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24 February 2010

Committee Secretary  
Standing Committee on Infrastructure and Communications  
Parliament of Australia - House of Representatives  
PO Box 6021  
Parliament House  
Canberra ACT 2600

Dear Sir/madam

**Re: NEW INQUIRY INTO THE NATIONAL BROADBAND NETWORK**

Thank you for the opportunity to make a submission to this Inquiry. This submission is made on behalf of Intersect Australia Limited (Intersect).

A summary of the main points in this submission is:

- Intersect is a consortium primarily consisting of the universities in NSW. Intersect provides "eResearch" services to its members, their research partners and others.
- Our submission is mainly concerned with the impact of the NBN on item (g) of the terms of reference: "interaction with research and development and related innovation investments".
- Intersect strongly supports the NBN and submits that it has the capacity to provide a significant boost to Australia's research capability across many research disciplines, and hence a significant boost to the ability of those research activities to return value to Australia.
- Research activities are becoming more collaborative in nature requiring greater connectivity with other researchers both nationally and internationally and greater connectivity to the on-line resources of today's research such as in-field instruments, major infrastructure facilities and research databases. It is well recognised that this connectivity is critical to the quality and competitive positioning of Australia's research.
- Aarnet Pty Ltd, the Australian Research and Education Network, connects Australia's major research facilities and provides a specialised service to universities and others. The Aarnet network does not reach to many smaller but important university sites, nor to many non-university research partners.



- The NBN would provide an important and substantial functional extension to Aarnet, allowing connectivity to smaller but important research sites, facilitating broadband access to non-university research partners, and allowing research staff and students to access the research infrastructure from wherever they are. Achieving this level of connectivity would (a) maximise the return on the existing investments made in research infrastructure, and (b) maximise the competitive advantage of Australian research on a world scale.

### **About Intersect**

Intersect is a new organisation, established in 2008 to provide eResearch services to its members, their research partners and the broader Australian research community. Intersect is primarily a NSW based entity and all of its members are based in NSW.

Intersect provides a broad range of specialised IT services in the support of research activities, including the provision of High Performance Computing, data storage, research database and web services design, eResearch tool development and general IT consulting for research staff and students.

Intersect is not a licenced telecommunications carrier and does not provide network infrastructure or services, but relies on those services to be provided by third parties, primarily Aarnet Pty Ltd, Australia's Research and Education Network.

The network requirements of Intersect and its members can often be quite specialised, such as high or guaranteed bandwidth etc, not reasonably supplied by commercial carriers.

### **The nature of today's research activities**

The Australian Government recognises that the priority research challenges we are facing today require greater collaboration, greater connectivity to data sources and greater cooperation in the provision of research infrastructure. It has invested heavily in supporting this through the National Collaborative Research Infrastructure Strategy (NCRIS) and the Super Science program from the Education Investment Fund.

The network connectivity underpinning this investment is provided primarily by the Aarnet network. Many Aarnet sites are connected with 1Gb/s or 10Gb/s links.

### **Interaction with research and development and related innovation investments**

The Aarnet network connects all the universities in Australia and many other research and education organisations. It does not extend to all the locations where research occurs, nor all the locations where research data is collected. The NBN is the necessary additional infrastructure to extend that connectivity to a more complete level. While the aarnet core



network operates at high higher speeds than the 100Mb/s or so the NBN is envisaging, NBN speeds will generally be satisfactory for this broader research connectivity.

In relation to this topic, in our opinion the NBN will:

- make the existing eResearch resources and infrastructure (such as high performance computing, research data and its storage etc) effectively available throughout Australia, enabling world class research and development to occur in locations other than main university campuses, in particular in rural and regional areas,
- to the degree possible, provide the necessary connectivity to remote field stations, in-field instruments and research equipment,
- provide the necessary broadband connectivity to “adjunct” research sites such as medical facilities, commercial research labs, industrial research partners etc,
- provide the necessary connectivity for research staff and students wherever they are, such as in the home, and
- open up increased opportunities for interconnectivity and collaboration between publicly funded research and other sectors, such as the industry applying that research.

The NBN represents an important project for Australia to remain effective in its endeavours in world class research and development. As such, Intersect strongly supports the NBN in its current form.

Once again, Intersect thanks you for this opportunity to make a submission to this inquiry.

Yours faithfully,

Ian Gibson

Chief Executive Officer