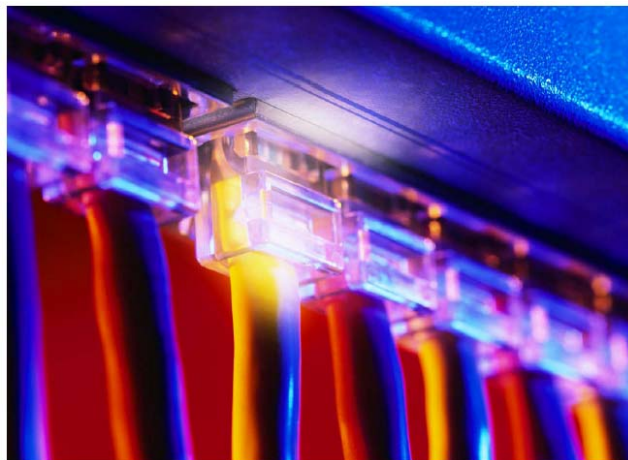# National Broadband Network
e-Applications Special Interest Group (eASIG)

Regulatory Submission

Emailed to regulatory@dbcde.gov.au

25th June 2008

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Background

At the BuddeComm FTTP Roundtable in Sydney in October 2007, the Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, invited the industry to prepare a telecoms infrastructure vision paper as a term of reference for the Government's National Broadband Network (NBN).

Building upon the previous work of the Wholesale Industry Group, and referencing the Australian Labor Party's 2007 document, 'New Directions for Communications - A Broadband Future for Australia – Building a National Broadband Network'[1], the 'FTTP Special Interest Group' (FTTP SIG), a collaboration of interested parties drawn from over 120 companies, was established to formulate ideas and provide a common voice for the FTTP industry.

A key output of this group was the development of a collaborative industry paper that put forward 17 key industry recommendations for the Government's NBN. This paper was called 'An Industry Vision for the National Broadband Network Plan' and was presented to the Minister for Broadband, Communications and the Digital Economy, Senator the Hon Stephen Conroy on March 6th 2008.

At the March 6th meeting, in discussion with the Minister, the FTTP SIG agreed to establish 3 key working groups to provide additional input for consideration by the Minster's Department and Panel of Experts that will assess proposals to build the National Broadband Network.

On March 11th 2008, the Minister announced the Panel of Experts[2].

On March 30th a paper providing a set of supplementary information on 3 key topics (Greenfield FTTP deployments, Brownfield FTTP deployments and Access Seeker requirements to the NBN) was published for release to the Minister's Expert Panel.

The regulatory submission below is a collaboration by the SIG to further define the legislative requirements which will underpin a successful NBN. The submission was prepared by the e-Applications workgroup within the FTTP SIG and is submitted by the Chair of that group, Chris Worrad.

Acknowledgements

Facilitated by Paul Budde, this submission has been prepared collaboratively by various volunteers who were present at the Industry Roundtable on March 6th, 2008.

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[1] Available at http://www.alp.org.au
[2] See http://www.minister.dbcde.gov.au/media/media_releases/2008/016

Position Summary

The Fibre to the Premise (FTTP) Special Interest Group (SIG) endorses the Minister's plan for a National Broadband Network (NBN). This paper provides suggested regulatory pre-requisites for the consideration of the Government's Panel of Experts that will assess proposals to build the National Broadband Network.

ATUG have observed that the characteristics of countries that are successfully deploying fibre include[3]:

- Government regulatory commitment;
- Strong user demand and
- A competitive broadband market.

The SIG endorses these views and notes that in the context of the following key tenets the Government has an opportunity to emulate the above characteristics in the building of the National Broadband Network (NBN). The SIG has identified the following critical observations required for a successful NBN.

1. Regulatory and legislative change is necessary to maximise the utility of the NBN.
2. We see the upcoming RFP decision as a starting point on the road to FttH.
3. We want to see Australia adopt an (OECD) benchmark that will ensure that we will improve our competitive international broadband position in relation to our trading partners.
4. We also want to see a Stakeholders Group, from education, healthcare, climate change, energy etc, start formulating the application requirements of the NBN going forwards to FttH.

In investigating and discussing FttH applications such as e-health, e-learning, e-government and smart grids it becomes increasingly clear that to provide a universal service for these applications an independent end-to-end infrastructure access regime is required by the authorities if they are to provide their services more efficiently and effectively.

There is general agreement on the necessity for reining in the costs of healthcare, aged care and education, while at the same time improving their quality. E-services are absolutely essential. The same applies to energy services.

Governments need to be able to provide these services to all citizens, regardless of whether they have an Internet or telephone subscription with a telecommunications carrier.

In order for organisations to be able to use the national broadband infrastructure successfully it needs to be made available on an incremental cost basis. It cannot be priced according to vertically-integrated network/service structures. For instance, the rate of return on infrastructure investments required for vertically-integrated carriers is double that of the ROI required by utilities-based infrastructure. Governments will not be able to afford to deliver community scaled e-services based on the ROI required by telecommunications carriers.

A move towards an appropriate incremental cost basis could involve changes to telecommunications and energy legislation so that existing infrastructure can be used for these services.

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[3] Please note that the Industry SIG Workgroup is also aware of, and supports, the following additional regulatory submissions:

- Consumers Telecommunications Network submission
- Internet Society of Australia submission
- Internode submission
- ATUG submission

Key Regulatory Requirements

1. Regulatory and legislative change is necessary

Key Tenets:

- Create a level playing field
- Fibre must be regulated, as is copper
- DSL competition has worked
- Incumbent monopoly should be discouraged
- Regulatory reforms ensure certainty of investment
- e-Applications require legislative support on an entirely new platform such as the NBN

Further Detail:

To ensure a level and fair playing field, regulatory and legislative change is required. The NBN is an entirely new platform, and as such the e-Applications deployed on it will require government support. Currently, usage of the incumbent monopoly's installed fibre is restricted. To ensure a competitive future for the NBN, fibre must be regulated similarly to copper. In addition, it is important that an incumbent monopoly should not be encouraged, with regulation of fibre being one step towards that goal. Current DSL competition is an ideal working example of how an industry that promotes competition ultimately benefits consumers. The NBN should strive to reach this end, and to do so regulation will be required.

2. The NBN must facilitate competition through genuine open access arrangements

Key Tenets:

- Derivative of Labour Policy, New Directions for Communications - March 2007
- Need clear, appropriate and extensive demarcation points where competitors can access the network
- Open access is required to ensure critical e-Applications services such as health and education are given "air time"

Further Detail:

Following from the above, it is crucial that the NBN promotes genuine open access, which will in turn foster competition. It is important to note that the current Labor Party's Policy encompasses open access, as outlined in the March 2007 paper "New Directions for Communications". Amongst others; clear, appropriate and extensive demarcation points where competitors can access the network are crucial to achieving this stated goal. In addition, critical e-Applications (such as e-Health and e-Education) require open access to deliver end-to-end services.

From a community services (e-Health, e-Education) standpoint, any fibre broadband infrastructure built with Commonwealth contributions should be 'Open Access' with a limit on the percentage of the infrastructure able to be owned by equity groups that also sell media/entertainment, telephony, or online business services.

Provision of higher-bandwidth services by one or two providers will ultimately limit access to services delivered over the Internet, and/or will not adequately separate retail Internet and data services from wholesale bandwidth provision.

A 'mosaic' model of infrastructure provision, rather than a 'one or two provider' model – e.g. a fibre health services network built to service the Gold Coast would be owned by a different group to any fibre network built to service Brisbane or Cairns. In this regard, many plans to lay down fibre-to-the-curb or fibre-to-the-home networks by local council groups are worthy of consideration.

3. Regulation should ensure equivalence of access charges, and allow competitors to differentiate their product offerings from the network provider

Key Tenets:

- Derivative of Labour Policy, New Directions for Communications - March 2007
- Learn from DSL competitive regime
- Incremental access charges are needed to differentiate service types

Further Detail:

Equivalent access charges for all providers allows differentiation of broadband products and stems from the Labor Government's Policy as outlined in the "New Directions for Communications" (March 2007) paper. As legislative changes are made, they should directly facilitate competition and enhance and foster consumer choice.

Existing DSL network services are a good example of competitive forces enabling Internet consumers to purchase cost effective Internet services, but still do not provide sufficiently low cost parameters to allow end-to-end health and education services to proliferate. Regulation of the NBN to encourage new (incremental) cost models to facilitate community e-Applications deployment is an imperative.

4. Must also be fair and equitable in the non-price terms and conditions on which access to the network is provided

Key Tenets:

- Service levels must be fair and equitable
- Government and Private e-Applications need workable Service Level Agreements(SLA)
- Provisioning arrangements must be aligned to community e-Applications needs

Further Detail:

Service Level Agreements must not prejudice any particular provider.

Internet provision SLAs allowing for, say, 5 day rectification of faults is not a workable scenario for community e-Applications. Health services where patient data such as X-Rays are delivered across the NBN cannot function on normal Internet consumer SLAs. Regulations will have to be established that recognise the community benefit in requiring the NBN provider to arrange more appropriate SLAs for community based e-Applications.

5. Consumer protections must be a fundamental part of the network proposals

Key Tenets:

- Equal access for everybody (metropolitan or regional)
- Health and other service providers in regional areas require equivalent access to their metropolitan counterparts

Further Detail:

One major requirement of the NBN is to deliver service to 98% of the Australian population. Within reason, it is important that equal access in both regional and metropolitan areas is supported. Equal access requires regulation to protect all consumers.

Community services, such as health and education, require fair and equitable access by all Australians. Community services are almost always delivered on a state-wide basis and regional consumers of these services, deployed across the NBN, must have the protection of a regulatory framework to ensure consumer's rights to these services are not prejudiced.

6. Pricing arrangements must be monitored

Key Tenets:

- Need regulation similar to the current price controls regime
- Need to ensure any watchdog is equipped with modern and appropriate authority and skills to adequately perform its job.
- Community critical services such as health and education should be priced accordingly

Further Detail:

A NBN consumer panel should be constituted from a cross-section of stakeholders to govern and monitor the network builder/operator to ensure that the legislation is adhered to and an environment of 'fair play' prevails. It should be an enhanced model of the existing regulatory regime for price control. Regulations must ensure the watchdog is equipped with modern and appropriate authority and skills, to allow it to adequately perform its job.

7. Network capacity must reflect future usage

Key Tenets:

- Keep pace with growing e-Applications demand
- Match world benchmarks
- "Smart technology" usage of the NBN will grow

Further Detail:

The NBN must be built with the highest reasonable technical requirements. Designers must envisage future load and demand, and look to match world benchmarks. This will ensure Australia can sustain and even improve on its technical standing and competitive advantage globally.

In the future, e-Applications will greatly increase the demand for bandwidth. In addition, as service infrastructure becomes "smart", requiring underlying bandwidth usage by the service itself, there will be additional load on the network. The NBN must be able to scale gracefully as required.

8. The network provider of fibre must not become the monopoly provider of the NBN

Key Tenets:

- Legacy historic infrastructure monopoly is restrictive
- Introduction of a second major carrier in the fixed line business was beneficial
- Mobile has four infrastructure players which has greatly benefited the community
- NBN provider monopoly may unfairly limit access to certain e-Applications

Further Detail:

As echoed throughout most submissions there is a concern regarding monopoly providers. To ensure this does not occur with the NBN, regulators must be aware and pro-active in their legislative duties. A second major carrier in the fixed line business and multiple players in the mobile industry have demonstrated how competition can ultimately benefit subscribers. This competitive environment must be translated to the NBN.

While it is important a competitive environment is fostered to promote end user purchasing power, it is imperative that regulation requires the providers to set aside bandwidth for critical applications such as e-Health and e-Education.

9. There should be functional or operational separation between the infrastructure provider and retail service provider

Key Tenets:

- Need a non-discriminatory competitive platform.

Further Detail:

Separation between the infrastructure provider and retail service provider is desirable, and has been proven overseas to deliver sustainable competition. Where there is not clear distinction between the network builder/operator and the service retailers, the end consumer suffers and competition is stifled.

Community wide e-Application services depend heavily on affordability at the consumer level and experience overseas suggests that functional separation is conducive to affordability.

10. Existing facilities based competition and exchange-based access to the Declared ULL and LSS service types must be preserved alongside FTTN based VDSL2 network

Key Tenets:

- ADSL should still be available during transition to FTTH.
- Existing e-Applications provided over DSL Internet connections must be preserved during transition

Further Detail:

To ensure continued service provision, existing DSL consumer services should continue to be available during transition to the NBN. Even post-transition, in circumstances where the NBN cannot offer viable alternatives, DSL (and in particular ADSL2) should be maintained.

In addition, many education and health facilities currently provide services over DSL connections to the Internet. The availability of these services must be preserved and maintained as the transition takes place to a National Broadband Network.

11. Providers of services and applications to the health and schools sector should meet a consistent level of reliability security, protection and management

Key Tenets:

- Security of sensitive information (school, medical data, etc) is imperative
- The NBN must facilitate secure data sharing nationwide
- Community health services must be available 24 hours per day

Further Detail:

ICT systems and communications need to deliver the right information to the right person in the right place at the right time. For instance, in health care, records need to be kept private, and allocated to the correct person, and at the same time must be transferred between collaborating organisations reliably and quickly.

Minimum security and uptime levels for critical e-Applications (in particular health and education) must be regulated to ensure confidential data remains private and available.

12. The Universal Service Obligation (USO) should be retained and reformed.

Key Tenets:

- A Community Service Obligation (CSO) should be regulated
- An NBN development fund should be created through a Community Service Obligation.

Further Detail:

Development of the NBN infrastructure in some regional areas will initially be uneconomic. The concept of a USO should be retained, and reformed into a Community Service Obligation. This is required to ensure that minimum nationally agreed benchmarks in bandwidth and broadband services are provided within a local community geographic area. Where the obligation does not meet these benchmarks local governments or regional bodies should be funded to work with an NBN supplier(s) to invest in the extension of NBN infrastructure in that area.

This may involve bringing in commercial providers of services, or developing their own joint or fully-owned broadband infrastructure to meet their obligations.

The funding of a Community Service Obligations should be drawn from a combination of Australian Government funds, and a Service tax/levy on the profits of all telecommunications companies. Telecommunications carriers that provide existing open-access fibre optic infrastructure in regional and rural areas could be given tax/levy-credits, thus providing further incentives to invest in infrastructure outside metropolitan areas.

This reform would provide ongoing financial incentives and assistance for the development and maintenance of regional and rural broadband infrastructure.

13   Avoidance of unnecessary over-investment and duplication of fibre-optic infrastructure in low-cost/high-return areas

Key Tenets:

- Over-investment both metropolitan areas, and uneconomic duplication of infrastructure in regional areas should be discouraged.

Further Detail:

Metropolitan areas quickly attract multiple broadband providers, while regional and rural areas suffer a significant lag in infrastructure provision. Market competition may also significantly drive down future broadband prices in metropolitan areas, while higher costs in infrastructure development combined may inversely drive up prices for broadband services in regional areas.

There should be active measures undertaken by all tiers of Government to discourage over-investment in both metropolitan areas and uneconomic duplication of infrastructure in regional areas. These measures may include;-

- ➢ The amendment of planning regulations to require cooperation in laying infrastructure between "connectivity" (telecommunications, electricity, gas, road, rail and broadcasting) service providers for both "last mile" and "backhaul" purposes.
- ➢ A regulatory environment that encourages non-telecommunications service providers building fibre or wireless infrastructure, to support their own business, to make that infrastructure available to broadband service providers through "open access" agreements in line with NBN regulations.
- ➢ Legislation to facilitate the connection of regional initiatives with national providers using internet peering arrangements and broadband service inter-connection.
- ➢ Formation of an inter-government committee per geographic zone to coordinate and promote cooperation between major telecommunications carriers, electricity transmission, road and rail providers in the provision of advanced fibre optic and wireless infrastructure. This is so that regional centres can be linked and new residential, commercial and industrial developments can be serviced.

Should you wish to discuss this submission in more detail please contact the eASIG via Chris Worrad on 02 4942 6766 or at cworrad@consultelbwp.com.au.

Yours sincerely

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