National Broadband Network:
Regulatory Reform for 21st Century Broadband

Discussion Paper

April 2009

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Minister's foreword

Regulatory reform is a core element of the Government's historic plans for the National Broadband Network (NBN).

The rollout of the NBN as a wholesale-only open access network will fundamentally transform the competitive dynamics of the Australian telecommunications sector.

That said, during the rollout and after, the existing telecommunications regulatory regime will remain important for delivering services in the interests of Australian consumers and businesses.

The bulk of this regime was put in place in 1997. While there have been some important amendments and additions since that time, the key elements of the regime have remained largely unchanged.

Last year we publicly consulted on the regulatory arrangements that should apply as we move to a National Broadband Network.

In response we received 82 submissions from a wide range of stakeholders, including industry participants, state governments, academics, industry commentators and interested Australians.

Naturally, different people expressed different ideas about what could be done to make the existing regime work more effectively.

However, the overwhelming message from almost every submitter was that the current regime does not work effectively to achieve its goals, and that it is failing businesses and consumers.

That is why, in light of our clear way forward with the NBN, I have also released this Discussion Paper to explore the options for reform of the existing regime.

The Government will consider key options for reform, including:

- streamlining access regulation processes, by allowing the ACCC to set up-front access terms for companies wanting access to Telstra and other networks
- strengthening the powers of the ACCC to tackle anti-competitive conduct by allowing it to impose binding rules of conduct when issuing competition notices
- promoting greater competition across the industry, including measures to better address Telstra's vertical integration, such as functional separation
- addressing competition and investment issues arising from horizontal integration of fixed-line and cable networks, and telecommunications and media assets
- improving universal access arrangements for telephony and payphones, and
- introducing more effective rules requiring telephone companies to make connections and repairs within set time-frames.

In releasing this Discussion Paper, I want to draw on the vast expertise and practical experience that exists in this sector so that we can design a more effective framework that serves the interests of consumers and businesses.

It is about ensuring that we have more effective regulation.

This paper raises a range of options for consideration, some of which would amount to a re-design of existing regulation, while others would lead to the reduction of regulation in other areas.

The Government does not have a pre-determined view on these matters and we have an open mind about the reforms that should be pursued.

This will be a critical part of re-shaping regulation in the telecommunications sector in the interests of Australian consumers, businesses and the economy more broadly.

I encourage people to submit their views.

Stephen Conroy

Minister for Broadband, Communications and the Digital Economy

Australian telecommunications industry snapshot

The Australian telecommunications sector is characterised by:

- a very strong incumbent. Telstra owns:
  - —the fixed line copper network that connects almost every home and workplace in Australia
  - —the largest hybrid fibre coaxial cable network, and
  - —50 per cent of Australia's largest subscription television provider Foxtel
- four competing mobile operators that own and operate 3G networks across most of the population of Australia[1], and
- a range of other carriers that own and operate telecommunications infrastructure in certain parts of Australia as well as a range of carriers and service providers that access infrastructure to provide a range of services including voice and broadband services.

International statistics indicate that Australia is trailing other developed economies on a range of key telecommunications indicators.

The most recent Organisation for Economic Co-operation and Development statistics indicate that Australia is:

- 16th in terms of broadband penetration[2]
- 20th in terms of the average monthly subscription price for broadband,[3] and
- 3rd most expensive for fixed line services for small and medium-sized enterprises.[4]

The World Economic Forum ranks Australia:[5]

- 14th for network readiness[6]
- 16th for the total number of broadband Internet subscribers per 100 population
- 20th for monthly high speed broadband subscription charges[7]
- 25th for accessibility of digital content
- 35th for the quality of competition in the Internet Service Provider sector, and
- 29th for the lowest cost of broadband.[8]

In addition, the World Economic Forum ranks Australia 22nd and 37th for residential and business monthly telephone subscription charges respectively[9], 12th for both residential and business telephone connection charges respectively[10], 41st for the availability of new telephone lines for business and 22nd for the cost of a mobile telephone call.[11]

The way to address the problems with Australia's telecommunications sector is to move immediately to introduce superfast broadband and to fix long-standing problems with the telecommunications regulatory regime.

Chapter 1: Introduction

The Government has announced an ambitious National Broadband Network initiative to dramatically improve the availability of superfast broadband across Australia. This bold vision will fundamentally change the competitive dynamics of the Australian telecommunications sector. This network will be wholesale-only and open access to maximise competition.

However, it will take time for the new network to be built and for the resulting benefits to be realised by Australian consumers and businesses. The Government is therefore reviewing the existing regulatory regime to explore ways that the regime can be made to work more effectively while the National Broadband Network is being built.

The purpose of this paper is twofold:

- to outline the proposed regulatory reforms that the Government will progress to facilitate the roll-out of the National Broadband Network, and
- in light of the announcement of the enhanced National Broadband Network, to consult on the options for broader reforms to make the existing regulatory regime more effective in the transition period before the network is fully rolled out.

Proposed regulatory reforms for the National Broadband Network roll-out

Legislative amendments that facilitate the roll-out of fibre optic to the home and workplace include:

- the operating regime for the National Broadband Network company. The company will be required to be wholesale-only and operate on an open access basis. The legislation will also set out the governance arrangements for the National Broadband Network company
- facilitating the physical roll-out of fibre optic by:
    - expediting land access arrangements for carriers rolling out fibre optic networks to the home and workplace, and
    - improving access to poles, ducts and other infrastructure necessary for the roll-out of fibre optic networks to the home and workplace, and
- requiring that fibre optic networks be installed in greenfield estates that receive planning approval from 1 July 2010.

Chapter 2 of this paper outlines the approach the Government will take in relation to these issues, as well as the consultative mechanisms that will be put in place. This paper is not intended to provide a forum for discussion on these issues. The Government will consult separately with relevant stakeholders on the detail of these legislative amendments before introducing legislation.

Consultation on broader regulatory reform options

The new network will resolve long-standing structural problems that have limited the development of effective competition and investment. However, during the roll-out, the existing regime will remain important for promoting outcomes in the interests of

consumers and business. There is considerable scope to improve the existing telecommunications regulatory regime to make it work more effectively.

The Government called for submissions last year on regulatory issues associated with the National Broadband Network. In reply, the Government received 82 submissions (the Regulatory Submissions) from a range of stakeholders and across a range of relevant issues. One of the core messages from that consultation was that the current regulatory arrangements have shortcomings and inherent limitations. Many submitters provided detailed suggestions for reform.

Issues around the effectiveness of the current regulatory regime were also raised in:

- submissions on initiatives to provide enhanced broadband to rural and remote areas
- submissions to and the report of the Regional Telecommunications Independent Review Committee (the Glasson Committee) concerning the future needs of rural and regional Australia (the Glasson Submissions and Report), and
- submissions in relation to the Universal Service Obligation Review in late 2007 (the Universal Service Obligation Review Submissions).

In undertaking this review into the existing telecommunications regime, the Government has considered all material received to date and this material has shaped the Government's views on possible options. Copies of the submissions from previous processes are available on the Department's website (*www.dbcde.gov.au*).

The Government has already made a $61.1 million initial response to the Glasson Review. A number of the recommendations from the Glasson Report were to be considered once the outcome of the National Broadband Network process was fully known. Several questions in this discussion paper are relevant to those recommendations, and responses will be taken into account by the Government in its consideration of those recommendations.

A number of questions in this discussion paper relate to the suitability of the present operational separation requirements applying to Telstra. The Government is using this discussion paper to formally commence the review required by section 61A of the *Telecommunications Act 1997* (see Appendix A).

Against this background and the announcement of the Government's National Broadband Network initiative, the Government is now requesting input from interested stakeholders on the regulatory reform options it is considering, as set out in this discussion paper, or other feasible alternatives.

The following chapters are the focus for consultation in this process:

- Chapter 3—opportunities for reform of the telecommunications competition framework, and
- Chapter 4—opportunities for reform of existing consumer safeguards in the telecommunications sector.

Each of these chapters discusses a number of issues, draws on views previously expressed by interested stakeholders, and identifies options for reform that the Government is considering. The Government has not decided to proceed with any particular option at this time. Rather, in light of the enhanced National Broadband

Network initiative, the focus of these chapters is to facilitate consultation on the options available to Government.

Chapter 5 flags longer-term issues of interest to the Government.

Figure 1 shows the Government's plan to achieve a highly competitive telecommunications market and national superfast broadband through the transition to the National Broadband Network environment. It will involve improving the effectiveness of the existing telecommunications regime, in addition to requiring legislation for a National Broadband Network company, fibre in greenfield estates and the facilitation of fibre roll-outs.

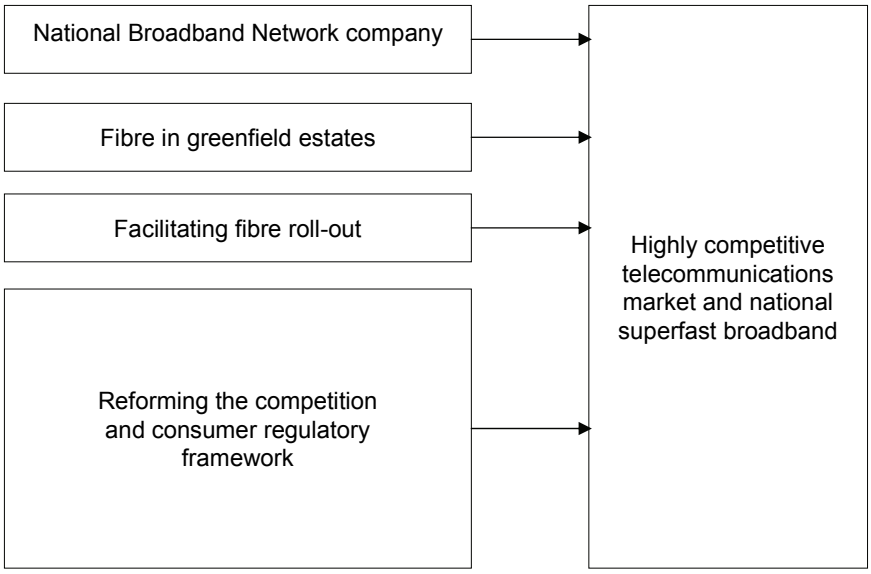

Figure 1: Steps for the transition to the National Broadband Network environment

Policy goals

In considering changes to the existing telecommunications regulatory regime in the transition to the National Broadband Network, the Government will have regard to its ongoing policy commitment to:

- improving productivity across the economy
- competition
- consumer protection
- rural, regional and remote Australia, and
- reducing unnecessary regulation.

The Government also recognises that community safety and national security objectives are integral to its telecommunications policy settings.

Efficient economy and productivity

The overarching objective of the 1997 telecommunications regulatory reforms was to promote the long-term interests of end-users of telecommunications services, and the

efficiency and international competitiveness of the Australian telecommunications industry.[12]

Telecommunications services that are universally available, reliable and affordable are accepted as a critical input to the operation of an equitable society and an efficient economy. While once it was sufficient to have well-functioning voice and basic data services, high speed broadband services are essential to the future efficiency and productivity of Australia's economy. A recent study has suggested that widespread access to and use of high speed broadband would expand economic activity by approximately 1.4 per cent of gross domestic product after five years.[13]

However, these gains will not be achieved unless the correct regulatory settings are in place. In the transition to the National Broadband Network, the Government is committed to creating the market structure that will maximise the benefits to economic efficiency and productivity of high speed broadband services.

Continued commitment to competition policy

The Government's ongoing commitment is to ensure that markets operate through vigorous competition for the benefit of consumers, businesses and the Australian economy more broadly.[14]

The national competition policy reforms agreed to by the Australian and State and Territory Governments in 1995 and 2007 affirmed the importance of effective competition to maintaining and improving the welfare of Australia.[15]

The competitive process encourages firms to:

- produce goods and services at least cost
- use resources to produce the goods that are most valued by consumers, and
- innovate by developing new products and services.

The telecommunications competition reforms introduced in 1997 have delivered benefits to date; however, the regime has operated in the context of a highly vertically and horizontally-integrated incumbent.

Moving to the National Broadband Network environment will fundamentally change the competitive dynamics in the telecommunications sector. In the meantime, the Government wants to ensure that the existing regulatory regime works more effectively, including by removing incentives for discrimination and delays through regulatory gaming, to increase opportunities for competitive outcomes.

Ongoing commitment to consumer protection

In October 2008, the Council of Australian Governments agreed to a comprehensive consumer policy framework. This included a common objective to improve consumer wellbeing through empowerment and protection, fostering effective competition and enabling confident participation in markets in which both consumers and suppliers trade fairly.

Within the telecommunications sector, the Minister for Broadband, Communications and the Digital Economy has re-affirmed that the Government is committed to ensuring that telecommunications consumers are protected, and to improving the availability, affordability and quality of telecommunications services.[16]

Ongoing commitment to regional and remote areas

The Government recognises that appropriate telecommunications services are essential so families, businesses, schools and others in regional and remote areas can actively participate in Australian society.

The Government has recently reiterated its commitment to a prosperous and sustainable regional Australia in its response to the Glasson Review.[17] The Glasson Review was established in legislation. Its role was to assess the adequacy of telecommunications in regional, rural and remote parts of Australia and provide a report to Government, including recommendations. The Government's response is available at *www.dbcde.gov.au.*[18]

Submission process

Submissions on the regulatory reform options identified in this paper should be provided by 5.00pm Canberra local time on Wednesday 3 June 2009.

Submissions can be made in one of the following ways:

- by email to *regreform@dbcde.gov.au*. This is the preferred method for submission
- by facsimile to 02 6271 1850, or
- by post to:

  Assistant Secretary, Networks Competition Branch
  Department of Broadband, Communications and the Digital Economy
  GPO Box 2154
  CANBERRA ACT 2601

Respondents should be aware that submissions may be published on the Department's website (*www.dbcde.gov.au*) after the public submissions period has closed. The Department reserves the right not to publish any submission, or part of a submission, which in the view of the Department contains potentially defamatory material, or where it considers it appropriate not to publish for confidentiality or other reasons.

All submissions will be treated as non-confidential information unless the respondent **specifically requests** the submission to be kept confidential, and acceptable reasons accompany the request. Confidentiality claims that are automatically included in emails will not be considered to be sufficient confidentiality requests. Submissions or comments will generally be subject to the provisions of the *Freedom of Information Act 1982*. Despite a submission being identified as confidential or sensitive, submitters should be aware that submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Lobbyists

The Australian Government has released a Lobbying Code of Conduct designed to ensure that lobbying activities will be carried out ethically, honestly and transparently. Information about the Register of Lobbyists and a link to the Lobbying Code of Conduct can be viewed at *www.pmc.gov.au/lobbyistsregister*.

Lobbyists who are making submissions on behalf of clients should ensure they are familiar with, and comply with, the Code of Conduct and are on the Register of Lobbyists.

Contact information

If you would like a copy of the discussion paper or any other information sent out to you, please call the Department on 1800 309 623 (free call) between 8.30am and 5.30pm (Monday to Friday) or email *regreform@dbcde.gov.au*.

Further information on the submission process is available at *www.dbcde.gov.au/nationalbroadbandnetwork*.

Assistance for people who are blind or who have a vision impairment

Please note that MP3 format audio files of the discussion paper will be available on *www.dbcde.gov.au/nationalbroadbandnetwork* soon or by calling 1800 309 623 (free call) between 8.30am and 5.30pm (Monday to Friday) or email *regreform@dbcde.gov.au*.

A Braille copy of the paper can be provided upon request by calling 1800 309 623 (free call) between 8.30am and 5.30pm (Monday to Friday) or email *regreform@dbcde.gov.au*.

Assistance for people who are deaf or have a hearing or speech impairment

Users who are deaf or have a hearing or speech impairment can contact the Department through the National Relay Service:

- TTY users phone 1800 555 677 then ask for 1800 309 623 between 8.30am and 5.30pm (Monday to Friday)
- Speak and Listen (speech-to-speech relay) users phone 1800 555 727 then ask for 1800 309 623 between 8.30am and 5.30pm (Monday to Friday)
- Internet relay users connect to *www.relayservice.com.au* and then ask for 1800 309 623 between 8.30am and 5.30pm (Monday to Friday)

Chapter 2: Regulatory environment for the National Broadband Network and the roll-out of fibre

The Australian Government has announced that it will establish a company that will invest up to $43 billion over the next eight years to build and operate a wholesale-only, open access National Broadband Network. The new network will provide fibre optic to the home and workplace, supplemented with next generation wireless and satellite technologies to deliver superfast broadband services.

The Government's National Broadband Network initiative has been informed by the reports of the Panel of Experts and the Australian Competition and Consumer Commission (ACCC) on the proposals received in November 2008 to build and operate a National Broadband Network, as well as the assessment conducted by the Attorney-General's Department (in consultation with national security and law enforcement agencies). Importantly, the Government's initiative has also been informed by stakeholder views gathered through the consultation processes described in Chapter 1.

To facilitate the roll-out of the National Broadband Network, the Government will establish a company to build and operate the National Broadband Network on a commercial basis. The Government will introduce legislation that establishes:

- governance, ownership and operating arrangements for the wholesale-only National Broadband Network company, and
- the access regime to facilitate open access to the National Broadband Network for retail level telecommunications service providers.

Furthermore, the Government will introduce legislation to expedite the deployment of fibre optic networks to the home and workplace, including:

- requiring that greenfield estates that receive planning approval from 1 July 2010 include fibre optic networks to the home and workplace
- simplifying and expediting land access arrangements for fibre optic roll-outs to the home and workplace, and
- improving access to poles, ducts and other essential infrastructure for fibre optic roll-outs to the home and workplace.

The intention of this chapter is to outline the Government's approach to these issues, which will be informed, amongst other things, by the Implementation Study for the National Broadband Network. The Government will be conducting separate consultation on these measures.

National Broadband Network governance, ownership and operations

While the National Broadband Network company will initially be wholly Government-owned, private investment will be encouraged and ultimately the Government intends to sell down its interest in the National Broadband Network company five years after the network is built.

The Government recognises the need to provide regulatory certainty well before services are offered or shareholders begin to invest:

- for the benefit of potential wholesale customers of the National Broadband Network company and their retail customers, and
- to encourage private sector investment in the National Broadband Network company.

Therefore, the regulatory framework for the National Broadband Network will be established as soon as practicable.

The Government also recognises there is a risk that investment by retail service providers without safeguards may compromise the integrity of the wholesale-only open access network.

To ensure that the National Broadband Network's open access and equivalence arrangements are not compromised, the Government will establish ownership and control rules.

The Implementation Study will consider:

- the best possible governance arrangements for the operation of the National Broadband Network
- the best ways to attract private equity investment in the National Broadband Network, and
- the operating arrangements for the National Broadband Network and the detailed network design, including coverage.

National Broadband Network access regime

The National Broadband Network company will be required to offer services on a wholesale-only basis. Legislation will prevent it from providing retail services. Operating as a wholesale-only provider, the National Broadband Network company will have no incentive to engage in anti-competitive behaviour, such as unfairly discriminating between retail providers. This will promote equivalence.

The National Broadband Network will be required to operate on an open access basis. It will be required to provide non-discriminatory and fair access to all wholesale customers. This approach was strongly supported in the Regulatory Submissions. For example, Vodafone stated that:

> *'*[T]*he best option to promote competition is for the owner and operator of the* [National Broadband Network] *to be a standalone supplier of wholesale network services.'*—Vodafone [19]

Similarly, there was broad support for strict equivalence requirements.

For example, Optus stated that:

> '*Equivalence must be structurally guaranteed. This means that it must result from the structure of the* [National Broadband Network]*—rather than be set out in a series of vague statements of intent such as those that might be given in competition law or an undertaking both of which can only be enforced after the event.*'—Optus[20]

Access to the National Broadband Network will be provided to all retailers on an equivalent basis.

The Government will develop a new access regime for the National Broadband Network taking into account issues such as:

- the nature of the services that will be provided by the National Broadband Network
- the mechanism by which price and non-price terms of access will be determined on the new network, including the ongoing oversight arrangements, and
- the principles upon which access prices for using National Broadband Network services will be determined.

The Government will consult with key stakeholders on the detailed development of these arrangements.

ACCC oversight

The overwhelming majority of Regulatory Submissions argued that the ACCC should have an integral role in determining access terms and conditions for, and having general oversight of, the National Broadband Network.

> *'In light of the importance of the regulatory framework in Australian telecommunications, it is essential that a central role for the Australian Competition and Consumer Commission (the ACCC) is ensured.'*—iiNet[21]
>
> *'The task of the ACCC as the regulator should be to perform oversight functions of the operation of the network (such as access terms and conditions, quality of service by ensuring appropriate maintenance and continued investment in the network) as well as to set appropriate wholesale prices.'*—AAPT and PowerTel[22]

The ACCC will oversight access to the National Broadband Network and the National Broadband Network company's operations.

The Government will consult with key stakeholders in developing the detail of these oversight arrangements.

Facilitation of fibre roll-out

Simplifying land entry procedures and access to infrastructure

The Government intends to expedite roll-out of fibre optic networks across Australia to the home and workplace and will introduce legislative amendments to facilitate this.

Currently, telecommunications carriers have certain access to private land in order to install and maintain specified facilities (e.g. to repair and install new lines) provided land owners and occupiers are notified in advance.

The Government will introduce streamlined arrangements which will apply to all fibre optic roll-outs to the home and workplace to ensure that consumers do not have to wait unnecessarily for services. The Government is building a national network and it will create unnecessary costs if requirements also vary from one suburb to the next or one town to the next.

The Government will also seek to reduce the costs of deploying fibre optic networks to the home and workplace by:

- allowing optical fibre to be rolled out overhead on existing poles

- allowing telecommunications carriers access to poles, ducts and pipes of other utilities, where technically feasible, for installing fibre optic infrastructure, and
- improving access to information about the location and availability of poles, ducts and pipes.

Greenfield estates

Fibre optic networks to the home and workplace are widely regarded as the superior fixed line technology that will best position Australian consumers and businesses to take advantage of the growth in the digital economy.

'*Fibre has long proven to be far more reliable than copper, wireless and satellite in all environments*.'—Commonwealth Scientific and Industrial Research Organisation

'*This technology is the most future proof, with no other technology competing with the expected continuing advances in optical fibre transmission and the future potential of optical switching systems. It is the only technology expected to meet the user demands of 2020 and beyond in urban and suburban environments.'*—Defence Science and Technology Organisation

Given the superior properties of fibre optic networks, it would be counter-productive to have homes built in new developments with the latest building technology but connected by antiquated copper wires. Indeed, allowing copper connections to take place will lead to higher costs in the long run if these estates need to be 'retro-fitted' to deploy fibre optic connections in the future.

Increasingly, forward looking local governments around Australia are using their planning powers to encourage developers and telecommunications carriers to build fibre optic networks in new estates.[23] The Australian Government welcomes these initiatives and wants to ensure that its National Broadband Network announcement supports these.

'To avoid today's new land becoming tomorrow's broadband 'black spots', Whittlesea Council has mandated the installation of an empty conduit (suitable for accommodating a future fibre network) in all of its land.'—Department of Infrastructure (Victoria)[24]

'Through the Fibre to the Home (FTTH) project every household at Aurora will be connected to the world through high speed fibre optic cabling with all the attendant advantages for people's home and working lives.'—The Hon Marsha Thompson MP[25]

To ensure that all developers install networks for the future using fibre optic technology, the Government will mandate the use of fibre optic infrastructure to the home and workplace in greenfield estates across Australia that are approved after 1 July 2010.

Consultation process

The Government is not seeking feedback on the changes outlined in this chapter as part of this process. They have been included to inform consideration of the options for change during the transition to the National Broadband Network environment as set out in Chapters 3 and 4.

The Government intends to consult separately on these measures with interested parties before legislation is introduced into Parliament.

In developing these legislative proposals in relation to greenfield estates and the facilitation of deployment of fibre optic infrastructure to the home and workplace for public comment, the Commonwealth will consult with State, Territory and local governments and other key stakeholders, such as builders and developers.

If you wish to register your interest in consultation processes in relation to greenfield estates and/or the facilitation of deployment of fibre optic infrastructure, please register at *www.dbcde.gov.au/nationalbroadbandnetwork*.

Chapter 3: Telecommunications competition framework

Competition delivers cheaper, better quality, and more innovative services to consumers. The evolution of Internet services during this decade—from dial-up to increasingly faster broadband—has been facilitated by competition. Competition is the most effective means of ensuring high quality services are delivered to consumers at affordable, sustainable prices through the most efficient providers.

Broadly, the telecommunications-specific competition framework includes:

- the telecommunications-specific access regime under Part XIC of the *Trade Practices Act 1974* which allows service providers to access certain wholesale input services of another provider
- the telecommunications-specific anti-competitive conduct regime under Part XIB of the Trade Practices Act
- the enhanced accounting separation regime enacted in 2002 and the operational separation regime enacted in 2005, both of which apply to Telstra
- the facilities access regime in the *Telecommunications Act 1997* which allows carriers to access telecommunications facilities such as exchanges, pillars, ducts and towers, and
- the provisions permitting competition restrictions on the allocation of spectrum under the *Radiocommunications Act 1992*.

In 2008 the Government consulted on regulatory issues associated with the move to the National Broadband Network. The vast majority of Regulatory Submissions received focused on limitations and problems inherent in the existing competition framework.

Each of the existing mechanisms for promoting competition is discussed below.

Part XIC access arrangements

Under Part XIC of the Trade Practices Act the ACCC has power to declare specific telecommunications services to be subject to the access regime. Once a service is declared, a telecommunications provider that supplies the declared service (an access provider) is obliged to supply it to other telecommunications service providers (access seeker) on request (subject to certain exceptions).[26]

The terms on which a declared service is supplied are determined by the following means:

- negotiation and agreement between the access provider and the access seeker, or
- if negotiation fails, the terms are as specified in:
    - an access undertaking previously lodged by the access provider and accepted by the ACCC, or
    - in the absence of a relevant undertaking that specifies the terms in dispute, a determination by the ACCC following arbitration.[27]

This is known as the negotiate-arbitrate model.

The exercise of the regulatory powers of the ACCC in Part XIC, including the powers to declare services, determine terms of access, accept undertakings and grant exemptions, is governed by consideration of the long-term interests of end-users. In deciding whether something is in the long-term interests of end-users, the ACCC must consider whether it is likely to promote:

- competition
- any-to-any connectivity (i.e. communication between users of services over different networks), and
- the efficient use of, and investment in, telecommunications infrastructure.

Deficiencies in the regulatory process

The negotiate-arbitrate model within the telecommunications access regime was the subject of extensive criticism by a range of stakeholders in the Regulatory Submissions process.

Stakeholders' main areas of concern have been that the negotiate-arbitrate model is very slow, cumbersome and open to gaming (obstruction), and that Part XIC does not provide sufficient regulatory certainty for investment.

> *'The regime is beset by conflict, long-running disputes, gaming and inefficiencies.'*—Telstra[28]

Key stakeholders have indicated that the current access regime is ineffective largely because there is a vertically-integrated incumbent that has the incentive to discriminate in favour of its own retail business.

> *'Negotiation requires two parties. If one of the parties disagrees with the concept of providing access to its competitors, there is no incentive to participate in discussions on the terms of that access.'*—iiNet[29]

The telecommunications sector is characterised by disputation to a greater extent than other industries where negotiate-arbitrate access regimes operate. The litigious nature of the telecommunications sector in Australia is illustrated by the fact that:

- as at 1 January 2008, 115 telecommunications access disputes had been notified since the commencement of the Part XIC regime in 1997. This can be contrasted to three access disputes that have been notified in other sectors (in respect of a gas pipeline, Sydney airport, and a sewerage service)
- over the past 18 months, judicial review has been sought in respect of almost all final arbitration determinations made by the ACCC, and
- as of March 2009, the ACCC was considering 51 access disputes, all involving Telstra. Of these, 42 related to the supply of broadband inputs.

The process of determining terms of access is prone to delay and ongoing disputes. Contributing factors include that:

- the ACCC cannot set binding terms of access upfront when a service is declared, but has to wait until an access dispute is referred to it for arbitration
- arbitration proceedings can take a long time; some have taken a number of years[30]

- when arbitrating an access dispute, the ACCC cannot determine terms of access collectively for all access providers and access seekers—its arbitrations are only binding on the parties to the arbitration, and
- there are multiple steps at which parties can challenge procedural matters and seek judicial review.[31]

> *'*[T]*he experience of the past eleven years demonstrates that the current regulatory rules under Part XIC are simply not fit for purpose and need to be changed.'*—Optus[32]
>
> *'The Trade Practices Act reflects a policy and regulatory philosophy (negotiate, arbitrate, litigate) seemingly suitable in 1997 but self-evidently not workable in 2008.'*—Australian Telecommunications Users Group[33]

The undertaking process is also seen as ineffective by a range of stakeholders. Voluntary access undertakings were meant to provide an opportunity for increased certainty for access providers, as well as the flexibility to develop their own terms of access for approval by the ACCC. Under the current mechanism, the ACCC is only able to accept or reject an undertaking based on the statutory criteria set out in the Trade Practices Act.[34]

Certain stakeholders have argued that, instead of the undertaking provisions being used to provide certainty, they have been used to create delays in regulatory processes, and have resulted in a situation where 'serial' undertakings are lodged. Every undertaking must be considered on its merits by the ACCC.

> *'Such regulatory gaming by Telstra has been permitted through exercising its "rights" under Part XIC in forcing dozens of serial arbitrations, lodgements of clearly unacceptable Access Undertakings, appealing rejected undertakings through the Competition Tribunal, Federal Court reviews and ultimately failed High Court proceedings.'*—Macquarie Telecom[35]

The ACCC has said:

> *'The tendency for Telstra to make continuous and incremental changes to undertakings and to keep raising both old issues and new cost claims means that resolution of access issues is cumbersome, vexatious and inefficient.'*—ACCC[36]

To date the ACCC has rejected most of the undertakings that have been submitted to it on the basis that they were not satisfied that the undertakings satisfied the relevant legislative criteria. To this point no decision to reject an undertaking has been successfully appealed in the Australian Competition Tribunal.

Critics argue that Part XIC is stifling investment in new telecommunications infrastructure. Investment in new telecommunications infrastructure is an important driver of Australia's economic and social advancement.

> *'The national priority must be to invest in infrastructure … that can stimulate an economy-wide uplift in wider business productivity and competitiveness. Such dividends have direct and lasting economic and social benefits, driving prosperity for Australian families …'*—Telstra[37]

The current access regime has been criticised from the perspective that it does not provide sufficient regulatory certainty for access providers and/or access seekers that are making choices about where and when to invest.

'Investor confidence in efficient cost recovery will also be undermined if regulators do not adopt cost standards that are consistent, predictable and transparent. Nothing sends a signal more chilling of investment than the inappropriate exercise of regulatory discretion or even the threat of such inappropriate exercise.'—Telstra[38]

Options for reform

Possible options for reform that the Government is considering are outlined below.

Option 1—Retain the current Part XIC processes—including the negotiate-arbitrate model—but make them work more effectively

Under this approach the current regulatory processes, including the negotiate-arbitrate model, would be retained. However, changes would be made to reduce delays and opportunities for gaming and to encourage the effective use of undertakings. These changes could include:

- limiting opportunities to challenge procedural matters by exempting certain decisions made by the ACCC from judicial review by the Federal Court. These matters could include decisions to consolidate two or more arbitration proceedings, to treat material as confidential, to direct parties to undertake negotiation, to seek information from parties, or to extend time limits
- enabling the ACCC to request a party who lodges an undertaking to vary it without requiring the party to lodge a fresh undertaking and start the process from the beginning
- placing a time limit on the ACCC for finalising an arbitration, and
- allowing the ACCC to specify pricing methodologies for declared services which would be used to determine prices over successive regulatory proceedings or successive undertakings in order to create greater regulatory certainty.

Option 2—Replace the Part XIC negotiate-arbitrate model with a streamlined regulatory process

This approach would replace the negotiate-arbitrate model with a streamlined regulatory process and provide the ACCC with the ability to make up-front determinations on price and non-price terms of access. This is a common regulatory practice used in many other countries, including the United Kingdom and Singapore.[39] The new process could operate as follows:

- once the ACCC had decided to declare a service, it would determine the terms of access for that service within a specified time period either through accepting undertakings or setting the access terms. The ACCC decision on access terms would be subject to merits review in a single proceeding by the Australian Competition Tribunal
- in general, the terms of access for a service determined by the ACCC would be available to all access seekers on request, though parties could be free to negotiate outside these arrangements if they were mutually agreeable. Where appropriate, the ACCC could determine different terms for different access providers and/or access seekers

- the ACCC would specify the duration of the regulatory decisions. During this period, the terms of access for that declared service could not be altered except in limited circumstances, and
- the ACCC would start proceedings to put new decisions in place before the old ones expired.

Suitable transition arrangements would be developed for existing declared services.

Questions

- How can the processes and procedures under Part XIC be improved? What are the relative merits of the options outlined or any alternative you favour?
- Are there elements of the different options which could be combined?

Anti-competitive conduct provisions

Part XIB of the Trade Practices Act sets out a telecommunications-specific anti-competitive conduct regime (and certain information gathering powers), supplementing Part IV of that Act which applies to the economy generally.

Part XIB prohibits a service provider with a substantial degree of market power from engaging in conduct which has either the **effect or purpose** of substantially lessening competition. This test for anti-competitive conduct is broader than the test for misuse of market power in Part IV which requires the **purpose** of substantially lessening competition.

If the ACCC believes a service provider is engaging in anti-competitive conduct it may issue a competition notice under Part XIB. Prior to doing so the ACCC must issue a consultation notice summarising the anti-competitive conduct. Issuing a competition notice opens the way for the ACCC or third parties to seek substantial penalties and damages in the Federal Court.

Part XIB has been criticised for taking too long and being too procedurally cumbersome.[40]

Telstra has also criticised Part XIB, noting that when the ACCC issues a competition notice, it gives no guidance on the action required to have the competition notice removed.[41]

Furthermore, Part XIB has been criticised on the grounds that there have not been any successful prosecutions of competition notices.[42] That said, in four of the five instances where a competition notice has been issued, a change in conduct has been observed following the receipt of the notice, leading to the ACCC revoking the notice or settling prior to litigation. Furthermore, it is possible that Part XIB has acted to deter service providers from engaging in anti-competitive conduct.[43]

There is a strong argument that it is necessary to retain and improve Part XIB given the existing industry structure in telecommunications.

Options for reform

There are a number of options the Government is considering to reform Part XIB of the Trade Practices Act. These include:

- removing any requirement to undertake consultation before issuing a competition notice. This would simplify issuing a competition notice and allow the ACCC to respond more quickly to anti-competitive conduct than is currently the case
- requiring the ACCC when issuing a competition notice to provide guidance to the recipient on how to rectify the anti-competitive conduct and have the competition notice removed
- giving the ACCC the power to impose binding rules of conduct when issuing a competition notice (currently the ACCC can only seek injunctions or financial penalties). This mechanism would provide certainty on the outcome of competition notices for all parties and would be more likely to lead to the timely resolution of the conduct of concern, and
- abolishing the competition notice regime and empowering the ACCC to issue binding rules of conduct where it considers a party is engaging in anti-competitive conduct. This should lead to quicker outcomes and would provide more certainty on how the matters could be resolved. Appropriate penalties for failing to comply with the rules of conduct would be established and parties affected by the anti-competitive conduct would be able to seek compensation.

Questions

- Are Part XIB procedures too complex? If so, how could they be streamlined?
- Are consultation notices necessary?
- Would the introduction of binding rules of conduct on carriers who are subject to a competition notice or as an alternative to competition notices improve the operation of Part XIB?
- What are the relative merits of the options outlined?

Separation arrangements for Telstra

Existing arrangements

As noted in Chapter 1, the Telecommunications Act requires a review of the operational separation framework to be conducted (before 1 July 2009). Details of the review and questions relating to it are at Appendix A. Responses to this part of the discussion paper will be taken into account by the Government in undertaking the operational separation review.

Background

Telstra remains one of the most integrated telecommunications companies in the world. It is a vertically and horizontally-integrated company which provides wholesale and retail services and operates multiple telecommunications networks. It owns the fixed line copper network in Australia that connects almost every premises in Australia, as well as the largest hybrid fibre coaxial cable network and 50 per cent of Foxtel.[44]

More than 10 years after competition reforms were introduced, Telstra retains a dominant position in many telecommunications markets.

It has been noted that:

> *'…the overriding issue remains the absolute dominance of the telecommunications sector by just one player—Telstra—by virtue of it being the sole provider of the ubiquitous local access network connecting virtually every home and business in the country.'*—ACCC[45]
>
> '[A] *conflict of interest arises when a monopoly carrier is required by law to provide network access to its retail competitors, and is also required by law to maximise the return to its shareholders.'*—Chamber of Commerce and Industry, Western Australia[46]

Telstra's level of vertical integration raises concerns about the extent to which it has the ability and the incentive to favour its own retail business over its wholesale customers when providing access to various services. In an attempt to address these incentives and promote transparency and equivalence:

- an enhanced accounting separation regime was enacted in 2002, and
- an operational separation regime applying to Telstra was enacted in 2005.

Notably, the separation measures attempted in Australia are significantly weaker than those that have been implemented in other countries such as the United Kingdom and New Zealand.[47]

A dominant theme arising from the Regulatory Submissions was that the accounting and operational separation regimes have not promoted genuine equivalence of access for access seekers in the Australian telecommunications industry.

In its Regulatory Submission Optus stated that:

> *'…the current 'operational separation' requirements that apply to Telstra…are cosmetic and represent the weakest form of separation in the spectrum of options available.'*—Optus[48]

Addressing vertical integration to promote equivalence

Equivalence is where a vertically-integrated operator provides wholesale services on equivalent terms and conditions to its own retail business and its wholesale customers. Equivalence relates to both price and non-price terms and conditions such as service provisioning and availability of information about the network, and is considered an essential factor in promoting retail-level competition.

There are two general approaches to requiring equivalence. The current separation arrangements in place for Telstra require equivalence of outcomes. Under this model, equivalence does not mean that competitors receive the same network inputs as Telstra's retail units, for example, pricing, information about the network, access to exchanges and service provisioning. In theory, however, equivalence of outcomes should allow efficient competitors to access Telstra's essential infrastructure and produce equally competitive outcomes.

In practice, despite extensive monitoring and reporting requirements on Telstra, it is extremely difficult to verify that this approach delivers genuine equivalence. At a 2008 Senate Estimates hearing the ACCC stated:

'We continue to receive complaints of conduct that suggest that the objective of equivalence, which was the objective of the regime, is not being achieved. There have been some instances of conduct since the regime's inception which, while it is not clear they breach the operational separation plan, do not promote the objective of equivalence which was the fundamental objective of the plan in the first place.'—ACCC[49]

The alternative approach of equivalence of inputs requires wholesale competitors to be provided with equivalent price and non-price inputs as the incumbent's retail business. Supporters of this type of regime consider it more effective at providing equivalence to competitors, because the incumbent's retail units and its competitors receive the same services at the same price with the same network information and using the same processes.

'Telstra has imposed a cynical and convoluted access process that can mean delays of more than 2 years before an [Internet service provider] *such as Primus can install its own* [digital subscriber line access multiplexer] *equipment, and offer its own broadband service in an exchange service area.'*—Primus[50]

Options for reform

The overwhelming message from the regulatory consultation last year is that the existing regime, including the measures that have been designed to promote equivalence, have not worked effectively. During the roll-out of the National Broadband Network the existing regime, including measures to promote equivalence, will remain important for promoting outcomes in the interests of consumers and businesses.

Maintaining the current separation arrangements will not deal with the issues concerning Telstra's use of its vertical integration. In light of this, there are a number of options the Government is considering.

Figure 2 shows a number of possible separation models in order of increasing strength of the equivalence arrangements. Legal separation refers to the situation where appropriate parts of the company are made into separate legal entities, but ownership by the same owner is still allowed.

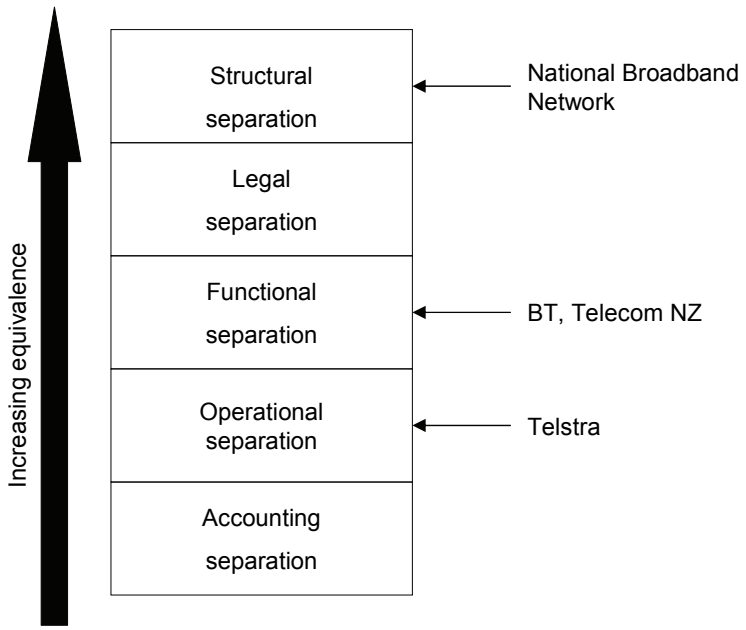

Figure 2: Possible models of separation

Option 1—Strengthening the current operational separation regime that applies to Telstra

One option would be to make the existing operational separation arrangements that apply to Telstra work more effectively during the transition to the National Broadband Network.

The Government is interested in views on options that would enhance the current operational separation requirements by improving effectiveness, transparency and enforcement. These could include:

- enforcing stronger governance and ring-fencing arrangements, so that network staff could not undertake retail functions, whole-of-business incentives would not be available to network or wholesale staff and a more robust oversight framework would be established within Telstra (similar to the Equality of Access Board at BT (formerly British Telecom))
- providing for a higher level of information equivalence by requiring Telstra to provide wholesale customers with all relevant information in a timely manner, and
- strengthening the enforcement mechanisms within the regime, including the powers of the ACCC.

Option 2—Functional separation

A further option open to Government would be to introduce a stronger form of separation, such as a functional separation regime similar to those introduced in the United Kingdom and New Zealand, and being considered as a regulatory remedy within the European Union.

Functional separation is a stronger form of intervention than operational separation. It requires the incumbent to create a separate network unit which provides essential

network services to other providers and to the incumbent's own retail units at the same prices and using the same non-price terms and conditions and processes. The network unit typically has separate management, staff, operational systems and premises from the incumbent. Performance incentives can be aligned with the performance of the network unit rather than the incumbent as a whole.

The Australian Telecommunications Users Group stated that:

> *'Equivalence in wholesale services together with effective services competition can only be assured by establishing: clear separation between wholesale and retail units…'*—Australian Telecommunications Users Group[51]

Adoption of functional separation would impose strict ring-fencing and reporting requirements around certain business units within Telstra. These units would be required to operate at arm's length from the rest of Telstra.

The key principles behind an effective functional separation regime could include:

- *Arm's length transactions between business units* requiring that the network owner's business dealings with its retail units are conducted in the same way as their dealings with unrelated third parties
- *Creation or designation of discrete organisational divisions* which are then assigned responsibility for specified operations, are ring-fenced from other divisions and have separate business systems
- *Price equivalence measures* requiring that affiliates pay the same for their access to the network as wholesale customers. This could include requiring contracts between the wholesale and retail units, with the contracts being subject to ACCC oversight
- *Non-price equivalence measures* requiring the same access products are offered to, and the same processes and systems are used to provide operational support to, retail and wholesale customers
- *Equivalence of information* whereby access seekers and ring-fenced affiliates have equivalent access to information
- *Governance arrangements* where each business unit employs separate staff, where there are restrictions on staff moving between business units and where remuneration and incentives for all staff in ring-fenced divisions are based on 'unit' rather than 'whole of business' performance, and
- *Effective enforcement provisions* to deal with breaches with pecuniary penalties.

In commenting on the benefits of functional separation in its Regulatory Submission, BT Global Services noted that:

> '[Functional separation] *must be accompanied by true equivalence if there is to be an effective incentive to provide fit for purpose wholesale services on a non-discriminatory basis.'*—BT Global Services[52]

In proposing the introduction of functional separation as a competition remedy available to European regulators, the European Commission has stated that:

> *'Functional separation may have the capacity to improve competition in several relevant markets by significantly reducing the incentive for discrimination and by making it easier for compliance with non-discrimination obligations to be verified and enforced.'*—European Commission[53]

Regarding the functional separation of BT, the United Kingdom's telecommunications regulator has stated:

> *'…the experiences of both business and residential consumers have been positive. They are experiencing greater choice, lower prices, and more innovative products and services.'*—Ofcom[54]

Functional separation—not costly for shareholders

Concerns are expressed in some quarters that functional separation would be detrimental for Telstra's shareholder value. This is not necessarily the case, particularly if Telstra were cooperative in its implementation. Both BT in the United Kingdom and Telecom NZ in New Zealand are implementing functional separation on a cooperative basis. The European Regulators Group noted in 2007 that:

> *'Following the announcement of the undertakings in the United Kingdom, BT's share price increased. After almost two years, BT has shown a relatively strong share performance compared with many of its European peers…it is clear the undertakings entered into by BT were not perceived by the market as a disincentive to invest.'*—European Regulators Group[55]

BT's recent decline in share price is consistent with the general fall in share market value as a result of the global financial crisis.[56]

It has also been alleged that functional separation has stifled investment. However, both BT and Telecom NZ are investing in significant fibre upgrade to their networks. BT Global Services has stated that:

> *'…The provision of equivalence does not stifle our ability or desire to invest; we have just announced a £1.5bn investment programme in next generation broadband with full equivalence. We are amongst the world leaders in this area.'*—BT Global Services[57]

Policy considerations

As noted above, the overwhelming view of stakeholders and the ACCC is that the current arrangements in place to promote equivalence of access have failed. Competition has suffered as a result.

Looking forward, what also needs to be considered is whether the functional separation of Telstra would be more consistent with the type of wholesale-retail market structure the Government envisages for the National Broadband Network environment of the future.

In considering these options, a number of relevant factors will be taken into account, including:

- the practical effect of these options (will services be provided on a genuinely equivalent basis or will there be little change?)
- the extent to which these measures may allow the Government to reduce existing regulation in other areas
- the interaction between these measures and the access regime in Part XIC of the Trade Practices Act
- the appropriate points of separation for Telstra's businesses, allowing for the delivery of legacy services and services on any future upgrades of Telstra's network
- the time, resources and costs it would take to implement this type of regime compared to the competition gains
- that functional separation would be more consistent with the structural framework envisaged for the future National Broadband Network environment, and
- the time period for the National Broadband Network roll-out (noting that it will take some time for the National Broadband Network to be fully operational, and the Government is interested in reforms that will improve competition in the interim).

Questions

- What are the appropriate structural arrangements for Telstra during the transition to the National Broadband Network?
- Could measures be put in place to make the existing operational separation regime work more effectively? If so, what are they?
- If functional separation is adopted, what would be the key elements of such a framework? What would be the appropriate boundaries for separation?

Note: Questions about the existing regime relating to the criteria for the statutory review of operational separation are set out in Appendix A.

Horizontal separation

In addition to being the vertically-integrated owner of the near-ubiquitous fixed line copper network, Telstra also owns the largest hybrid fibre coaxial cable network in Australia (passing 2.5 million homes) and 50 per cent of Australia's largest subscription television provider, Foxtel.

Other carriers in the market also own cable networks. Optus owns a cable network that passes 2.2 million homes and is capable of providing voice, broadband and subscription television services to 1.4 million homes within this footprint. Smaller network operators include Neighbourhood Cable,[58] TransACT[59] and Austar.

In the past, concerns have been expressed by a range of stakeholders that Telstra's control of the copper fixed line telephone and cable networks has reduced the development of facilities-based competition in Australia in comparison to other countries.

In many countries, including within the European Union,[60] there are restrictions on incumbents that own the fixed line telephone network also owning cable networks.

In 2003 the ACCC stated:

> *'Telstra's control of both a copper and a cable network and the lack of competitive discipline it faces as a result of this dual ownership, means Telstra is in a position to largely dictate the type of services that consumers will be able to access and the time at which these services become available.'*—ACCC[61]

Access to new content is increasingly important to telecommunications service providers. Content provides telecommunications service providers with new high-value business opportunities and further stimulates demand for their carriage services. Exclusive access to content creates an effective means of locking customers in. Further lock-in can be achieved through the bundling of services (i.e. selling two or more types of services together at a discount rate). Access to content on an exclusive basis limits the opportunities available to competitors, in both the carriage and content sectors.

While entry of telecommunications service providers into the content business is understandable from a business perspective and may have benefits for consumers, there are potentially significant negative consequences that need to be considered.

A provider with control of key platforms may seek to exploit this in negotiating arrangements with content providers to the detriment of both content providers and competing service providers. If a dominant service provider is able to control the delivery of content, in particular premium content, it may limit consumer choice, both of carriage and content service providers.

This situation could be further exacerbated if telecommunications service providers enter parts of the more traditional media industry like commercial broadcasting or newsprint, thereby gaining control of both content and delivery platforms.

In addition to these competition and consumer concerns, the community also needs to consider the potentially wider social implications of entry by powerful telecommunications firms into the media sector. These include implications for the more traditional areas of broadcasting policy such as media diversity, innovation and the control of influence.

Quite simply, the entry of powerful telecommunications service providers into the media sector could reinforce their power in the carriage sector and extend their power to the content sector with negative consequences for content providers, competitors, consumers and the wider community.

While these considerations could apply to any number of market players, it is inevitable that the spotlight falls on Telstra given its size and position in the sector and its stated ambitions to be a larger player in multimedia.[62]

Possible options for reform

Option 1—Possible cross-media restrictions to apply in the future

If the risk from Telstra in these areas is considered significant enough, one option to prevent it reinforcing its dominance in existing markets and extending it to other markets would be to prevent it acquiring new businesses such as commercial broadcasters, newspapers or exclusive content rights. Telstra could be permitted to retain its existing businesses but future acquisitions of certain businesses or exclusive

content rights could be prohibited. In effect, this would place a cross-media ownership rule on Telstra.

Option 2—Require divestment of Telstra's hybrid fibre coaxial network

Telstra's ownership of the largest cable network means that, along with its fixed line copper network, it owns the two most significant fixed line platforms in Australia. Divestment of the cable network could provide the basis for additional infrastructure-based competition for the provision of voice, broadband and subscription television services in metropolitan areas where this cable footprint exists. This would result in increased competition consistent with the experience in North American and many European markets.

If Telstra was required to divest its hybrid fibre coaxial network restrictions would also need to be placed on its future activities to prevent re-integration.

Questions

- What restrictions, if any, should be imposed on future Telstra investment in the Australian media and communications sector?
- Should Telstra be required to divest its hybrid fibre coaxial network?

Facilities access regime

Under Schedule 1 to the Telecommunications Act, carriers are required to provide other carriers with access to certain facilities such as exchanges, pillars, ducts and towers. This is known as the facilities access regime. If the parties are unable to agree upon the terms of access then they must be determined by an arbitrator or, if the parties cannot agree on an arbitrator, by the ACCC. The ACCC has made a facilities access code governing access to mobile towers and underground facilities.[63]

There are criticisms that the facilities access regime has a number of weaknesses. For example:

- the ACCC is only an arbitrator of last resort under this regime which could lead to even greater delays than under Part XIC
- this regime does not allow for 'interim determinations' and 'backdating arbitral determinations' which arguably means there is less regulatory certainty for access seekers, and
- the facilities access code contains a number of steps that provide potential scope for disputation.

With the roll-out of the enhanced National Broadband Network, there is the potential that these provisions will be relied upon to a greater extent in the future.

'[I]*t is essential that the regulatory arrangements for the* [National Broadband Network] *include provisions for access to passive services, such as access to ducts, conduits and internal cabling on an equivalent basis.'*—Optus[64]

To address these concerns, the present arrangements could be amended to make the framework consistent with Part XIC. Alternatively, the facilities access regime could be integrated within Part XIC.

Questions

- Would making the facilities access regime consistent with Part XIC improve its operation?
- Should the facilities access regime be integrated within Part XIC? If not, why not?

Spectrum allocation

The availability of spectrum has been essential in encouraging competition between different technologies, as well as different service providers of mobile services.

Availability of spectrum is becoming increasingly important for telecommunications as the use of wireless broadband and mobile technologies such as 3G increases. The prospect of new technologies—such as Long Term Evolution—which allow for more bandwidth-intensive applications will further increase this demand.

The allocation of spectrum is carried out under the Radiocommunications Act. Currently, when spectrum becomes available, it can be sold through auction, with licence periods of up to 15 years. Secondary trading in spectrum is permitted.

Over coming years, the Government will consider the allocation of spectrum made available through the staged cessation of analog television in the transition to digital television, the expiry of licences for spectrum currently used for mobile telephone services and any changes to the use of spectrum currently used for electronic news gathering. Specific consultation on these allocations will be undertaken separately.

The Government's National Broadband Network policy includes the provision of some broadband services using next generation wireless and satellite technologies to ensure 100 per cent of the Australian population is able to access superfast broadband services.

The relative roles of satellite and wireless in the National Broadband Network will be determined by the Government following the Implementation Study.

Spectrum may need to be reserved at appropriate frequencies to deliver superfast broadband services using wireless and satellite technologies in areas that will not be covered by fibre optic to the home and workplace. This has been supported by the Australian Telecommunications Users Group which has stated that:

> *'Spectrum should be made available for broadband in regional and remote areas to ensure access to* [National Broadband Network] *services in a timely and cost effective way.'*— Australian Telecommunications Users Group[65]

The Government recognises that these future demands will place pressure on the available spectrum.

This raises questions about how the Government may allocate spectrum. While other consultation processes will address this issue, it should be noted that the Minister can impose competition limits on spectrum allocations, which can restrict the participation of particular carriers in a spectrum auction for competition reasons, for example, to encourage new entrants.

Competition limits have been imposed on existing carriers in other jurisdictions[66] and in Australia in the past. Some countries have a policy to encourage competition

between different technologies and have arrangements to limit concentration of platforms in the hands of existing carriers.

Questions

- Given the changes to the telecommunications industry resulting from the roll-out of the National Broadband Network, are competition restrictions necessary to limit access to valuable spectrum?
- How can the Government encourage competition between different technology platforms?

Chapter 4: Telecommunications consumer safeguard framework

The existing telecommunications regulatory regime includes a number of measures designed to protect consumers. Key protections relate to universal access to voice services, connection and repair timeframes, affordability, and community safeguards designed to protect public safety.

The Government remains committed to ensuring that appropriate consumer safeguards are in place, including during the transition to the National Broadband Network and beyond.

The current consumer safeguard framework was designed in an environment where fixed line telephony was the main service. The increased use of mobile and wireless technologies, the Government's National Broadband Network initiative and other trends raise a number of issues which affect operation of these consumer safeguards. The Glasson Report also recommended a new long-term consumer protection framework known as the Communications Service Standard be established.

In light of these factors, it is appropriate to consult with stakeholders directly on what reforms should be made to the existing consumer safeguards, in order to ensure that all consumers, no matter where they live, have access to reliable and affordable telecommunications services.

This chapter examines the safeguards within the *current* framework and considers changes which can be implemented immediately to make the existing regime more effective during the transition to the National Broadband Network environment.

The chapter addresses issues relating to, and potential areas of reform for, key consumer safeguards including:

- Universal Service Obligation
- Customer Service Guarantee
- Network Reliability Framework
- retail price controls
- priority assistance
- access to emergency calls, and
- regulatory obligations in relation to carrier licence conditions, enforcement of consumer safeguards, and regulatory reporting.

Universal access

The *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Consumer Protection Act) states that the objective of the Universal Service Obligation is to 'ensure that all people in Australia, wherever they reside or carry on business, should have reasonable access, on an equitable basis to standard telephone services and payphones.'[67]

Telstra is currently the sole carrier responsible for providing services under the obligation, which has operated since 1991. While the Consumer Protection Act provides contestability arrangements to enable other telecommunications providers to

be made the Universal Service Provider in certain areas, no competing Universal Service Providers have ever come forward despite a contestability pilot that ran between 2001 and 2004.

The Government is committed to ensuring that all people in Australia continue to have reasonable access to standard telephone services and payphones. However, the current Universal Service Obligation arrangements have raised significant concerns in a range of different areas.

Broadly speaking, stakeholder comments and concerns raised through the Universal Service Obligation Submissions and the Glasson Report about the current arrangements can be divided into the following categories:

- scope of the universal service obligation—both the services covered and the limitations of the obligation
- funding—both the amount and mechanism, and
- payphones, including enforcement issues.

Scope of universal access

Currently, the scope of the Universal Service Obligation is related to the reasonable provision of the standard telephone service and payphones. In most instances standard telephone services provided to meet the Universal Service Obligation are provided as fixed line services; however, in some instances the obligation is fulfilled using wireless or satellite telephone services.

Governments around the world are considering the scope of their universal access arrangements, in particular whether they should be extended to cover broadband services.

> *'It is this Commission's policy objective to achieve broadband internet for all Europeans by 2010.'*—Viviane Reding, European Commissioner for Information Society and Media[68]

The need to consider the scope of the obligation to ensure access to other services such as mobile telephony and broadband was also raised in the Glasson Report.

In Australia, consumer organisations have argued that the Universal Service Obligation does not address service standards or services other than traditional fixed line voice telecommunications. The New South Wales Farmers' Association recommended that the:

> '[Universal Service Obligation] *and* [Customer Service Guarantee] *should be broadened to include data standards as well as telephony standards.'*—New South Wales Farmers' Association[69]

The Consumers' Telecommunications Network argued:

> *'We have moved from a position where fixed voice communication was a necessity and internet access a nicety. Commerce and government has moved many services online and often provide no alternative, or options that are lesser quality or more expensive (e.g. banking or purchasing airline seats). Often broadband access is essential for participation and equity of access.'*—Consumers' Telecommunications Network[70]

The Glasson Report also noted that the Australian Communications and Media Authority (ACMA) referred to the Universal Service Obligation as a 'broken concept'.[71]

Communications Service Standard

The Glasson Report took the view that mobile and broadband services have become as significant and important to Australians as fixed line voice telephony, and that any consumer safeguards for the provision of telecommunication services should cover the availability and quality of voice, broadband, mobile phone and payphone services. It therefore proposed a Communications Service Standard, which would fulfil the role of the current Universal Service Obligation, Customer Service Guarantee, and possibly the Network Reliability Framework.

The Glasson Report suggested that a Communications Service Standard:

> *'will need to include the following variables for each service type:*
>
> - *voice services—voice quality, price and connectivity*
> - *broadband (always-on internet)—upload speeds, download speeds, latency, jitter and volume limits, and price*
> - *mobile communications—the characteristics of the consumer device and price*
> - *payphone—entitlement criteria, price, and processes for locating, removing and relocating services, and*
> - *reliability, and connection and repair times for all of the above service types.'*[72]

If adopted, the Communications Service Standard would be a major change to the way Australia tackles access to telecommunications services. Accordingly it is appropriate that the Government seeks the community's views on this approach, particularly in light of its decision to establish the National Broadband Network.

The Glasson Report recommended that the Communications Service Standard would encompass universal access and quality of service obligations by:

- providing an assurance of ongoing access to voice, mobile, broadband and payphone services
- allowing the Minister to set standards for the provision of each specified service with a 'plan of measures' to ensure that all individuals and small businesses can purchase services that meet the relevant standards on an equitable basis, and
- requiring the new framework be in place on or before 30 June 2013, given the need for consultation and taking into account the roll-out of the National Broadband Network.

Among other things, the Glasson Report recognised that Australia's current telecommunications market has participants who specialise in providing mobile telephony, Internet and data services, traditional voice telephony and Voice over Internet Protocol services. The telecommunications market also has participants who provide services in a range of these areas and who also cover the subscription television market. The Glasson Report also saw that convergence between technologies increasingly means that traditional services such as voice telephony are moving to new delivery platforms, and new hybrid services are emerging.

As such, the proposed Communications Service Standard aims to apply equally to the diverse participants in Australia's telecommunications market, and at the same time provide assurance of quality service to Australian consumers.

The approach would provide flexibility in how the obligations are met for each service and would not necessarily require regulatory intervention. Alternatives to regulation include subsidies and other Government incentives.

Non-regulatory approaches may both address consumer needs for different telecommunications services, and minimise any regulatory impost on telecommunications providers. An example is the Australian Broadband Guarantee program, which provides Australian residential and small business premises with access to metro-comparable broadband services by offering incentive payments to registered providers to supply such services where they would not otherwise be available. The Government recently allocated $270.7 million over the next four years to fund the Australian Broadband Guarantee.

Similarly, as part of its response to the Glasson Report, the Government committed $11.4 million to extend and enhance the Satellite Phone Subsidy Scheme. The scheme provides a subsidy to Australians who live or work in areas without terrestrial mobile coverage. Satellite mobile phone services cover the entire Australian landmass and population. The Extended Zones Agreement also ensured that people in the most remote parts of Australia can access untimed calls at a local call rate across areas that would not otherwise have been considered a local call area.

The Glasson Report also noted the varying roles of the ACCC, the ACMA and the Telecommunications Industry Ombudsman in respect of telecommunications access and competition, technical standards and consumer complaints. Should there be fundamental changes in telecommunications market and regulatory structures, the Report suggested the reporting, enforcement and consumer representation roles might also need to evolve.

Questions

- Would the Communications Service Standard approach proposed in the Glasson Report provide an effective and useful framework for safeguarding consumer outcomes into the future, including the National Broadband Network environment?
- What standards should be required of:

  —voice services

  —broadband

  —mobile services, and

  —payphone services

  under a Glasson-style Communications Service Standard?
- How can reliability, connection and repair time standards for these services be established and enforced?

- In the context of the Government's announcement to establish an open access, wholesale-only National Broadband Network, should anyone be required to provide universal access to broadband services? If so, who? Should the role be contestable?
- Given the roll-out of the National Broadband Network and that the Australian Broadband Guarantee already provides a safety net, is it necessary to include broadband in a regulatory framework for universal access?
- Given that the Satellite Phone Subsidy Scheme already provides a safety net, is it necessary to include mobile services in a regulatory framework for universal access?
- What mechanisms should be in place to address and resolve access, reliability and other service issues faced by consumers and small businesses? What role should industry play?
- What information should be gathered and reported on as part of dealing with regulatory enforcement and resolution of consumer problems?

Funding

The current funding model provides an industry-funded subsidy to Telstra in recognition of costs associated with delivering universal services. In 2008–09, the total subsidy, including Telstra's contribution, was approximately $145 million. Carriers contribute a levy based on their proportion of industry revenue.

Optus and Vodafone have argued that the subsidies give Telstra an unfair advantage over other carriers and discourage competition.

'Telstra receives substantial revenues from its customers in rural and remote areas, even without accounting for the substantial intangible benefits of universal service…even in the remotest of locations, Telstra's ongoing revenues are likely to outweigh the ongoing cost of serving existing customers.'—Optus[73]

'We consider that the benefits received from providing the [Universal Service Obligation] *would largely offset the costs incurred. As a result, the current* [Universal Service Obligation] *regime represents a transfer of wealth from industry participants to Telstra, as the provider of* [Universal Service Obligation] *services.'*—Vodafone[74]

It is argued that Telstra receives a number of intangible benefits from providing the Universal Service Obligation including:

- the ability to provide non-Universal Service Obligation services to customers at a marginal cost using the same infrastructure
- a ubiquitous presence as a result of being the Universal Service Provider, with a consequent greater capacity to respond to customers such as banks and governments who require such ubiquity, and
- brand enhancement and corporate reputation.[75]

The Competitive Carriers' Coalition supports this view and has stated:

It is clear that Telstra accrues substantial intangible benefits from being the Primary [Universal Service Obligation] *Provider. On the other hand, it is equally clear that the arrangement whereby the* [Universal Service Obligation] *is levied on other carriers is harmful to competition.'*—Competitive Carriers' Coalition[76]

In countries such as the United Kingdom, BT (the incumbent telecommunications operator) is required to meet a universal service standard but it is not compensated for doing so. It is understood that the universal service provider does not receive funding in Singapore, the Netherlands, Finland or Germany.[77] The United Kingdom's regulator, Ofcom, has stated:

'To date, Ofcom has determined that the costs of the [Universal Service Obligation] *were generally offset by the benefits received and therefore that there was no significant net burden that arose from being designated a* [Universal Service Provider]. *If Ofcom were to conclude that a significant net burden did arise, then it would be open to Ofcom to examine potential funding options, including the possibility of financing the* [Universal Service Obligation] *through an industry fund.'*—Ofcom[78]

While many of its competitors believe that the subsidies unfairly advantage Telstra as the Universal Service Provider, Telstra claims that these subsidies do not fully cover the costs of providing universal standard telephone services.

'Huge costs are involved in meeting the [Universal Service Obligation]. *Part is funded by industry levy, but the bulk is paid for by Telstra out of the pockets of its shareholders because the* [Universal Service Obligation] *subsidy is arbitrarily capped at a level bearing no relationship to cost.'*—Telstra[79]

In Universal Service Obligation Review Submissions, Optus and the Competitive Carriers' Coalition suggested Telstra has overstated the cost of the Universal Service Obligation, failed to take intangible benefits into account, and should be solely responsible for the cost of the Universal Service Obligation.

Requiring Telstra to fund the Universal Service Obligation itself could be more administratively efficient compared with current arrangements.[80] Removing the Universal Service Obligation levy would reduce costs for other carriers and administration costs for the ACMA.

Administration costs are a particular problem for some smaller telecommunications providers. Currently carriers contribute to a levy based on their proportion of industry revenue. The cost of complying with regulation and submitting annual returns to the ACMA can outweigh the amount levied.

To overcome this, the Government could introduce an eligible revenue threshold for the Universal Service Obligation levy to exempt carriers with revenue less than $10 million from submitting annual returns to the ACMA, and contributing to the cost of universal service. On present figures this would reduce the number of carriers who have to pay the levy by around 150.

Questions

- How should the universal access regime be funded? Should the burden fall on one carrier or should it be spread further?

- How should any intangible benefits from being the Universal Service Provider be taken into account?
- If industry funding is preferred for universal access, should smaller carriers be required to contribute? If not, what should be the threshold revenue for exempting such carriers?

Payphones

Over the past few years there has been a significant decline in the number of payphones. Figure 3 illustrates the annual decline in payphone numbers (Telstra and non-Telstra operated) from 2002–03 to 2007–08:

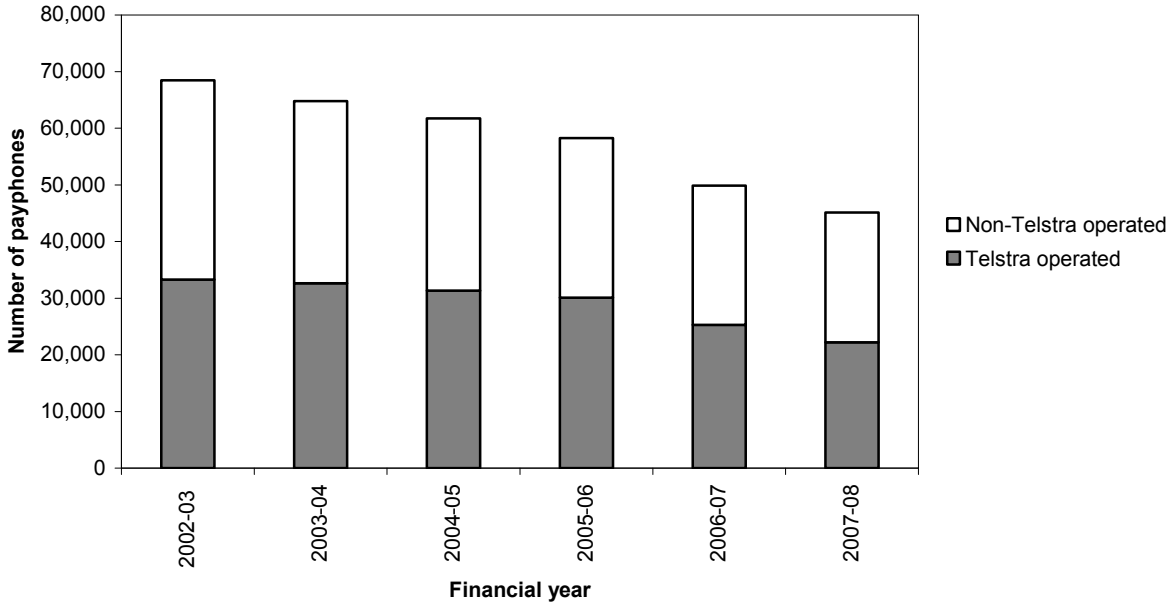

Figure 3: Number of payphones in Australia

(source: *ACMA Communications Report 2007–08*)

Telstra has indicated that:

> *'Around the world payphone operators and suppliers are being affected by the increase in mobile phone ownership and usage, increased costs and call substitution by low cost calling card providers.'*—Telstra[81]

However, despite falling use and limited competition in some areas, many submissions to both the Universal Service Obligation Review and the Glasson Review identified payphones as providing an important consumer service. For example, the Consumers' Telecommunications Network indicated:

> *'Public payphones remain an important community safeguard. People in rural and remote areas are particularly reliant on their safeguard mechanism.'*—Consumers' Telecommunications Network[82]

It should be noted that in March 2009, an ACMA report indicated that around 17 per cent of the adult population of Australia did not currently use mobile telephone services.[83]

The provision of payphones raises issues relating to funding and location and removal of payphones.

Funding

Although Telstra has reduced the number of its payphones, commercial payphone operators do exist, for example Tritel, as well as owners of individual payphones. As shown in Figure 3, more than half of the payphones deployed are not Telstra operated.

The fact that some operators may deploy payphones in areas that might be viewed as uncommercial by the incumbent raises questions about the need to rely solely on the Universal Service Provider for the provision of payphones. For example, it may be appropriate to replace the current obligation with a process where existing and potential payphone operators could bid to supply services in particular locations, either for a fixed subsidy, or for the lowest amount of subsidy.

Questions

- Should universal service payphones be provided under a competitive process, such as under a competitive subsidy?
- Are there alternative mechanisms that could be used for providing universal service payphones?

Location and removal of payphones

With respect to payphone access in rural and remote areas, the Federal Council of the Isolated Children's Parents' Association of Australia Inc and Telecommunications and Disability Consumer Representation commented:

'Public payphones should at the very least, be provided in every town in rural and remote Australia due to not all areas having mobile service coverage'.—The Federal Council of the Isolated Children's Parents' Association of Australia Inc[84]

'Payphone complaints are small but payphone numbers are similarly small. However, it is essential that rural, remote and regional coverage be continued especially in remote indigenous communities'—Telecommunications and Disability Consumer Representation[85]

The ACMA raised concerns in its submission to the 2007 Universal Service Obligation Review about the effectiveness of Telstra's Standard Marketing Plan—which sets out Telstra's strategies for meeting its Universal Service Obligation, including in relation to payphones—as a regulatory tool. The ACMA has stated that the Standard Marketing Plan is difficult to enforce, given that it describes requirements in general terms which leaves Telstra much discretion.

'The [Standard Marketing Plan] *is drafted as a tool for marketing products and services, rather than a regulatory device.'*—ACMA[86]

The ACMA could be empowered to:

- set a minimum number of payphones to be located in rural and remote areas
- require Telstra to more transparently identify payphones installed to meet the Universal Service Obligation, and

- set stronger rules regarding the provisioning of such payphones, including their location, relocation and removal.

This would allow the ACMA to ensure that Telstra meets community expectations, especially in rural and remote areas where mobile phone coverage may be limited.

While potentially increasing the regulatory burden on Telstra, these changes could provide greater regulatory certainty and enhanced consumer outcomes.

Questions

- How should payphones be distributed around Australia?
- What controls should be placed on the provision, including location, and removal of payphones? Should there be a stronger role for local councils?
- Should the ACMA be given powers to set a minimum number of Universal Service Obligation payphones, and require Telstra to identify those payphones?
- Should the ACMA be allowed to set stronger rules regarding the provision, relocation and removal of payphones, especially in rural and remote areas?

Connections and fault repair

Customer Service Guarantee

The Customer Service Guarantee is designed to provide service providers with an incentive for meeting timeframes for new connections, repairs and keeping appointments, at the level of the individual customer. It applies to all service providers when they supply standard fixed line telephone services for residential and small business consumers. When legislated performance standards are not met, service providers are required to financially compensate affected customers. The amounts depend on whether the customer is residential/charity or business and the type of breach; however, all compensation payments are very modest. For example, compensation for failing to connect a standard telephone service for a residential or charity customer is $14.52 per working day ($24.20 for business customers) for the first five working days and $48.40 per day after that.[87]

Customers can waive their rights under the Customer Service Guarantee. In addition, service providers can seek temporary exemptions from the requirements in the event that networks are damaged by events or third parties outside the control of the provider.

The Glasson Report noted declining performance against legislated Customer Service Guarantee timeframes, reflecting a preference for service providers to pay compensation rather than meet the prescribed timeframes.[88] This was reflected in many of the Glasson Submissions.

'A public manifestation of the [customer network improvement] *backlog is the large number of Telstra pits surrounded by safety guards which can be seen around Australia.'*—Communications, Electrical and Plumbing Union[89]

'Members are reporting regular breaches of the [Customer Service Guarantee]*, but few are complaining to the Ombudsman. This legislative instrument is clearly not being enforced strongly enough.'*—New South Wales Farmers Association[90]

'The [Glasson] *Committee heard during consultation (such as Kununurra and Narrabri public meetings) that the overall level of maintenance of fixed line telecommunications infrastructure is dropping off. Participants argued that this is reflected in increased numbers of faults and failures to meet repair time frames, especially in more remote areas.'*—Glasson Report[91]

The Glasson Committee noted that:

'[I]*t appears that the current* [Customer Service Guarantee] *arrangements still do not provide sufficient incentives for carriers to improve their performance.'*—Glasson Report[92]

The Glasson Report made two recommendations relating to strengthening the Customer Service Guarantee for repairs to fixed services in rural and remote areas, namely:

- replacing 'working days' with calendar days in the repair timeframes, and
- tightening the service disruption criteria to ensure the exemption only applies when specified objective criteria such as are used for meteorological, insurance industry and emergency declaration standards are met.

Currently, the ACMA sets an informal benchmark target for meeting the performance standards of 90 per cent for all service providers subject to the Customer Service Guarantee. Performance data (Figure 4 and Figure 5) supports the view that performance in meeting fault repair timeframes appears to be declining, particularly in remote areas.[93]

The Government could impose specific performance targets on providers of the standard telephone service. This would see the current system, whereby the ACMA sets informal performance benchmarks to monitor service providers' performance, changed so that performance targets are specified in a legislative instrument and the ACMA can apply enforcement powers under the Telecommunications Act when there is a failure to meet these targets. Financial penalties under the Telecommunications Act would be more substantial than the compensation currently paid to individual affected consumers. Other possible changes to the enforcement arrangements are discussed later in this chapter.

Questions

- Does the Customer Service Guarantee need strengthening? If so, what changes should be made?
- Should working days be replaced with calendar days in repair timeframes?
- Should the service disruption criteria be tightened? If so, what mechanism should be put in place?

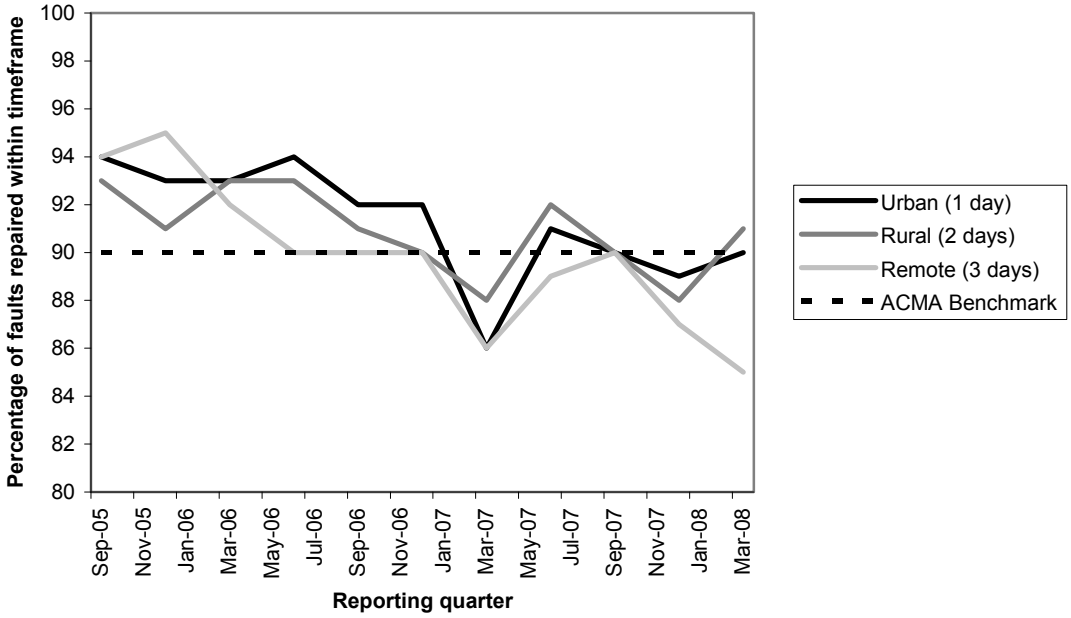

Figure 4: Telstra's quarterly fault repair performance

(source: ACMA's *Telecommunications Performance Bulletin 2005–06—2006–07* and *Telecommunications Performance Data March 2008 quarter*)

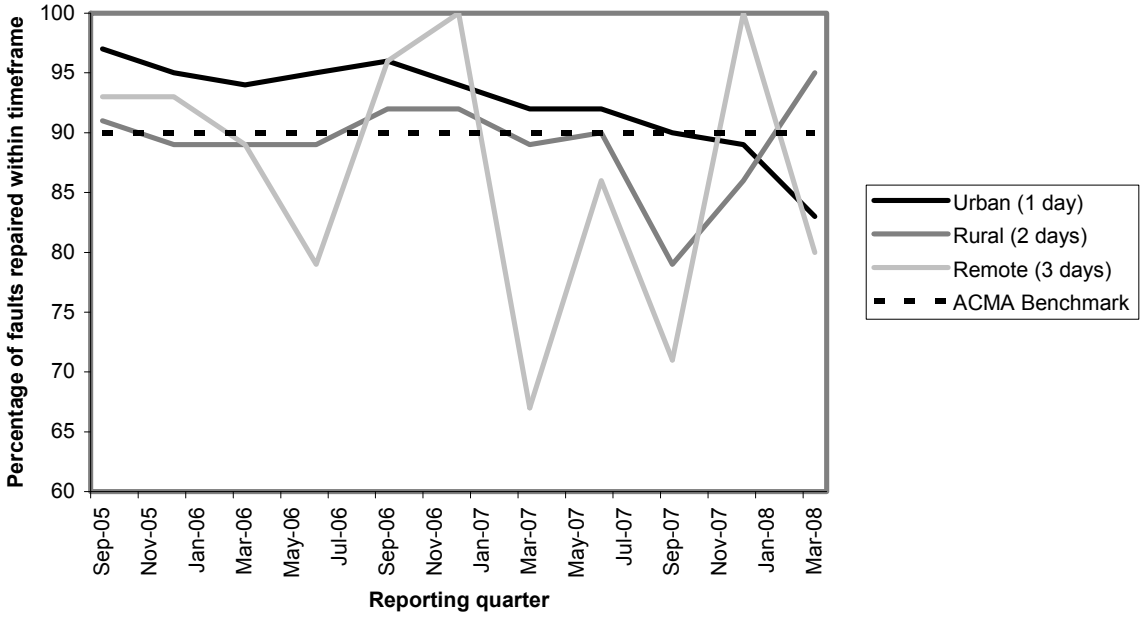

Figure 5: Optus's quarterly fault repair performance

(source: ACMA's *Telecommunications Performance Bulletin 2005–06—2006–07* and *Telecommunications Performance Data March 2008 quarter*)

Network Reliability Framework

At a network level, a carrier licence condition requires Telstra to remediate infrastructure which causes unacceptable levels of faults to household and small business fixed line customers. This arrangement, known as the Network Reliability Framework, is a consumer protection aimed at improving reliability across Telstra's

fixed line network and ensuring non-economic services receive a reasonable level of fault repair priority.

Under the Network Reliability Framework the ACMA monitors the reliability of Telstra's fixed telephone network at three levels:

- level 1: nationally and Telstra's 44 field service areas
- level 2: reporting and remediation of poorly-performing cable runs, and
- level 3: remediation of individual services that contravene certain fault reporting thresholds.

The Network Reliability Framework only applies to services Telstra provides to its Customer Service Guarantee-eligible customers—household and small business fixed line customers with five lines or less.

The Glasson Report found:

> *'The Network Reliability Framework does not meet its current objectives in reducing the number of faults in the fixed line network.'*—Glasson Report[94]

In line with its commitment to consumer protection, the Government is concerned that the Network Reliability Framework does not appear to be meeting its objective. Therefore, the Government is seeking comment on whether, during the transition to the National Broadband Network environment, the Network Reliability Framework requirements should be tightened. The effect of this measure would be to increase the proportion of the existing copper network that Telstra is required to remediate each year. This would increase the regulatory burden on Telstra but would also improve network performance for consumers.

Possible changes to the relevant penalties are discussed later in this chapter.

Questions

- Does the Network Reliability Framework need strengthening? If so, what changes should be made?

Retail price controls

The Minister for Broadband, Communications and the Digital Economy may determine that charges for specified Telstra retail services are subject to price controls. Typically, the ACCC is consulted on its views before arrangements are finalised. The ACCC also has the role of assessing Telstra's compliance with the retail price control arrangements and reports on this annually.

The existing retail price control arrangements apply to a range of Telstra services, including connection, line rental, local calls, local calls using a Telstra payphone, national long distance calls, fixed-to-mobile calls and international calls.[95]

In addition Telstra is required to offer:

- local calls and basic line rental services in non-metropolitan areas at the same or lower prices as are offered in metropolitan areas, and
- a package of products and arrangements for low-income consumers and must consult with the independent Low-income Measures Assessment Committee on any changes to this package.

The price control baskets are set in a manner that allows Telstra to vary the prices of a range of services within a 'basket', so long as the prices for those services overall do not breach the specified cap for the basket. While this is generally an economically efficient approach, there are instances where caps on particular services may be warranted (as currently applies to local calls and basic line rental). For example, local calls are currently capped for Telstra at 22 cents in most instances.

In the transition to the National Broadband Network, the Government will consider the appropriate settings for retail price controls, or whether retail price controls continue to be warranted.

In its 2008 *Review of Australia's Consumer Policy Framework*, the Productivity Commission recommended that the Government remove all retail price regulation applying to telecommunications products and services on the basis that such services are already fully contestable.[96]

In its recent Pricing Principles Determination for the wholesale mobile terminating access service, the ACCC identified a cap on the price of fixed-to-mobile calls in less competitive market segments as a possible method for Government to consider in order to ensure that reductions in mobile termination prices are passed through to consumers in the form of lower retail fixed-to-mobile prices.[97]

Submissions to the USO Review and the Regulatory Review questioned the degree to which telecommunications services are truly contestable across all markets given the current industry structure. Access by consumers to competing services clearly remains an issue. The Glasson Report concluded that:

> '[C]*ompetition in communications services markets is not as intense in most regional areas as in urban areas.'*—Glasson Report (Finding 2.6.2)[98]

Moreover, the abolition of the existing retail price control arrangements would remove existing safeguards for low-income consumers who choose the basic line rental service which is currently subject to price controls. It would also remove the requirement on Telstra to maintain pricing parity on local calls and basic line rental services between metropolitan and non-metropolitan areas.

Options for reform

In the transition to the National Broadband Network environment, possible options for reform of retail price controls that the Government is considering include:

- changing the existing regulation to improve the effectiveness of price controls through imposing tighter limits on Telstra's retail prices, and/or by having more services subject to specific price caps (e.g. capping the prices of fixed-to-mobile calls), and
- focusing price controls more tightly on those services of greatest significance to low-income and rural and regional consumers and remove broader price controls.

Questions

- Should the Government continue to regulate Telstra's retail prices for voice telephony services in the transition to the National Broadband Network?
- If price controls should be continued, which services should be included?
- What individual services or groups of services should be capped in price controls?

- Should retail price controls be used in conjunction with the wholesale access regime (e.g. to regulate fixed-to-mobile prices)?
- In the longer term National Broadband Network environment, will retail price controls be required? If so, what form should they take? What services should they cover?

Community safeguards

Access to:

- a priority assistance service for people with a life threatening medical condition, and
- emergency services

are important community safeguards relating to people's safety. The operation of these arrangements is a critical public safety issue for the transition to the National Broadband Network.

Priority assistance

Priority assistance provides enhanced telephone connection service and fault repair service to any person with a diagnosed, life threatening medical condition who is at risk of suffering a rapid, life threatening deterioration in their condition, where access to a telephone would assist to remedy the life threatening situation.

Priority assistance services are more strictly monitored than standard services and the connection and repair of services should occur within a 24 or 48 hour timeframe, depending on the nature and location of the connection or fault.

Telstra is required to offer priority assistance under its carrier licence conditions.[99] AAPT and Primus voluntarily offer priority assistance services in accordance with the Communications Alliance *Priority Assistance Code*. Optus offers a similar service for timely repair, known as the Optus Special Assistance Service, for residential customers with eligible medical conditions.

The ACMA performance data for 2007–08 indicates that Telstra's performance in meeting priority assistance benchmarks for connections and fault repairs has been gradually decreasing over a number of years (see Figure 6). As at June 2008 its performance was below the ACMA's informal benchmark of 90 per cent for both rural and remote customers.

While not subject to the priority assistance requirements, AAPT and Primus also report to the ACMA on their performance. Primus has only provided its national figures to the ACMA and has not documented what percentage of priority assistance connections the company installed on time. AAPT has only reported on performance since 2005–06, as shown in Figure 7.

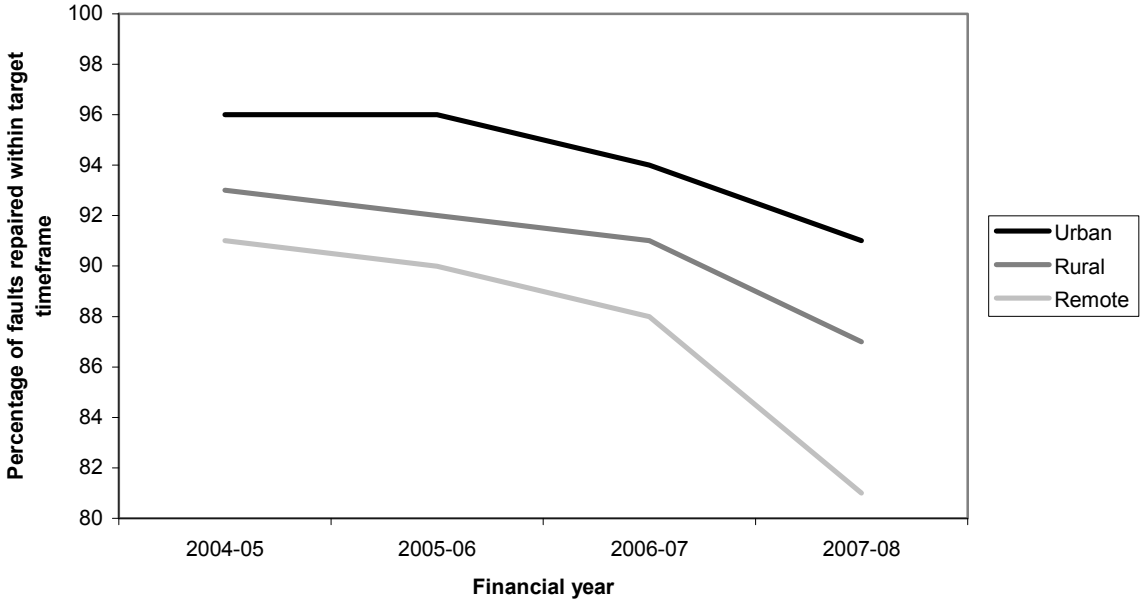

Figure 6: Telstra's compliance with priority assistance timeframes

(source: *ACMA Communications Report 2007–08*)

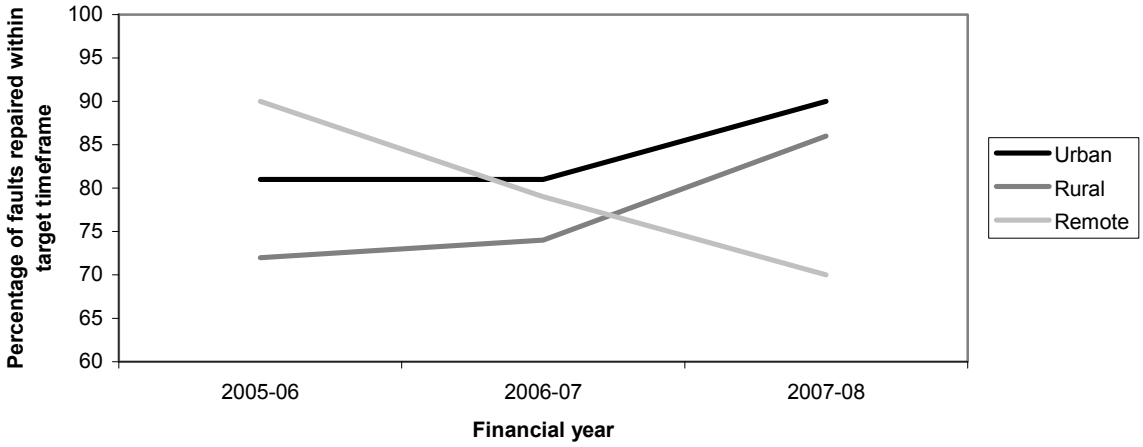

Figure 7: AAPT's compliance with priority assistance timeframes

(source: *ACMA Communications Report 2007–08*)

In their submissions to the Universal Service Obligation Review, Vision Australia[100] and Telecommunications and Disability Consumer Representation[101] suggested that access to priority assistance services should be included in the Universal Service Obligation, with Telecommunications and Disability Consumer Representation also arguing priority assistance eligibility be expanded to include persons with disabilities. Telecommunications and Disability Consumer Representation stated:

> '[Priority assistance] *is a vital safeguard for many people with disabilities and needs to be retained. In the future, priority assistance needs to be available for mobile and broadband services as well as the fixed line network as more and more people unsubscribe from a fixed line service. While priority assistance is currently a licence condition on Telstra, it should become part of the* [Universal Service Obligation].'—Telecommunications and Disability Consumer Representation[102]

The Government is considering whether the priority assistance arrangements could be improved through either:

- extending priority assistance arrangements to all standard telephone service providers, and/or
- extending the priority assistance criteria to include disabled people.

Possible changes to penalties are discussed later in this chapter.

Questions

- Are priority assistance arrangements effective?
- Does the voluntary industry code provide a sufficient safeguard for consumers?
- Should provision of priority assistance be mandatory on all fixed line voice providers during the transition to the National Broadband Network environment?
- Should the Government extend the scope of the priority assistance criteria to include people with a disability?

Emergency call service

Access to emergency services is an important community safeguard that is designed to protect lives. The operation of emergency call services is also a critical public safety issue for the transition period to the National Broadband Network and beyond.

There are specific obligations on carriers and carriage service providers and the emergency call persons with respect to providing access to emergency call services. The telecommunications industry is required to provide access to the emergency call service for standard telephone services free of charge. It is an operator-assisted service that connects callers to an emergency service organisation—police, fire or ambulance—in life-threatening or time-critical situations. The emergency call persons are Telstra and, for calls made to the 106 text service for people who have a hearing or speech impairment, the Australian Communications Exchange.

When emergency calls are transferred to emergency service organisations, address information is sourced from the Integrated Public Number Database or is provided by the caller, if the caller is not using a standard fixed line service. The Integrated Public Number Database is an industry-wide database of all listed and unlisted public telephone numbers[103] and is currently managed by Telstra.

The Integrated Public Number Database contains personal information that is highly sensitive. It is critical that the confidentiality of this information is maintained. There are statutory prohibitions which prevent its disclosure except in limited circumstances.

In their Regulatory Submissions both the Consumers' Telecommunications Network[104] and the Australian Telecommunications Users Group[105] identified that access to emergency call services should be maintained in the National Broadband Network environment. Telstra expressed concerns about the provision of emergency call services stating:

'a key consumer safeguard is the reliable delivery of emergency calls. Whether the successful [National Broadband Network] *bidder is vertically integrated or a wholesale-only model, this obligation should fall on the person who owns and operates the network—or at least be shared between the network operator and the telephony provider.'*—Telstra[106]

Telstra's roles as the emergency call person and the Integrated Public Number Database manager are due to it historically being the carrier best placed to fulfil these roles. Today, there are a variety of competing fixed and mobile networks providing many different services to consumers, which will continue in the new environment. Therefore, the most appropriate way to deliver emergency calls and manage the Integrated Public Number Database needs to be reconsidered.

In the transition to the National Broadband Network environment options that the Government is considering include:

- continuing with the current arrangements with Telstra
- requiring the National Broadband Network company to become the new emergency call service person and/or Integrated Public Number Database manager when it is fully operational, or
- establishing a stand alone government entity to fulfil the emergency call person and Integrated Public Number Database manager functions.

Under the third option, the Integrated Public Number Database Manager role could be moved from Telstra to an independent body such as the ACMA (which would outsource technical management while maintaining relevant privacy protections).

Questions

Looking to the National Broadband Network environment:

- Who should be required to provide the emergency call service? When can any transition begin?
- If responsibility were ultimately transferred to the National Broadband Network company, what obligations should apply to the company as a wholesaler and to retail service providers?
- What are the merits of the options identified? Are there operational disadvantages with the emergency call service person being separate from a telecommunications service provider?
- If Telstra is not the emergency call person and Integrated Public Number Database manager, how and when should these responsibilities be transferred to the new provider?

Legacy services and the National Broadband Network

There are a number of services—such as traffic control systems, fire alarms and security systems—which are currently provided over Telstra's copper network. In the longer-term, consideration may need to be given to whether the establishment of the National Broadband Network has implications for the supply of these services.

Question

- Will the National Broadband Network raise issues for legacy services on Telstra's network? Why? If, so how should they be dealt with?

Opportunities for red tape removal

Telstra has previously raised a number of regulatory measures which it considers to be red tape which could readily be removed. These are included in its submission to the Productivity Commission's *Review of Regulatory Burdens on Business: Social and Economic Infrastructure Services* available on the Productivity Commission's website.[107]

The Australian Government has made a commitment to examine options to reduce red tape and to eliminate regulation where the need for that regulation no longer exists. Examples of redundant provisions that could be removed from Telstra's carrier licence conditions are clause 5 which relates to requirements to prepare an industry development plan and clauses 13 and 14 which relate to local number portability.

However, Telstra's list includes a number of provisions that if repealed or amended could have implications for consumers. For example, Telstra proposed the following changes to its licence conditions:

- Clause 9—removal of the obligation to deliver the White Pages. Telstra suggests that the physical delivery requirement be abolished or at the very least changed to a bi-annual obligation, and
- Clause 11—an obligation on Telstra to differentiate between the charges for handsets and line rental. Telstra claims this clause is not needed given there is sufficient market competition for handsets and services.

Telstra has also identified obligations in the Customer Service Guarantee (e.g. enhanced calling features, credit standing of customers) which it considers should be removed.

Questions

- Are there any broader implications from the proposals raised by Telstra, in its submission to the Productivity Commission?
- Should the proposals raised by Telstra in its submission to the Productivity Commission proceed?
- Will directory assistance services, including printed directories, be required in an increasingly online world and, if so, how would necessary services be best provided?

Customer Service Guarantee reporting

In the transition to the National Broadband Network environment it may be possible to remove unnecessary reporting requirements. Currently, under the Customer Service Guarantee there are extensive reporting requirements. These include quarterly and annual reporting requirements for new service connections, fault repairs, appointments, compensation and extreme failures.

While noting the need for effective monitoring in light of concerns about the Customer Service Guarantee outlined above, some streamlining of reporting may be

possible. The ACMA is reviewing its Customer Service Guarantee reporting requirements to ensure that it only seeks essential information to meet its monitoring and reporting obligations. Some reporting metrics, such as those monitoring quarterly payment compliance for Customer Service Guarantee liabilities may be identified as unnecessary and be able to be removed.

Enforcement

More effective requirements for consumer safeguards

Earlier in this chapter issues were raised about whether the ACMA's informal monitoring benchmarks for carrier performance against the Customer Service Guarantee, and priority assistance should be made enforceable requirements subject to civil penalties (i.e. fines).

Level of penalties

The maximum penalties for contravention of a carrier licence condition or service provider rule are currently $10 million for each contravention. The Government is considering whether the level of those penalties should be increased.

Range of enforcement powers

Currently the ACMA has a range of enforcement powers available to it. If it considers that a provider is engaging in conduct that is in contravention of the Telecommunications Act or the Consumer Protection Act it can:

- issue a formal warning to the provider
- issue a remedial direction, requiring the provider to take action to ensure that it does not contravene either Act
- seek an injunction in the Federal Court, either to prevent the provider from doing something in contravention of either Act, or requiring the provider to do something to ensure it does not contravene either Act, or
- accept an enforceable undertaking from a provider dealing with compliance with either Act.

Where the ACMA considers that a telecommunications provider has breached a licence condition or service provider rule, it can also take action to recover a civil penalty. In either case, this requires the ACMA to commence action in the Federal Court. Pursuing litigation to recover a civil penalty can be an expensive and drawn-out process.

The Minister has announced that the Telecommunications Act will be amended to add to the ACMA's range of enforcement powers, by giving the ACMA the ability to issue infringement notices.

An infringement notice is a notice authorised by statute setting out particulars of an alleged offence or contravention of a civil penalty provision. A person who receives an infringement notice has the option of either paying the penalty set out in the notice or electing to have the matter dealt with by a court. The amount of the penalty specified in an infringement notice is generally significantly less than the amount of the penalty that may be imposed by a court. Infringement notices therefore provide a quick, easy and inexpensive way of dealing with alleged offences or contraventions,

and provide an opportunity for regulators to take enforcement action without having to resort to court proceedings.

In a number of other areas of its responsibility, the ACMA has the power to issue infringement notices. Both the *Spam Act 2003* and the *Do Not Call Register Act 2006*, for example, include a system of infringement notices for contravention of civil penalty provisions, as an alternative to the institution of proceedings in a court.[108]

Introducing a system of infringement notices for the contravention of certain civil penalty provisions under the Telecommunications Act and the Consumer Protection Act will assist the ACMA to efficiently enforce compliance with these Acts. Allowing the ACMA to seek penalties without having to commence litigation in the Federal Court, will expedite and significantly reduce the cost of enforcement action taken by the ACMA.

Questions

- Should the ACMA's informal monitoring benchmarks for carrier performance against the Customer Service Guarantee and priority assistance be made enforceable requirements subject to civil penalties?
- Should the level of penalties be increased?

Chapter 5: The bigger picture

Since the current telecommunications regime came into being, significant changes in the industry have occurred and these continue to take place, including:

- the growing use of broadband for communications and its increasing use for content delivery
- the increasing diversification of firms into new parts of the digital economy
- greater use of mobile services, allowing ready access to content 'anywhere, anytime'
- the provision of services by providers located offshore, creating issues for the application and enforcement of Australian law, and
- new telecommunications services that provide information on user location.

Some of the drivers of these changes include:

- the increasing transformation of telecommunications and broadcasting networks from analog to digital and the related digitisation of content
- growth in the use of new consumer devices, including digital cameras, digital recorders and third generation mobile phones, and
- the globalisation of business.

Governments need to be vigilant about assessing the continued appropriateness of existing regulations in the face of rapid technological change. A key trend in the sector is convergence which refers to the merging of different forms of technology to provide the same services. For example, when computers are used to access television content via the Internet and data is broadcast to television sets.

Convergence offers significant potential benefits for both consumers and service providers. A recent World Bank report found that:

> *'Convergence is a positive development for the communications industry because it allows greater diffusion of communications services. This is first because different services can now use a variety of facilities to reach customers. Convergence…also helps bring down costs of service provision…[and]…will reduce the costs of managing networks.'*—World Bank[109]

The current regulatory frameworks have not always kept pace with convergence and in some cases are challenged by such developments.

Good examples of the challenges posed by convergence are provided by voice over Internet Protocol services, Internet Protocol television, mobile premium services and fixed-to-mobile convergence.

As a result of changes like these, current approaches to regulation—and even the assumptions underlying them—are being called into question. Are the objectives of regulation still valid for the new circumstances? Can regulatory objectives that remain valid be better achieved in other ways? This applies to both telecommunications regulation and communications regulation more generally.

In its Regulatory Submission, an industry body, Communications Alliance, said:

> *'With the rollout of broadband infrastructure to nearly all Australians, now is the time to develop a policy framework for the broadband-enabled environment of converged network, technologies and services...Communications Alliance submits that the deployment of the National Broadband Network provides the opportunity for the comprehensive review of regulatory arrangements in telecommunications and media, and for the implementation of a convergence framework.'*—Communications Alliance[110]

If Australia is to enjoy the benefits of the digital revolution, we must provide a framework that nurtures, not stifles, innovation and investment. We need to ensure this while retaining appropriate consumer, security and other safeguards. As the Organisation for Economic Co-operation and Development Ministers noted at their meeting in Seoul last June on the future of the Internet Economy:

> *'Current economic regulation needs to be reviewed to ensure that it does not act as a barrier to the ongoing process of convergence and therefore prevent the development of more efficient means of delivery of existing and new services.'*—Organisation for Economic Co-operation and Development Ministers[111]

The Government agrees with these sentiments. It has already been working with industry bodies to tackle many of the challenges. This includes work with the ACMA and Communications Alliance on issues raised by voice over Internet Protocol services and greater availability of content services, both on the Internet and via mobile premium services.[112] Such work will continue.

However, given the significant change that the National Broadband Network will bring to the sector, it makes sense to wait until the new arrangements are further advanced before launching a full-scale review of convergence-related issues. This will enable due regard to be given to the implications of the new structural arrangements resulting from the roll-out of the new network.

The Government therefore intends to consider in 2011 whether to look again at its overall approach to regulation in a convergent environment. A key theme in these considerations will be the scope for winding back industry-specific regulation once the National Broadband Network is firmly established as an open access, wholesale-only, national network. This could include the ongoing roles for Part XIB and XIC and wider consumer protection arrangements. The Government will further engage with the community on this issue at this time.

Appendix A: Review of operational separation

Section 61A of the *Telecommunications Act 1997* requires the Minister to cause a review of the operational separation regime to be conducted before 1 July 2009. The review is to have regard to:

- the state of competition in telecommunications markets
- whether Telstra has a substantial degree of power in any telecommunications market
- technological developments that have, or might reasonably be expected to have, a significant impact on competition in telecommunications markets
- Telstra's commercial incentives for supplying wholesale eligible services, and
- the costs and benefits of the operation of Part 8 of Schedule 1.

Questions

- How have the existing accounting and operational separation arrangements affected competition?
- Will these arrangements continue to be needed before, during or after the roll-out of the National Broadband Network?
- In what markets does Telstra hold a substantial degree of market power? Do the operational separation arrangements adequately deal with the risks created by market power?
- What technological developments (apart from the National Broadband Network) might reasonably be expected to have a significant impact on competition in telecommunications markets?
- How do the operational separation arrangements affect Telstra's commercial incentives for supplying wholesale eligible services?
- What are the costs and benefits of the operational and accounting separation regimes?
- How could the effectiveness of the current arrangements be improved? Would the options to enhance the current operational separation requirements described in Chapter 3 improve confidence in the current arrangements?

Endnotes

1 On 8 February 2009 Vodafone Australia and Hutchison Telecommunications (3 Mobile) announced that they had agreed to merge their businesses in Australia under the name VHA Pty Ltd. At the time of writing this proposed merger is still being considered by the relevant authorities.

2 OECD, Broadband Portal, June 2008, *http://www.oecd.org/dataoecd/21/35/39574709.xls*

3 OECD, Broadband Portal, June 2007, *http://www.oecd.org/dataoecd/22/44/39575002.xls*

4 Organisation for Economic Co-operation and Development, *OECD Communications Outlook 2007*, 2007, p. 214

5 World Economic Forum, *The Global Information Technology Report 2008–2009*, 2009, pp. xvii, 305, 314, 330-334, 341-342, 356, 363

6 Network Readiness is an economy's ability to leverage Information and Communications Technology for increased competitiveness and development.

7 Measurement used for ranking is high speed monthly broadband subscription charge ($US) as a percentage of monthly GDP per capita.

8 Measurement used for ranking is lowest sampled cost ($US) per 100 kbps as a percentage of monthly income (GNI).

9 Measurement used for ranking is monthly telephone subscription ($US) as a percentage of monthly GDP per capita.

10 Measurement used for ranking is one-time telephone connection charge ($US) as a percentage of GDP per capita.

11 Measurement used for ranking is the cost of a 3-minute local call during peak hours ($US) as a percentage of monthly GDP per capita.

12 *Telecommunications Act 1997*, s.3

13 Centre for International Economics, *Impact of Genuine Broadband for Australia*, November 2008, p. 2

14 *Reclaiming Liberalism for the Left: Social Justice in the 21st Century*, address to the Sydney Institute by the Hon Chris Bowen MP, 18 November 2008

15 In 2007, all Australian governments recommitted to the Competition Principles Agreement (11 April 1995), including the principle that:

'… legislation … should not restrict competition unless it can be demonstrated that:

(a) the benefits of the restriction to the community as a whole outweigh the costs; and

(b) the objectives of the legislation can only be achieved by restricting competition.'

16 *Address to the ATUG Conference*, the Hon Stephen Conroy, 12 March 2008 available at *www.minister.dcita.gov.au/media/speeches/2008/address_to_atug_conference*

17 Department of Broadband, Communications and the Digital Economy, *Regional Telecommunications Review. Government Statement of Response*, March 2009, p. 1

18 The Committee, chaired by Dr Bill Glasson, presented its report to the Minister for Broadband, Communications and the Digital Economy, the Hon Stephen Conroy, on 5 September 2008

19 Vodafone, *Submission on the National Broadband Network Regulatory Environment*, 25 June 2008, p. 14

20 Optus, *Regulating the National Broadband Network*, June 2008, p. 31

21 iiNet, *Regulatory Submission on the Requirements for an Open Access National Broadband Network*, June 2008, p. 5

22 AAPT Limited & PowerTel Limited, *Submission by AAPT Limited & PowerTel Limited in Response to the Minister for Broadband, Communications and the Digital Economy Invitation for Comments on a National Broadband Network Regulatory Framework*, June 2008, p. 5

23 For example the City of Whittlesea requires fibre optic conduit to be installed in new estates. Once the conduit is installed ownership is transferred to Council to ensure that the conduit network is accessed and utilised by an open access fibre optic network, that also provides a suite of services.

24 Victorian Department of Infrastructure, *Aurora Fibre-to-the-Home Case Study*, 30 March 2006, p. 1

25 The Hon Marsha Thompson MP, Victorian Minister for Information and Communication Technology, Media Release, 2 October 2006

26 After it declares a service, the ACCC is required to release 'pricing principles' for that service.

27 If an undertaking is accepted by the ACCC for a particular declared service, then the ACCC cannot make an arbitral determination that is inconsistent with the accepted undertaking for that service (s.152CQ).

28 Telstra Corporation Limited, *Public Submission on the Roll-out and Operation of a National Broadband Network for Australia*, 25 June 2008, p. 23

29 iiNet Limited, *Regulatory Submission on the Requirements for an Open Access National Broadband Network*, 23 June 2008, p. 12

30 For example, access disputes relating to the unconditioned local loop service were lodged by Optus and Chime Communications in November 2005; the ACCC issued final determinations in April 2008.

31 For example, under the current arrangements parties potentially could challenge arbitral proceedings at a number of different stages such as: validity of notification, confidentiality arrangements to apply, specific claims for confidentiality, conduct of joint hearings, process for making final determinations, negotiation directions.

32 Optus, *Regulating the National Broadband Network*, June 2008, p. 5

33 Australian Telecommunications Users Group, *A Submission to Establish an NBN Regulatory Framework*, 25 June 2008, p. 7

34 This includes the 'reasonableness' criteria in s.152AH and the standard access obligations in s.152AR of the Trade Practices Act.

35 Macquarie Telecom, *Regulatory Submission*, June 2008, p. 5

36 ACCC, *Telstra's Undertakings for the Unconditioned Local Loop Service Discussion Paper (Public Version)*, March 2005, p. 2

37 David Quilty, Telstra Group Managing Director, Public Policy and Communications, *Infrastructure Investment Key to Our Recovery*, The Australian, 4 February 2009

38 Telstra Corporation Limited, *Submission to the Productivity Commission Review of Regulatory Burdens on Business: Social and Economic Infrastructure Services*, 27 February 2009, p. 22

39 *Communications Act 2003*, United Kingdom and *Telecom Competition Code 2005*, Singapore

40 Optus, *Regulating the National Broadband Network*, June 2008, pp. 16–17

41 Telstra Corporation Limited, *Submission to the Productivity Commission Review of Regulatory Burdens on Business: Social and Economic Infrastructure Services*, 27 February 2009, p. 56

42 Optus, *Regulating the National Broadband Network,* June 2008, pp. 16–17

43 For example, the ACCC issued a competition notice to Telstra in March 2004 alleging that Telstra had engaged in anti-competitive conduct in relation to the pricing of its wholesale asymmetric digital subscriber line broadband product. The ACCC subsequently revoked the competition notice after Telstra agreed to provide a rebate to affected wholesale customers and to notify the ACCC of future price changes for broadband services. See *www.accc.gov.au/content/index.phtml/itemId/756873*

44 Telstra's hybrid fibre coaxial network passes approximately 2.5 million homes in Sydney, Melbourne, Brisbane, Adelaide, Perth and the Gold Coast.

45 ACCC, *Update on Recent Regulatory Developments in the Telecommunications Market.* Speech to the Australian Telecommunications Summit, Sydney by Ed Willett, Commissioner, 27 July 2005, p. 2

46 Chamber of Commerce and Industry, Western Australia, *Regulation of the National Broadband Network*, June 2008, p. 3

47 For example, see *Official Committee Hansard of the Senate Standing Committee on Economics Budget Estimates Hearing*, 5 June 2008, pp. 57–8

48 Optus, *Regulating the National Broadband Network*, June 2008, p. 37

49 *Official Committee Hansard of the Senate Standing Committee on Economics Budget Estimates Hearing*, 5 June 2008, pp. 57–8

50 Primus, *Submission in Response to the Minister's Invitation for Comments on Telecommunications Regulation*, June 2008, p. 4

51 Australian Telecommunications Users' Group, *A Submission to Establish an NBN Regulatory Framework*, 25 June 2008, p. 3

52 BT Global Services, *Australia's National Broadband Network Regulatory Submissions*, 25 June 2008, p. 10

53 European Commission, *Amended Proposal for a Directive of the European Parliament and of the Council*, 6 November 2008, p. 7

54 Ofcom, *Impact of the Telecommunications Strategic Review*, 10 December 2007

55 European Regulators Group, *Opinion on Functional Separation*, 2007, p. 9

56 See BT share price comparator *www.btplc.com/Sharesandperformance/Sharepricegraphs/Comparatorgraph/index.cfm*

57 BT Global Services, *Letter to the Editor*. Submission 34 to the Senate Committee on the National Broadband Network, 2009, p. 1

58 Neighbourhood Cable is owned by TransACT.

59 Strictly speaking TransACT's network is not a hybrid fibre coaxial cable network, but a fibre-to-the-curb network using Very High Speed Digital Subscriber Line technology. Nevertheless the network provides voice, broadband and subscription television services.

60 European Commission, *Commission Directive 1999/64/EC of 23 June 1999*

61 ACCC, *Emerging Market Structures in the Communications Sector*, June 2003, p. xiv

62 Trujillo, S, Transcript from Telstra Analyst Briefing—Half Year Financial Results, 26 February 2009, p. 9

63 ACCC, *A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities*, October 1999

64 Optus, *Regulating the National Broadband Network*, June 2008, p. 62

65 Australian Telecommunications User's Group, *A Submission to Establish an NBN Regulatory Framework*, 25 June 2008, p. 10

66 Little, AD, *Mobile Broadband, Competition and Spectrum Caps: An Independent Paper Prepared for the GSM Association*, January 2009

67 *Telecommunications (Consumer Protection and Service Standards) Act 1999,* s.8A

68 European Commission, *The Commission's 2008 Report on the Scope of the Universal Service in Telecoms: Frequently Asked Questions*, see *http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/583&format=HTML&aged=0&language=EN&guiLanguage=en*

69 NSW Farmers' Association, *Submission to the Glasson Review*, 2007, p. 7

70 Consumers' Telecommunications Network, *Submission to the Universal Service Obligation Review*, 2007, p. 2

71 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 182

72 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 269

73. Optus, *Regulating the National Broadband Network*, June 2008, p. 75

74 Vodafone, *Submission to the Department of Communications, Information technology and the Arts. Telecommunications Universal Service Obligation (USO) Review Issues Paper*, November 2007, p. 9

75 Department of Communications, Information Technology and the Arts, *Review of the Operation of the Universal Service Obligation and the Customer Service Guarantee*, 2004, pp. 86–87

76 Competitive Carriers' Coalition, S*ubmission to the Universal Service Obligation Review*, 2007, pp. 2–3

77 Global Legal Group, *The International Comparative Legal Guide to: Telecommunications Law and Regulations 2009*, 2009, pp. 230, 187, 88, 101

78 Ofcom, *Access and Inclusion, Digital Communications for All*, 18 March 2009, p. 80

79 Telstra Corporation Limited, *Public Submission on the Roll-out and Operation of a National Broadband Network for Australia*, 25 June 2008, p. 30

80 Department of Communications, Information Technology and the Arts, *Review of the Operation of the Universal Service Obligation and Customer Service Guarantee*, 7 April 2004, p. 159

81 Telstra, *Submission to the Universal Service Obligation Review*, 2007, p. 20

82 Consumer Telecommunications Network, *Submission to the Universal Service Obligation Review*, 2007, p. 7

83 ACMA, *Convergence and Communications Report 1: Australian household consumers' take-up and use of voice communications services*, March 2009, p. 12

84 The Federal Council of the Isolated Children's Parents' Association of Australia Inc., *Submission to the Universal Service Obligation Review*, 2007, p. 3

85 Telecommunications and Disability Consumer Representation, *Submission to the Universal Service Obligation Review*, 2007, p. 9

86 ACMA, *Submission to the Universal Service Obligation Review*, 2007, p. 3

87 ACMA, *Customer Service Guarantee Standard (No. 2) Fact* Sheet, available from *www.acma.gov.au/WEB/STANDARD/pc=PC_1712*

88 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 192

89 Communications, Electrical and Plumbing Union, *Regional Telecommunications Review: Submission by the Communications Electrical and Plumbing Union*, May 2008 p.15

90 New South Wales Farmers' Association, *Submission to the Department of Broadband, Communications and the Digital Economy. Broadband Solution for Remote Areas*, June 2008, p. 5

91 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 188

92 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 185

93 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 185

94 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 189

95 Existing retail price control arrangements on Telstra do not include references to retail broadband services or retail mobile services.

96 Productivity Commission, *Reviewing Australia's Consumer Policy Framework Vol. 2*, April 2008, pp.113–116

97 ACCC, *Mobile Terminating Access Service Pricing Principles Determination and Indicative Prices for the Period 1 January 2009 to 31 December 2011*, March 2009, p. 24

98 Regional Telecommunications Independent Review Committee, *Framework for the Future*, September 2008, p. 189

99 Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997, Clause 19

100 Vision Australia, Submission to the Universal Service Obligation Review, 31 October 2007, 31 October 2007, p. 4

101 Telecommunications and Disability Consumer Representation, Submission to the Universal Service Obligation Review, 2007, p. 6

102 Telecommunications and Disability Consumer Representation, Submission to the Universal Service Obligation Review, p. 6

103 The Integrated Public Number Database is also used for a number of other purposes consistent with Part 13 of the Telecommunications Act.

104 Consumers' Telecommunications Network, *Re: National Broadband Network Regulatory Issues*, June 2008, p. 2

105 Australian Telecommunications Users Group, *A Submission to Establish an NBN Regulatory Framework*, 25 June 2008, p. 10

106 Telstra Corporation Limited, *Public Submission on the Roll-out and Operation of a National Broadband Network for Australia*, 25 June 2008, p. 29

107 Telstra Corporation Limited, *Submission to the Productivity Commission Review of Regulatory Burdens on Business: Social and Economic Infrastructure Services Attachment 3*, 27 February 2009, available at *www.pc.gov.au/__data/assets/pdf_file/0007/86317/sub016-attachment3.pdf*

108 To date, 25 infringement notices have been issued under the Spam Act. Under the Do Not Call Register Act five infringement notices and seven formal warnings have been issued; eight enforceable undertakings have been accepted.

109 World Bank, *Regulatory Trends in Service Convergence*, 29 June 2007, p. 36

110 Communications Alliance, *National Broadband Network Regulatory Submission*, June 2008, p. 21

111 Organisation for Economic Co-operation and Development, *Shaping Policies for the Future of the Internet Economy*, June 2008, p. 13

112 For example, see *www.acma.gov.au/WEB/STANDARD/pc=PC_100550* and *www.dbcde.gov.au/communications_for_consumers/funding_programs__and__support/cybersafety_plan/consultative_working_group_on_cyber-safety*