



Australian Government



National Broadband Network: Regulatory Reform for 21st Century Broadband

Digital Economy Industry Work Group Response

June 2009

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DEIWG Foreword

The following paper directly addresses the questions put forward by the Department.

The paper is compiled from a collection of responses received from members of the Digital Economy Industry Work Group (DEIWG).

The DEIWG Community consists of approximately 150 companies and 200 representative members. DEIWG delegations have recently had productive meetings with Minister Conroy and Deputy Prime Minister Gillard, and are currently seeking to engage other Ministers in useful Digital Economy discussions.

The purpose of DEIWG is to bring issues associated with the Digital Economy to the fore and generate interest and awareness for the Digital Economy. The DEIWG Community has representatives from Health, Education, Telecommunications and Media that collectively form a hub of expertise for building productivity and a strong, modern economy.

Domestic consumers need to be presented with a single connection to a multiplicity of services, all conforming to a unified and electronically secured connection platform. Proper and regulated management of the NBN promises to resolve this issue.

A unified national platform will allow a trans-sectoral utilisation of national infrastructure. Education, health, emergency services, power and electricity utilities can all use the same infrastructure to deliver information services to businesses and consumers.

DEIWG generally endorses the paper's view on regulatory reform and reinforces the notion that a unified national telecommunications platform will deliver outcomes in the nation's interest. DEIWG's key message here is that a trans-sectoral approach is necessary to achieve greatest utility out of any new national infrastructure.

DEIWG identifies a need for Government leadership on directions for the Digital Economy. The Government must provide a regulatory framework that allows all businesses, community service providers, and consumers to access the national platform in a secure and equitable environment.

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Section 1: Synopsis

DEIWG is responding to a request for comment on options for reform, which the Government is considering in the discussion paper -National Broadband Network: Regulatory Reform for 21st Century Broadband.

The key options the Government will consider for reform, include:

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

DEIWG has consulted within its ranks to arrive at a consensus perspective on these issues, and this submission is intended to articulate and support those views.

We have addressed each and every question, and have also included, within the appendices, necessary supplementary information also contributed by DEIWG members.

Section 2: DEIWG Response to Department's Questions

The following section contains answers to the questions posed within the discussion paper. DEIWG answers have been placed in boxes. Some of the original chapters have been omitted, but where applicable, original chapter numbers have been retained.

Chapter 3: Telecommunications competition framework

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

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

Questions

- How can the processes and procedures under Part XIC be improved? What are the relative merits of the options outlined or any alternative you favour?

Discard the current Part XIC processes and adopt Option 2.

- Are there elements of the different options that could be combined?

No Comment.

Anti-competitive conduct provisions

Questions

- Are Part XIB procedures too complex? If so, how could they be streamlined?

Yes. Adopt the suggested options.

- Are consultation notices necessary?

No.

- Would the introduction of binding rules of conduct on carriers who are subject to a competition notice or as an alternative to competition notices improve the operation of Part XIB?

Yes.

- What are the relative merits of the options outlined?

General strengthening of ACCC powers, in line with the suggested options is important to guarantee open and competitive access to the NBN.

Separation arrangements for Telstra

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

Option 2—Functional separation

Questions

- What are the appropriate structural arrangements for Telstra during the transition to the National Broadband Network?

The appropriate structural arrangements during transition should not differ from those that will be in place for final operation of the NBN; albeit that they may be refined during the transition as practice dictates. We should begin as we intend to finish - so, Telstra should be urged to begin the functional separation process now, and the process should be defined in consultation with the industry. An appropriate mechanism may be through working committees, as established during the unbundling of the local loop in 1999/2000.

- Could measures be put in place to make the existing operational separation regime work more effectively? If so, what are they?

No. It's unlikely that tinkering with the status quo will encourage the reform that is necessary to meet the NBN aspirations of the industry.

- If functional separation is adopted, what would be the key elements of such a framework? What would be the appropriate boundaries for separation?

The paper lists 7 key principles, all of which are endorsed by DEIWG. In terms of boundaries, the goal would be to eventually move from functional separation to achieve full structural separation, i.e. separate publicly listed entities for wholesale and retail operations.

Horizontal separation

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

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

Questions

- What restrictions, if any, should be imposed on future Telstra investment in the Australian media and communications sector?

Placing of cross-media ownership rulings on Telstra, and any other infrastructure or media operator, is only necessary in an environment where Telstra, or another operator, has a controlling interest in the NBN. It is therefore more important to ensure that NO operator, other than the government, has a controlling interest in the NBN. However, Telstra's ownership in Foxtel is still an obstacle to other potential NBN service providers achieving compelling content offerings, and that alone merits the placing of cross-media ownership rulings specifically on Telstra.

- Should Telstra be required to divest its hybrid fibre coaxial network?

Telstra should be encouraged to cede its HFC network into the NBN.

The NBN can reduce roll out costs if it gets access/ownership of existing assets i.e. O/F, Ducts, Pipes, Buildings, Towers, Spectrum but if the price means that any operator has a large piece of equity say 20% for assets ceded, they may use their position to dominate the decision making process, either singularly or in concert with another major equity holder.

Similarly, a question arises under the wholesale, 'open access' concept; how does the Government/NBN prevent the 'cached-up' bigger players from monopolising data/bandwidth allocations in the NBN by virtue of their inherent ability to pay?

This must be mitigated by regulation.

Facilities access regime

Questions

- Would making the facilities access regime consistent with Part XIC improve its operation?

Yes.

- Should the facilities access regime be integrated within Part XIC? If not, why not?

Yes.

Spectrum allocation

Questions

- Given the changes to the telecommunications industry resulting from the roll-out of the National Broadband Network, are competition restrictions necessary to limit access to valuable spectrum?

Yes. DEIWG endorses the Government's comments in relation to encouraging new entrants.

- How can the Government encourage competition between different technology platforms?

By ensuring that future wireless spectrum is auctioned such that competition is not stifled. Competition between fixed line and cable operators (i.e. differing technologies) in the USA has encouraged competition. One way to achieve this is to allow the NBN to hold wireless assets as a component of the entire network, where fibre is not appropriate. This aligns with DEIWG's view that the NBN should follow a utility model for wholesale telecommunications and should not be defined by technology alone.

The NBN consists of bandwidth being delivered to a termination point in a home, business or an indigenous community. This termination point must accommodate Wireless, O/F, and Satellite access. Therefore, in terms network elements, spectrum is the AIR (to fibre) interface and, as such, the NBN needs to have its own spectrum assets (built/acquired/ceded). These spectrum assets absolutely must consist of the DD (Digital Dividend VHF/UHF) and other GHz assets. The Government must instruct the ACMA to either set up the mooted 'Private Park' concept, or cede all DD to the NBN Co to appropriately utilise that spectrum in the national good as a strategic asset.

The role of the NBN Co is to build the National network (Australia's future digital infrastructure) to allow ISP's, business, households, and others to access the local and global Internet cost effectively. However, the new NBN network will have physical data pipes (O/F delivery) and virtual data pipes (RF delivery) to all end points. Thus, with the right assets, the NBN can also deliver a national emergency services communications network overlay.

Under no circumstances should the DD be squandered on the TV broadcasters; it is too valuable. The NBN and the DTV switchover is the ONCE IN A LIFETIME opportunity for the Government to realise the strategic value to the nation of this spectrum holding. The DD spectrum allows transmission over very long distances in a true NLOS manner with multi mega bit delivery. IT also allows for the development of immense sensor networks for Power, Health, Agriculture, Water, Weather, Science, and Defence; for example, a true national DISPLAN communications network.

Chapter 4: Telecommunications consumer safeguard framework

Communications Service Standard

Questions

- Would the Communications Service Standard approach proposed in the Glasston Report provide an effective and useful framework for safeguarding consumer outcomes into the future, including the National Broadband Network environment?

Yes. The NBN (FttP) really puts pressure on the need to review the regimes that "guarantee" availability of minimum service standards to all Australians. There are currently three distinct ways this is achieved. The first is the USO, which supposed guarantees availability of a "standard telephone service" by placing an obligation on a Universal Service Provider (USP) - Telstra as the Principal USP.

The second has been a sequence of broadband programs culminating in the Australian Broadband Guarantee that seeks to guarantee availability of "metro-equivalent" broadband. Finally there is the satellite phone subsidy scheme.

The Regional Telecommunications Review chaired by Bill Glasston (www.rtirc.gov.au) recommended the Government replace the confused set of rights with a Communication Service Standard. The standard is to be determined by the Minister, and then the Minister is responsible for ensuring the availability of services within the standard.

The CSS could be implemented immediately, by specifying that the standard is exactly that which currently applies under the USO, the ABG and the satellite phone subsidy scheme. The "programs" to implement the CSS could be identified as the USO, the ABG and satellite phone schemes.

- What standards should be required of:
 - voice services
 - broadband
 - mobile services, and
 - payphone services
 under a Glasson-style Communications Service Standard?

International Technical Standards on quality for the copper network have been applied for decades in the context of the Australian environment and in the NBN with IP; the standards for voice services should be at least equivalent to the traditionally accepted levels. Customers of the future will not differentiate between the technologies and expect a “normal” level of service from end to end. Currently the use of “Skype” style products is mainly limited to individuals and firms aware of the lesser IP standard and business use presently leaves the acceptable level to the customer. With a more universal use of Broadband and IP a more standard customer and community based approach is desirable.

The base line service standards for these should be those contained in the Glasson and other working parties recommendations already implemented and under consideration. The NBN standards for all services should be at least equivalent to internationally accepted benchmarks. Currently there are gaps in the rules that apply and the NBN provides an opportunity to set proper standards and guidelines that are well understood on the supply side and acceptable to the user.

These standards are well documented for the present network and should be carried over as a minimum to the NBN. A clear line of responsibility, conveyed to the public, and all providers, is required for all parties to stop unnecessary movement of restoration and service responsibility between parties, such as service providers, carriers, value add niche market suppliers and others in the service chain. ACMA Cabling Provider Rules should continue to be applied in the customer premises market with revised definitions for network boundaries and “carrier” and ISP responsibilities. A minor rewrite of the “low impact cabling” regulations for carriers with direct connections from network to customer in major buildings should also be carried out, as the current regulations are deficient. Some metropolitan cabling installations in large, high rise buildings in particular, are a significant fire risk and also present a number of OH&S risks, as well as service standard deficiencies.

- How can reliability, connection and repair time standards for these services be established and enforced?

Through further empowering the ACCC to issue notices and levy pecuniary penalties for non-conformance to standards.

Also, in terms of Workforce Skilling, and speaking to reliability and repair considerations; in 1997 the ACMA dropped its performance requirements for customer premises cabling. This was done by removing a pre-existing mandatory requirement that the cabling provider have appropriate training, and/or be assessed as competent in the national competencies, for the high performance cabling installed within a customer premises that connects to the NBN.

The restoration of the ACMA mandating customer cablers hold performance qualifications (based on the appropriate national competency standards) when installing cables such as structured (category 5/6) and coaxial cabling which comprise the performance cabling types interfacing to the FTTP network is a mechanism for guaranteeing that the customer gets reliable and effective FttP services.

Further detail on this issue and Workforce Skilling is contained in the Appendices.

- In the context of the Government's announcement to establish an open access, wholesale-only National Broadband Network, should anyone be required to provide universal access to broadband services? If so, who? Should the role be contestable?

Yes. The NBN Corporation should be required to provide universal access. The need for the role to be contestable only arises if any single operator has a controlling interest in the NBN. DEIWG has the view that no one, other than the Government, should have a controlling interest in the NBN.

Whilst Universal access and a USO are desirable, they may be hard to apply in the NBN. An active role for the ACMA on monitoring network end-to-end performance, ensuring integrity of the network and safety of individuals working on it, will help to provide the services and standards for customers and assist in as wide a service area as possible.

- Given the roll-out of the National Broadband Network and that the Australian Broadband Guarantee already provides a safety net, is it necessary to include broadband in a regulatory framework for universal access?

Yes.

- Given that the Satellite Phone Subsidy Scheme already provides a safety net, is it necessary to include mobile services in a regulatory framework for universal access?

Yes.

- What mechanisms should be in place to address and resolve access, reliability and other service issues faced by consumers and small businesses? What role should industry play?

The NBN Corporation should be responsible for resolution of service issues and the ACCC should be empowered to serve pecuniary penalties where the NBN Corporation fails in its duty to do so

- What information should be gathered and reported on as part of dealing with regulatory enforcement and resolution of consumer problems?

Industry normal Service Level Agreement parameters

Funding

Questions

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

As the NBN is going to be designed to cover 100% of the population, thereby giving access to all consumers, ALL operators should pay something to the NBN Co to ensure the network is maintained, expanded and supported. Telstra charges all fixed line consumers \$30 for network access. Hence, NBN operators need to do likewise if they use the NBN to get to customers.

- How should any intangible benefits from being the Universal Service Provider be taken into account?

Telstra should continue to fund the Universal Service Obligation itself until the NBN is achieves 100% coverage and is operational; at which time the NBN could accept that responsibility. DEIWG proposes that, in the interim, removing the Universal Service Obligation levy would reduce costs for all other carriers and administration costs for the ACMA.

- If industry funding is preferred for universal access, should smaller carriers be required to contribute? If not, what should be the threshold revenue for exempting such carriers?

Carriers should pay according to the revenues they derive from the NBN; and there should be an exemption threshold. The setting of the threshold is a matter for further analysis, but nominally it could be \$10M dollars.

A Community Service Obligation payment should be required of ALL users accessing the NBN, to fund emergency access, disability access, and access from areas with limited, or lesser coverage, so that disadvantaged/distressed communities become part of the NBN.

Payphones

Questions

- Should universal service payphones be provided under a competitive process, such as under a competitive subsidy?

Yes, the NBN should support a payphone process nationally. It is in the national interest, and a health and safety requirement.

- Are there alternative mechanisms that could be used for providing universal service payphones?

No comment.

Location and removal of payphones

Questions

- How should payphones be distributed around Australia?

No comment.

- What controls should be placed on the provision, including location, and removal of payphones? Should there be a stronger role for local councils?

Councils would be an appropriate authority for governance of payphone distribution and maintenance. The ACMA could set standards for Councils can to govern compliance.

- Should the ACMA be given powers to set a minimum number of Universal Service Obligation payphones, and require Telstra to identify those payphones?

Yes.

- Should the ACMA be allowed to set stronger rules regarding the provision, relocation and removal of payphones, especially in rural and remote areas?

Yes.

Connections and fault repair

Questions

- Does the Customer Service Guarantee need strengthening? If so, what changes should be made?

See general comment below 'Network Reliability Framework' section.

- Should working days be replaced with calendar days in repair timeframes?

Working days are the most appropriate. Current arrangement can be, in the main, carried over to the NBN regime.

- Should the service disruption criteria be tightened? If so, what mechanism should be put in place?

See general comment below 'Network Reliability Framework' section.

Network Reliability Framework

Questions

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

Generally...

These (CSG and NRF) standards are well documented for the present network and should be carried over as a minimum to the NBN. A clear line of responsibility, conveyed to the public, and all providers, is required for all parties to stop unnecessary movement of restoration and service responsibility between parties, such as service providers, carriers, value add niche market suppliers and others in the service chain. ACMA Cabling Provider Rules should continue to be applied in the customer premises market with revised definitions for network boundaries and "carrier" and ISP responsibilities. A minor rewrite of the "low impact cabling" regulations for carriers with direct connections from network to customer in major buildings should also be carried out, as the current regulations are deficient. Some metropolitan cabling installations in large, high rise buildings in particular, are a significant fire risk and also present a number of OH&S risks, as well as service standard deficiencies.

Retail price controls

Options for reform

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

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

Questions

- Should the Government continue to regulate Telstra's retail prices for voice telephony services in the transition to the National Broadband Network?

Yes.

- If price controls should be continued, which services should be included?

Price controls should be on services from all operators. Control should be levied and administered by the ACCC.

- What individual services or groups of services should be capped in price controls?

Emergency and community services, and services to disadvantaged or distressed communities.

- Should retail price controls be used in conjunction with the wholesale access regime (e.g. to regulate fixed-to-mobile prices)?

Yes.

- In the longer term National Broadband Network environment, will retail price controls be required? If so, what form should they take? What services should they cover?

There has been a lot of call for the ACCC to exercise a "command and control" role in price setting - that is to simply determine all terms and conditions of access. This model may be appropriate as a way to curb the incentive and opportunity for a vertically integrated provider to game the regime, but we have to question the ongoing wisdom of an economy in which a core input price is determined by a committee of five or so people and none of the "wisdom of markets" is harnessed.

It is appropriate therefore to consider whether more reliance in the new world order be placed on behaviours that at least mimic the information intense environment of markets.

Open and competitive access to the NBN should engender effective inherent price control, viz, the mobile market. So, control of commercial retail services will be required to a lesser extent. However, critical services and community services (health & education) may still require control measures to ensure that monopoly cloisters (viz, ABC Learning Centres) don't ensue.

Community safeguards

Access to:

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

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

Questions

- Are priority assistance arrangements effective?

Yes. However, new technology will mean that new ways of rendering priority service or giving access to emergency services from an identifiable location will be possible. Applicable technologies will include smart metering extensions, wireless and GPS enhancements. Priority assistance could become even more effective

- Does the voluntary industry code provide a sufficient safeguard for consumers?

Yes. The requirements are sound.

- Should provision of priority assistance be mandatory on all fixed line voice providers during the transition to the National Broadband Network environment?

Yes.

- Should the Government extend the scope of the priority assistance criteria to include people with a disability?

Yes. It should be extended to people with any disability.

Emergency call service

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

Questions

Looking to the National Broadband Network environment:

- Who should be required to provide the emergency call service? When can any transition begin?

Under a national emergency services communications network framework the NBN Co or an entity of the NBN Co should run and manage the integrated public number database and all emergency calls. This service needs to be highly trained, empathetic and have the world's best tools and technologies to assist and locate those in need.

This service does not have to be linked to a PSTN number. A better option is to link it to GPS and use mobile, wireless, or smart meter technology to provide the access and location identification.

- If responsibility were ultimately transferred to the National Broadband Network Company, what obligations should apply to the company as a wholesaler and to retail service providers?

The wholesaler must provide and guarantee the underlying network infrastructure to support emergency call access. The retailer must provide and guarantee that customer equipment supports emergency access across that NBN infrastructure.

- What are the merits of the options identified? Are there operational disadvantages with the emergency call service person being separate from a telecommunications service provider?

DEIWG favours continuing with the current arrangements with Telstra until the National Broadband Network Company can become the new emergency call service person and/or Integrated Public Number Database manager when it is fully operational.

There are operational disadvantages if a third party is involved. The body responsible to provide emergency call service capability must have the authority to make changes in the network in order to ensure absolute reliability.

- If Telstra is not the emergency call person and Integrated Public Number Database manager, how and when should these responsibilities be transferred to the new provider?

Given the scale and experience of Telstra, it is hard to see them being replaced in this role by a party other than the NBN Co without major costs and disruptions.

Legacy services and the National Broadband Network

Question

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

Legacy services such as alarms may need to be retained on the Telstra network for some time for a number of logistical reasons and left to the market to decide over time. Any hasty transition to an NBN service could lead to many sections of the community being left unprotected.

There will likely be a natural transition from Telstra as the price offered by other operators using the NBN, to deliver these services, becomes more attractive through normal competition.

Opportunities for red tape removal

Questions

- Are there any broader implications from the proposals raised by Telstra, in its submission to the Productivity Commission?

No Comment.

- Should the proposals raised by Telstra in its submission to the Productivity Commission proceed?

No, they should not proceed. They are less relevant in an NBN context.

- Will directory assistance services, including printed directories, be required in an increasingly online world and, if so, how would necessary services be best provided?

From a customer perspective, there will be an ongoing need for all existing directory services options, for paper based directories for example, to be continued in the near future, as there is a significant proportion of the population still reliant on the "old" technologies, particularly among the older age groups. Printed Directories are still important - often faster, and more readily available.

Customer Service Guarantee reporting

Questions

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

Yes - At present customers have to resort to the Telecommunications Ombudsman process.

- Should the level of penalties be increased?

Yes. The penalties should be commensurate with the scale of non-compliance and the extent of impact on telecommunications users.

Review of operational separation (Appendix A of Discussion Paper)

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

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

Questions

- How have the existing accounting and operational separation arrangements affected competition?

In order for functional separation to operate properly, in other words more effectively than it does today, the government could well be required to impose a greater number of smaller scale rules on the firm with a significant enforcement regime emerging as a result. This is clearly potentially undesirable. In contrast structural separation enables the government to realign the industry along pro-competition rules without the need to devote significant resources towards regulating an incumbent differently to other industry players.

- Will these arrangements continue to be needed before, during or after the roll-out of the National Broadband Network?

No. Structural separation could prove a far better manner to achieve true competition; as opposed to the existing functional separation arrangements (in which Telstra simply has to operate separate business units for infrastructure, media and service provision).

Large monoliths like Telstra find it hard to provide multi-tiered services and well-engineered and focussed functionality. For this reason, (the new) Telstra should be encouraged to build a partnership program, under the umbrella of the NBN, with third party suppliers who can furnish specialised skills and services catering to particular needs.

- In what markets does Telstra hold a substantial degree of market power? Do the operational separation arrangements adequately deal with the risks created by market power?

The vertical integration of a firm such as Telstra poses a significant threat to the financial viability of a National Broadband Network operator in the early stages of its existence, in all markets. It is well understood that mechanisms to bundle services with infrastructure support monopolistic behaviour on the part of those firms. Given the natural advantages Telstra enjoys and their dominant market share, Telstra could

well impede the development of the National Broadband Network. Without significant take up of services, the NBN operator may well draw heavily from the public purse in the medium term, which may prove unpalatable to the public.

- What technological developments (apart from the National Broadband Network) might reasonably be expected to have a significant impact on competition in telecommunications markets?

If the major benefit of fibre infrastructure is a conduit to sustainable economic growth and society development then we need to change the nature of its business model.

Only if fibre is made available as a utility will we be able to reap the trans-sectoral fruits of this infrastructure. This may mean resolving some issues with existing utilities, e.g. an electricity provider may wish to declare fibre on transmission lines as its own and exclusive to its core business or try to strike a premium deal with the NBN for access. We have seen this with rail lines, it will happen with fibre as well.

The logical consequences of this then would be to structurally separate the infrastructure so that it can be made available as a utility. The national importance of this infrastructure is such that governments can participate in this in order to develop this at the lowest possible economic input rate.

Further cost savings are made possible through the ever-decreasing costs of fibre, as well as the cost savings the utility model generates in network operation and network managements.

- How do the operational separation arrangements affect Telstra's commercial incentives for supplying wholesale eligible services?

There are hidden incentives for Telstra to keep wholesale prices higher to protect the interests of its Retail division.

- What are the costs and benefits of the operational and accounting separation regimes?

No comment.

- How could the effectiveness of the current arrangements be improved? Would the options to enhance the current operational separation requirements described in chapter 3 improve confidence in the current arrangements?

Ultimately structural separation of Telstra may create several world-class telephony firms from a single parent and could generate significant shareholder value in the process. Structural separation also enables to the Government to better act in the public interest especially if it occurs in tandem with a merger between a National Broadband Corporation. This would enable the State firstly to limit political involvement in commercial activity, secondly to reduce the bureaucratic burden arising from industry regulation of a "functionally separate" incumbent and lastly it may ensure that the investment of public funds in infrastructure development is more likely to prove a wise use of the taxpayer's purse.

A more detailed analysis of Structural Separation is included in the next Section (3).

Section 3: Structural Separation

Some financial analysts in Australia contend that structural separation will destroy shareholder value for Telstra's owners and that Telstra's service provision, content and infrastructure assets shouldn't be separated as a result of proposed regulatory reforms to be enacted later this year. There are many arguments being voiced both for and against certain forms of separation based often on analysis of narrow issues. However, from a strategic perspective, structural separation of the business into perhaps several new firms may be necessary and could well be beneficial to Telstra's current owners.

A case for structural separation

Despite the long term potential for alternative uses of the planned Fibre-to-the-Home network based on applications to support E-Health, E- Education or E-Government, in the short term, evidence from advanced telecommunications economies indicates media consumption is still a key driver of fibre take-up. As such the biggest threat to initial take-up of wholesale services provided by a national broadband network operator might come from an existing competitor with dominant market share and vertically integrated infrastructure and content assets.

It is generally considered preferable for state regulation to focus on minimal interference within the market and in Australia there is a broad consensus that industries such as Telecommunications should be left to the private sector unless serious deficiencies to the private market exist. Therefore the aim of reform should be to correct deficiencies to the market in such a way as to limit the extent of the State's involvement as well as the period over which the State retains significant ownership of Telecommunications assets.

The vertical integration of a firm such as Telstra does pose a significant threat to the financial viability of a National Broadband Network operator in the early stages of its existence. It is well understood that mechanisms to bundle services with infrastructure support monopolistic behaviour on the part of those firms. Given the natural advantages Telstra enjoys and their dominant market share, the firm could well impede the development of the National Broadband Network. Without significant take up of services, the NBN operator may well draw heavily from the public purse in the medium term, which may prove unpalatable to the public.

While the Government has committed to supporting the NBN operator in the short to medium term, in the long term it seeks to return the firm to full private ownership. While the sentiment is applauded, it must be backed up with reform that makes the outcome likely. Structural separation could prove a far better manner to achieve this

goal as opposed to a functional separation arrangement in which Telstra simply has to operate separate business units for infrastructure, media and service provision. In order for functional separation to operate properly, in other words more effectively than it does today, the government could well be required to impose a greater number of smaller scale rules on the firm with a significant enforcement regime emerging as a result. This is clearly potentially undesirable. In contrast structural separation enables the government to realign the industry along pro-competition rules without the need to devote significant resources towards regulating an incumbent differently to other industry players.

Subscribers to this view should then support regulatory reform, which includes measures to bring about the separation of Telstra in its current form into perhaps as many as three separate units such as Telstra Media, Telstra Telephony Services and Telstra Infrastructure.

Shareholder value under structural separation

Certain financial analyst's valuations predict destruction of shareholder value for Telstra owners should it be separated into parts. However, this could be unlikely, and many in the industry see great potential for the separate firms that may emerge should structural separation take place.

It isn't difficult to imagine that certain of Telstra's possibly separate business units may thrive as distinct entities. Firms in the investment industry rely to a degree on economic models when predicting structural separation may destroy shareholder value and it is difficult to comment on the inner workings of these tools given their propriety nature.

Lastly perhaps one potential scenario should be considered in particular – a forced or voluntary divestment of Telstra's network operating business units and certain infrastructure assets into a separate firm followed by an equity for asset swap with a newly formed National Broadband Corporation. Effectively a merger of sorts this would enable the government to immediately achieve its goal to create a public/private commercial partnership focused on infrastructure provision based on open access to a regulated wholesale provider and without vertical integration.

If Telstra does end up merging its network operating and infrastructure businesses with a National Broadband Corporation, the future fund winds up holding a large portion of diversified infrastructure assets based on copper, fibre and HFC. (There is also the difficult issue of Telstra's wireless networks, which is to a degree a distinct issue.) The future take-up of infrastructure-based services is difficult to predict. With a merged entity, no matter what future take up of each asset class is like, the owners are likely to receive steady income. Changes over time to the relative valuation of the underlying infrastructure assets will be somewhat synchronised - as the copper

becomes less utilised, fibre will be used more. This fits the investment strategy for the future fund.

Ultimately structural separation of Telstra may create several world-class telephony firms from a single parent and could generate significant shareholder value in the process. Structural separation also enables the Government to better act in the public interest especially if it occurs in tandem with a merger between a National Broadband Corporation. This would enable the State firstly to limit political involvement in commercial activity, secondly to reduce the bureaucratic burden arising from industry regulation of a “functionally separate” incumbent and lastly it may ensure that the investment of public funds in infrastructure development is more likely to prove a wise use of the taxpayer’s purse.

Appendix A: Rollout of Telco/ Broadband and its impact on workforce skills

An overview of the Telecommunication Environment

Industry analysts predict massive changes in the shape and nature of the Australian Telecommunications environment. These changes will impact directly on the training of the Technical and trade personnel.

- The increase in our aged population could see the broadband network used as a tool for monitoring the security and health of patients in their homes 24 hours per day – e-health.
- The growth in broadband use in our schools is set to increase under the government policy of giving Australian School children access to their own laptop computer. The resulting growth in traffic growth is likely to place extra demands on school networks both wired and wireless
- Community and national pressure towards efficient energy use may see the introduction of Smart power, water and Gas meters which would allow householders and Utilities to monitor their energy use through Broadband. Even at the most basic level, these applications will alter the practices used by installers, technicians and engineers.

Employment in the industry

With the changing nature of employment and the high use by large organisations of mainly short term contracts – typically two years with options of extensions - short term planning due to contract lead in and phase down times, means training is often not taken into account. Recruitment from an existing pool of staff, mainly ex-Telstra, vendor companies, and former statutory authority trained staff, such as rail, gas and electricity, who since privatised have virtually ceased training, has generally worked up to recent times. However, it is now widely recognised that this pool is shrinking.

Skills Shortages

It is anticipated that about 25,000 new employees/contractors (of which 7,000 will be Cablers/DataComms.) who will be required for the Broadband and digital rollout in addition to the existing Telecommunications workforce. This includes cablers, network planners, engineers, riggers and other related skills within the Telecommunications industry. The employment opportunities will be impacted by the global financial situation as more Australian skilled workers will be available in the labour market as unemployment increases, they will require retraining and relevant skills upgrade through Professional Development, short courses and Recognition of Current Competencies/Recognition of Prior Learning.

Skill Needs

In the recent past, most telecommunications technical training was centred on the skill needs, technical standards and installation programs of the main telecommunications carrier, who was then providing end-to-end, universal service.

With widespread contracting in place, a consequence is that currently there is a pool of approximately 5,000 technical staff that “move” between the carriers, customer premises equipment and cabling providers, cable TV providers, data, alarm and other ICT services. It should be stressed that skill shortages issues that are affecting many technical and engineering areas within Australia are also common to ICT, not just the telecommunications sector.

In the current environment, there are no major enterprises who have in place significant national, structured training programs, as was the case when PMG/Telecom Australia/Telstra was a virtual monopoly with a “social” training role – can this be part of the responsibility and role that the National Broadband Network Corporation will provide?

Training Demands on Skill Needs

Skill sets. - In many circumstances, Australian industry would be better served by a program around skill-sets, such as OH&S, basic telecommunications and electronics theory and hand and power tools. Gaining core technical skills would enhance the technical/engineering roles.

Existing Staff

Historically many existing technical staff are made up of ex-Telstra and other telecommunications, electrical/electrician, alarm, data cablers and related electrical/electronic industries, there is a need for some “re-training” and up-skilling to try and achieve reasonably common “Skill Sets” for enterprises involved in the broadband rollout, network repair and modernisation.

The cablers under the ACMA Cabling Provider Rules (CPR), which numbers around 58,000, may require refresher skills training in the following areas:

- OH&S. Construction sites and new techniques.
- Fibre Optics. Basic principles e.g. splicing, applications and safety.
- Coaxial Cable. Basic applications and safety.
- Antennae/Satellite. Basic applications, installation practices and safety.
- Power Safety - as power infrastructure is often used for telecommunications equipment mounting this is an area of growing need and “exchange fed power” to certain equipment types is also an issue of concern.

This may be addressed by the Government funded programs such as “Productivity Places Program” (PPP), Traineeships and Cadetships programs.

New Entrants

New entrants may bring with them some basic computer or electronic skills, however, experience shows that it is common for a basic program which includes OH&S, basic electrical theory, basic telecommunications principles, hand and power tools and regulatory requirements is required. The fibre, Coaxial Cable, Antennae/Satellite and Power Safety programs are often required to round off capabilities. This may be addressed by the Apprenticeship, Traineeship and Cadetship programs.

School Based Training

Co-operation between the Commonwealth and States is essential for this to be effective, and the training needs identified above can be included in existing school-based programs that are usually AQF certificate based. Currently there is a pilot project being conducted at Peter Lalor Secondary College in Melbourne where 17 students are being trained under the Certificate 2 in Telecommunications (Cabling). The success of this will provide the opportunity to roll this out across Australia on a State-by-State basis assuming that governments support and fund this program.

Issues and Activities Involved for Broadband Rollout

Emerging technologies

There are new and emerging technologies occurring throughout the ICT industry however the impact on workforce skills is more about providing professional development and re-skilling to the existing workforce as well as new programs and qualifications.

Telecommunications Industry Image

The ICT industry, and in particular telecommunications, currently has image problems often as the result of extensive restructuring that has occurred over the past 10 years. Currently the ICT career emphasis is on Information Technology at the Higher Education level with very little emphasis on Telecommunications careers opportunities and skills. New entrants from school leavers need to be attracted to the industry.

Industry data on telecommunications - this is inaccurate for a number of reasons:

- There appears to be little detailed information relating to actual numbers of Telecommunications tradespersons, technicians and engineers and what statistical data is available on Telecommunications is not accurate as it is covered by the classification of ICT which covers both IT and T, and the proposed changes to be made by the ABS on Telecommunications nomenclature will not become effective for a couple of years.
- There is a trend, in the telecommunications industry, to out-source much of the on-site work. A very large portion of this out-sourced work is given to labour hire companies who in turn, pass it on to self employed trades-people and technicians. It is not clear, from the material we studied, whether these Telecommunications “Small Business Operators” are included in ABS statistics on the industry.
- The average age of the technical and trade force is increasing, as more and more of them choose to retire, (many well before age 65), a void will be created that can only be filled through apprenticeship technical training. The training industry needs to prepare for this expected surge in training demand. The training industry needs to tap the knowledge of these people before they retire so that their skills and knowledge is not lost.

Decisions on some incentives are affected by incorrect data: This makes it even harder to get employers to take on staff for training

- No License/Registration for Subscription Television
- No registration is required to work within this sector of the industry, contractors currently mandate the need for a cabling registration however this does not meet the needs of the subscription television sector nor is it currently a regulatory requirement.
- No regulation of infrastructure within the subscription television sector exists, except for a voluntary ‘coaxial’ enforcement on the cabling registration, which does not currently meet the full requirements of the industry.

Training issues and recommendations for consideration:

- Assisting enterprises to mentor and work closely with new entrant staff as part of the telecommunications up-skilling program.
- Providing additional support to identified, telecommunications “focused” group training companies to better assist employers with apprenticeships, traineeships and cadetships.
- Addressing the “thin markets” problem in non-metropolitan areas through additional incentives to support training for telecommunications upgrade activities, such as the broadband roll-out in the remote and regional areas.
- Ensuring broadband training is better integrated into existing telecommunications training programs through analysis of existing resources.
- RTO partnerships and Training infrastructure support – need to audit (in each State/Territory) each RTO’s capability in undertaking training at their location or if they need to develop a partnership with other RTO/Enterprises in providing this support to train/retraining workforce

Some enterprises prefer staff to be multi-functional and on the payroll. Others only use sub-contractors. There is an ongoing need for national, structured training programs to be expanded to meet the needs of the industry and its individual sectors. There is an urgent training requirement to ensure the core infrastructure of the network can support the roll out of broadband and the new applications of technology

The Role of Career Advice in Skills Development

Skills support infrastructure investment

Investing in infrastructure in Australia is a critical element of the strategy to emerge stronger and more productive from the world economic recession. Many of the major initiatives will build platforms for the industries that will dominate the growth in business and employment prospects over the next 10 to 20 years. These major infrastructure projects need the skills to successfully complete them and the skills to take advantage of the opportunities that this infrastructure provides.

The Digital Economy needs Skills

The Australian Government is planning to build the broadband infrastructure that will enable the digital economy businesses and career opportunities of the 21st Century. In a progressively tighter labour market where skilled personnel are at a premium, having the human resources and skills to both build the broadband network and to develop the businesses and services to capitalise on the investment is critical.

Accessing the human capital required will need infrastructure investment in terms of skills training programs and equitable access to training places and opportunities. Additionally young people and communities need access to the industry information about the career opportunities that are being created so as to influence their education and training choices and the success of their school to work transitions.

Skills Shortages back on the agenda in the recovery

The Federal budget and treasury forecast for 2010 and beyond anticipates the Australian economy to grow at above trend growth (4.5%). Whilst the labour market may ease in the short term and lag to some extent in the recovery, the growth figures would indicate that the capacity constraints from skills shortages present in the economy from 2003 to 2008 will quickly return.

Industry initiatives need to proactively address the issue of developing a skills pipeline in a holistic way through investment in education and training infrastructure and resources and the provision of information and engagement with the community to develop knowledge around the business and career opportunities available.

The role of Career Advice and Career Development Programs in successful School to Work Transitions Career Information and Career Development programs are a critical element in productively aligning the investment in training, the future skill needs of industry and the opportunities for young people transitioning into work.

Young people in schools are the single biggest source of labour market entrants in Australia. The Digital Economy potentially presents them with a myriad of fulfilling career opportunities. To connect the career aspirations of young people and industry's skill needs requires the development of training infrastructure including training facilities, course and places.

Traditionally the rate of failure in young people's transition from school to work through the tertiary education and training system has been high with churn rates of 50% or more in some vocational pathways.

This is where career advice and career development programs that give young people access to industry information and experiential opportunities to develop the motivation and knowledge to be able to pursue a career opportunity play a vital role in enhancing the productivity of investment in education and training infrastructure.

A young person that knows, and is motivated, about pursuing a career opportunity is a highly valuable commodity for industry.

ICT Case Study

Multi Media Victoria was faced with declining enrolments in ICT courses from 2001 and a state government agenda to grow the digital media industries in Victoria. They engaged with career development networks and programs to conduct highly targeted regional ICT forums over three years 2006 through 2009. Large numbers of young

people from schools around Victoria participated in the forums with ICT businesses. The enrolments in ICT programs in Victoria have increased over 11% against flat or declining numbers in other states.

Telecommunications Case Study

- Pilot “Telecommunications VET in Schools” program
- Peter Lalor Secondary College, Lalor, Victoria delivering Certificate 2 in Telecommunications to 17 students
- Participation in the Northern Try a Trade event (RMIT)
- Trade Training Centre

Appendix B: Telecommunications Industry Quality Assurance Concept Paper

Broadband Quality Assurance (QA) System Overview

A number of areas need to be addressed including but not limited to:

- Identification and development of specific training standards, programs and competencies to meet Industry benchmarks
- Managing the implementation of Industry benchmarks
- Registering the approved skill sets through the Registrars and issuing “credentials” to those deemed as qualified and/or meeting the set standards
- Monitoring and endorsement of approved RTO/Assessors/Industry Associations/Vendors etc to ensure they can meet delivery and assessment of training to Industry standards.

A “Quality Endorsement” System will allow the industry to create and manage the recognition and registration of individuals, qualifications, training and assessment details in line with industry standards.

1. The Current System used for the Telecommunications Industry

The industry typically employs technicians on a sub-contracted basis resulting in a transient group of workers who frequently move from project to project. The current system lacks recognition of a number of sectors skills within the Telecommunications industry which has a number of issues resulting in confusion, unsafe work practices, duplication, consumer and enterprises frustration and unnecessary costs that will impact on the rollout of the Broadband network.

Overall the industry currently has in part the following;

- Lack of industry “audits” of complaints and support to those who require assistance in improving their quality
- Inconsistent application of training and work standards (Regulation)
- Need for industry management and administration of Training Quality (RTO, Trainer and Assessor Endorsements)
- Industry approved Career Pathways (identity)
- Industry approved work skills sets in line with approved competencies (endorsement)

The above identified deficiencies within the industry also lead to:

- Quality of training is dependent on the quality of the provider
- Increases the risk of unsafe work practices and potential damages to the network, property and people

- lacks consistency and quality resulting in duplication of training efforts
- Confusion amongst workers (contractors) • Increased “call backs” and high costs
- No consistent industry recognised benchmark for quality within the sector leading to inefficiencies and increased regulations
- Lack of industry professional development and continuous improvement of workers skills, training and within the sector

2. QA System and possible Industry Model

The aim is to establish an Industry based Quality Assurance system to address a number of current deficiencies, including;

- Benchmarks - Establishment of agreed skills, knowledge, and quality benchmarks under the direction of industry providers. Already incorporated within the following Training Packages of ICT02 and UEE07 – such as approved competencies ICTTC010D, ICTTC015D, ICTTC045D, ICTTC153B and ICTTC170A
- Industry Endorsement - Providing a consistent, independent, recognised and transportable industry approved endorsement process managed by approved industry stakeholders
- Training and Assessment Programs (Certified Programs) – Industry prescribed enterprise and vendor approved training programs to underpin competency standards and endorsements
- Monitoring of Quality Performance – Co-operative quality assurance program, inspections and audits to be implemented by recognised industry providers and Industry Associations to ensure conformance is in line with industry and government approved standards and benchmarks
- Professional Development Program - PD will ensure continuous improvement as all endorsement holders are informed and current in both skills and knowledge
- Marketing and Career Pathways– Attracting the ‘right’ person for the sector through marketing and school career advice Increases the opportunities for people to enter through government funded VET programs

The QA system will also include:

- Quality levels for Industry Certification/Registration and Industry based certification testing
- Industry endorsement of quality training providers aimed at providing a list of industry “preferred providers”, RTOs and training programs that have been approved as providing a quality training product that produces competent, capable and skilled cablers, technicians etc
- Agreed criteria framework to be used to determine industry preferred training providers who comply with the QA guidelines including a process to de-register those providers who do not adhere to delivery of Industry approved training and assessment programs
- Possible involvement of the Vendor Product groups where they are involved as preferred providers of training programs and materials. In addition to competency and industry training, vendors could run workshops and technicians who attend would get PD points to go towards their yearly endorsements (re-registration).

- Industry managed professional development including the need to prove annual Professional Development by way of a points system e.g. 20 points for subscribing to the Cabling magazine, 50 points if they undergo a formal yearly assessment, etc.

3. Benefits

Some of the benefits of this system would include:

- Industry set the benchmark for entry requirements and for required productivity
- Establishment and recording of industry standards and programs through an Industry body and/or Association that can be easily implemented in meeting approved training requirements
- Industry approved training providers who have been accredited to deliver and assess industry recognised training programs that produce effective and efficient workforce
- “Quality Endorsed” Technicians will be recognised by industry enabling them to have flexibility within the industry, thus providing a greater ROI to individual companies,
- Registration and data base administration would be handled by ACMA approved Registrars to ensure independency for industry players. This would include the secure storage and recording of participants outcomes and qualifications and the archiving of historical data
- Annual Professional Development to be encouraged and could be a requirement of a renewal process, thus supporting currency of training for life long learning

4. Conclusion

The above system is industry based and managed, with the new “National Broadband Network Corporation” assisting by establishing the policies, guidelines and support ensuring safety and workforce performance with industry stakeholders implementing the above processes.