

# **Chapter 7**

## **Conclusions and recommendations**

7.1 Reliable, high tech telecommunications services are one of the key foundations upon which any modern nation is built. Bearing in mind the country's size and relatively small population, the Committee has found that Australia's telecommunications network is generally able to deliver adequate basic services to most Australians. Nevertheless, the Committee's inquiry has revealed some significant weaknesses in the Australian network. The principal weaknesses relate to the inability to provide universal, reliable high speed access to the Internet; the incomplete coverage provided by the mobile phone networks; the existence within the network of outdated equipment such as pair gain systems, inadequate repair and maintenance by Telstra of the network; and declining investment.

7.2 As discussed earlier in this report, the Committee is concurrently conducting a separate inquiry into broadband competition. The Committee's report on that inquiry will examine issues relating to the state of competition in the broadband market and the proposals to enhance competition. The recommendations in that Report should be read in conjunction with the recommendations below.

7.3 Although the problems identified by the Committee's inquiry occurred throughout Australia they are generally worse in the more remote rural and regional areas. While disruption to telecommunications services is an inconvenience to Australians wherever they live, it is these areas where access to reliable communications is often crucial. People in these areas are being forced to place increasing reliance upon telecommunications services because of the declining physical presence of many businesses and government agencies. Unfortunately many people in these areas find that they are unable to compensate for the lack of local services by using modern communications because the local telecommunications infrastructure is not capable of providing adequate data services.

7.4 The evidence from regional areas also stressed the importance of good telecommunications services to the economic development of these regions. Many businesses will not consider relocating to a regional area if the telecommunications network in that area is unable to support their needs. As the importance of telecommunications services to existing businesses in regional areas grows many of them may also be forced to consider relocating to other areas where the telecommunications network is more reliable or offers access to better services.

7.5 One witness, a resident of Bendigo in regional Victoria, emphasised the social dimension of having access to the most up-to-date telecommunications services:

Twenty years ago I completed an electrical engineering degree at the then Bendigo College of Advanced Education. I had no choice. I had to leave the area to get a job...I want the option for my 10- and 12-year-old sons to, if they want, live in Harcourt North, where I live, on 44 acres overlooking 20,000 square miles – with a broadband connection so that they can videoconference with their employer in Germany, get paid in deutschmark, and clear it through the local bank. That would be a lovely vision.<sup>1</sup>

7.6 In its report in September 2000 the Telecommunications Service Inquiry said that:

... a significant proportion of those who live and work in rural and remote Australia have concerns regarding key aspects of services which, at this stage, are not adequate. Their concerns relate primarily to

- the timely installation, repair and reliability of basic telephone services;
- mobile phone coverage at affordable prices; and
- reliable access to the Internet and data speeds generally.<sup>2</sup>

7.7 The Committee's inquiry confirmed that these remain issues of concern, particularly in rural and remote Australia.

7.8 When the current telecommunications regime came into effect in July 1997 it was designed as a light touch regulatory regime relying largely on competition and self regulation to promote the long term interests of end users and to produce an efficient and internationally competitive industry. Some eight years down the track, the Committee's inquiry has shown that the current regime has failed to meet expectations in many important respects.

7.9 While finding that the Australian telecommunications network delivers a basically adequate level of services, the Committee notes that consumers do not enjoy universal access to services appropriate to a modern community at the start of the twenty first century. There is substantial evidence that Telstra's fixed line network is deteriorating due to reductions in staffing and inadequate capital expenditure. Mobile telephone coverage, although improving, remains patchy. Universal access to fast reliable data services, so vital to a modern economy, is not available. Although some significant progress has been made by some new entrants, especially in the mobile market, the competition regime has failed to produce a strongly competitive environment for most telecommunications services. Telstra remains the dominant

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1 Mr Andrew Cairns, Chief Executive Officer, Bendigo Community Telco Ltd, Committee Hansard, 22 April 2003, p 311

2 Telecommunications Service Inquiry, *Connecting Australia*, 30 September 2000, p 5.

carrier on whom almost all Australians are forced to rely for some or all of their telecommunications needs.

7.10 Compounding these problems, the Australian Communications Authority has been a reactive regulator. It has not been in a position to be proactive in important areas, such as monitoring the state of the Telstra network and requiring that infrastructure be upgraded where necessary.

7.11 The Government's attempts to address these issues have been piecemeal. A plethora of short term programs and new licence conditions have been initiated to try to remedy individual problems. These programs have often been operated in conjunction with Telstra, reinforcing its dominant position in the market, and do not provide consumers with universal access to the full range of modern telecommunication services.

## **Renewing the network**

7.12 The Committee's inquiry brought into sharp focus the rapidly approaching obsolescence of the ageing copper based consumer access network (CAN). It has undoubtedly served Australia well over a lengthy period, especially as Australia's core public telecommunications asset, but its characterisation as 'steam train' technology<sup>3</sup> by telecommunications analyst Mr Paul Budde seems apt. Despite the development of technologies such as ADSL, which has been described as the 'last sweating' of the copper network<sup>4</sup>, it is clear that the existing copper fixed line network will not be able to provide the level of services which the public and businesses will need in the not too distant future. While developments in wireless technologies are interesting, especially for services within CBDs and higher density population centres, there is a general consensus that fibre optic holds the key to the future. Clearly, replacing or upgrading the network with fibre will be a major and costly undertaking. The Committee notes that it was only as this report was being finalised that Telstra CEO, Dr Ziggy Switkowski, was reported to have announced for the first time that the company is gearing up to replace its ageing copper network with fibre-optic lines. Even that commitment was muted, representing only \$300 million over an unspecified period.<sup>5</sup>

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3 Mr Paul Budde, Managing Director, Paul Budde Communications Pty Ltd, Senate Environment, Communications Information Technology and the Arts Committee Inquiry into Broadband Competition, Official Committee Hansard, 13 November 2003, p 143.

4 Dr Tony Warren, Group Manager, Regulatory Strategy, Telstra Corporation Ltd, Senate Environment, Communications Information Technology and the Arts Committee Inquiry into Broadband Competition, Official Committee Hansard, 12 November 2003, p 74.

5 *The Australian*, All-fibre diet for Telstra network, 22 June 2004.

7.13 The Committee does not believe that Telstra has given sufficient weight to its role as the guardian of the CAN in the past – on which all other access is essentially dependent – and to its obligations to the Australian public as the USO provider. The CAN is a key part of the public infrastructure, and accordingly the public expects that it should be maintained to a high standard.

7.14 The Committee also does not believe that the Government's hands-off attitude to this issue is acceptable, with its patchwork of programs falling far short of a clear, unequivocal policy position in relation to the roll-out of fibre. The Committee believes that it should play a leading role in facilitating and driving that process.

### **Recommendation 1**

**7.15 The Government should publicly confirm its acknowledgement that the existing copper fixed line network is becoming increasingly obsolete. Government policy should focus on the objective of having this network replaced with a fixed line network based on fibre to the home technology, or alternative technologies offering similar capacity, over the next decade.**

### **Access to services**

7.16 The Committee's inquiry has demonstrated that, while access to services such as mobile telephony and data services have improved, many Australians and particularly those living in rural, regional and remote areas, do not have affordable access to a reasonable standard of service. The 'Digital Divide' between city and bush is narrowing, but is still unacceptably wide.

7.17 The evidence indicated that mobile phone coverage has improved over recent years, but coverage is not universal. Throughout Australia there are significant gaps in mobile phone coverage. These problems exist both in some outer metropolitan areas and in many rural, regional and remote areas of Australia. The lack of coverage in such areas is of particular concern from social, economic and safety perspectives.

7.18 The situation with regard to data services is similar. Decisions about the roll out of broadband in Australia have largely been made on the basis of commercial considerations. This has resulted in a lack of uniform access to affordable broadband. While this problem occurs throughout Australia, once again it is especially problematic in rural and regional areas.

7.19 While the Government's programs to improve access to broadband have been welcome, they are inadequate and represent a piecemeal approach to the problem. The Digital Data Service Obligation and the Special Digital Data Service Obligation impose an obligation on Telstra to provide a 64 kbps service to all Australians. However, this speed is clearly inadequate for anyone needing a broadband connection. It appears to have been based on the capabilities of Telstra's ISDN network and imposes no real incentive for network upgrade on Telstra, nor any real benefit for

most Australians. Even Telstra now markets this technology to home users at twice the minimum speed specified.

7.20 The Government's other programs to improve access in rural and remote areas have helped users in some areas but have resulted in the creation of a 'doughnut' area in which neither affordable commercial services, nor government supported services, are available. While numerically few in number, these Australians appear to be the most disadvantaged by current arrangements.

7.21 It is likely that the importance of dial-up access to the Internet will decline significantly as broadband services become more readily available and broadband prices fall. However, it remains an important means of accessing the Internet for many Australians and the Government has not taken sufficient action to improve access to dial-up data services. The 19.2 kbps speed specified by the Government in response to the recommendations of the Regional Telecommunications Inquiry is clearly inadequate. It is based on the speed already being achieved under the Internet Assistance Program and does little to ensure that consumers have access to an adequate service. Nor has the issue of line drop outs been seriously addressed.

7.22 Access to data services is most important in rural and regional areas where access to the Internet can help to overcome some of the problems caused by isolation and the difficulty of accessing other services. Witnesses agreed that it could be the saviour of declining communities. Unfortunately the evidence shows that it is those areas which have the most need which often have the least access to these services.

7.23 Another problem facing users of the network is the extensive use of outdated pair gain systems which impose technological limitations on customer services. As a result of the extensive use of these systems Telstra is providing many of its customers with an inferior service. This is clearly unacceptable.

7.24 It is the Committee's view that universal access to fast, affordable, reliable data services is just as important to Australians as access to voice services. The regulatory regime should be reformed to recognise this.

## **Recommendation 2**

**7.25 In recognition of the importance of data services to all Australians the Government should require Telstra to remove from its network as soon as practicable all pair gain systems which do not support broadband services or which restrict dial-up connection speeds.**

## **Recommendation 3**

**7.26 While acknowledging the interim nature of dial-up Internet services, the Committee recommends that the Government should place a licence condition on all carriers providing voice telephony services requiring that their networks**

**support a minimum speed for dial up services. That speed should be progressively increased over the next two years to at least 40 kbps.**

#### **Recommendation 4**

**7.27 Consumers should have a legislated right to access, on demand, to information about whether their services are provided via a pair gain system, and about the full range of services which can be supported to their address.**

#### **Recommendation 5**

**7.28 The Government should place a licence condition on the Universal Service Provider specifying that a broadband service providing a minimum data connection speed be made available to all Australians within twelve months.**

#### **Recommendation 6**

**7.29 The dial up and broadband speeds specified above should be reviewed and updated every 12 months to ensure that they remain contemporary to the needs of users. The specified speeds should be based on the capacity of telecommunications networks operating at international best practice standards, not on current services offered by Telstra or by other carriers, or the existing capabilities of the Telstra network.**

#### **Delivery of reliable services**

7.30 The Committee received considerable evidence from both the users of the network and the workers in the industry about problems with the network. These problems are the first obstacle to one of the key requirements of all customers: a reliable telephone service.

7.31 Leaked Telstra documentation tabled in the House of Representatives on 10 March 2004 confirms the company's recognition of the serious deterioration of the network. It is clear to the Committee that the problems with the network flow from underinvestment by Telstra in network maintenance and repair, and cutbacks in Telstra's workforce. The evidence given to the Committee indicates that the effect of these measures will be long term and may not show up fully for many years. While these measures may have improved Telstra's profitability in the short term, they have done so at the expense of the long term reliability of the network. Telephone services are unacceptably vulnerable to heavy rainfall and lightning storms as a result of poorly maintained cables that need to be kept in service with gas bottles, and cables badly corroded by Telstra's failed seal the CAN program.

7.32 The Government continues to allow Telstra to evade its customer service guarantee obligations through the mass service disruption notice regime. This allows Telstra to blame failures in its poorly maintained cables on weather conditions and

thereby escape responsibility under the customer service guarantee regime. There are very few checks on this process, as the Australian Communications Authority has acknowledged.

7.33 While these problems exist across the whole Telstra network they appear to be most obvious and serious in rural and regional areas.

7.34 The Committee is also concerned about the declining level of capital expenditure on the Australian telecommunications network. The reduced investment in infrastructure can be expected to have a long-term impact on innovation, the development of new services and the maintenance of existing infrastructure. As returns on capital are lowest in regional, rural and remote areas these areas will be the worst affected by any pressure on a fully privatised Telstra to enhance its short term profitability by reducing capital expenditures.

7.35 This effect has already been seen in Telstra's roll-out of ADSL. Decisions about which exchanges to enable for ADSL have been made on commercial grounds, denying new services to Australians living outside the major population centres.

7.36 There is clearly a need for long term government involvement and leadership in telecommunications infrastructure, particularly in relation to rural and regional Australia. The future development of Australia's telecommunications network is too important to be left solely to the decisions of profit-driven private businesses.

7.37 The current regulatory regime is clearly failing to ensure that Australian consumers have universal access to a full range of affordable and reliable telecommunications services. The introduction of some new initiatives, such as the Network Reliability Framework, have been useful but fall far short of what is required. In addition to the measures set out in the Committee's specific recommendations, the role and powers of the Australian Communications Authority need to be generally reviewed and enhanced.

## **Recommendation 7**

**7.38 The Universal Service Obligation should be revised to incorporate a guarantee that customers will always be able to obtain a dial tone.**

## **Recommendation 8**

**7.39 The Universal Service Obligation should be revised to incorporate a guarantee that dial-up Internet connections will not drop out.**

## **Recommendation 9**

**7.40 The Government should require the Australian Communications Authority (ACA) to conduct an independent inquiry into the state of repair of Telstra's**

customer access network and the Government should, if necessary, use its powers to direct Telstra to bring the network up to an acceptable operational standard. As a part of the inquiry the ACA should examine technical standards and regulations, including those relating to preventing the ingress of water into CAN cables, and amend those standards and regulations so as to protect the physical integrity and ensure adequate maintenance of the customer access network.

### **Recommendation 10**

**7.41** The role and powers of the Australian Communications Authority (ACA) should be urgently reviewed and enhanced so that it can effectively and proactively regulate the Australian telecommunications network. In particular the ACA should have the power to investigate the condition of the Universal Service Provider's network and require the Universal Service Provider to make improvements to its network where the expenditure can be justified in the public interest. The Government should respond promptly to the recommendations of the Department's Universal Service Obligation and Customer Service Guarantee Review.

### **Recommendation 11**

**7.42** The Government should immediately review the operation of the customer service guarantee regime to ensure that it provides a high level of protection for consumers and that mass service disruption notices cannot be used by carriers to avoid their obligations to properly maintain their networks and provide an acceptable standard of service to consumers.

### **Recommendation 12**

**7.43** The Government should direct the Australian Communications Authority to regularly monitor the level of faults on data services.

### **Access for people with disabilities**

**7.44** The Committee is generally satisfied that the needs of people with disabilities are being given appropriate priority. However, the Committee remains concerned that further privatisation of Telstra and increased competition in the industry may result in the needs of people with disabilities being overlooked.

**7.45** The Committee's inquiry identified the provision of disability equipment as a potential weakness in the current regime. People with disabilities are largely reliant on the Telstra disability equipment program to meet their needs and the evidence given to the Committee suggests that this may be limiting their choice of carrier and the choice of equipment available to them. Further, the Committee is concerned that carriers fail to give adequate consideration to the needs of people with disabilities in



planning for the introduction of new technology, resulting in people with disabilities effectively being shut out of access to such technology when it is introduced.

7.46 Following the conclusion of the Committee's hearing program, the Australian Communications Authority reported to the Minister for Communications, Information Technology and the Arts on its review of the provision of payphones in Australia. The ACA recommended that:

- the payphone industry and disability peak bodies should consult through an ACIF working group, and work together to develop a Payphone Accessibility Code for endorsement by HREOC; and
- Telstra should continue to increase payphone numbers and that other specialist payphone firms should provide TTY payphones when they are replacing an existing Telstra TTY payphone.<sup>6</sup>

7.47 The Committee has not had the opportunity to examine the detail of these proposals. However, it supports the general thrust of the ACA's recommendations.

### **Recommendation 13**

**7.48 The Committee commends the findings of the Payphone Policy Review as it relates to services for the disabled for close examination by the Government.**

### **Recommendation 14**

**7.49 The Government should fund the establishment of an independent disabilities equipment program using funding from the Universal Service Levy.**

### **Recommendation 15**

**7.50 The Government should require carriers to engage in extensive consultations with representatives of people with disabilities at an early stage in the planning process for the introduction of new telecommunications technology to ensure that appropriate disability equipment will be available in conjunction with the introduction of new technology.**

### **Facilitating competition**

7.51 The current regulatory regime has failed to deliver a strongly competitive environment in many key areas. Telstra still remains the dominant carrier and, as the ACCC has acknowledged, the progress of competition is slowing. Importantly, the

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6 Australian Communications Authority, Payphone Policy Review, 2004, pp 39-43.

benefits of competition have largely flowed from the retail market rather than from the development of competition between infrastructure providers.

7.52 An issue which was repeatedly raised with the Committee was the unavailability of information on the location of existing infrastructure. At present there is no comprehensive inventory of infrastructure operated by telecommunications carriers. This is a significant obstacle for small and medium carriers, governments and other organisations which are trying to plan the development of new infrastructure.

7.53 At present the Federal Government is not using its own programs and contracts for telecommunications services to promote competition. The frequent involvement of Telstra in Government programs has seen Commonwealth funds flowing into Telstra and helping to cement its position as the dominant carrier. The Committee believes that Government programs aimed at enhancing telecommunications services for consumers should not also have the effect of inhibiting the development of competition. The Government could also use its own buying power, as a major user of telecommunications services, to foster a more competitive industry.

7.54 The Committee will discuss other aspects of telecommunications competition in more detail in its report on its inquiry into broadband competition.

### **Recommendation 16**

**7.55 The ACA should be empowered and required to develop a comprehensive inventory of all significant telecommunications infrastructure, including geospatial data on Telstra's existing customer access network and mobile phone coverage, and make that information available to other carriers and service providers, local government, and other interested parties to facilitate planning for new infrastructure.**

### **Recommendation 17**

**7.56 Future Government programs aimed at enhancing telecommunications services should be designed to prevent Telstra from using those programs to maintain or strengthen its dominance of the telecommunications market. Where necessary this may involve restricting Telstra's participation in some aspects of those programs.**

### **Recommendation 18**

**7.57 In contracting for telecommunications services, government agencies and departments should be directed to design tender processes which facilitate participation by small and medium carriers, and to take into account the policy objective of developing a more competitive telecommunications industry in assessing tenders.**

**Recommendation 19**

**7.58 In contracting for telecommunications services in rural and regional areas where there is limited infrastructure competition, government agencies and departments should be directed to participate where possible in demand aggregation arrangements with the objective of improving the incentives for the development of competitive infrastructure.**

