

From: Stephen Leahey  
Sent: Saturday, 22 March 2008 9:08 AM  
To: National Broadband Network Taskforce  
Subject: The Aussie Broadband network

Hi,

Decisions that will have such a massive impact on the operation of our country over the coming 20 or 50 years should not be made lightly. For this reason both the technologies used, and service of the population are two topics that need to be considered from now until the end of life of the network.

\*- Technologies -\*

The requirements of the network today are only a fraction of what it may be in 10 years time.

If 30 years ago (a time of relative telephone copper network maturity) we thought 1Mega-Byte( $1 \times 10^6$  Bytes) would be more than anyone would ever need, and today people commonly carry 4Giga-Byte's of storage around in their pocket, imagine if the growth continues at this rate and people are walking around with 12Terra-Bytes in their pocket. The population are going to require a network technology that will support this.

Question: What is the net cost of the copper network currently servicing Australia given the benefits gained by the economy at the time? (Surely, the gains outweighed the loss.)

Short sighted thinking is not the right way on this topic. We need to spend some time estimating what our data needs will be in the future. This may involve investigating the different paths technology may take. For example, Does everyone start storing data at a telephone exchange like location? Do they carry it on their person? Do they leave it at home, but make it available via a ftp service of some kind?

So we need to establish, where is the data? how much of it is there? and where is it going? and how will the change over the lifetime of the network?

If we know these points, then we can better gauge what type of technology will give us the best bang for our buck. If we invest in a minimal way now, then we will have the same problem in 5 years time. This is a decision that must be made with a long term outlook.

We must consider this network as a replacement for the copper network that exists today. Why? because it will be. Telecommunications technology is going digital. VoIP SIP is its future. This may be a bad decision, but that's where consumers and business are heading because of reduced operating costs.

Given the above points, after researching you will find that we are setting our sights very low at 24Mbit's, or even 50Mbits per second. We need to advance the technology and reduce its costs by making investments in it. Imagine a 1000Mbit optical network. It will last a long time, and provide our country with a massive edge of the next 30 years, Guaranteed. If as I mentioned above people do indeed have 12Tera-Bytes in their pocket that needs to be sent somewhere, they will be able to send it in a semi reasonable amount of time.

At this point in time Fiber Optics is a very high speed and capable technology. By investing in it heavily, it will become cheaper. In any case, why are we throwing money away on tenders when the government could just go buy the cable manufacturing plant, hire some experts and do it themselves like we used to?

Which leaves me asking, why was selling Telstra a good idea? How did the public benefit in anyway from this? Should we not be using the money made by the government from the sale of Telstra to build a new, more up-to date communications network?

Even if we don't go with fiber all the way to each house, at the very least, fiber to the node, with the outlook to install fiber to the premise. Remembering that this means optical cable to the node capable of servicing 100x Gigabit connections at the very least.

\*- Service of the population -

\*Australia covers a massive area. How in the hell are you the government meant to provide these people in the middle of nowhere with the latest technology? The answer is that your not. If they want the latest technology then they can move into the cities. However, they do need access to information somehow.

Given the distances involved, and the actual contribution to the economy, and what it would actually cost to give them any fixed line connection, its ludicrous to install fixed line technologies. The technology would have to be a wireless one, which would also permit regular upgrades to the constantly developing in wireless technologies which is continuing to this day, without tearing up redundant infrastructure.

So set a boundary around the major cities (with vision for urban sprawl over the lifetime of the network) and anyone outside those boundaries gets wireless technologies. Simple.

Think about this from the peoples perspective. The population are here for their lives, where as a minister or cabinet are only around for a fleeting period. We need these people that are making the decisions to be thinking in terms of a 'lifetime', and not in terms of 'years'. I don't think the public mind spending, or any of the negative effects, so long as the money is being spent on something that will be around for them their whole 'lifetime'.

Good Luck!

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