



**Submission to
NBN Company Legislation**

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ATUG submission overview

ATUG is pleased to respond to the Minister's invitation to provide views on legislation covering the access regime for the National Broadband Network and governing the operations, ownership and control of the National Broadband Network company.

ATUG has been exploring with our members, business and government agencies working in metro and regional areas in Australia the role of a national high speed broadband network for Australia since early 2007. The summary of these early discussions is included in the Extract of our June 2008 submission included in this submission.

ATUG has contributed to a number of NBN related processes based on the core objectives end users have for a successful NBN developed during these member discussions and reviewed as part of preparation for the following submissions:

- Expert Panel Guidelines for the NBN in March 2008
- NBN Regulatory Framework June 2008
- Broadband Solutions for Rural and Remote Areas June 2008
- NBN Regulatory Reform June 2009
- NBN Greenfields June 2009

ATUG's views on the Core Objectives for the NBN have not changed during the course of these processes. They form the basis for ATUG comments on the Legislation to support the NBN Company.

ATUG has taken into account the Government's stated intentions and commitments outlined in Chapter 2 of the National Broadband Network: Regulatory Reform for 21st Century Broadband – Discussion paper April 2009

ATUG's response is organised in the following way:

1. ATUG comments on the issues outlined by the Minister
2. ATUG's Core Objectives for the NBN
3. ATUG Comments on the Government's original objectives for the NBN
4. ATUG's comments on the Government's Policy wider ongoing policy commitments relevant to telecommunications which were outlined in the discussion paper of April 2009 including
 - ATUG comments on Competition and the role of the ACCC
 - ATUG comments on Consumer Protection issues
5. A High Quality NBN
6. Chapter 2 – Discussion Paper April 2009
7. INTUG Response to EU Consultation
8. ATUG submission June 2008

ATUG has attached an Extract from our submission on the NBN Regulatory Framework in June 2008 to provide background to ATUG's comments in Legislation for NBN Company.

ATUG has included the following attachments outlining experience in other jurisdictions which are of relevance in considering NBN Company access, operations, ownership and control measures. These materials should not be seen as submissions from the organisations concerned but are included as background to ATUG's submission:

- ATUG seminar on BT model – Confidential Document (separate PDF)
- APECTEL presentation by IDA on Singapore model – Confidential Document (separate PDF)
- INTUG submission to EU Consultation on NGA Framework - attached

ATUG comments on the issues outlined by the Minister

The Minister has invited interested parties to provide their views on the legislation covering the access regime for the National Broadband Network and governing the operations, ownership and control of the National Broadband Network company.

Issues that interested parties may wish to address include:

The optimal access regime for the National Broadband Network, including, for example:

- the legislative obligations that should be required to ensure the National Broadband Network company operates on a wholesale-only, open access basis,
- the process for identifying services to be offered,
- how the prices and non-price terms and conditions of those services should be set, and for how long, and
- the role of the Australian Competition and Consumer Commission.

ATUG comments:

Wholesale only, open access

A structurally separate NBN with the strongest incentives to operate on a wholesale-only, open access basis delivers an opportunity to deal effectively with the existing problem in telecommunications policy – the structure of the industry currently rewards gaming behaviour and allows individual company self-interest to override Government policy intent.

It will be critical to demand and take-up that content and applications providers and services are part of the NBN environment. In some cases access to the NBN for content providers will be the issue. In other cases access to content services for NBN retailers will be the issue. The core issue of Access to Content needs to be specifically addressed in the NBN Access Regime. Early examples of NBN type networks did not reach their potential due to problems of access content because of cross market dominance problems and must be avoided in an NBN world.

A core feature of the NBN legislation must be a “Charter” style statement of the objectives for this company. This must be a clearly outlined context in which investment is sought, regulations are developed and operations are undertaken. This Charter must be strong enough to overcome the incentives for monopoly behaviour that will exist for NBN Company. The Charter must inform the NBN Company Board in the discharge of its responsibilities under other relevant legislation such as the Corporations Act

Service identification

Access services provided by NBN should be separate from application services. End users should be able to buy access services from the retail service provider of their choice and should also be able to buy applications

services independently from retail applications services providers if they choose. Bundled services could be an option but disaggregated service packages should be possible also.

Wholesale Access Services should be identified through an industry-wide process but with ACCC oversight to ensure the long-term interests of end users are achieved. ATUG does not believe industry processes without legislative and regulatory underpinning are effective in achieving Government policy objectives as outlined.

Wholesale Access Service offerings should be designed to ensure the national market is addressable by retail competitors. While ATUG supports measures to encourage investment, innovation and differentiation by competitors in the sector, there are cases where distance and population density mitigate against the real prospect of infrastructure competition. At present this means companies and government agencies that require national solutions are limited in their choice of provider. In an NBN world ATUG would like to see the opportunity for choice for these customers expanded by ensuring NBN services support both infrastructure offerings and service based offerings.

The definition of Service Provider may need to be widened beyond retail communications or content service provider to include Government agencies such as Health, Education, Emergency Services that may wish to provide services (but not on a commercial basis) directly to their end customers as part of the transformation of the economy that the NBN will make possible. Consideration of this could be on a case by case basis under Policy determined by Government and implemented by a regulator such as the ACMA.

Price and Non Price Terms and Conditions

Price and Non-Price Terms and Conditions should be established within a similar framework. ATUG does not want to see a repeat of the last decade of bilateral “negotiate-arbitrate-litigate” processes. In other jurisdictions price and non-price certainty is established “up-front”. This provides a very strong basis for secure competition and thus choice for end users. ATUG would prefer the term of these conditions to be the entire Build Phase of the NBN, given that the capital plan and construction/asset costs will be determined up-front through the Implementation Study. It is also important that this is done “up-front” to enable NBN Company, industry and end users to operate on the basis of a national retail price structure.

Role of the ACCC

The role of the ACCC should be its usual role with its usual objectives:

The Australian Competition and Consumer Commission is an independent statutory authority. It was formed in 1995 to administer the *Trade Practices Act 1974* and other acts.

The ACCC promotes competition and fair trade in the market place to benefit consumers, business and the community. It also regulates national infrastructure industries. Its primary responsibility is to ensure that individuals and businesses comply with the Commonwealth's competition, fair trading and consumer protection laws

The Trade Practices Act's purpose is to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.

The Act deals with almost all aspects of the marketplace: the relationships between suppliers, wholesalers, retailers, competitors and customers.

The NBN Company Access Regime should be a specific Part of the Trade Practices Act as with Parts XIC and XIB. Facilities access arrangements should be included in this new Part to ensure access to physical plant is available as well as access to NBN wholesale services.

The Access Regime and decisions under it should be developed on the basis of a National Market for NBN services. ATUG sees no place for a geographic sub-market level analysis of NBN services. Where NBN services are established and competition is strong, geographic analysis may support increased de-regulation of other operators in the sector

The appropriate equivalence obligation for the company and the services it offers, and how this would operate in practice.

ATUG's objective is for the national market to be addressable by many competitors on the basis of NBN Company wholesale services. NBN Company economies of scale should be made available to all competitors through equivalent price and non-price levels for equivalent services. Competitors can then apply their own efficiencies to deliver competitive retail prices. ATUG does not want "most favoured nation" status conferred on any single retail operator through its leverage on NBN Company. Competitive outcomes for retail companies must depend on their own "value-adding" capabilities.

Equivalence in policy terms needs to be matched with equivalence in regulatory terms (access price and non-price terms and conditions) and in practical, operational terms – the same ordering system, provisioning system, fault reporting system, customer migration system, itemised billing data and operational support systems and the like.

Equivalence must then be assured through an ongoing process of monitoring. ATUG has previously suggested the UK's OTA as a model of industry led but regulator supported practical supervision of the experience of competitors in achieving Equivalence. ATUG would still see such a body having a role in an NBN world to ensure any problems can be resolved quickly and practically and hopefully without the need to resort to formal regulatory or legal processes. In time our concerns in this regard may evaporate but experience of the existing regulatory framework for access means a preference for

caution until strong competition is reflected in effective choice and service as experienced by end users. The Framework Promise of competition has to be replaced by the Fact as Experienced by end users this time around in communications competition policy reform.

The nature of ownership restrictions applied to private sector investors to protect the Government's equivalence objective for the wholesale-only network.

ATUG has explored this issue with a number of members. ATUG's core position is that we do not want the Government's core commitment to a structurally separate, wholesale only, open access environment watered down through arrangements to secure private sector investment in NBN Company.

That said, ATUG prefers to see early Private Sector investment in NBN company to ensure the disciplines of the private sector are applied to the activities of NBN Company – competitive tendering, efficient build, quality outcomes, competitive pricing, focus on customer outcomes.

ATUG prefers investment in NBN Company to be cash based rather than on an asset contribution basis where the asset contributor has a say in the use of the asset by NBN Company through positions on the NBN Board or through any other means. There must be no opportunity for a conflict of interest to develop between NBN Company and any of its investors or retail customers.

One approach has been suggested to ATUG to prevent this Conflict of Interest problem. ATUG includes this example as a contribution to thinking:

- View NBN as an investment vehicle with a charter to provide capability to Australians.
- Shareholders contribute funds in accordance with the investment strategies to achieve the charter
- Shareholders receive a government backed dividend on their investment a few basis points above the cash/bond rate. (ATUG notes this approach has been outlined for the Backing Australia Investment Fund and the Health and Hospitals Investment Fund.)
- The board of the NBN makes investments to meet the charter, be it contracting companies to roll out FTTP or purchasing already installed assets.
- The board of the NBN comprises the government being the largest shareholder and the balance from other investors with each less than 10% (being the investment community generally or the superannuation industry but with a 5% in total restriction on any single investor with other interests in the telecommunications sector).

- Until the NBN is delivered, the government confers preferential access to NBN over physical assets (Spectrum, Ducts, easements etc.)
- NBN employs on a contracted basis an Operating Company to manage the assets on a fee for service basis fixed term basis.
- The Operating Company pass through the revenue from the asset (as the largest shareholder, this is upside risk for the government)
- The critical points are:
 - The investment and asset need to be managed as such, with a level of independence from the people that build and maintain the asset, and the people that use the asset.
 - The operators of the asset receive revenue for the services performed, not from the sale of the asset.
 - What is to be avoided at all cost is a regime where whomever contributes an asset gets to determine how that asset gets applied. For example it would be a complete failure in ATUG's view if a company was to contribute network assets in exchange for seats on the board of the NBN particularly when that company is a customer of NBN.

In identifying conflict of interest potential, ATUG refers to the comments made by the ACCC's Chairman, at the Senate Select Committee on NBN Hearing on 20 July 2009, in regard to concerns with ownership stakes in NBN by both retail service providers and content providers:

.....the fundamental issue is ensuring that service providers do not have a shareholding either on their own or of such that they can act in concert with others that would create the disincentive to provide equivalent access to all parties to the network. (pg 45)

If the focus of the ACCC in terms of competition is heading much more towards the ownership and control of the pipes and the content that is thrust down those pipes then, clearly, we would need to examine the question of whether or not media companies were, either alone or potentially with others, taking some form of ownership and management of control of the pipes with, in this case, the pipe being the National Broadband Network. (pg46)

Arrangements for the Government to sell its stake in the network.

When the Government moves to sell its stake in the network it must do so in a way that preserves the nature of NBN Company (wholesale-only, open access company with a Charter designed to promote the long-term interest of end users).

For many commentators the timescale suggested of maximum 13 years before sale is seen as a long-term proposition and current concerns about industry structure may be of passing interest. For ATUG members, it has taken almost 20 years for telecommunications policy objectives to be firmly and clearly focused on structural support for competition in the sector.

Telecommunications is a sector where investments are huge and timescales are long. Government needs to bear this in mind when preparing its plans for sale of its stake in NBN Company. ATUG would not want to see a return to compromised support for competition when opportunities are opened up for further investment by the private sector in NBN Company. ATUG would not want to see a return to Conflict of Interest between NBN Company and its retail customers through ownership arrangements.

The structural problem that the Government's NBN strategy is designed to address will re-emerge if incentives are muddled through investment opportunities.

ATUG believes one of the difficulties which beset the sector during the last decade was the Conflict of Interest for Government which arose when Government became a declared seller of its stake in Telstra. From that time policy outcomes were compromised by concern with share price and returns to Government from sale proceeds.

ATUG suggests the Government include a detailed review and consultation on Ownership Divestiture closer to the proposed time of Government share sale but consideration be given now as to how to avoid the problem of policy compromise experienced during the three tranche sales of the Government's stake in Telstra.

Any other rights and obligations to be conferred on the company.

The comments below would be incorporated into NBN Company's approach using different levels of instruments – high level principles in legislation, practical objectives and processes in regulatory instruments, codes of practice and conduct developed through industry processes but with regulatory underpinning.

Operations Issues

ATUG would like to see rights conferred on NBN Company to enable a quick and quality deployment of the network within the committed 8 years.

Regulation may be needed to encourage co-ordinated use of existing fibre assets, access to ducts, poles, pits and other physical plant, access to rights of way and other means to ensure efficient construction of the NBN. Carrier immunities and powers may have to be reinstated to enable timely and affordable services.

Co-ordination through Local Government and with property developers will be needed to ensure new estates are connected to the NBN with affordable

services available for end users. Uniform planning and environment guidelines should be developed to be applied by Local Councils.

NBN should support private sector initiatives to develop fibre networks which would then interconnect with the NBN and operate under the same regulatory framework – wholesale only, open access network with no conflict of interest as between the network owner and any retail service provider. NBN Company should have the power to build or acquire assets with a view to high quality services and low cost wholesale access services. This would create competitive pricing for fibre builds and could encourage passive infrastructure owners to participate in the NBN build.

Clear and high quality construction and installation standards and codes of practice must be developed and complied with and strong monitoring and compliance arrangements are required, including “last metre” cabling practices and cabling accreditation.

High quality infrastructure documentation recording the location of all cables in a standardised format must be established and maintained. Underground NBN infrastructure must be effectively ‘identified’ to mitigate against inadvertent damage.

Codes of practice to address construction and installation practices should be developed and registered with and compliance monitored by the Australia Communications and Media Authority. This should cover both underground and above ground construction technologies, as well as placement of “low impact” masts for wireless last mile connections.

Operations – Critical Infrastructure

Discussions with ATUG members have also highlighted the importance to members of the NBN as “Critical Infrastructure”. This applies to Government also - the NBN will be regarded as an element of national ‘Critical Infrastructure’ and must be established and operated in with the high quality, reliability and redundancy principles embedded in at design and during construction. Further detail on issues that might be considered are outlined in the section: A High Quality NBN

Consumer Protection Issues – affordable entry level package

ATUG would like to see regulatory support for an affordable “entry level” product to ensure all Australians can access the NBN. This idea could be modelled on the product requirements for Australian Broadband Guarantee suppliers although income disparity between metro and regional areas will need to be taken into account.

End users will be heavily dependent on NBN services. High reliability and high quality infrastructure and maintenance must be provided. It is essential to clearly specify all of the appropriate service characteristics offered by the NBN including reliability and availability and restoration times and provide a strong monitoring and compliance regime. Minimum aggregation ratios of 10:1 or

less for consumer and 5:1 for small business. End users should have 80% of their speed for 80% of the time.

The NBN design should aim to improve the performance and security of NBN services beyond the current “best endeavours” basis. If the NBN is to be used to “transform” education, health care, business practice, government service delivery, communications and entertainment it is essential that the NBN offers the highest reliability and quality of service. The target should be 99.99% reliability and repair times well within existing CSG standards.

Consumer Protection – Choice and Customer Migration

- There should be no detriment to customers when migration to the NBN occurs e.g., contract terms, plan periods, access to services etc.
- Customers need to be informed about plans for migration to the NBN with sufficient time and options to make fit for purpose choices. The many lessons learned from the CDMA shut-down should be applied to ensuring a more satisfactory experience for NBN migration e.g., effective equipment, accessibility options, affordable entry services, staff training, customer information programs.
- Legislation should require the establishment of an Industry Code of Practice to set out rules and processes for the fair and reasonable transfer of a customer from one provider to another provider. Effective customer switching practices are key to effective market competition.

Customer Information

Legislation should require the establishment of a “Framework” for a minimum set of standardised customer focused data describing the characteristics of a particular service, aggregation ratios and the speed performance delivery standards. Customers need clarity on what speeds WILL be delivered by NBN services rather than what speeds MIGHT be delivered. The Australian Broadband Guarantee program speed testing measures may provide a model.

Interested parties are also welcome to provide their views on other aspects of the legislative framework for the company.

Legislation for NBN Company - coverage

The real benefit of the NBN will not be achieved unless ALL Australians can be connected. The transformation of business, government and community services and activities that could be possible with Next Generation Broadband can only be achieved with ubiquitous coverage. The legislative framework for NBN should have obligations in respect of ubiquitous access to the NBN.

Access – Pricing of Backhaul

The issue of backhaul costs in regard to uniform pricing for NBN services may mean the existing regulation of access to backhaul needs to be reviewed. In the absence of competitive backhaul markets, access pricing for backhaul will

need to be regulated to ensure delivery of affordable NBN services in all regions. Regulated prices should reflect fair returns for investors.

Consumer Protection – Universal Access and Voice Service

The USO should be extended to include broadband but by way of a Government backed Guarantee rather than an industry obligation. The Guarantee should be an Australian Communications Guarantee including Voice* and Broadband, where Voice* means Voice and Voice Equivalence. NBN Company will have the obligation to deliver an access service. Retail voice service companies should have an obligation to offer a quality voice service/application as part of achieving universal voice access.

Consumer Protection – Emergency Service access and Free to Air Television

Essential services such as 000 calls and free to air TV should be made available through the NBN.

ATUG's Core Objectives for the NBN – NBN legislation principles

ATUG supports the development of the National Broadband Network. The key issues ATUG would like embedded in Legislation to establish the NBN Company and supporting regulation on Open Access and Equivalence include:

- **Policy Objectives** – the Long-term Interests of End Users and an effectively competitive services market place.
- **Affordability** is the key to take-up. Regulation must support the cost effective building of the NBN as well as recognise that effective competition is the strongest tool for delivering affordable prices. An entry level “safety-net” package should also be developed
- **End User Choice** – network design is central to competition and choice. Only designs that promote competition should be accepted. When infrastructure competition is not possible, services competition based on open access and service equivalence at a wholesale level must be ensured.
- **Wholesale Service Equivalence** and effective services competition can only be assured by establishing:
 - clear separation and no ownership conflict between wholesale-only (NBN Company) and retail service providers. If companies with retail units and
 - a new pro active, pro competition independent industry based oversight body, with the task of implementing the Open Access and Equivalence Frameworks as determined by regulation and requests from regulators.
- **Customer Experience** in the NBN environment - must be carefully managed to ensure a successful transition and good end user outcomes. Service quality and security standards must be established at a level to reflect the key role of the NBN in the lives of all Australians.
- **Ubiquity** – all Australians must be connected to the NBN. Ubiquity is not only about network availability but also about affordability and accessibility. When all Australians are connected to the NBN, the real potential of this for productivity, growth and innovation will be open to end users in every sector of the economy and community, and in all regions of Australia.

Comments on the Government Original Objectives for the NBN.

ATUG supports the Government's objectives as originally stated for the NBN.

ATUG is pleased that the speed and coverage objectives have been upgraded to 100 Mbps over fibre for 90% of Australian premises, with high speed wireless and satellite services supporting 12Mbps minimum for the remaining premises and notes the upgraded investment commitment for NBN Company of up to \$43 billion.

All of the remaining original objectives should be supported in the legislation establishing the NBN Company, its Objects, Charter and Powers and the supporting regulation and other instruments that will be needed to deliver the National Broadband Network to all Australian premises:

1. reaches 90 per cent of Australian homes and businesses with 100Mbps delivered over fibre and delivers a minimum 12 Mbps dedicated downlink transmission speed over each connection provided to remaining premises using suitable wireless and satellite services.
2. is able to offer broadband services with supports symmetric applications such as high-definition video-conferencing;
3. is able to support high quality voice, data and video services;
4. enables uniform retail prices on a national basis;
5. is rolled out and made operational progressively over five years from the date of execution of a contract between the Commonwealth and successful Proponent;
6. continues to promote the long-term interests of end-users;
7. has sufficient capacity to meet current and foreseeable demand and has a specified upgrade path within clear timeframes, consistent with international trends;
8. facilitates competition through open access arrangements that ensure equivalence of price and non-price terms and conditions, and provide scope for access seekers to differentiate their product offerings;
9. enables low access prices that reflect underlying costs while allowing Proponents to earn a rate of return on their investment commensurate with the risk of the project;
10. provides benefits to consumers by providing choice to run applications, use services and connect devices at affordable prices;
11. provides the Commonwealth with a return on its investment of up to \$43billion;

12. is compatible with the Government's related Fibre Connections to Schools initiative;
13. meets Government requirements for the protection of Australia's critical infrastructure;
14. is consistent with national security, e-security and e-safety policy objectives including compliance with laws relating to law enforcement assistance and emergency call services;
15. is consistent with Australia's international obligations; and
16. facilitates opportunities for Australian and New Zealand small and medium enterprises (SMEs) to provide goods and services to the project.

ATUG Comments on the Government's ongoing policy commitments relevant to telecommunications

In making this submission in response to the government's request for views on the legislation covering the access regime for the National Broadband Network and governing the operations, ownership and control of the National Broadband Network company ATUG takes as one start point the Government's Policy ongoing policy commitments relevant to telecommunications which were outlined in the discussion paper of April 2009:

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

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

ATUG suggests that all these policy commitments and objectives are equally relevant to the legislation:

- to establish the access regime for the National Broadband Network and
- governing the operations, ownership and control of the National Broadband Network company

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.

ATUG regards this as an important objective for legislation supporting the NBN Company and the NBN Access Regime

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.

ATUG supports the development of a high speed National Broadband Network and the Government's objective of connecting 90% of homes and workplaces to a fibre network and delivering next generation wireless and satellite based services to the remaining 10% of premises.

However, these gains will not be achieved unless the correct regulatory settings are in place.

ATUG supports the Government's stated objectives for the NBN Company.

These should be the principles on which the NBN company operations, ownership and control arrangements are based:

- The new company will only be allowed to offer wholesale services
- The new company will not offer retail services to consumers and businesses
- The new company will not favour one retailer over another
- The new company will treat all of its customers equally
- The Government will be the majority shareholder until it sells the company
- Sale of the company will not happen until the National Broadband Network is built
- No customer of the network can control the new network company
- The ACCC will have a strong, independent oversight role
- The ACCC's role will ensure that
 - access terms offered by the Company are fair,
 - the company treats all of its customers equally
- The company will support competition by keeping prices low and quality of services high
- The company will enable high speed carrier grade video, data and voice services
- The company will build a network capable of connecting 90% of Australian homes and workplaces to a fibre network
- The company will use next generation wireless and satellite technologies to ensure Australians beyond the 90% get access to broadband speeds that will support two-way, interactive video services and applications
- The company will ensure that broadband services are available to 100% of Australia's landmass, including remote and blackspot areas within 8 years

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.

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.

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.

ATUG wants the legislation establishing the access regime for the National Broadband Network and governing the operations, ownership and control of the National Broadband Network Company to ensure these old problems do not become part of the new NBN world.

Legislation addressing ownership and control must address any potential for vertical or horizontal integration or other form of market power. NBN Company operations must be subject to a clear, certain and timely regulated access regime. The key elements of such a regime were outlined by the ACCC in its submission to the April 2009 Discussion Paper on Regulatory Reform at the attachment, Assessment of Proposals National Broadband Network Process – Report to Expert Panel, Appendices, Public version, January 2009:

The ACCC has attached these Appendices to this submission as they outline, from an in-principle perspective, the ACCC's views on what a reasonable set of FTTx regulatory arrangements could be and are therefore necessary background material to the views expressed herein.

In discussing its views on the elements of an effective regulatory access regime for an NBN company, the ACCC outlines many issues to be covered. ATUG supports consideration of these views in development of the legislation to support access regulation for NBN Company. In many senses the question of “natural monopoly” in the FTTP world is answered in the affirmative and the risks mitigated with structural separation. As the ACCC says at page 6 of the Report to Expert Panel Appendices:

Competition in related markets is more likely to be achieved if (there is).....a statutory restriction (on NBN) ..being involved in a related business

However, effective implementation of Open Access and Equivalence will be required to achieve effective choice for business, government and residential end users, pricing structures that drive take-up and use, high quality services and innovation. ATUG believes the ACCC comments are pertinent to developing suitable regulatory approaches to Open Access and Equivalence.

At page 22 the ACCC outlines features of a suitable regulatory regime:

First, the regime should be able to accommodate changing circumstances. For example, the regime should allow regulation to be

removed if the NBN ceases to be a bottleneck, and provide for a review of the regime after a certain period of operation (such as five years).

ATUG would say for the life of the NBN build phase.

Secondly, the regime should be clearly defined before investment occurs. In *Telstra v Commonwealth* [2008] HCA 7, the High Court held that Part XIC was not an acquisition of property as Telstra had never owned any assets except in accordance with legislation that created a statutory access regime.

Thirdly, the regime should provide regulatory certainty (and thus reduce price and investment risk) for both the NBN provider and access seekers. The price that an NBN provider will be allowed to charge its customers is a significant determinant of profitability and ability to finance the project. However, it is also important that access seekers have sufficient certainty in order for them to make efficient investment decisions in respect to downstream markets.

ATUG believes this certainty is key to investment and innovation by retail service providers. The gaming and delays of the existing regulatory regime must not be a feature of the NBN access regime. Certainty is also important for end users during the build phase of the NBN and would encourage demand for and take up of service such as has happened with mobile cap plans.

Fourthly, where both the access provider and terms and conditions of access are to be determined through a competitive tender process for government sponsored infrastructure, then it may be possible to establish access prices through that tender process. This is because any monopoly rents from the infrastructure are more likely to be dissipated. However, this requires particular conditions to be satisfied including that the bidders have accurate information, comparable skills, and substantial financial resources. The current stage of the NBN process in isolation is not sufficient to satisfy these conditions.

ATUG would like to see NBN company use competitive processes to ensure a cost effective build. It may be possible to design region by region tender processes. Construction standards and qualified staff will be needed to ensure a national network of consistently high quality.

Fifthly, the regime should include appropriate incentives for compliance. In particular, the penalties for non-compliance should be sufficient to act as an effective deterrent.

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.

ATUG thinks these commitments of Government need to be reflected in operational commitments by NBN Company as to availability, affordability and quality of wholesale services to support retail choice for end users.

The issue of affordability will depend on NBN costs and Government's requirements for returns.

Government should specify its preferred benchmark returns clearly as it has done for the Health and Hospitals Investment Fund and the Building Australia Investment Fund:

5. Benchmark return

(1) The Board is to adopt a benchmark return on the Fund of the Australian three month bank bill swap rate + 0.3 per cent per annum, calculated on a rolling 12 month basis (net of fees).

(2) In targeting this benchmark return, the Board should invest in such a way as to minimise the probability of capital losses over a 12 month horizon.

Telecommunications end users currently have a number of specific protections. These will have to be thought through in the context of operational commitments by NBN Company.

ATUG is not advocating “wholesale” transfer of existing obligations “as is” to NBN Company but recent discussions with ATUG members in regional and metro areas highlighted the importance of emergency service access, quality of service and priority services. It would be a matter for NBN Company and industry in conjunction with end users to develop suitable services in an NBN world.

However, the legislation for NBN Company must provide an incentive for the company to support such services and an assurance for end users that these needs will continue to be addressed. There may well be more appropriate ways of addressing these needs than the current arrangements.

Directory assistance is an area where innovation in other markets is missing in the Australia market and an NBN world may provide opportunities for innovation and competition and remove responsibility from a single provider:

The Government considers that encouraging effective competition between as many service providers and carriers as possible is the best strategy for looking after the long-term interests of consumers and improving telecommunications services over time.

The Government has underpinned its competition framework with a range of consumer rights and a regulatory safety net that is among the

tightest in the world. Consumer rights such as the Customer Service Guarantee, the Network Reliability Framework and the Universal Service Obligation allow telephone services to be made reasonably available to all individuals and organisations in Australia and ensure that services are provided quickly, reliably and are restored promptly following a service disruption.

[Connecting the telephone](#)

The supply of fixed telephone services, connection times and the legal obligations of telecommunications providers under the Universal Service Obligation.

In practice, the service that is provided in fulfillment of the USO tends to set the minimum service benchmark.

A standard telephone service typically provides:

- local, national and international calls;
- 24 hour access to the emergency call service number;
- operator assisted services;
- directory assistance; and
- itemised billing, including itemised local calls on request.

[Reliability and fault repair](#)

Initiatives for improving the reliability and quality of telephone services, including the Customer Service Guarantee and the Network Reliability Framework.

[Quality of service monitoring](#)

Arrangements for monitoring and reporting of the performance of telecommunications providers.

[Priority assistance for consumers with diagnosed life-threatening medical conditions](#)

Consumers with certain life threatening medical conditions can get priority assistance when problems arise with their telephone services.

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. 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.

ATUG suggests these Government commitments need to be reflected in operational commitments by NBN Company as to availability, affordability and quality of wholesale services to achieve the Government's goal of 100% support retail choice for end users.

A High Quality NBN

Discussions with ATUG members have also highlighted the importance of the NBN as “Critical Infrastructure”.

For Government also the NBN will be regarded as an element of national ‘Critical Infrastructure’ and must be established and operated in with the high quality, reliability and redundancy principles embedded in at design and during construction.

Users of the network – Retail Service Providers and End Users, (governments, businesses large and small and residential consumers) - will become highly dependant upon the network and the services carried by the network and will have high expectations of the capability of the NBN.

It is essential that the NBN is designed, constructed, deployed, operated and maintained at the highest possible standards to reflect the high expectations of Government, Business and Community members.

The creation of a new National Broadband Network requires clear and succinct Legislative Objectives together with detailed Ongoing Rules to achieve these outcomes.

The Legislation could include specific ‘Objects’ for,

- Network design, requiring appropriate levels of network redundancy to ensure extremely high levels of network availability and transport level availability to the premise termination device.
- Premise Termination Device, requiring appropriate levels of equipment quality and capability as well as an electric power supply in the event of mains power failure, so as to be able to provide highly available, multiple simultaneous services including the ‘life line” telephone service access to Emergency Services.
- Construction Practices, which ensure the network is highly reliable, well protected from natural or human interference and has substantial longevity.
- Deployment Rules which ensure infrastructure, is rolled out in an efficient and timely way consistent with formally approved geographic plans and time based schedules.
- Operational Rules, which ensure the network is operated in a manner so as to ensure Service Providers and End Users receive a very high quality of network access and service availability.
- Maintenance Arrangements, for both the day to day operation and for the life of the asset which ensures an extremely high level of network and transport service level availability.
- Service Definition Rules, for all services, which ensure realistic and accurate service descriptions are developed and used.

It is also considered that Ongoing Rules, possibly in the form of “Network Standards” be established by Regulation.

The development, administration and compliance monitoring of these Rules should be formally undertaken by the Australian Communications and Media Authority using a timely, well managed, balanced and open consultation process.

Rules could address in detail:

Network Design Rules

for network architecture, node and transmission redundancy, power supply capacity, to ensure high resilience to network element level eg., details of back-up arrangements accommodating, for example, a fourth contingency failure at the primary network level and third contingency failures at the secondary and tertiary network levels as well as loss of mains electricity at any primary and secondary network element for 48 hours and at a tertiary network element for 24 hours.

Premise Termination Device Rules

rules to ensure high quality equipment compliant with recognised international standards, adequate service access to ensure the delivery of multiple simultaneous services together with back up power supply to ensure operation for a period of 24 hours in the event of mains electricity failure.

Construction Practice Rules

for structures, pits, pipes and trenches as well as overhead cable construction which will ensure a high level of security and protection for network assets, are environmentally sensitive, take account of high quality town planning principles and the needs of local communities.

Deployment Rules

to ensure infrastructure is established and rolled out in a timely, efficient and rational manner.

Operational Rules

to ensure timely and equity of access to network services for service providers, the management of network elements to ensure high levels of service availability for service providers and end users and disaster recovery plans to ensure prompt asset and service restoration.

Maintenance Arrangements

which ensure the long term life and high level performance of the network infrastructure including establishment of an appropriate maintenance fund of adequate size to ensure ongoing maintenance of the network.

Service Definition Rules

which would ensure that a service description would accurately reflect the experience of a service provider or end user when using a particular service.

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.

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.

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.

International Telecommunications Users Group (INTUG)

Response to Consultation on Commission Recommendation on regulated access to Next Generation Access Networks (NGA)

Executive Summary

INTUG welcomes the opportunity to provide a response to the European Commission's NGA consultation on behalf of business users of networks. Future economic growth and social inclusion within the EU will depend significantly on ubiquitously available and competitively supplied fibre-based NGA networks and related services. They represent a generational opportunity for investment, innovation, improved productivity and job creation in all sectors. The regulatory environment for NGA networks must facilitate achievement of these goals.

Whilst investment risk is acknowledged, especially in the current economic situation, this is not a justification for regulation, which allows a re-monopolisation of telecommunications.

The Commission's draft recommendation states this clearly in its initial paragraph in which taking account of risk and maintaining effective competition are seen as dual imperatives.

INTUG believes, however, that the actual wording of the draft recommendation actually creates loopholes, which will allow National Regulatory Authorities to destroy competition, by over-generous compensation of operators with Significant Market Power (SMP) for risk. This is evident in introductory paragraphs 26, 29 and 30, and also in Recommendation paragraphs 23, 24, 37, 38 and Annex III. INTUG requests deletion of these paragraphs.

INTUG believes that market analysis for sustainable, effective and efficient competition must be undertaken at an international, as well as national level, and must recognise the distinct and different sub markets serving residential consumers and business customers. These have major variations in traffic profiles, with more demanding service quality and resilience requirements. Businesses, including SMEs, require access at multiple locations, and need transnational volume packages from single suppliers. Exclusive fibre access rights, during regulatory holidays for incumbents, make this completely impossible.

INTUG is concerned that deregulation of sub national geographic markets where there is effective local competition for residential users ignores the needs of multi site businesses and will further fragment the market for business customers. Their service providers will be faced with network requirements within Member States, which are partly regulated and partly deregulated. Such deregulation is irrelevant to analysis of business markets.

Business users of telecommunications services across national boundaries must be able to construct seamless networks to support standard business process across regional and global operations. Denial of equal access to NGA networks will prevent service providers from building such networks, resulting a continuation of today's patchwork of fragmented national networks in Europe. Furthermore, interconnect charges between operators are a tax on trade between Member States. A single telecommunications market is the aim.

INTUG recommends the following principles for effective competition in high-speed NGA networks and services:

- 1 Access to the fixed access networks of dominant operators must be provided regardless of technology.** This should be explicitly required in the Framework.
- 2 Prices for access must be set to ensure no opportunity for margin squeeze.** This is essential to ensure there is effective competition in services at retail level. Where cost orientation is required to avoid excessive pricing, this should be calculated to ensure a fair return, which reflects any risk incurred appropriately.
- 3 Non-discrimination must be preserved absolutely, with no exemptions.**
This is essential to allow all operators and service providers an equal opportunity to compete and innovate. Dominant operators must provide services to all others at the same time, and on the same basis, as for their own use. Differentiated terms, such as discounts for participation in a co-operative arrangement, or for committed volumes and long terms, must be compatible with promoting effective competition.
- 4 Functional Separation must be available to National Regulators as a remedy.**
This is needed to support the first three principles and to provide clarity to investors and access seekers, where enforcement of non-discrimination in broadband fails.
- 5 Regulation must encourage networks which facilitate competition, and must ensure a fair migration process is implemented as networks are upgraded.**
The process by which incumbents change their architecture must be transparent and consultative, and the rights of competitors such as those who invested heavily in local loop unbundling and other broadband access products should be respected.
- 6 Co-operative arrangements including physical sharing arrangements ducts, base stations, aerial and spectrum, must be compatible with competition law.** Such arrangements must not be used as a substitute for regulation, if an operator or joint venture has significant market power. Competition assessments for wholesale physical and broadband access must be based on market conditions that exist, or can reasonably be foreseen, and not on any theoretical

assumptions about the effect of particular arrangements, network designs or access products.

This submission should be read in conjunction with INTUG's submission in response to the consultation on the first draft of the recommendation. The full contents of that submission have not been repeated here. An INTUG press statement accompanies this response.

Comments should be addressed to:

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Consultation on Commission Recommendation for regulated access to Next Generation Access Networks (NGA)

Response from the International Telecommunications Users Group (INTUG)

Introduction

The Internet revolution and the resulting explosion in demand for bandwidth have created an urgent demand for vastly increased network capacity in both core networks and access networks. This demand shows no sign of abating, and is the principal driver for NGA. The scale of demand was not foreseen even five years ago, nor was the feasibility of 100Mbps on fixed and wireless services anticipated so soon. There is now both expectation and demand for such services and the EU is fully aware of their importance to the economy.

With massive sums of money at stake, two markedly different philosophies have evolved. The open approach of the architects of the Internet world has transformed telecoms markets in a very short timescale. The closed world of incumbent operators with its vertically integrated approach has been turned upside down. IP has transformed what networks can offer. Wireless has undermined the economics of traditional fixed telephony. Convergence of fixed and mobile, combined with content and services, has enabled new business models for both suppliers and customers.

None of these changes could have occurred or been funded without residential domestic consumers and business customers, whether they be national or multinational enterprises. NGAs in corporate networks already exist as the most efficient solution to meet user needs internally. The introduction of the same technologies in public networks, seamlessly linked with private networks, promises to provide huge economic benefits to all concerned. The challenge for regulation is to ensure this opportunity is not lost by recreating monopolies.

This may occur if protectionist policies are allowed to be implemented within Member States to the detriment of the EU economy as whole. The Commission has acknowledged that there is investment risk in new fibre infrastructure, and risk is therefore greater where infrastructure is duplicated without a corresponding increase in user demand. Competition in infrastructure may have benefits in some urban environments, but overemphasis on this alone is misguided since most innovation will come from competition in services, content and applications. This is dependent on equal access to bottleneck infrastructure.

The delicate balancing act which NRAs must perform in stimulating investment whilst at the same time encouraging innovation and competition requires full independence from Member State Governments and incumbents, and close collaboration and consultation with customers and other NRAs to ensure the environment throughout the EU supports transnational business requirements as well as domestic residential consumer needs.

The Commission's NGA Recommendation, in the context of the Regulatory Framework, must provide NRAs with clear advice and guidance and the necessary remedies to ensure these twin goals are achieved, when national transposition occurs, and must act swiftly and effectively where inappropriate actions are taken. The EU market is currently a fragmented patchwork of national networks, with little scope of really effective competition at transnational level, leaving business customers and their network service providers with little or no scope for rolling out efficient, seamless and consistent European networks.

Comments on Introductory Paragraphs (numbers as per recommendation)

- 1 INTUG supports the view that NGA Networks are key to achievement of economic growth and the goals of the Lisbon agenda. INTUG accepts the need to take account of investment risks incurred by all undertakings (not just SMP operators), as long as this is consistent with meeting the need to maintain effective competition. The aim should be to ensure this promotes efficient investment, not duplicate infrastructure as an end in itself.
- 2 INTUG supports guidance to NRAs which prevents inappropriate divergence of regulatory approaches. A consistent regulatory environment throughout the EU facilitates innovation, reduces investment risk and enables improved productivity.
- 5 INTUG acknowledges that this recommendation mainly addresses Markets 4 and 5, but this scope is far too narrow for business customers. As is usual, the paragraph refers to consumers as a homogeneous group with no acknowledgement of the distinct needs of business users. Furthermore, all such relevant markets are solely analysed at national level, ignoring the impact on the maintenance of competition in the provision of transnational services.
- 7 INTUG agrees that NGAs will require a combination of active and passive remedies to ensure effective and efficient competition for everything from civil engineering works to wholesale bottleneck services such as Bitstream and Ethernet.
- 8 INTUG welcomes the need to promote efficient investment by all operators. There is a risk that pursuit of infrastructure competition per se will generate inefficiency.
- 9 INTUG welcomes the need for technology-independent regulation as the aim. The attempts by some NRAs to discriminate based on the medium, or speed, to provide partial regulatory forbearance, have already been challenged by the Commission, and such technology-specific transposition should not be allowed.
- 10 INTUG supports NRA action to ascertain the potential for duct sharing and other measures to maximise exploitation of resources, but does not believe that this in itself will make a substantial contribution to the creation of effective competition.

- 12 INTUG agrees that SMP operators must provide access to civil engineering on exactly the same conditions as to its own downstream arm and third parties.
- 15 INTUG agrees that there is potential benefit in newly-built facilities allowing use by several operators, but this should not be considered a substitute for ensuring equal access to wholesale broadband products such as Ethernet and Bitstream.
- 17 INTUG believes that transparency and non-discrimination in reference offers is essential and that NRAs should have remedies to ensure availability within a timeframe which does not allow the SMP operator to establish dominance.
- 18 INTUG believes that due consideration of investment risk is already covered in provisions for risk premia.
- 20 INTUG agrees that there is potential benefit in deployment of multiple fibre lines in the terminating segment, but this should not be considered a substitute for ensuring equal access to wholesale broadband products such as Ethernet and Bitstream
- 24 INTUG is concerned at the implied exclusive focus on residential consumer usage, as indicated by the reference to costs “per household” and no business measure. INTUG disagrees with the assertion that there is no possibility of risk diversification, since granting of equal access to other service providers gives such diversification.
- 25 INTUG strongly advocates the application of adequate safeguards to co-operative arrangements to ensure there is effective competition, but the existence of such an arrangement must still not be considered as evidence of competition per se.
- 26 INTUG believes this paragraph as worded could be used by NRAs to exempt SMP operators from non-discriminatory obligations, which would be contrary to basic competition law. Up-front commitments on long term or large volume contracts must not be allowed to establish a position of joint dominance which has been demonstrably more difficult to prove.
- 27 INTUG believes the loophole in paragraph 26, if not amended, must be balanced by even stronger protection via margin squeeze tests, which must not be relaxed. The “hypothetical reasonably efficient competitor test”, as may be used in some mobile market analyses, must not be used to justify a particular number of operators.
- 29 INTUG requests removal of the last sentence of this paragraph, which represents a unilateral rewriting of competition law. Exemption from a finding of anti-competitive behaviour for price differentiation on this basis is a recipe for a duopoly or perpetual joint dominance, particularly

when taken in conjunction with exemptions granted to “initial access seekers”, e.g. those in co-operative arrangements.

- 30 INTUG requests removal of the third sentence of this paragraph, which represents a major shift from the Commission’s principles regarding regulation. Exemption from cost-orientation for co-investment arrangements will result in higher prices for retail and wholesale customers, and will reduce motivation for innovation in services.
- 31 INTUG believes that review of the decision not to impose cost-orientation ex-post will be too late to avoid the consequent market damage.
- 32 INTUG is extremely concerned by the implication that co-investment in FTTH on multiple fibre lines could in some conditions be indicative of the absence of SMP. This limits assessment of the market and may not reflect effective competition for all products and services.
- 35 INTUG presumes the list of “dark fibre (and where relevant copper), Ethernet backhaul or duct access” are examples rather than a complete and definitive list.
- 38 INTUG strongly supports mandating the provision for wholesale broadband access.
- 44 INTUG does not believe that regulation should limit the range of equal access options by predetermining that LLU removes the need to impose an obligation of wholesale broadband access.
- 47 INTUG strongly supports the recommendation that NRAs ensure an appropriate migration path as this will be particularly important for business customers needing to migrate corporate networks and VPNs, whilst protecting operational continuity.
- 49 INTUG believes any review of a geographically segmented market in sub-national areas must take into account the implications for business users with sites in multiple geographical segments, which may have different regulatory conditions.

Comments on Recommendation Paragraphs (numbers as per Recommendation)

- 1 INTUG believes this recommendation provides a once in a generation opportunity to facilitate the development of a single market for telecommunications, which will in turn facilitate general progress in the establishment of the overall Single Market.
- 5 INTUG strongly supports review of Markets 4 and 5 in a co-ordinated and timely manner and, furthermore, believes the Body of European Regulators of Electronic Communications (BEREC) should encourage collaboration between NRAs to achieve greater consistency of analysis and remedies between Member States.

One such example is the need for a level playing field in terms of operator tax liabilities for way leaves and local taxation, to avoid favouring incumbents.

- 8 INTUG accepts the basic definition of an NGA but recommends guidance to aid interoperability, including with corporate networks and VPNs, without denying opportunities for innovation. This would help unblock the single market for customer devices, with beneficial effects for economies of scale and job creation.
- 10 INTUG recommends that NRAs should include customers (business users and residential consumers) in their consultation with interested parties. This will help identify likely future demand patterns, price-sensitivities and the need for access. (Such consultation with customers should be a standard procedure for NRAs).
There is a global trend towards private NGAs. The ITU noted, *“The general Internet is the major IP network in the world, but it is far from the only IP network. In recent years, several private IP networks have been established and utilised for both corporate and residential services, and the future of communications platforms like the NGN architecture is based on IP technology.”* In order to ensure they can interoperate, and play an active part in an EU-wide FTTH network, proliferation of different and incompatible technical equipment must not occur, or investments will be stranded. A patchwork of unconnectable islands will damage the EU economy.
- 15 INTUG strongly supports the mandating of access to the terminating segment of the access network of the SMP operator.
- 17 INTUG strongly supports the continued requirement for cost orientation for access to the terminating segment. See also comments on introductory paragraphs 30/31.
- 19 INTUG strongly supports mandated unbundled access to the fibre loop.
- 20 INTUG strongly supports mandating unbundled access to the fibre loop, irrespective of the network architecture or technology.
- 22 INTUG requests removal of the initial clause referring to paragraph 23.
- 23 INTUG strongly opposes the inclusion of this paragraph, which provides an open invitation to NRAs to establish duopolies, or to grant regulatory holidays to SMP operators granting access to one other operator, e.g. an SMP operator in another Member State granting similar access in reverse. This will result in complete denial of access to business customers seeking access at a site without infrastructure access from its chosen service provider. A direct arrangement for service with the SMP operator would not provide seamless network or consistent service quality and network management facilities. INTUG queries why this paragraph was included at all, if not at the request of an SMP incumbent seeking regulatory forbearance. **THIS PARAGRAPH MUST BE DELETED.**

- 24 INTUG strongly opposes the inclusion of this paragraph, which unilaterally rewrites the Commission’s own principles of cost-orientation. This legalises price-fixing and the establishment of duopolies and/or cartels, creating insurmountable barriers to entry to future innovators. The existence of “at least one other provider.....in a downstream market...based on multiple fibre lines” does not justify exemption from cost-orientation. INTUG queries why this paragraph and the referenced Annex III were included, if not at the request of an incumbent seeking regulatory forbearance. THIS PARAGRAPH MUST BE DELETED.
- 25 INTUG is concerned that any dilution of margin-squeeze tests, e.g. by premature definition of an “efficient” competitor, would remove any residual regulatory protection a competitor outside a co-operative agreement might have otherwise.
- 26 INTUG believes that the conditions set out in Section 2 of Annex III are not necessarily indicative of the absence of SMP.
- 27 INTUG believes that whilst the remedy proposed would be justified, it would be applied ex-post, i.e. too late to avoid the economic damage to competition.
- 37 INTUG strongly opposes the inclusion of this paragraph, which provides an open invitation to NRAs to establish duopolies, or to grant regulatory holidays to SMP operators granting access to one other operator, e.g. an SMP operator in another Member State granting similar access in reverse. This will result in complete denial of access to business customers seeking access at site without infrastructure access from its chosen service provider. A direct arrangement for service with the SMP operator would not provide seamless network or consistent service quality and network management facilities. INTUG queries why this paragraph was included at all, if not at the request of an SMP incumbent seeking regulatory forbearance. THIS PARAGRAPH MUST BE DELETED.
- 38 INTUG strongly opposes the inclusion of this paragraph, which unilaterally rewrites the Commission’s own principles of cost-orientation. This legalises price-fixing and the establishment of duopolies and/or cartels, creating insurmountable barriers to entry to future innovators. The existence of “at least one other provider.....in a downstream market...based on multiple fibre lines” does not justify exemption from cost-orientation. INTUG queries why this paragraph and the referenced Annex III were included, if not at the request of an incumbent seeking regulatory forbearance. THIS PARAGRAPH MUST BE DELETED.
- 39 INTUG is concerned that any dilution of margin-squeeze tests, for example by a predetermined assessment of the definition of an “efficient” competitor, would remove any residual regulatory protection a competitor outside a co-operative agreement might have otherwise.

- 42 INTUG believes that the conditions set out in Section 2 of Annex III are not necessarily indicative of the absence of SMP.
- 43 INTUG supports the minimum notice of 5 years before decommissioning of points of interconnection. NRAs should also ensure customers with corporate networks and VPNs are given adequate opportunity to agree an appropriate migration path.
- 46 INTUG believes any review of a geographically segmented market in sub-national areas must take into account the implications for business users with sites in multiple geographical segments, which may have different regulatory conditions.

Annex III

INTUG objects strongly to this late addition to the recommendation, which appears to have been included at the specific request of those seeking to support national protectionist policies in defence of the narrow self-interest of SMP incumbents, especially where state ownership is also involved. The exemptions provided through this Annex in paragraphs 23, 24, 37 and 38 are wholly unacceptable. THIS ANNEX MUST BE DELETED.



**Submission to
NBN Regulatory Framework**

Rosemary Sinclair

Managing Director

25 June 2008

Executive Summary

ATUG is responding to the Minister's request for submissions on regulatory issues associated with the National Broadband Network. The Government has said it is prepared to consider changes to existing telecommunications regulations to facilitate the roll-out of the National Broadband Network. ATUG notes that this is in the context of the Government recognising the critical importance of future telecommunications regulatory settings, including ongoing consumer safeguards, **to ensure the best outcomes for all Australians and the competitiveness of the economy.**

From ATUG's perspective, this statement provides the appropriate policy framework for Australia's NBN and discussion of future regulatory settings to facilitate the roll-out of the NBN.

ATUG's submission on regulatory issues is based on these and earlier discussions and Forums and on our assessment of global developments and trends.

A summary of key regulatory suggestions is below. A fuller outline of these concerns discussed is in the section, Summary of ATUG Member Discussion on NBN Regulatory Issues, June 2008.

ATUG's central concerns are:

- Policy Objective
- Affordability
- Choice
- Equivalence – in practice
- Customer Experience
- Ubiquity

ATUG's key suggestions are

- The **Policy** objective for the NBN regulatory framework must remain - the Long-term Interests of End Users.
- **Affordability** is key to take-up. Regulation should support cost effective build. Competition is the strongest tool for delivering affordable prices. An entry level "safety-net" package should be developed.
- **Choice** – network topology is central to competition and choice. Designs that foreclose competition should not be accepted. When infrastructure competition is not possible, service competition based on open access and equivalence must be possible.
- **Equivalence** in practice – can only be assured by a new and independent body, NBN Australia, with the task of implementing the Open Access and Equivalence Frameworks for Australia's NBN

- **Customer Experience** in the NBN environment must be managed for success, from the initial migration through service contracting to service switching and repair experiences. Service quality and security standards must reflect the key role of the NBN in the lives of all Australians.
- **Ubiquity** – all Australians must be connected to the NBN. Ubiquity is not only about network availability but also about affordability and accessibility. When all Australians are connected to the NBN, the real potential of this capability for productivity, growth and innovation will be open to end users in all parts of the economy and community, and in all regions of Australia.

ATUG's submission is presented in the following sections:

- Summary of ATUG Member Discussions on the NBN Regulatory Issues in June 2008
- The Commonwealth's Objectives for the NBN.
- ATUG Member Discussions during 2007
- ATUG Future Forums 2007-2008
- Global Developments – Network Design
- Global Developments – Equivalence
- ATUG Cross Connect meetings on the NBN RFP, April 2008
- ATUG Member Discussions on the NBN Regulatory Issues, June 2008, Discussion Paper

ATUG is seeking assurances that Australia's regulatory framework for telecommunications will only be adjusted and amended after public consultation and discussion among all stakeholders. There is no option for policy, legislation and regulation developed in consideration of the long-term interests of end users to be "negotiated" in a commercial setting.

The Government has been clear in the NBN RFP on its objectives and evaluation criteria for bidders. ATUG supports these objectives and criteria. ATUG has welcomed opportunities to provide input to the Expert Panel Guidelines process and to make a submission to Government about NBN Regulatory Issues. ATUG would welcome an opportunity to make further comment on any regulatory proposals to facilitate the roll-out of the NBN.

ATUG sees the NBN as an exciting opportunity for all Australians to reap the benefits of next generation broadband platforms. The migration to this new environment must be managed so that there is no detriment to customers and no lessening of competition.

Member Discussions on the NBN Regulatory Issues in June 2008

These were held in Melbourne, Adelaide, Sydney, Brisbane and Perth. The outcomes and suggestions from these discussions are listed below against each of ATUG's central concerns.

Policy Objective for the NBN Regulatory Framework

The "long-term interests of end users" as defined in the Telecommunications Act and Trade Practices Act should remain the core objective for telecommunications policy and regulation in Australia.

Affordability – The National Broadband Network will not achieve the right outcomes for Australia if end users cannot afford to pay for it.

- Competition is seen as the key mechanism to ensure affordability. Competition will need to be "designed in" at the earliest stages of NBN design and planning. This may require Government legislation.
- Prices for end users should reflect reasonable rates of return, with the ACCC under the Trade Practices Act, continuing to have a role in access prices, even if there is commercial agreement, to ensure prices are reasonable. Access prices should reflect real costs of construction and reasonable returns for private investors and government.
- Regulation may be needed to encourage co-ordinated use of existing fibre assets, access to ducts, poles, pits and other physical plant, access to rights of way and other means to ensure efficient construction of the NBN. Carrier immunities and powers may have to be reinstated to enable timely and affordable services.
- Co-ordination through Local Government and with property developers will be needed to ensure new estates are connected to the NBN with affordable services available for end users. Uniform planning and environment guidelines should be developed to be applied by Local Councils.
- NBN should support State Government and regional community initiatives to develop local BB Networks which would then interconnect with the national NBN.
- ATUG would like to see regulatory support for an affordable "entry level" product to ensure all Australians can access the NBN. This idea could be modelled on the product requirements for Australian Broadband Guarantee suppliers although income disparity between metro and regional areas will need to be taken into account.
- If competition is not possible or does not develop on the NBN, it may be possible that regulated retail prices would have to be considered until competition emerges.

Choice

- Competition remains a key outcome for ATUG. Where possible, infrastructure competition is preferred. Where this is not possible

service competition is preferable to monopoly and must be mandated.

- There should be no less competition over existing platforms than there is now. Past access declarations and price determinations should be carried forward and reviewed on the current basis of developing competition.
- While policy settings should encourage the development of multiple fibre operators, it is likely that many parts of Australia will only support investment in one fibre network. This may not be undertaken by only one operator. All ATUG comments about open access apply to any fibre network builder, including existing fibre assets where they become part of the NBN.
- Network design is key to ensuring the possibility of service based competition over fibre networks where only one network is economically efficient. Legislation requiring an NBN designed for competition is essential.
- Legislation is needed to ensure Open Access arrangements are in place, as required in the RFP. These arrangements must ensure equivalence of access prices and non-price terms and conditions and arrangements for allowing access seekers to differentiate their service offerings to customers.
- Legislation is needed to support structural methods or models to prevent inappropriate self-preferential treatment where an operator is supplying both wholesale and retail services.
- Obligations, Structures and Systems must be established to ensure Equivalence where service based competition applies.
- Independent oversight of Equivalence Obligations must be provided with public reporting.
- ATUG prefers access arrangements for the NBN to be supported through the Trade Practices Act to avoid legal battles of interpretation. The ACCC should have access pricing powers for the NBN under the provisions of Part XIC and anti-competitive conduct powers under Part XIB. The powers under s46 of the Trade Practices Act are not considered strong enough to ensure open access of the NBN.
- Access pricing processes for the NBN need to be much more timely and certain than access pricing process for existing fixed network services. This may mean appeal rights are truncated for a period. It may mean a power for the ACCC to amend undertakings where they are unreasonable. It may mean expedited arbitration hearings.
- An independent body should be given the role of ensuring Equivalence is implemented in a timely way. Regulatory responsibilities should stay with ACMA and the ACCC but an implementation body is needed based on facilitation and mediation, rather than on the anti-competitive conduct provisions of the Trade Practices Act. This new body (NBN Australia) would go beyond “developing codes” to the successful practical implementation of Equivalence. Regulators may need observer status.
- Open Access to content services will be an important feature of the NBN for end users and will an important economic driver for investors. The roles of the ACCC and ACMA as regulators of

content services (competition on the one hand, standards on the other) may need updating.

Equivalence Implementation and Oversight – NBN Australia

ATUG sees the increased level of disputes and the increased use of legal process and delayed outcomes as evidence that industry processes are not working.

The Trade Practices Act reflects a policy and regulatory philosophy (negotiate, arbitrate, litigate) seemingly suitable in 1997 but self-evidently not workable in 2008.

Successful implementation of the NBN requires more use of “facilitate, mediate, tolerate” than legal process alone will achieve. However, strong incentives have to be put in place to make NBN Australia an effective industry-led body focused on good, commercial outcomes for end users and industry players. The role of the existing formal regulators, ACCC and ACMA and the Minister in providing such incentives will be important.

The migration task associated with the roll-out and cut-over of all broadband users to the NBN is a huge project requiring commitment over many years. The implementation of processes to support an effective wholesale market is a task requiring a degree of industry co-operation which has not been seen for some years.

The concept of NBN Australia as a pro active, interventionist, specific purpose, time limited facilitator/regulator with very strong powers is strongly supported by ATUG members. ATUG Members do not want to see the disharmony and dispute which have been a feature of the sector for many years applied in the NBN environment.

The purpose of NBN Australia should be defined clearly as a Mediator and Dispute Resolution Centre with the legislative authority to issue binding resolutions to relevant parties.

ATUG would see a role for end user participation in NBN Australia.

NBN Customer Experience

End users need more information on speeds as broadband becomes more integral to working and living. Customer service and switching processes for broadband services need to be updated. Migration plans for NBN implementation need to take account of end user needs at the beginning and not require Ministerial intervention as happened with CDMA switch off.

NBN Service Framework

End users will be heavily dependent on NBN services. High reliability and high quality infrastructure and maintenance must be provided. It is essential to clearly specify all of the appropriate service characteristics offered by the NBN including

reliability and availability and restoration times and provide a strong monitoring and compliance regime. Minimum aggregation ratios of 10:1 or less for consumer and 5:1 for small business. End users should have 80% of their speed for 80% of the time.

A High Quality NBN

The NBN design should aim to improve the performance and security of NBN services beyond the current “best endeavours” basis. If the NBN is to be used to “transform” education, health care, business practice, government service delivery, communications and entertainment it is essential that the NBN offers the highest reliability and quality of service. The target should be 99.99% reliability and repair times well within existing CSG standards. Existing customer safeguards should be transferred to the NBN.

Clear and high quality construction and installation standards and codes of practice must be developed and complied with and strong monitoring and compliance arrangements are required, including “last metre” cabling practices and cabler accreditation.

High quality infrastructure documentation recording the location of all cables in a standardised format must be established and maintained. Underground NBN infrastructure must be effectively ‘identified’ to mitigate against inadvertent damage.

The codes of practice to address construction and installation practices should be developed by Communications Alliance and registered with and compliance monitored by the Australian Communications and Media Authority. This should cover both underground and above ground construction technologies, as well as placement of “low impact” masts for wireless last mile connections.

Customer Migration

There should be no detriment to customers when migration to the NBN occurs eg contract terms, plan periods, access to services etc.

Customers need to be informed about plans for migration to the NBN with sufficient time and options to make fit for purpose choices. The many lessons learned from the CDMA shut-down should be applied to ensuring a more satisfactory experience for NBN migration e.g., effective equipment, accessibility options, affordable entry services, staff training, customer information programs. Many of these activities could be managed through NBN Australia.

Legislation should require the establishment of an Industry Code of Practice to set out rules and processes for the fair and reasonable transfer of a customer from one provider to another

provider. Effective customer switching practices are key to effective market competition.

Customer Information

Legislation should require the establishment of a “Framework” for a minimum set of standardised customer focused data describing the characteristics of a particular service, aggregation ratios and the speed performance delivery standards. Customers need clarity on what speeds WILL be delivered by NBN services rather than what speeds MIGHT be delivered. The Australian Broadband Guarantee program speed testing measures may provide a model.

Compliance

Legislation must require all industry participants to enter into a formal legal agreement with the appropriate Industry Regulators to comply with applicable Industry Rules and Codes of Practice.

Ubiquity of Australia’s NBN

The real benefit of the NBN will not be achieved unless ALL Australians can be connected. The transformation of business, government and community services and activities that could be possible with Next Generation Broadband can only be achieved with ubiquitous coverage.

ATUG would like to see the 98% figure translated into more practical terms, such as “all towns with over 100 people” should be connected to the NBN.

Regulation should focus Government funds on non-commercial areas and underserved areas, in conjunction with recommendations from the Regional Telecommunications Inquiry Review Committee every 3 years. This approach would accelerate and extend NBN access and should reduce the “problem” of cross-subsidies.

The issue of backhaul costs was discussed in regard to uniform pricing for NBN services. In the absence of competitive backhaul markets, access pricing for backhaul may need to be regulated to ensure delivery of affordable NBN services in all regions. Regulated prices should reflect fair returns for investors.

The USO should be extended to include broadband but by way of a Government backed Guarantee rather than an industry obligation. The Guarantee should be an Australian Communications Guarantee including Voice* and Broadband, where Voice* means Voice and Voice Equivalence. Explicit Government funding for the Guarantee is preferable.

Spectrum should be made available for broadband in regional and remote areas to ensure access to NBN services in a timely and cost effective way for the 2% or more of Australians for whom fibre based solutions are not practical in the medium term.

Funding via continuation of the ABG program will be need to be provided to ensure 100% broadband coverage until NBN services become available.

Essential services such as 000 calls, free to air TV should be made available through the NBN.

ATUG Member Discussions during 2007

ATUG has been discussing specific issues surrounding the deployment of next generation broadband in Australia with members since early 2007, with focus on four key issues. ATUG has also been discussing these issues through INTUG (the International Telecommunications Users Group) to understand developments at a global level which may have relevance to Australia.

The background comments below provide a context for ATUG's suggested approaches to regulatory issues associated with the NBN roll-out. The following is from a report to ATUG members in December 2007:

Fibre to the Node

Discussions in early 2007 between the ACCC and Telstra stalled over the cross subsidy for regional services to fund the Universal Service Obligation which in Telstra's view is not adequately funded by industry. Telstra sought \$13.63 per month to cover the cross subsidy. The ACCC was prepared to allow \$1.77 per month in the access price for competitors. Funding the USO/regional services has been a key feature of Telstra's regulatory activity recently – including its position on ULL pricing. The quoted wholesale price of \$85 per month is arrived at by calculating existing margin returns rather than assessing true costs. This tendency to monopoly rather than competitive pricing is the reason a new FTTN service would have to be subject to price regulation. The debate needs to be broadened to Fibre to the Premises and the regulatory framework adopted or adapted will need to ensure affordable services are delivered to end users.

Functional Separation

Around the world regulation is increasingly focused on key bottlenecks using less but more targeted regulatory tools. One of these tools is Functional Separation which allows for investment certainty for all players while promoting continued competition. Functional separation allows regulators to intervene in persistent bottleneck markets where non-discriminatory behaviour cannot be ensured by other remedies. Functional separation has spurred investment in unbundled access lines in the UK with continued increases in market valuation for BT. It is clear that market size in Australia must be taken into account in return on investment and pricing calculations. In the 1990's ATUG's strong preference was for separated Network and Service Companies. In 2008 Functional Separation provides the tool to achieve this outcome in the new era of significant network upgrade to fibre.

Operational Separation

The Australian model was introduced in 2005, as part of the T3 sale legislation, on the basis of the Minister accepting Telstra's Operational Separation Plan and its sub components of Price Equivalence, Service Quality, Information Security, Customer Responsiveness, Information Security (to be published). The ACCC has published its Retail Pricing Protocol to advise how it assesses potentially anti-competitive behaviour in telecommunications markets, and its views on the concept

of 'price equivalence' which is an important element of the operational separation of Telstra. Consultation with industry and end users was via submissions to Telstra, an inadequate process from ATUG's perspective. The 2005 Operational Separation Framework was slated for reviewed in 2008. In ATUG's view Australia's Operational Separation model is ineffective. It is not subject to any public scrutiny which could provide evidence of accountability and information to end users that the communications market is effectively competitive. The level of industry disputes and legal actions leads end users to conclude the market is not working effectively under the 2005 Operational Separation Framework.

Broadband Speeds

Certainty in regard to broadband speed is an emerging issue for end users as applications become more viable and relevant e.g., Voice over IP. ATUG's policy is all Australian users should have affordable, multi-megabit symmetrical broadband access. Industry developments in the last months of 2006 which saw increased speeds on offer more broadly were welcome. Also of interest is the ACCC's position that excessive claims of speed by network service providers can be misleading in a Trade Practices Act sense. To enable informed choice by end users, suppliers need to delineate the whole range of parameters that dictate the actual likely speeds that customers will obtain for fixed or mobile broadband services. It is not enough for service providers to make 'blanket claims' that customers will get speeds 'up to' a certain threshold when significant limitations apply to the attainment of those speeds. This issue is on the radar for regulators in many countries.

Long-term interests of end users

2007 has seen continued effort to change the core objective of telecommunications policy from the "long-term interests of end users" to the narrower interests of shareholders and investors. This debate will continue through 2008 and will be a key focus of the review of telecommunications policy in 2008/2009. The ACCC's regulatory role is to strike a balance between ensuring that investors (taking account of their risks) are not discouraged from undertaking new efficient investment while at the same time ensuring that consumers obtain the benefit of competition. ATUG will continue to emphasise that the core objective of communications policy and regulation must be the long-term interests of end users.

Broadband Prices

One of the challenges in the deployment of Australia's NBN is that the price for end users must encourage take-up (to achieve the transformative and productivity outcomes) and at the same time provide a reasonable return for investors, including the Government. The costs of fibre deployment in Australia can be reduced through various policy and regulatory decisions but the returns for network owners are closely linked to take-up (which can be forced by cutting access to copper services) and retail price per user (which may not be competitive).

A presentation at ATUG 2008 by Dr Taylor Reynolds from the OECD discussed a number of indicators of price (and speed) for Australia - <http://www.atug.com.au/ATUG2008/Presentations/TaylorReynolds.pdf>

Australia's end user still pay a premium for communications services.

The presentation makes the point voice still accounts for 79% of total telecom revenues in all OECD countries, with mobile revenues alone accounting for 40%. Australia has the third highest mobile prices among OECD countries in 2005 up from our position three years earlier. High user of fixed voice services in Australia pay **75% more** than their OECD average counterparts. Mobile high end users pay **20% more**. On average users in Australia pay 10% more than the average OECD end user. In ATUG's view this price premium indicates that prices in Australia are not yet at competitive levels. ATUG is concerned that this price disparity must not be reflected in prices for fibre based voice and data services. The discussion on Rates of Return for fibre networks should not reflect historical, monopoly margins.

Broadband Prices (USD, PPP)

OECD Broadband prices are reducing – DSL by 19%, cable by 16%. Broadband prices in Australia ranges from \$21.66 up to \$108.45 compared to for example The Netherlands with \$7.74 up to \$87.88, Canada \$21.96 up to \$97.63 or Korea at \$30.56 up to \$57.29.

Comparing average monthly prices for a monthly subscription overall, OECD is \$49.31, Australia \$52.26.

Comparing monthly average price per advertised Mbit per second, OECD overall is \$17.85 and Australia is \$21.34

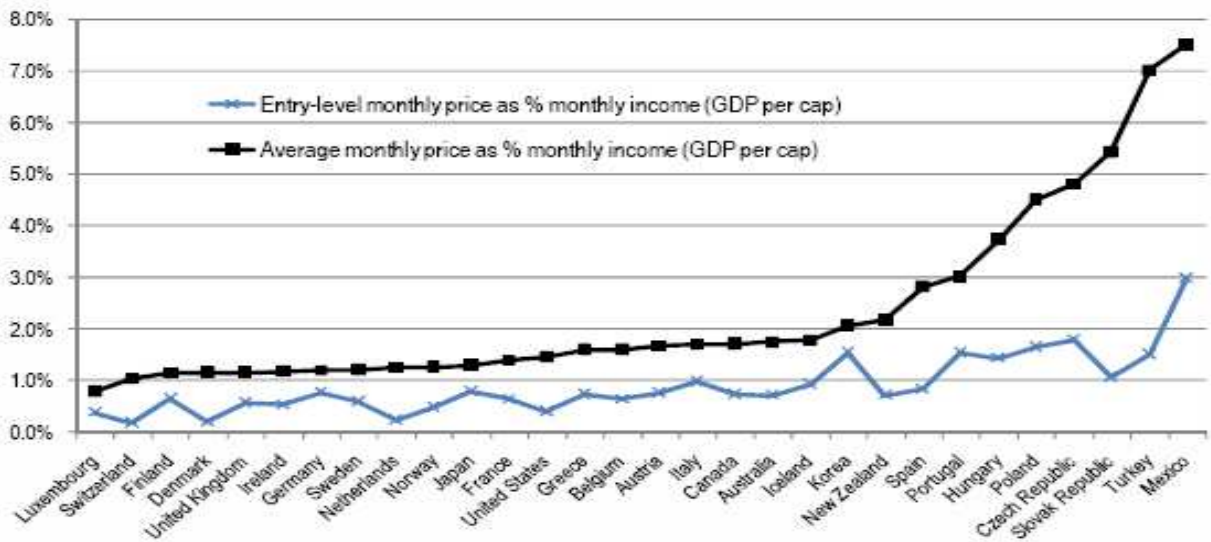
Comparing the average price per additional GB after the cap, OECD is \$33.21, **Australia is \$108.48**. According to OECD statistics, Australia has the one of lowest bit/data cap levels (15GB) and the highest excess MB charge (over 10c per MB).

OECD Broadband Portal reports

The figure below comes from the OECD's Broadband Growth and Policies Report available through the OECD's Broadband Portal at http://www.oecd.org/document/54/0,3343,en_2649_34223_3869_0102_1_1_1_1,00.html at Chart 1a.

Figure 1.13. Broadband affordability, October 2007

Entry and average monthly broadband price as a percentage of monthly GDP per capita



A number of issues arise from this information on pricing:

- There is no room for a significant increase in prices for fibre based broadband services.
- The price of international connectivity is still too high.
- Australia needs to have an entry level offer to encourage take up of NBN Australia services.

ATUG Future Forums 2007-2008

During 2007 ATUG held a series of member discussion forums to work through the issues associated with moving Australia onto a next generation broadband platform.

The Demand Forum highlighted the need for a range of broadband speeds and pricing plans “fit for purpose”. Many end users are on a journey with broadband and are still in the process of building their understanding of value. End users do not want to be presented with very high speed but unaffordable broadband services. Just as important for end users right now are proper plans where what you see in the ad is actually what you get. End users need an effectively broadband market where switching providers is as seamless as switching mobile providers. Business users want a market where broadband availability is ubiquitous and quality is consistent. End user confidence is a key issue. All sectors in the economy will be able to transform transactions and processes based on the new connectivity and achieve their objectives for productivity, innovation and growth provided all Australians are connected to the next generation platforms. “Any to any connectivity” and “always on” are shared visions BUT the need for speed and the ability to pay is specific to each user.

The Technology Forum came to the conclusion that fibre to the home/farm/business is the future for the fixed network. But to meet market demands for affordable, ubiquitous, high and (sometimes low speed) broadband and to deal with the distance/density issues in Australia, wireless services have an important role to play. Over time, just as voice services have become mobile, so will broadband services – for that segment of the market which is happy to pay the mobile premium for convenience. The geography of Australia will mean satellites will also be an important part of the future technology landscape. End users are really not interested in the technical specification of the underlying platforms and don’t approach this debate with any ideological predisposition to one platform or another. An important feature for end users is the new world of the “Internet of Things”. Early examples include sensor networks and increasing use of RFID tags. The need for IPv6 to support the “Internet of things” and the migration and cost issues associated with such a huge change need to be planned and managed. The development of the SMART GRID (rather than just the Smart Meter) may provide the basis for increased infrastructure competition, but will require co-operation at unprecedented levels between Federal and State Governments through COAG and such processes, and with the private sector. The Technology Forum members felt access to competitive backhaul capacity, within Australia and internationally, will become more urgent in the next few years as content becomes richer and information flows more symmetrical.

The Investment Forum came at a point in the cycle of Forums, when Australia had just had an election with broadband a key issue. The forum discussion focused on the rise and rise of social networking, better online content, smarter personal devices and the thinking by business and government about forms of Enterprise 2.0 or Agency 2.0 based on Web 2.0 technologies. Businesses are seeing the move to digital business “net” based working as critical to mission and hence on the investment radar. ATUG itself is exploring Web 2.0 working as a way of meeting members’ needs for information including direct international updates from experts. Telcos are exploring new models of investment – including public/private partnerships and how these can be effectively structured to achieve the multiple objectives that underpin them including risk management. New business models in the construction and operation sectors of the market are being matched with new business models in the content, applications sectors of the market. This innovation is taking place in a privately funded market where shareholder expectations are an important consideration – albeit not the only consideration as the High Court decision on competition in telecommunications indicated (in para 33 of the judgment):

“The objects thus identified in the 1997 Telecommunications Act and in Part XIC of the Trade Practices Act are wider than and different from that narrow self-interest which, statue apart, is all that one participant in a market would ordinarily consult when striking a bargain with another participant in that market.”

The Forum concluded that broadband has to be affordable as well as available for end users, and Australia as a whole, to reap the benefits of this new economic and community infrastructure.

After ATUG’s Forum was held, the OECD’s Workshop on Fibre Investment and Policy Challenges was held in April 2008, (http://www.oecd.org/document/56/0,3343,en_2649_34223_40460600_1_1_1_1,00.html). The workshop included a presentation on the challenging economics of fibre deployments by Marvin Sirbu of Carnegie Mellon. The presentation covers the implications of various fibre network designs for competitive outcomes for end users.

The Policy and Regulation Forum was more focused on FTTH developments and supporting regulatory frameworks. Around the world, given the economics of fibre deployment, two approaches are emerging depending on who builds the fibre network:

- where incumbents build the FTTH networks, the issues crystallize around arrangements for access to the switching network, fibre plant unbundling, the pricing of access, Equivalence Issues
- where competitors build the FTTH networks, the issues crystallize around over-build by the incumbent

A number of countries are exploring “functional separation” as a way of dealing more efficiently and effectively with bottleneck infrastructure, meaning effectively competitive sectors can be left to market forces.

Beyond the “fibre build” debate, there remain some big policy questions arising from:

- merging of the telephony and internet worlds;
- development of behavioural economics as a way of understanding the role of consumers as effective market participants when properly informed and empowered through mechanisms such as contracts and switching processes;
- objectives to reduce unnecessary regulation on economic activity;
- scarce resources such as spectrum becoming more abundant because of technology developments;
- contemporary approaches to Universal Service, perhaps moving from an Obligation on industry to a Safety Net Guarantee from Government.

GLOBAL DEVELOPMENTS

EQUIVALENCE

The economics of fibre deployment are challenging outside densely populated markets. Policy and regulatory approaches should support infrastructure competition where that is possible, for example the approach taken by France.

Where infrastructure competition is not possible, the preferred regulatory approach is to ensure Equivalent Access by competitors to enable the greatest degree of innovation and choice for end users that is possible.

Countries are developing slightly different approaches, depending on market conditions. But there are a number of models for Australia to consider and discuss.

New Zealand

Operational separation of Telecom's business is part of a package of new regulatory measures brought in with the passage of the Telecommunications Amendment Act in December 2006.

Operational separation in NZ is based on equivalence of treatment in the supply of services to internal and external purchasers to avoid discrimination and foster market competition. The NZ Minister described the objectives of the approach in a recent speech, <http://www.beehive.govt.nz/speech/speech+kanz+broadband+summit>

“Operational Separation

Reform did not stop there. While local-loop unbundling is a significant step towards greater competition in the sector, it is much more powerful in the context of an operationally separated incumbent. We finalised negotiations with Telecom New Zealand on its operation separation in March this year. These undertakings, while voluntarily entered into, are legally binding, contain clear milestones and timetables and strong penalties if breached.

Operational separation will deliver non-discrimination at a deep wholesale level and an access layer that is open to entrants and competitors on an equivalence of inputs basis.

The robust operational separation of Telecom New Zealand is expected to foster increased competition and access to a wider range of new and improved broadband-based services at better prices.

This is important because offering competing facilities-based services over the existing infrastructure was only going to take

us so far up the international ladder – we also need increased investment in that infrastructure – beginning with shortening loops in order to make fibre to the premise a viable prospect for the future.”

Detail on the New Zealand model is at http://www.med.govt.nz/templates/MultipageDocumentTOC_30333.aspx

The Separation Plan (comprising the undertakings) was approved by the Minister on 30 March 2008, and became legally enforceable on Separation Day - 31 March 2008.

Singapore

In Singapore the Next Gen NBN will comprise three key conceptual industry layers:

- the Network Company (Next Gen NBN NetCo), will be structurally separated and responsible for the design, build and operation of the passive infrastructure layer;
- Operating Companies that are responsible for the design, build and operation of the active infrastructure to provide wholesale broadband connectivity to other operating companies and
- Retail Service Providers who will compete to provide innovative services to end-users.

Singapore sees it is critical for the Next Gen NBN to ensure effective open access to the infrastructure by downstream operators. The Government decided to adopt separation between the different layers of the Next Gen NBN to achieve effective open access:

- The Next Gen NBN NetCo will be Structurally Separated from the Next Gen NBN Op Co.
- The Next Gen NBN OpCo will be required to be Operationally Separated from downstream RSPs. Operational Separation is a less stringent form of separation as the Next Gen NBN OpCo will be allowed to retain full shareholding ownership of its downstream operating units, such as RSPs.

The Next Gen NBN OpCo will be required to treat all downstream units equally, and on a non-discriminatory basis. The Next Gen NBN OpCo will have to operate on a standalone basis separate, from its affiliated downstream operating units, and be subject to various obligations, including being established as a separate legal entity and maintaining separate board, management and staff.

In addition to Operational Separation, the Next Gen NBN OpCo will also be subject to other key obligations as follows:

- Price Control
The Next Gen NBN OpCo must offer fair and non-discriminatory wholesale broadband services to other Operating Companies and downstream operators such as RSPs through an Interconnection Offer (ICO). The prices and terms and conditions of these wholesale offerings will be regulated by IDA.
- Universal Service Obligation (USO)
The Next Gen NBN OpCo will be required to complement a similar obligation on the Next Gen NBN NetCo. The Next Gen NBN OpCo will be obliged to meet all reasonable requests by any operating company or downstream RSP for access to a basic set of wholesale services offered under its ICO.

Full details on the IDA's Public Consultation on Industry Structure for Next Generation Access Networks, issued on 17 April 2008, are at:
<http://www.ida.gov.sg/Policies%20and%20Regulation/20080417153248.aspx#decision>

Canada

A useful summary is in the AXIA Net Media Presentation at ATUG 2008, at
<http://www.atug.com.au/ATUG2008/Presentations/ArtPrice.pdf>

CEO Art Price outlined the approach adopted by Axia in Canada and France in its Fibre Deployments. The presentation, Next Generation Network Drivers and Implementation Approaches, made the clear statement:

The common attribute across ...break-through implementations:

Put the NGN fibre grid in a no-conflict open access business model by separating ownership.

France

A presentation at the OECD Workshop on Fibre Investment and Policy Challenges outlines the approach and models being taken by the French Regulator to support the development of infrastructure based competition in FttH deployment in areas of France. The presentation, Orientation of regulation on access to ducts and sharing of the last part of the optical loop, describes the French Regulator's approach to physical plant sharing and access to buildings. The presentation is at
<http://www.oecd.org/dataoecd/35/60/40460875.pdf>

UK

The UK approach by BT was outlined in Grant Forsyth's Presentation at ATUG 2008 – Overseas Developments: Successes in A Functionally Separated World at,

<http://www.atug.com.au/ATUG2008/Presentations/GrantForsyth.pdf>

Forsyth outlined the usual objections to Functional Separation and BT's response to them:

1. Suppresses investment
 - Return on investment is determined independent of FS
 - Greater certainty supports wider investment from incumbent and entrants
2. Suppresses investment in fibre
 - UK is leading in fibre deployment
 - UK committed to green-fields FTTP on an EOI basis – no “Regulatory Holidays”
3. Creates a monopoly
 - EOI only for enduring bottlenecks – i.e. exiting monopoly
 - Entrants free to invest where opportunities exist / business case work
4. Duct sharing is a better alternative
 - Practical issues rule it out for more than a select few
 - How is equivalence of access to be delivered? Functional Separation?
5. Replicability is a better alternative: Equivalence = Equal
 - France: MAN Ethernet
 - Spain: Metro-net Ethernet
6. Too costly
 - To whom ? Costs of competition always “too costly” when imposed
 - Incremental cost of EOI not significant vs other systems costs
7. Destroys the share value of the incumbent
 - Ask the shareholders and the analysts
 - Not the experience of BT
8. Eliminates jobs and dumbs down pay and conditions
 - Openreach: increased number of employees employed, increased the value of individual remuneration provided

Information on the BT Undertakings, which created Openreach, is at: <http://www.ofcom.org.uk/telecoms/btundertakings/otherdocs/>

Information on the implementation of BT's undertakings is at: <http://www.ofcom.org.uk/telecoms/btundertakings/> This is a public process and report made available by the regulator, OFCOM.

In addition, the UK established the Office of the Telecommunications Adjudicator (OTA2, www.offta.org.uk) as a follow-on to the OTA Scheme and independent of the regulator and of industry. OTA2 facilitates the swift implementation of processes where necessary to enable a wider range of Communications Providers and End Users to benefit from clear and focused improvements, in particular where multi-lateral engagement is necessary. The OTA2 is able to bring all parties together to find prompt mediated resolution of working-level implementation issues. The OTA2 primarily deals with major or strategic issues affecting the rollout and performance of Openreach products as defined in the MOU.

ATUG Cross Connect meetings on the NBN RFP, April 2008

Concerns raised at these member meetings on the RFP included:

- Creation of a new monopoly and if so, what influence Service Providers would have in trying to develop and offer a range of tailored services.
- How could end users could be confident of what they are being provided?
- Even though take-up of future applications was not clear, extensive network development was required as a first step with a focus on delivering a first class end user experience.
- Distinct Business and Domestic services need to be available with clear and measurable service capabilities. Given the poor experience to date, the meeting strongly supported the concept of Quality and Performance Regulation as a means to ensure reasonable end user experiences
- Preserving competitive service in the 'last mile' was strongly supported. A well regulated and effective wholesale market place was considered a 'MUST' with open and equitable access for all providers.
- The FTTN must be dimensioned for a wide range of services including e health, distance education and general business needs as well as entertainment and IPTV needs.
- The new NGN should be considered to be an 'innovation platform' with a strong focus on open and interoperable standards, peer to peer working requiring symmetrical services, network neutrality and a capability to accommodate IPV6.
- The future of multiple concurrent applications on a domestic service means a future target capability of 100 Mbps should be set.
- While data rates were considered important, the need for large and reasonably priced monthly download capacities was considered crucial.
- Since there are divergent views on appropriate Rates of Return, (RoR), there needs to be an examination of the likely impact on prices that would result from an increase in RoR, assuming there is the only one transport service provider or limited infrastructure based competition
- To achieve an effective regulatory environment the meeting expressed strong support for a pro-active and interventionist regulator not dissimilar to environment of Austel

ATUG Member Discussions on the NBN Regulatory Issues, June 2008 Discussion Paper

Member meetings were held in Melbourne, Adelaide, Sydney, Brisbane and Perth. The following discussion points were used in these forums.

Policy Objective for the new Legislation

Long-term interests of end users remains the objective to telecommunications policy in Australia, especially policy designed to encourage accelerated and extended investment in next generation broadband networks.

Affordability

Next Generation broadband will not achieve the right outcomes for Australia if end users cannot afford to pay for it.

Discussion Points

- Ways of reducing build costs; carrier powers and immunities; access to physical infrastructure; infrastructure sharing
 - o Maximum opportunity should be taken to utilise existing physical infrastructure, eg, towers, poles, pits, ducts, on an “equitable” basis so as to reduce cost and environmental impact.
 - o For example in the case of the overhead cable option, (whereby new technology, non metallic cable can be erected beside electrical conductors) legislation must make carriers exempt from local government planning laws for this specific activity.
 - o A code of practice to address construction practises should be developed by Communications Alliance and registered with and compliance monitored by the Australia Communications and Media Authority.
- Availability of an entry level package, as exists with the Australian Broadband Guarantee, to ensure all end users can afford to connect to the NBN
- Pricing should reflect real costs of construction, fair returns for private investors and government

Choice

Competition remains a key outcome for ATUG. Where possible, infrastructure competition is preferred. Where this is not possible service competition is preferable to monopoly.

Discussion points

- Structural separation – separate ownership

- Functional separation – separate structures, processes, management teams, incentives under common corporate ownership

How to achieve wholesale service equivalence – price, non-price. a comprehensive set of “service equivalence” industry rules must be established by an Independent Body

How to achieve industry “tolerance” and effective self-regulation of advocacy

The Trade Practices Act should be the vehicle. It already requires the ACCC to take account of the risk of new investment in setting access prices and has provisions for access and anti-competitive conduct

Compliance with the Rules by both providers and seekers must be monitored independently and enforced by the Regulator.

Oversight Body – NBN Australia

ATUG sees the increased level of disputes and the increased use of legal process to delay outcomes as evidence that industry processes are not working and that ACCC processes reflect a philosophy suitable in 1997 but self-evidently not workable in 2008. The migration task associated with the roll-out and cut-over of all broadband users to the NBN is a huge project requiring commitment over many years. The implementation of processes to support effective of functional separation is a preliminary task requiring industry co-operation which has not been seen for some years.

Discussion Points

- Can industry-based, independent monitoring of competitive behaviour be established to mitigate the risk of non-price anti-competitive behaviour especially to timeliness of outcomes?
- Could this body be a required step ahead of arbitration and litigation?
- What role should the ACCC have in this body?
- What role should end users have in this body?

NBN Customer Experience

End users need more information on speeds as broadband becomes more integral to working and living. Customer service and switching processes for broadband services need to be updated. Migration plans for NBN implementation need to take account of end user needs at the beginning and not require Ministerial intervention as happened with CDMA switch off.

Discussion Points

- **Customer Migration** - Legislation should require the establishment of an Industry Code of Practice to set out rules and processes for the fair and reasonable transfer of a customer from one provider to another provider.
- **Customer Information** - Legislation should require the establishment of a “Framework” for the presentation of a minimum set of standardised customer focused data describing the characteristics of a particular service and the speed performance delivery standards.
- **Rules Compliance** - Legislation must require all industry participants to enter into a formal legal agreement with the appropriate Industry Regulators to comply with applicable Industry Rules and Codes of Practice.

Ubiquity of Australia’s NBN

ATUG believes all Australians, wherever they are, should have access to the NBN minimum service at affordable prices. The real benefit of the NBN will not be achieved unless ALL Australians can be connected. The transformation of business, government and community services and activities that could be possible with Next Generation Broadband cannot be achieved without ubiquitous coverage.

Discussion Points

- An entry level product should be available to ensure all end users can connect to the NBN
- Should the USO be extended to include broadband – an Australian Communications Guarantee including Voice* and Broadband (Voice* means Voice and Voice Equivalent services)
- Government funding for USO services is preferable to industry based cross subsidy schemes
- Does the emergency service obligation apply to FTTx builds – what are the cost implications?
- Spectrum for broadband in regional and remote areas – timeliness, cost
- The ABG will be need to be funded sufficiently to provide coverage until NBN services are available