

# SELECT COMMITTEE ON THE NATIONAL BROADBAND NETWORK



## **Second Supplementary Submission by Communications Experts Group Pty Ltd**

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## Terms of Reference 2c – Benefits of Broadband

Recent analysis of the Finalists and Winners of the Western Australian IT and Telecom Awards ( [www.waitta.asn.au](http://www.waitta.asn.au) ) and the ATUG national awards (ATUG news of 25 March 09) all show that Australian companies are creating products and business models that are dependent on cost effective broadband services. In a few cases these services are successfully exported to many countries.

The products and services are also dependent on a broadband network that can be configured to deliver different network service levels of:

- Security
- Performance/bandwidth/etc
- Reliability

The need for different network needs can be seen in the 2008 WAITTA Regional Award Winner, UWA Centre for Software Practice; The Great Southern Managed Health Network (GSMHN)

This successful product is now being rolled out throughout WA.

New business models include collaboration between multiple companies for design, manufacture and maintenance or support. Video conferencing is a key part of this business model. Even with the use of world's best practices (as described in ATUG news last year), many find current video conferencing systems are inadequate.

The solutions to this problem are based on multiple simultaneous video conferencing channels.

## Terms of Reference 2d – Barriers and Impact on Existing Carriers

A significant barrier to many people having access to broadband in Australia are the use of Pair Gain Systems and RIMs. These devices were an important development in the delivery of PSTN services but are not suitable for Broadband or Internet Protocols. There will be a need to lay fibre in the same ducts as existing copper cables in order to deliver NBN broadband services in these areas. Carriers in Perth have proven that fibre is cost effective, and the modern FTTP technology can deliver Broadband, Voice and Digital TV up to 20 kms from the exchange.

This technology is an ideal replacement for RIMs and Pair Gain systems, however in some cases it will require new fibre cables to share the same ducts as existing copper cables.

The installation of this technology will require the cooperation of many Carriers and hence it is critical that some form of Mediator and Arbitrator, such as the "NBN Australia" proposed in CEG's presentation on 3rd March 2009.

It should be noted that this fibre distribution technology will also have a major impact in regional areas and greenfields sites, due to the increase in "reach" of exchanges from 2 km to 20 km.

There is a strong case for metro and regional areas served by Pair Gain and RIM systems to be given priority in the role out of the NBN so that NBN quality broadband can be delivered to these "blackspots".

The involvement of Local Government and State Planning Departments will have a significant and beneficial impact on the delivery of Broadband in all the under serviced broadband areas.

To preserve the value of existing ADSL investments there will be an ongoing need for fibre and copper cables to share the same ducts and conduits in many places.

There is an important need for a mediator and arbitrator to develop and police standards for sharing ducts and conduits as the standard access obligations under section 152AR of the TPA that require Telstra to permit interconnection of facilities to enable the supply of the ULLS and the LSS to access seekers, for ADSL2+ broadband services to retail customers is too slow.

Note Fibre, coaxial and copper cables have been laid in ducts together for many years, The main problems have been the laying of new cables where old cables already exist.

In evidence given in CEG's submission on the 3rd March 2009, a new Gigabit Technology [GDSL] was described. A commercial product using this technology has now been released under the name "Vector DSL" with a maximum data rate of 0.5Gbit/sec over multiple pairs of copper cable.

This Technology will speed up the roll out of the NBN to SME's and large residential buildings, such as flats, using existing copper cables.

In evidence given by CEG on the 3rd March 2009, the need to update the USO was proposed as the current USO legislation could cause a delay in the roll out of the NBN. It should be noted that there has been at least one instance where a carrier has used the current USO legislation to persuade property developers to avoid using carriers who could offer the same services at a lower price. Developers could have expected "higher prices" and/or "delays and disruptions to estate development" if they chose an alternative carrier for fibre installation.

This event shows the need to update the USO definition to include both data and voice using either fibre or copper cables.

## Summary of Proposed Changes to the Legislation.

1. Update the definition of the USO services to include both data and voice using either fibre or copper cables and enable the NBN to claim USO funding where necessary.
2. Introduce a separate mediator and/or arbitrator with powers of investigation and enforcement to resolve the technical and practical issues of access and sharing of resources. The focus of the mediator will be on technical and access issues, while the ACCC will retain its current role in economic and regulatory issues.
3. Legislate that the NBN provide retailers with access to point-to-point links and shared space in exchanges or shared resources.  
The point-to-point links shall transport internet protocol packets, and the retailer shall have full and complete control of all higher level protocols. [i.e. IP layer 2 and below are reserved for the NBN provider, and IP layer 3 and above are reserved for the retailer.
4. Modify the existing requirements of Local Government and State Planning Departments to include the planning [ and where required, the reservation or provision of land] for telecommunication services.
5. Introduce Legislation for the secure transfer and proof of delivery of files and transactions over the internet. The purpose of this amendment is to provide digital evidence that is acceptable to the courts, without the need to rely to paper evidence. It is also to ensure that parties who have only have digital evidence will not be disadvantaged when other parties have paper based evidence.