



# **RURAL TELECOMMUNICATIONS - CURRENT STATUS**

*A paper for the National Rural Health Alliance*

**July 2003**

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The National Rural Health Alliance is a collective of national organisations which is committed to working together in the interests of people living in rural, regional and remote Australia.

The vision of the National Rural Health Alliance is good health and well-being in rural and remote Australia.

This paper was commissioned from Jim Groves as a means of the Alliance contributing to the debate on this issue. Jim Groves has 25 years' experience in analysis of Commonwealth policy issues and seven years' experience in analysis and commentary on telecommunications issues. He is the author of ten published research reports on rural telecommunications issues. The views expressed in this paper are those of Jim Groves, and are not necessarily those of the National Rural Health Alliance, its Member Bodies, or any other organisation Jim Groves is associated with. Jim Groves can be contacted at [grovesc@winshop.com.au](mailto:grovesc@winshop.com.au)

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*This paper is published by the Alliance as a contribution to the current debate.  
It does not necessarily represent the full or particular views of all 24 Member Bodies  
of the Alliance.*

# RURAL TELECOMMUNICATIONS – CURRENT STATUS

*A paper for the National Rural Health Alliance  
by Jim Groves  
July 2003*

## **1 INTRODUCTION**

Once again, rural telecommunications are at a watershed. The Federal Government has announced another major set of rural telecommunications initiatives – the fourth set of initiatives specifically directed at the rural sector, and the sixth set of major telecommunications initiatives with significant implications for the rural sector, in six years.

Once again, these initiatives are linked politically – though not in policy terms or indeed in logical terms – to further privatisation of Telstra.

And once again, those concerned with the economic and social development of rural Australia face the decision of whether to:

- accept the position of the Commonwealth Government that enough has been done to ensure that a fully privatised Telstra will not compromise the future of rural telecommunications; or
- continue to insist that, as welcome as the Federal Government's policy initiatives are, they do not constitute a valid case for privatising Telstra.

The argument of this paper is threefold.

First, there can be no doubt that rural telecommunications are improving and that Commonwealth policy initiatives over the past six years have been very significant in promoting this improvement. This is true in relation to all four dimensions of telecommunications of importance to rural Australians – fixed voice telephony, mobile telephony, dial-up Internet access, and availability of broadband.

Second, there remain some deficiencies in rural – and indeed non-rural – telecommunications that continue to require policy attention.

Third, full privatisation of Telstra contains significant risks for the future development of rural telecommunications.

Logically, the rural sector should therefore continue to reject Telstra privatisation and continue to seek redress of remaining telecommunications issues. Ultimately, however, the decision the rural sector faces is one of political strategy. There is a risk that the approach of the Government and Telstra to date, of offering carrots to entice the rural sector to support further privatisation, could be replaced by a less congenial stance that makes any further measures to improve rural telecommunications (or even some of those measures already announced) dependent upon the passage of full privatisation.

This paper proceeds as follows. Following this Introduction, Section 2 discusses the current status of rural telecommunications, drawing heavily on the November 2002 report of the Regional Telecommunications Inquiry<sup>1</sup> and the Government's response thereto<sup>2</sup>. Section 3 considers the implications for Telstra privatisation, Section 4 considers competition and cross-subsidisation issues in the market for telecommunications services, Section 5 addresses some specific health issues, and Section 6 concludes with a discussion of the appropriate position for the rural sector to adopt in dealing with these issues.

This paper takes it as given that telecommunications are an essential economic and social infrastructure in rural and remote areas, and are becoming even more important in the context of the so-called "information economy" and the need to access services such as e-commerce, e-learning, e-health, and banking. Further information on why this is so is available from the author.

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<sup>1</sup> Regional Telecommunications Inquiry, *Connecting Regional Australia*, November 2002, <http://www.telinquiry.gov.au> (accessed 29 June 2003). Hereafter referred to as the RTI report.

<sup>2</sup> Government media statements and fact sheets, *Government response to Regional Telecommunications Inquiry*, 25 June 2003.

## **2 CURRENT STATUS OF RURAL TELECOMMUNICATIONS**

Following the RTI report, rural telecommunications issues can be considered under four main headings – fixed voice telephony, mobile telephony, dial-up Internet access, and availability of broadband.

Before doing so, the question of the meaning of the term “adequate” in relation to telecommunications services needs to be addressed. The Federal Government has linked Telstra privatisation to the “adequacy” of rural telecommunications services, but has never explicitly defined the term.

The RTI report provides a definition of adequacy in terms of: the extent to which service problems (as identified by previous reviews) have been addressed and overcome; the extent to which gaps between service levels in large regional centres compared with metropolitan areas are being addressed; service improvements currently underway; Government support for service improvements; and relevant international comparisons.<sup>3</sup> Note that the only criterion including an equity element applies to equity between large regional centres compared with metropolitan areas – not between rural and remote areas on the one hand and urban areas on the other.<sup>4</sup>

This is a vague and inadequate definition of service adequacy, and even on this definition the RTI report avoids reaching a definitive conclusion. The RTI report argues against the establishment of defined benchmarks of adequacy<sup>5</sup>, even though a partial benchmark already exists in the form of the Customer Service Guarantee (CSG). While there is some legitimacy to these arguments, particularly the difficulties of prescribing absolutely equal service with that available in metropolitan areas, the argument is over-stated.

A preferable approach would have been to establish a definition of adequacy around the telecommunications needs of rural and remote populations in the context of the emerging information economy. Such a definition could include all four dimensions of the issue (fixed voice telephony, mobile telephony, dial-up Internet access, and broadband availability). Indeed, it can be argued that the RTI report does in fact implicitly adopt such benchmarks in relation to fixed voice telephony (the CSG), mobile telephony (coverage up to the point where the necessary subsidy covers capital, but not recurrent, costs<sup>6</sup>), and dial-up Internet access (line speeds of at least 19.2 kpbs). The problem is that these benchmarks are argued in terms of cost and carrier convenience – not in terms of the needs of rural Australians.

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<sup>3</sup> RTI report, p x.

<sup>4</sup> As an aside, the data used in the report cannot support this distinction – Telstra’s definition of “urban” areas includes both large regional centres and metropolitan areas.

<sup>5</sup> RTI report, p 21.

<sup>6</sup> RTI report, p 122.

## Fixed Voice Telephony

While 3% of Australian households do not have a telephone connected<sup>7</sup>, most discussion of issues relating to fixed voice telephony have been about service standards in terms of fault incidence, fault repair, and connection times. The Government has addressed these issues through its Customer Service Guarantee (CSG), which provides a set of service standards in these areas and a mechanism for penalising carriers that fail to deliver according to these standards. Since January 2003, this has been supplemented by a National Reliability Framework which requires Telstra to report and act on excessive fault levels.<sup>8</sup>

It is important to note that the CSG was initially based on Telstra's actual performance in these areas. Hence the standard for connection where no infrastructure is in place varied from one month in urban areas (where population exceeds 10,000) to 12 months in remote areas. For some time therefore the carriers and the Government could claim that carrier performance against standards was as good in rural areas as in urban areas – this, however, only reflected the fact that the standard itself was so much lower in rural areas.

The attention given to the CSG, particularly in the context of the previous telecommunications service inquiry<sup>9</sup>, meant that this position became untenable and the standards themselves had to be revised towards providing greater equivalence between urban, rural and remote customers. Consequently, over the last five years, the standards have improved slightly for urban areas, but they have improved significantly for rural areas and substantially for remote areas, so that the differences in standards between urban, rural and remote areas have been substantially diminished.

Notwithstanding the significance of these improvements in service standards, the CSG framework remains incomplete. This is for a number of reasons.

- There is no in-built mechanism for continuing improvement in service standards. It is possible therefore that once the privatisation-induced attention to rural telecommunications issues diminishes there will be little or no further pressure for standard improvement.
- The standards still retain some of their original basis of carrier, rather than user, convenience. They should be recast in terms of user needs.
- The standards themselves do not address all of the issues important to rural telecommunications users. For example, line speeds – which are essential to effective Internet access – are not included in the CSG framework.

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<sup>7</sup> RTI report, p 26.

<sup>8</sup> RTI report, pp 73-74.

<sup>9</sup> Telecommunications Service Inquiry, *Connecting Australia*, September 2000.

Pricing issues are of course also important in fixed voice telephony, particularly the availability of untimed local calls. The Government has extended untimed local calls to all Australians through its Extended Zone Agreement. This extended untimed local calls to about 28,000 consumers in Extended Zones from July 2001. At the same time, Telstra announced revised zoning arrangements and in July 2002 local call access was further extended to designated “Community Service Towns”.<sup>10</sup>

Technological developments have virtually removed distance as a relevant factor in the cost of provision of telecommunications services. Consequently, distance-related charges have fallen dramatically as a result of the operation of market forces. However, the continued market power of the vertically-integrated former monopolist – Telstra – has meant that prices have yet to come fully into line with these changed cost structures. (This issue is discussed more fully in Section 4 below).

Lack of access to fixed voice telephony is a major issue for one group of Australians – those living in Indigenous communities. The RTI report quotes ABS statistics identifying 1,216 discrete Indigenous communities – 98% of them in outer regional or remote areas – containing 108,000 people.<sup>11</sup> A significant proportion of these communities do not even have access to a public payphone and, as the RTI report noted, many of these communities are without telecommunications of any kind.

Recognition of the telecommunications problems of these people, and policy action to redress them through the May 2002 Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC), is one of the most welcome developments in telecommunications policy in recent years. This recognition is apparent in the RTI report, which devotes a significant section to this issue. However, the report’s recommendations are not very substantial – only noting that further support will be needed, and that Telstra should place a high priority on the provision of payphones or alternative community phone systems. The Government has accepted these recommendations.

## **Mobile Telephony**

The RTI report estimates that over 98% of the Australian population will have mobile phone coverage by 2004. This compares well with other large countries such as the USA (90%) and Canada (94%) and indeed is more in line with the coverage in smaller more densely populated countries such as England [sic] (over 99%).<sup>12</sup> This high level of coverage reflects strong competition in the market for mobile telephony services and the operation of the *Networking the Nation* program and other Commonwealth programs designed to extend mobile telephony coverage to population centres exceeding 500 people and along major highways.

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<sup>10</sup> RTI report, pp 61-62.

<sup>11</sup> RTI report, p 163.

<sup>12</sup> RTI report, pp117-121.

In its response to the RTI report, the Commonwealth announced a further \$15.9 million over four years to extend coverage to small population centres and along highways. State Government initiatives are also extending coverage. Moreover, for those without mobile coverage, the Government has introduced a satellite handset subsidy (although the RTI report implied some concern about its eligibility guidelines) and the cost of satellite telephony is falling<sup>13</sup>.

This happy picture is however subject to two qualifications.

First, the 98% of the population with mobile telephone coverage live in less than 18% of Australia's land area.<sup>14</sup> 98% of where people live is not the same as 98% of where people want to make mobile calls to *and* from. The 98% figure is therefore an over-estimate of the true availability of mobile telephony.

Second, the 98% figure refers to CDMA coverage – the more popular GSM system covers 95% of the population.<sup>15</sup> Not all of the Government's programs to extend mobile phone coverage use CDMA technology – the national highway tender, for example, was won by Vodaphone using GSM. While the Government tenders claim they include roaming requirements enabling users to use the services of another company, and some roaming agreements have been struck commercially, roaming is not generally available between GSM providers or between GSM and CDMA providers.

The ongoing improvements to mobile phone access, and the Government's recent announcement in response to the RTI report, should be welcomed. As argued by the RTI report, there is a limit to the cost-effectiveness of further initiatives in this area so that 100% coverage is not a reasonable objective. However, the Government should be urged to continue to explore cost-effective expansions in coverage, including measures to require a greater degree of roaming.

## Dial-up Internet Access

Cost and quality of dial-up Internet access has been a major issue in rural Australia since the emergence of Internet access as an essential infrastructure in the mid-1990s.

Cost issues have been largely addressed by the Government's Extended Zones Agreement, which provides universal local call access to the Internet. Moreover, competition in the market for Internet service providers (ISPs) is such that access charges have diminished significantly, and the gap in charges between rural and urban areas has also diminished.<sup>16</sup> However, as discussed in Section 4 below, it is likely that Telstra's vertical integration, including the Big Pond ISP service which is a relatively high-cost ISP, is having the effect of hampering competition in the ISP market and

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<sup>13</sup> RTI report, p 134.

<sup>14</sup> As at 2004 (RTI report, p 117).

<sup>15</sup> As at June 2002, 94% of mobile phone subscribers were GSM users (RTI report, p 127).

<sup>16</sup> The RTI report concludes that ISP prices are "equitable" between metropolitan and regional, rural and remote subscribers (p xix). The report does not set out the basis for this conclusion. Major national ISPs such as Telstra's Big Pond might provide equitable pricing between metropolitan and regional areas, but these ISPs are relatively high cost compared to many smaller ISPs which tend to be more prevalent in urban areas.

hence holding ISP charges in rural areas at higher levels than would otherwise have been the case.

Line speed issues however continue to be of importance to rural Australians. The RTI report cites Telstra Big Pond figures for June 2002 showing that 4.88% of Internet connections are made at speeds of less than 19.2 kbps, including 0.84% at speeds of less than 9.6 kbps, and a further 7.96% of connections are at line speeds between 19.2 kbps and 28.8 kbps. The report notes that experience under the Internet Access Program (itself a significant Government initiative in this area) shows that most of these difficulties can be resolved at the user end.<sup>17</sup> However, these figures of course do not include connections that are not made, and Internet subscriptions that are never purchased, because of such low line speeds. For most practical purposes other than short text-based emails, a line speed of less than 9.6 kbps is the same as having no Internet access at all.

The inter-relationship between satellite broadband and dial-up access is also important, because one-way satellite (which provides broadband data rates on the download, but uses terrestrial infrastructure at dial-up line speeds for uploading) is substantially cheaper than two-way satellite, at similar quality for many purposes provided the terrestrial infrastructure is adequate.

As a result of the RTI report, the Government has decided to impose a licence condition on Telstra to provide a minimum dial-up Internet speed of 19.2 kbps through its fixed line network. This is a welcome initiative and should be supported. It is unclear whether the license condition requires the use of fixed line technology, or whether other technologies (eg, two-way satellite) can be substituted and hence provide much greater line speeds. Some flexibility in this area may be desirable.

It should be noted that this benchmark is based on an assessment of achievability on Telstra's side, not on an assessment of what is necessary for a satisfactory Internet experience from a user's point of view. Hence, in supporting the initiative, the rural sector should seek ongoing policy action to raise minimum line speeds into the future. A further option is to include line speeds in the Customer Service Guarantee – eg, a progressive reduction from June 2002 figure of 12.84% of connections at less than 28.8 kbps as at June 2002.

The new licence condition does not apply to radio concentrator systems, although Telstra indicates that it should have completed upgrading its radio concentrator systems to provide the equivalent of 28.8 kbps by the end of 2003.<sup>18</sup>

The RTI report argues that dial-up technology is becoming inadequate to meet the service needs of users. There is some legitimacy to this viewpoint (see below). However, dial-up access is going to be the major type of Internet access for some years to come, and a significant form of access for many years thereafter, so it would be unfortunate if this conclusion was interpreted as implying that continuing efforts to improve dial-up line speeds are no longer required.

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<sup>17</sup> RTI report, p 153.

<sup>18</sup> RTI report, p 157.

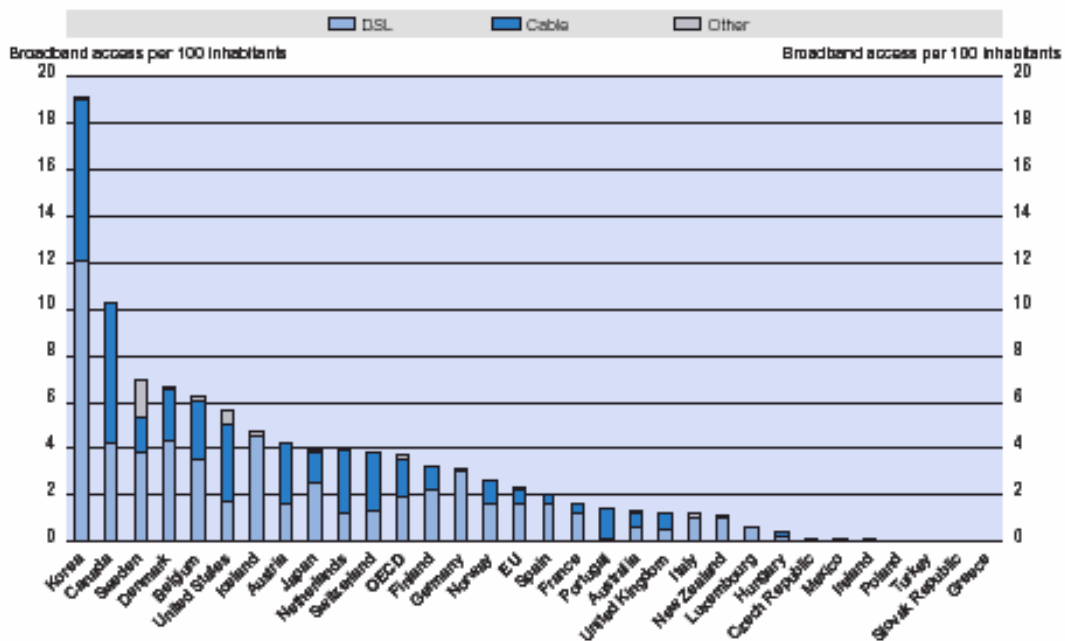
## Broadband

The RTI report concludes that:

*Access to higher bandwidth services is becoming vital for the economic and social development of regional, rural and remote Australia. (p xxiii)*

The roll-out of broadband in Australia has been extremely slow. While take-up is now accelerating, Australia's start was so late that Australia's take-up remains less than half the OECD average and compares particularly poorly with similar large countries such as Canada (Chart 1).

**Chart 1 – Broadband Access per 100 Inhabitants, June 2002**



Source: OECD

Notwithstanding its own definition of “adequacy”, the RTI report did not report on this international comparison or on the reason for this slow roll-out of broadband. The central reason is policy failure over a period of years by successive Commonwealth Governments. This includes the perpetuation of structural arrangements in the telecommunications market that had the effect of encouraging Telstra to delay the implementation of broadband technologies such as ADSL for as long as possible (see Section 4).

Meanwhile, policy attention focussed on ISDN, eg, the Digital Data Service Obligation introduced by the Government in 1999. ISDN is *not* a broadband technology. At 128 kbps (or the Government's own benchmark under the Digital Data Service Obligation of 64 kbps), ISDN is at best only a half-way step, and more often it has been a dead-end, in the road towards true broadband availability (at least 256 kbps). Unfortunately, the RTI report continues with this misconception that ISDN is relevant to the provision of broadband services.

Technology, market and regulatory developments have diminished Telstra's capacity to resist broadband and so ADSL is now being belatedly rolled-out around Australia. But the conflicts of interest have not been removed, and so the roll-out remains limited. For example, only 70% of Australian have access to ADSL.<sup>19</sup>

Consequently, satellite and other wireless technologies are going to continue to become more important in the provision of Internet access to rural and remote Australians. While prices are falling, and likely to continue to fall, satellite prices remain expensive – installation costs several times that of ADSL and monthly charges are around 50% greater.<sup>20</sup> Further technological and market evolution seems likely.

The Commonwealth Government has now joined a number of State Governments in realising that the earlier concentration on ISDN was misplaced and measures are required to support genuine broadband availability.

- Earlier competitive restraints on the market for ADSL have been removed, to the point where the RTI report describes the market as “very competitive”.<sup>21</sup> While this may be true now, it is a very recent development requiring ACCC intervention to overcome anti-competitive behaviour by Telstra.
- The Government's Extended Zones Agreement is helping to reduce the cost of satellite connections for people who are among the ones who most require the service.<sup>22</sup>
- The Government's response to the RTI report includes \$107.8 million over four years for a Higher Bandwidth Incentive Scheme to subsidise broadband connections in areas not otherwise served by the market.
- The Government has also announced demand aggregation strategies to help bring broadband technologies into otherwise-unserved areas. These strategies require co-operation from State and Territory Governments, which have considerable demand for bandwidth (for health, education, policing and other service purposes) and hence considerable capacity to support the roll-out of broadband technologies in rural areas. The rural sector should seek State and Territory support for this Commonwealth initiative.

While welcome, there remains a case for encouraging higher bandwidth services through the Universal Service Obligation (USO) mechanism. The RTI report argues against such an extension largely on the basis of industry (ie, carrier) resistance – an irrelevant consideration.<sup>23</sup>

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<sup>19</sup> RTI report, p 207.

<sup>20</sup> RTI report, p 215.

<sup>21</sup> RTI report, p 207.

<sup>22</sup> RTI report, p 224.

<sup>23</sup> RTI report, p 263.

### **3 RURAL IMPLICATIONS OF TELSTRA PRIVATISATION**

The Federal Government has inserted a fundamental illogicality into the debate over Telstra privatisation. Both the RTI and its predecessor inquiry were established in response to Coalition election commitments that Telstra will not be fully privatised until the Government is satisfied that rural telecommunications are “adequate”.

This approach has resulted in some significant improvements to rural telecommunications, which are of course to be welcomed. However, in respect of the implications for Telstra privatisation, it is illogical. This is because what matters in the privatisation debate is whether privatisation *itself* will impact upon service provision.

This is a debate the Government has chosen to avoid, except that the logic of its position would imply an acceptance that rural telecommunications can only be rendered “adequate” prior to privatisation, not afterwards. The emphasis on “future proofing” in the Government’s response to the RTI report would seem to be consistent with this view.

Privatisation contains significant risks to Telstra’s service provision in rural and remote areas for three reasons.

First, privatised organisations can be expected to be more demanding of a commercial rate of return from all their assets - and so more willing to close down low return assets such as many of those in rural Australia. Rural Australia has lost many services (eg, banking, air services) for this reason over recent years.

Second, the managements of privatised organisations can be expected to be more resistant to perceived intrusions into their managerial autonomy, as represented by the universal service obligation, licence conditions and other aspects of the Government’s telecommunications policy, and will receive support from the rest of the private sector in this resistance. In addition, informal avenues for influencing the activities of the organisation inherent in Government ownership (eg, accountability requirements) will be lost. History shows that commitments that become purely political, unsupported by institutional structures conducive to their achievement, tend to be of only temporary duration.

Consequently, it is likely that the Government's commitments could become maximums to be achieved grudgingly rather than minimums to be exceeded if at all possible. For example, a cynical management would act to ensure that the standards under the CSG are never exceeded by too much in order to discourage the lifting of those standards (and the Government would have no influence to prevent the emergence of such a cynical management in a fully privatised organisation).

Third, regardless of these longer-term impacts, the privatisation debate has put rural telecommunications very much on the agenda of the Government and of Telstra itself. Telstra management strongly supports privatisation, partly on ideological grounds and partly because privatisation would undoubtedly increase management autonomy (and possibly remuneration).

The rural sector has been seen as the most effective opponent of privatisation, and hence Telstra management has felt the need to be seen as addressing rural concerns. The RTI report provides a summary of large expenditures by Telstra on upgrading rural services, eg, under its Rural Networks Taskforce.<sup>24</sup> However, once the debate is resolved in favour of full privatisation, this attention to rural issues can be expected to abate.

The so-called “future proofing” measures in the RTI report can be seen as one response to this concern. This includes the attention given to broadband issues in the report and in the Government’s response, the various legislative and quasi-legislative (eg, licence conditions, formal undertakings) mechanisms the Government proposes to use to enforce its policy decisions, and the commitment to legislate for regular reviews along the lines of the RTI.

Nevertheless, while welcome, these measures can never address all concerns in this area. In particular, the following recommendations of the RTI report and the associated Government response appear to require the co-operation of Telstra for their implementation:

- resolving the service concerns of people with disabilities (Rec 2.1);
- giving priority to extreme cases of CSG non-compliance (Rec 2.3);
- improved co-ordination of new service connections (Rec 2.5); and
- improving public understanding of payphone policies (Recs 2.11-13);

Moreover, while a number of recommendations require action by Telstra, the nature of that action can be strongly influenced by Telstra. These include:

- improving the quality of pair gain systems (Rec 2.7);
- upgrading radio concentrator systems (Rec 2.8);
- improving the performance of the worst performing Exchange Service Areas (Rec 2.9);
- strategy to address dial-up line speed issues (Rec 4.2);
- delivery of the universal service obligation to remote Indigenous communities (Recs 5.1-2); and
- Maintenance of a local presence (Recs 8.1-2).

Given the likely change in Telstra’s focus consequent on privatisation, it is possible that full privatisation will impede, rather than progress, the implementation of these recommendations and the Government’s decisions.

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<sup>24</sup> RTI report, pp 71-72.

## **4 COMPETITION AND CROSS-SUBSIDISATION**

### **Competition Issues**

After six years of market deregulation, Australia still does not have full competition in telecommunications. The vertically-integrated former monopolist, Telstra:

- remains in almost total control of the Customer Access Network;
- is the only company in a strong position in all telecommunications markets and hence in a position to use leverage in one market to support its activities in others;
- continues to be in a position to protect traditional sources of profits through limiting the roll-out of broadband technologies;
- remains the only supplier of terrestrial fibre infrastructure into many regional areas; and
- remains the only Universal Service Obligation provider.

Much of the fault for this situation lies in the past – eg, the decades of monopoly and the amalgamation of the former Telecom and OTC to create Telstra. Over the past decade, successive Commonwealth Governments have sought to address this historical legacy through the implementation of telecommunications-specific competition regulation through the ACCC. The Government has recently made some improvements to this regulation.

Telstra has sought to frustrate Governments in this endeavour at every step of the way. Every possible delaying tactic has been employed, including lengthy and expensive legal action to defy the clear intent of Government policy. This has forced the Government into further legislative amendment. It is one of the unfortunate consequences of its concern with privatisation that the Government has chosen to confine its directions to Telstra to what can be enshrined in black-letter law rather than using its ownership rights to insist that Telstra comply with Government policy.

Nevertheless, this pro-competitive regulation has had some significant successes. The mobile telephone market is highly competitive, Australia's central business districts are absolutely swimming with bandwidth, the long-distance market is generally competitive, the ADSL market has recently (but belatedly) been opened up to competition, and the Government generally seeks to implement its own programs in a pro-competitive manner.

However, significant problems remain. Symptoms of this include:

- The duplication of under-utilised backbone fibre networks around the country, reflecting fundamental limitations of the interconnect arrangements which were supposed to enable competitors to access Telstra's infrastructure without requiring expensive duplication.

- The slow roll-out of broadband, particularly ADSL, in Australia. Telstra's attitude to broadband, at least in the household and small business markets, has always been ambivalent because broadband threatens the profitability of Telstra's traditional business. For example:
  - VoIP technologies<sup>25</sup> offer the prospect of very substantial reductions in the cost of voice telephony because packet-switching is much less costly than circuit-switching technologies. VoIP is now reaching acceptable quality levels and hence some major customers in both the private and public sectors are beginning to move down this path. A major shift to VoIP can be expected over the next decade or so, with very substantial adverse implications for Telstra's profitability.
  - Telstra was permitted to take a 50% share in Foxtel, and hence in Australia's major company providing the other major broadband technology, cable. Telstra has always been the less dynamic partner in Foxtel.
- The complete failure of the Government's attempt to introduce contestability into the USO arrangements. Its pilot schemes have failed to attract any new entrants.<sup>26</sup>
- The prominent role of Telstra's Big Pond in ISP markets in rural and regional areas. This is partly the result of support from other parts of Telstra's business. Big Pond is a relatively high cost ISP, and this prominence may be having the effect of limiting competition in ISP markets in regional areas and hence in keeping ISP prices higher than they might otherwise have been.

The fundamental problem is Telstra's continuing status as a vertically-integrated former monopolist. Even where Telstra does not use its position in one market to leverage benefits for itself in other markets, there is always a risk that it will do so and hence there is a strong disincentive to market entry by potential competitors. Because many telecommunications markets include large sunk costs, they are not always fully contestable even in the absence of legislative constraints on entry.

The Federal Government should act to remove Telstra's vertical integration through separating Telstra's value-added services from its backbone infrastructure and the Customer Access Network. Moreover, Telstra should be required to divest itself of its share in Foxtel. Such structural separation would result in a more competitive market. Because the USO and other Government policies in this area would continue, this would not diminish services to rural and remote areas. The value-added services could be fully privatised, while the backbone infrastructure should remain under public control.

The privatisation debate has however poisoned the prospects for this much-needed improvement in the structure of telecommunications markets in Australia. The Government has refused to even consider structural separation of Telstra, not because

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<sup>25</sup> Voice-over-Internet Protocol, or Voice-over-IP.

<sup>26</sup> RTI report, p 34.

of its inherent justification or otherwise, but because it could have an adverse impact on the market value of Telstra shares.

Any such adverse impact would reflect the success of the policy in diminishing monopoly rents to the benefit of consumers. However, in the context of the privatisation debate the Government appears to be more concerned about potential privatisation proceeds and the interests of existing minority shareholders than in the best operation of telecommunications markets.<sup>27</sup>

## **Cross-Subsidisation**

Ultimately, competition is not an end in itself – it is only a means to the end of ensuring the best possible telecommunications services are available to all Australians. Market forces on their own can never provide rural Australia with the telecommunications services it needs.

Governments can intervene into telecommunications markets to ensure rural Australia does receive adequate service levels either through funding programs or through legislative and quasi-legislative requirements on carrier behaviour. The former is financed from general taxation revenue, the latter from other users of telecommunications services.

The RTI report includes a quite simplistic discussion favouring Government funding over financial obligations on industry.<sup>28</sup> It is clear from the discussion that the authors of the report consider that, in the long-term, the USO should also be replaced by direct government funding.

It is true that direct funding has some advantages in terms of targeting, transparency and accountability. There are however two further issues.

First, cross-subsidies in the telecommunications market can be justified on economic as well as equity grounds. This is because telecommunications is a market that is subject to so-called “network externalities”. Network externalities arise where the value of a network increases with the number of people connected to the network – a condition that telecommunications fulfils *par excellence*. In this situation, there is a benefit to existing consumers as well as new consumers from expansion of the network, and hence a strong case for a pricing arrangement that involves a cross-subsidy from the existing consumers to the new consumers. The USO is such an arrangement.

Second, Government funding programs are not certain. The funding initiatives the Government has announced in response to the RTI report are for four years. There can be no guarantees that funding will be provided beyond this date, and the annual

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<sup>27</sup> This affliction has extended to the Federal Opposition. The Opposition commissioned a report into the possibilities of structural separation while protecting the interests of minority shareholders (Chifley Research Centre, *Separating Telstra: Protecting the Interests of Minority Shareholders*, January 2003). The report showed that quite complex arrangements would be required to provide absolute protection to minority shareholders in a context of structure separation. In order to avoid any risk to minority shareholders, the Opposition therefore committed the issue to the too hard basket.

<sup>28</sup> RTI report, pp 318-322.

budget cycle means that there is always close scrutiny given to all funding proposals. Cross-subsidies like the universal service obligation are subject to fewer reviews and hence less uncertainty, and their legislative basis makes it much harder for them to be removed (requiring not only Government but also Parliamentary approval).

The RTI report quotes with approval a suggestion from the Australian Telecommunications Users Group that a trust fund be created from the proceeds of Telstra privatisation to overcome this problem of funding uncertainty.

On the basis of this discussion, both cross-subsidies and funding programs should continue to be used to support rural telecommunications. The rural sector should argue this position strongly in the forthcoming review of the universal service obligation arrangements recommended in the RTI report.

## **5 TELECOMMUNICATIONS IN THE HEALTH SECTOR**

E-health applications contain significant potential to improve health services to rural and remote Australians. However, many such applications are bandwidth-intensive and hence require high quality reliable telecommunications infrastructure.

State health departments are introducing e-health applications into their service delivery. They are however hampered in this endeavour by the asymmetry in costs and benefits, ie, most of the benefits of e-health accrue to consumers (eg, improved services, reduced transport costs) while most of the costs are incurred by suppliers. There is therefore a need for policy action to promote e-health applications.

In the telecommunications sphere, the Federal Government has provided \$50 million under its National Communications Fund to eight projects involved in providing e-health and e-learning services to rural and remote Australia. The Health portfolio also has some e-health programs, such as *HealthConnect*. The Government's recent Medicare package includes measures to help GPs access HIC Online, including support for broadband connectivity in rural and remote areas.

The Government's response to the RTI report takes these initiatives further through provision of \$23.7 million over four years to a Coordinated Communications Infrastructure Fund and \$8.4 million over four years towards a network of broadband demand aggregation brokers in regional Australia. These initiatives will seek to aggregate demand from a number of sources, including the health sector, and so help build the business case for greater availability of broadband services in rural and regional Australia. Some States (eg, Queensland) have also been moving in this direction. The States therefore should be encouraged to agree to the Commonwealth's request for matching funding and otherwise support these initiatives.

## 6 CONCLUSION

There can be no doubt that rural telecommunications are improving and that Commonwealth policy initiatives over the past six years have been very significant in promoting this improvement. This is true in relation to fixed voice telephony, mobile telephony, dial-up Internet access, and availability of broadband.

Nevertheless, there remain some deficiencies in rural – and indeed non-rural – telecommunications that continue to require policy attention. Too many Australians continue to have their Internet access hindered by slow dial-up line speeds, and the roll-out of broadband services has been excessively slow.

While these deficiencies are being corrected both through past programs and through the Government's response to the RTI report, more could be done through:

- extending the Customer Service Guarantee to become more user-oriented, including coverage of dial-up line speeds;
- extending the Universal Service Obligation into broadband; and
- structural separation of Telstra.

Full privatisation of Telstra contains significant risks for the future development of rural telecommunications. These risks derive from the likelihood that increased commercial orientation will direct Telstra's attention away from rural issues, particularly once the political pressure the rural sector is able to direct through the privatisation issue is removed.

Logically, the rural sector should therefore continue to reject Telstra privatisation and continue to seek redress of remaining telecommunications issues. Ultimately, however, this is a matter of political strategy. There is a risk that the approach of the Government and Telstra to date, of offering carrots to entice the rural sector to support further privatisation, could be replaced by a less congenial stance that makes any further measures to improve rural telecommunications dependent upon the passage of full privatisation. Indeed, evidence of this possibility can be seen in the fact that, while the Government has stated that its response to the RTI report is not contingent upon Telstra privatisation, it has included some of the elements of that response in the privatisation legislation.

The rural sector should support the RTI report's suggestion for the development of a strategic plan for regional telecommunications<sup>29</sup> (although it is notable that the inquiry did not include this as a formal recommendation and hence no Government decision was required upon it) – with one exception. The RTI report recommended that such a plan should promote “a better understanding by regional, rural and remote Australians of Government objectives and strategies in this area”. A more appropriate objective would be to turn this around and seek to promote a better understanding by Government of the needs and aspirations of people in regional, rural and remote Australia.

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<sup>29</sup> RTI report, pp 317-318.