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### **Inquiry into the role and potential of the National Broadband Network**

Google is pleased to have the opportunity to comment on our passion for high speed broadband and the economic benefits it offers to Australian innovation, creativity and productivity. Google has always been a strong supporter of the open Internet – after all, we are a product of that very environment.

Giving all Australians access to open and fast broadband as envisioned under the National Broadband Network will open up huge opportunities for individuals, communities and businesses. This is particularly true for the small to medium sized businesses that underpin the Australian economy. According to the OECD, the Internet's impact on productivity may exceed the effect of any other technology enabler to date, including electricity and the combustion engine.<sup>1</sup>

#### **Importance of Internet Access**

The Internet is the greatest communication tool of our time, offering the continual evolution of new platforms for social interaction, political communication and the distribution and enjoyment of content. It provides people with the ability to leap borders, to disregard convention and to engage in unprecedented debate on everything from movies to monarchy.

Internet access is important to Australians. The internet has transformed from a technology of convenience to a crucial means of engagement and participation in modern life. A 2010 BBC survey on attitudes towards Internet access found that 85% of Australians consider that it should be a fundamental right.<sup>2</sup>

The Internet has given rise to an immense global digital economy that Australia seeks to become a significant player in. It has transformed traditional commerce, creating an astounding array of new economic opportunities and expanded international trade. A recent report by the Boston Consulting Group, commissioned by Google, found that the UK's Internet economy is worth £100bn, equivalent to 7.2% of GDP – more than the construction, utilities or transport sectors.<sup>3</sup> The report projects that the UK's Internet economy has the potential to grow to the equivalent of 10% of GDP by 2015.

Increasing the amount of Australian households that have Internet access and increasing the speed at which they connect will act as a catalyst for the growth of the Australian digital economy and its contribution to Australia's economic growth. More people connected at faster speeds equates to more people engaging in online activities and more companies delivering online services.

<sup>1</sup> Organisation for Economic Co-operation and Development, 'Broadband and the Digital Economy', 17 June 2008, <http://www.oecd.org/dataoecd/62/7/40781696.pdf>.

<sup>2</sup> BBC News, 'Internet Access is a "fundamental right"', 8 March 2010, <http://news.bbc.co.uk/2/hi/technology/8548190.stm>.

<sup>3</sup> Boston Consulting Group, 'the Connected Kingdom', October 2010, <http://www.connectedkingdom.co.uk/downloads/bcg-the-connected-kingdom-oct-10.pdf>.

## Fast is Better than Slow

So Internet access is important, but why does speed matter? Speed translates directly into user actions and reactions by determining the quality of the user's experience – which ultimately dictates whether an online service will be successful:

- 40% of consumers will wait no more than three seconds for a Web page to load before abandoning a site;<sup>4</sup>
- On average, a one second delay in the response time of web applications reduces conversions by 7%; and<sup>5</sup>
- It is estimated that a 100-millisecond delay reduces Amazon's sales by 1%.<sup>6</sup>

The combined effect of these individual experiences has a huge impact on the success or failure of a particular service or even category of service. If users do not have access to an Internet connection that is fast enough to use a service properly, then that service will fail or will never come into existence.

Facilitating the widespread deployment of next-generation fast broadband will enable the emergence of a whole host of online applications and services, many of which we can barely imagine today, such as:

- High-quality real-time collaboration through video-conferencing;
- Video streaming of full-length feature films in minutes;
- Faster file transfers, dramatically improving a consumer's experience sending and receiving data, pictures, and audio and video files - making the realisation of 'cloud computing' practical; and
- Simultaneously run multiple bandwidth-hungry applications.

Super-fast broadband gives us a platform – like the Trans-Australia Railway did – to connect to a new generation of opportunities. It has almost unlimited potential to deliver innovation in the types of content creation, delivery and consumption models that will be available to Australians. One can only guess at the future possibilities that will eventuate if the regulatory environment is conducive to innovation.

We strongly believe that technology can change peoples' lives for the better. Faster broadband is a vital part of the technology mix to allow that to happen. The potential of these technologies is what excites us at Google.

Regards,

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<sup>4</sup> Forrester Consulting, 'Commerce Web Site Performance Today', Akamai Technologies, 17 August 2009, [http://www.akamai.com/html/about/press/releases/2009/press\\_091409.html](http://www.akamai.com/html/about/press/releases/2009/press_091409.html) (available after free registration).

<sup>5</sup> Bojan Simic, 'Customers are won or lost in 1 second,' Aberdeen Research, November 2008, [http://www.gomez.com/wp-content/downloads/Aberdeen\\_WebApps.pdf](http://www.gomez.com/wp-content/downloads/Aberdeen_WebApps.pdf).

<sup>6</sup> Tom Vanderbilt, 'Data Center Overload', New York Times, 8 June 2009, [http://www.nytimes.com/2009/06/14/magazine/14search-t.html?\\_r=1&pagewanted=all](http://www.nytimes.com/2009/06/14/magazine/14search-t.html?_r=1&pagewanted=all).