likely drivers of, broadband take-up

Absence of infrastructure
A significant impediment to the take up of broadband is the absence of competing access infrastructure to deliver such services. This is a major issue in regional and rural Australia where there are considerable limitations in the availability of fibre optic cable network and the quality of the existing Telstra copper wires is poor. As discussed further below, these limitations can largely be overcome by the introduction of appropriate technology choices, such as fixed wireless networks, which provide a real option for an alternative broadband access network.

Limited capital
At present, there is a lack of venture capital to support the development of the alternative access infrastructure and associated network and broadband products. Sourcing financial support is particularly a problem in the regional areas where the lower population density and propensity for customer take-up means a lower return on investment making the business case less attractive than in metropolitan areas. The injection of capital in regional and rural access infrastructure developments is essential to ensure all Australians are able to access future services.

Lack of awareness
Another significant issue is the lack of awareness of the benefits derived from broadband services among the potential customers. There has been no extensive marketing campaign, particularly in regional Australia, to increase awareness of the benefits brought about by broadband technology and to stimulate demand. When we refer to the 'benefits' we mean not only the business or efficiency benefits, but also the cultural and quality of life benefits.

Limited content
Also, access to quality content, especially video content, is difficult. Attractive applications and content are essential to drive the take-up in demand.

3. Possible solutions to current and emerging challenges

It is Austar's view that the regulatory framework must support new broadband services entrants and new technologies in order to achieve a more competitive telecommunications access environment. Also, this framework should be targeted to develop and deliver additional broadband services and choice for consumers, particularly in regional and remote Australia.

Companies that are prepared to assume the significant commercial investments associated with the rollout of real access infrastructure that adds to the wealth of Australia should be encouraged and supported.

On the supply side, ways in which the deployment of alternative broadband access networks can be supported need to be examined. This could involve Government assistance with

demand aggregation, the awarding of regional franchises (on the basis that no more than one alternate supplier will be supportable in any one region), through to direct subvention to help with start up capital costs. Such a subvention could be directed to customer premises equipment like the current digital data subsidy. We would suggest that such a payment scheme could be established out of the proceeds of the further privatisation of Telstra.

The regulatory environment can also support new entrant broadband access network services by providing some forbearance from access regulation in the short term, for example, an access holiday period of three years. This would allow new entrants to build new broadband access infrastructure and deploy services to the market place, and achieve a level of commercial stability before being subject to costs and administration requirements associated with access regulation.

In addition, consideration should be given to broadening the participation of the domestic internet interconnection arrangements to allow telecommunications carriers access to content on fair and reasonable terms. The terms and criteria for domestic interconnection arrangements should be clarified and defined.

It would also be beneficial if international internet interconnection arrangements, particularly those with the United States, were to become more equitable for Australian participants.

On the demand side, Government agencies, as model users of the service, should 'partner' new broadband access providers by acquiring their broadband services from a variety of participants and be willing to enter agreements that encourage sustainable broadband access infrastructure investment.

4. Fixed wireless broadband technologies – the solution for regional Australia

Austar believes that fixed wireless technology provides an alternative access technology, especially for regional Australia. Fixed wireless is still in the early stages of commercialisation, however, there have been substantial advances which suggest that it is likely to be a realistic option within a reasonable timeframe for this market.

Austar's view is underpinned by the following factors.

First, while Australia is well served with broadband access networks, most of this deployment has occurred in the metropolitan and higher population density corridors. Consumers in remote and regional areas still do not have anything close to the level of access and carrier choice as their metropolitan counterparts but would welcome opportunities for new entrants to even out this imbalance.

Second, while most of those access networks provide backbone capacity, there is still a lack of last mile connectivity to create competition in the local loop. The cost of duplication of fixed line customer access networks to compete with Telstra is

prohibitive. Wireless technology offers a possible solution, at least for medium to large centres, including those in regional Australia.

Thirdly, the current lack of competition does not provide incentive for Telstra to invest in upgrades to its fixed line access network. ADSL technology does provide broadband access, however, in many places, including regional Australia, substantial upgrades of the copper wire network would be required to permit all consumers access to broadband services allowing this technology.

Austar views the deployment of fixed wireless broadband in regional and rural Australia as a cost effective method for a new broadband access network and as a logical competitive access network alternative. The capital investment is substantially less than would be required to duplicate or upgrade the current copper network and much lower than a HFC cable roll out. The ongoing operations costs are also lower.

An example of one of the benefits is a simple comparison of the existing broadband services such as wireline ADSL to a similar fixed wireless broadband offering. The ADSL service is available only to customers located near Telstra local access switches and only where these switches are pre-conditioned to offer the service. The addressable market of a fixed wireless access network solution is many times greater. It is not dependent on the quality and characteristics of the existing Telstra copper infrastructure.

Austar holds licences for spectrum (2.302 GHz – 2.400 GHz) throughout all of Australia. We sought to use that spectrum for wireless broadband internet access in regional Australia, commencing deployment in 2000. To date we have invested between $150 - $200 million in acquisition of licences and deployment of infrastructure. However, due to a number of factors, including lack of an industry-wide marketing push to stimulate demand, limited suitable content and lack of capital in the wake of the end of the technology boom, Austar has been unable to continue to offer those services.

Austar's experience with its spectrum is a practical example. It is well suited to line of sight, near line of sight and non line of sight broadband access. Our current studies show that fixed wireless broadband permits broadband access services with a similar throughput to the ADSL wireline offering with the following propagation characteristics:

- line of sight in excess of 50 km
- almost line of sight greater than 25 km, and
- non-line of sight greater than 10 km.

Other business advantages include a highly variable capital cost in contrast to traditional copper and copper/fibre access networks. This is because, unlike wireline networks a wireless network does not have to be deployed past every home and business to connect any of them.

Austar has been testing a fixed wireless access technology solution - two way high speed internet with concurrent voice over IP telephony - for the last year in Newcastle, NSW. The primary purposes were to:

- test the performance of available vendor products and services,

- ensure that our spectrum was compatible with technologies used elsewhere in the world, and

- map and compare the theoretical to practical coverage in a typical market..

That test has demonstrated that our spectrum is well suited for broadband connectivity and competitive voice telephony. However, we have been unable to proceed with the commercialisation of these products.

Our original plan to launch a wireless access network in regional and rural Australia has been deferred and our current plans for the future development of this spectrum are limited. While we have made significant investment in our spectrum, limitations of capital and the structure of the telecommunications regulatory regime make it unlikely that we will be able to deploy a network.

We continue to believe that fixed wireless technology is highly suitable for broadband deployment, especially in regional Australia. We are currently investigating options for use of the spectrum, including selling wholesale access or finding a joint venture partner(s) to help develop the spectrum. Again, we will only be confident of success if changes to the current climate are initiated.

5. Conclusion

We believe that the development of broadband access infrastructure in regional Australia is possible, given appropriate technology choices and government action which encourages the development of sustainable markets.

Fixed wireless technology provides a real option for an alternative broadband access network. It is especially attractive for regional centres which do not justify deployment of fibre systems or which may not have copper wire networks capable of supporting ADSL.

However, the current economic environment facing the telecommunications sector is such that few companies have the capacity to deploy such an access network. Suppliers of new broadband access services will need to be supported by appropriate regulatory arrangements and government initiatives to foster the deployment of such networks.

Appendix A: Austar MMDS coverage areas

Austar MMDS coverage areas