

ElectorateOffice Wollondilly - FW: Clarence Valley Broadband issues

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Mr Phillip Costa, MP

I appreciated the opportunity, on 2nd August, to briefly discuss with Gerard Martin MP and yourself the Broadband issues in the Clarence Valley. I welcome the NSW Government's decision to establish the Standing Committee on Broadband in Rural and Regional Communities.

I provide the following general summary of the issues faced here in this Council's area. For your information the Council's area is some 10,400 sq kms which is about half of the total Clarence catchment area. The topography of the area, as you may have observed, is largely coastal floodplain with most of the urban areas in the eastern end of the Valley with Grafton, Maclean Yamba, Iluka and several smaller coastal villages being the more significant urbanised areas. In all there are about 43 towns and villages and a considerable rural population making up the 50,000 people who live in the local government area

The complexity of the Council's operations whilst not typical of most businesses in the Valley, is nevertheless representative. The difficulties that we have faced are, therefore, also representative of the issues faced by other businesses, and all difficulties should be considered to be impediments to the operations of existing businesses as well as disincentives to establishing businesses here.

An Overview of Broadband in the Clarence Valley

The Clarence Valley has a history of poor ADSL coverage. If you didn't live in one of the major towns you had a limited chance of getting affordable broadband. Telstra appears to have addressed the majority of these shortcomings in the past 3 years by rolling out ADSL upgrades to a number of Phone Exchanges across the valley. This list includes:

- Junction Hill,
- Waterview Heights,
- Lawrence,
- Ulmarra,
- Coutts Crossing,
- Iluka,
- Brooms Head,
- Woombah,
- Gulmarrad,
- Ashby, and
- Wooli.

All these locations that in the past had no affordable broadband now have access to adsl1 speed connections. These upgrades have greatly reduced the customer base available for a wireless solution, as adsl1 costs are cheap when compared to the startup costs of a wireless network.

There are still holes in the adsl coverage in the valley. Adsl1 has a theoretical coverage of 3-4kms from an exchange (the hub where all copper phone lines are patched to) or a rim (which is a green roadside cabinet connected to the exchange via fiber). Rims are Telstra's "fiber to the node" solution that it rolls out to new estates or areas that are distant from an exchange, as it is cheaper to install one fiber run than installing multiple long runs of copper cable.

There are a number of Rims used throughout the valley. In some cases these rims are at capacity and therefore no new connections are available. A friend in Fairway Drive, South Grafton was able to get an ADSL connection, and his neighbor missed out.

If your phone line run is more than 3-4 kms from the exchange or an adsl enabled rim then you may not be able to get adsl. Council has a number of locations that fall into this category including:

- Grafton landfill,
- the regional Airport,
- Maclean Sewer,
- Minnie Waters Caravan Park,
- Rushforth Road Reservoir, and
- some rural Councillors' homes are outside the adsl coverage area. This greatly limits the functions of these locations and inhibits the communications to the affected Councillors.

At the airport, I heard that REX had to spend a lot of money to get internet access to a speed where they could operate their booking and reservation system.

Telstra can overcome these limitations by the use of DSL extender technology. Why Telstra does not deploy more of this technology is unknown. The general school of thought is that such expansion is not financially viable, however there may be cases where technical limitations exist.

DSL Extenders

Telstra has finished its "DSL extender" trial and is now allowing the equipment to be used in its live copper phone network.

Telstra announced a trial of the technology back in January 2005, saying it would allow DSL to be connected to people who were up to 20KM from a central exchange.

Previously-deployed ADSL technology only allowed customers who lived within 3.5KM of their phone exchange (measured on wire length) to be connected.

DSL Extenders work by splitting an existing copper phone line into eight separate ADSL lines using a tiny, ruggedised remote DSLAM. The link back to the exchange uses 2.3Mbit/s G.SHDSL (Single-pair high-speed DSL). This 2.3Mbit/s speed is split up among the eight users that are connected to the micro-DSLAM. The link from the micro-DSLAM to customers' homes is regular ADSL1, which suggests a maximum 1.5Mbit/s line speed. Telstra has confirmed that it will not be able to offer higher-speed ADSL2 or 2+ through the micro DSLAMs.

ADSL2+ Speeds

Competitors to Telstra are currently installing their own technology in Exchanges so they can offer adsl2+ speeds. ADSL2+ is the next generation of ADSL broadband with download speeds typically much faster than regular ADSL. Regular ADSL broadband has download speeds between 256kbps and a maximum theoretical speed of 8Mbps. 20%, 50%, 70% of ADSL2+ customers are achieving speeds of approximately 20Mbps, 15Mbps and 10Mbps respectively. Actual speeds achieved will vary due to a number of factors including distance from the local telephone exchange, network configuration and traffic, the quality of the customer's copper phone line, EMI, cabling and equipment.

Telstra has ADSL2+ equipment installed in all exchanges across Australia, but only enables the service in exchanges where competitors have ADSL2+ equipment. This is a purely political decision. If Council could encourage a competitor to Telstra to install adsl2+ equipment in Grafton and Maclean, both these locations would then have access to faster adsl services. Lismore currently has 2 ADSL2+ providers, Coffs harbour has 3, Armidale has 2, and Ballina has 0. adsl2+ . There are no competitors active in the Clarence Valley, in this way, at present.

Mobile/Wireless Access

Rollout of wireless networks has been limited to a handful of rural locations, or to major capital cities where there is a large client base. Telstra has recently released its nextg network which has comparable speeds to current adsl connections. The current nextg plans are extremely expensive will small download limits. It is expected that in the future a merging of mobile and adsl data plans will occur, with mobile providers able to supply broadband connections via mobile towers, removing the need of a fixed copper line.

Best wishes to the Standing Committee

Stuart McPherson
General Manager