



Broadband Connect – Response to Questions

Prepared by

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Q1 How can the design and delivery of Broadband Connect be optimised to achieve long term sustainable quality broadband solutions for regional, rural and remote Australians?

Currently it is being proposed that providers will not be able to claim incentive payments after 12 months for terrestrial services. Wireless is being categorised as a terrestrial service under this proposal.

Wideband has serious concerns about this move. Wireless services like satellite carry a large proportion of the installation cost of the customer in the end user hardware. Currently it costs Wideband around \$1200 to install a customer (more if they require a high mast on their roof), this only leaves a small proportion to contribute to backbone and local tower costs.

Our preferred option would be to see the high payment category dropped after 12 months as the tower infrastructure costs would largely be paid for.

If we were not able to claim any incentive payment after 12 months we would be forced to charge the “true” installation cost of \$1200 in older areas.

Wideband also uses and channels incentive payments in successful areas to subsidise less profitable markets which helps achieve the stated goals of Broadband Connect.

It is our contention that wireless should be treated differently to ADSL based services. ADSL has a large “base” setup cost and a low subscriber end cost. Wireless is almost the reverse of this scenario.

Q2 What means can/should be used to encourage further capital investment in infrastructure that will support competitive networks and services under Broadband Connect and beyond?

Some suggestions are:

- Streamlined access to and cost effective use of local, state or federal government infrastructure (towers, fibres, and existing infrastructure). One example in our region is the VicTrack rail fibre, this fibre extends from Melbourne to Traralgon and was paid for by the State Government. To date we have not been able to gain access to this network at a cost effective pricing which is less than what the Telstra Retail pricing model affords.
- Separate funding could be made available (via Clever Networks?) to build high capacity backbone infrastructure where existing cost effective solutions currently don't exist.

Q3 How can Broadband Connect funding be structured to provide the best incentives for investment?

We believe the current funding model has been very successful and provides sufficient incentive for providers to invest in new areas.

A major problem area for Wireless providers is the availability of licensed spectrum. Funding should be made available under either Broadband Connect or Clever Networks for smaller providers to purchase spectrum. This should be treated separately to standard incentive payments. Purchasing of spectrum should also be tied to the provisioning and delivery of services which would help alleviate profiteering of spectrum where there is no legitimate intention to provide services.

One possibility could be a spectrum release limited to Broadband Connect providers only. Currently we find there is not a lot of overlap between coverage areas of Wireless Broadband Connect providers and one "pool" of spectrum could be shared across multiple providers.

Q4 Is terrestrial or satellite the most appropriate means of delivering broadband in regional, rural and remote areas?

Both terrestrial and satellite services have a role within Broadband Connect .

For very remote areas or areas of hilly terrain Satellite services has proved to be the best Solution

Wireless Broadband provided by Wideband is best suited for areas where terrain is relatively flat with hill top peaks for transmitter sites. Wireless services are cheaper to install than Satellite however are more expensive to install than ADSL based services.

Q5 Can satellite be delivered as competitively as terrestrial services?

Wideband is not a satellite provider, and therefore is not in a position to effectively or authoritatively comment on this item, however given the generally higher subscriber end equipment costs of Satellite we would venture that it is unlikely.

Q6 Should participating providers be required to commit formally to service the areas they identify in registration applications?

Provided applicants are able and have the capacity to expand their service areas Wideband believes it would be beneficial to commit to specific coverage areas.

This information would need to remain confidential between DCITA and the Broadband Connect provider as large telcos and ISP's have a habit of selectively marketing areas proposed by other providers and this severely impacts on the services being installed by the independent and their overall viability.

Wideband has delivered all of its original service areas applied for under HiBIS and doubled the size of its area through an extension of area application.

We do not publicly release our up and coming areas as past experience has shown us that Telstra Country Wide are extremely aggressive in seeking to ambush market a specific targeted area. We have known exchanges to be ADSL enabled within 5 days with only 10 people on the demand register simply to diminish and dampen customer uptake based on an assumption that we may be interested in providing a service.

Q7 Should annual renewal of funding agreements specify timeframes for commencement of services in areas of greatest need?

Provided the timeframes are agreed upon with the Service Provider, Wideband would not have any problem committing to set timeframes for particular coverage areas.

Q8 Should a system of prioritised funding for services connected in areas of greatest need (beyond what has been provided under the HiBIS two-tiered incentive structure) be introduced?

A seed fund would be useful for some areas, however Wideband have found sites to be commercially viable with 100 subscribers per wireless tower. Each tower usually has a coverage area of 25km so obtaining 100 subscribers has not been an issue

For practically remote areas where uptake is likely to be limited advance funding would be greatly welcomed.

Q9 What can be done further to overcome barriers to capital investment in sustainable technologies in less commercially viable regional areas?

An issue for providers of Wireless technology solutions has been the need to make a substantial capital investment in infrastructure before receiving funding through HIBIS, now (Broadband Connect)

One option could be for Broadband Connect to provide some initial upfront portion of the funding, this could still tie into the incentive payments.

For example a provider could predict the customer level of the site and apply for 30% of the funding upfront. Over a six month period, the 30% could be "paid back" through deductions of normal incentive payments. This would essentially help smooth out the peaks and troughs in cash flow for the providers giving them a more balanced and sustainable business model and giving greater confidence moving forward into new areas..

Q10 How can the high cost of some technologies be reconciled with increasing customer expectations for higher speeds and usage allowances especially in more remote areas?

The limiting factor (speed) in respect of Wireless technologies is not so much the cost, but the radio spectrum to run the equipment in.

WiMAX technology is around the same cost to deploy as our current hardware however the radio spectrum is either not available or is sold in State wide blocks which are not financially viable for smaller providers.

As the growing demand for wireless based broadband continues to grow, Spectrum will be come crucial to ensure competition in the market place and for broadband providers to be able to make large capital investments in new equipment and emerging technology.

Q11 Should it be mandatory for program participants under Broadband Connect to provide additional information as listed below as a condition of registration?

• intended future service areas (with approximate dates of commencement of supply;

We have found that a public announcement or providing information which is not in confidence re services in advance of a roll out has a number of detrimental effects.

Two key detrimental factors are:

1. Telstra usually undertake pre-emptive ambush marketing in the area for either Satellite, ISDN or ADSL services, diminishing the viability of an outside provider providing services to the area, the economics of Telstra undertaking this activity are questionable at best.
2. If the anticipated switch on date needs to be moved or delayed customers become very disgruntled, some of whom have had promises of services made to them only to be told that dates for access have had to be moved back yet again. Some providers of course will have very legitimate reasons for delaying a switch on but this is always not understood or accepted by the end users.

• the viable geographic reach of broadband services from central transmission points for service delivery;

Wideband provides general geographic coverage information on its website.

Wireless technology is a fairly tolerant and robust medium, however local geographic factors i.e. trees etc can be an issue. These need to be assessed on a case by case basic and it is impossible other than in a generic sense to provide an area coverage map.

Our past procedure meant we site checked each customer before installation to try and identify these geographic issues, however with an increasing

workload this has become unpractical and uneconomical. We now conduct a desk top 'site check' using available information provided by the customer for the installation and other business intelligence from past installations in the area to make a judgement call with a 97% success rate.

- ***technical barriers limiting the application of providers' technology in regional communities;***

The technical capabilities of each type of broadband product should be generally known to DCITA. Each technology has its inherent positives and negatives.

- ***the capacity of providers' technology to support varying types of broadband traffic and use;***

The providers capabilities to deliver various types of traffic should be known including the QoS (Quality of Service) capabilities of the network. This would encourage a greater level of increased consistency amongst providers and capabilities and also assist in identifying potential areas of concern in a technology which has limited or short capped life expectancy

- ***the range of service speeds providers' technology would be able to support;***

This information is already published by most service providers. It should be a mandatory requirement once again for the same reasons as above.

- ***the capacity of providers' technology to provide services now and to accommodate new developments such as increased speed , usage and applications in the future;***

This information would be made available to DCITA as a requirement of registration

- ***the particular relevance of the technology to other communication services (for example, capacity to be used also for supporting mobile telephony services);***

- ***a summary of the broad nature of technology they employ; and***

Backhaul networks and communication towers used primarily for Broadband services could also be used for Mobile services to better utilise existing infrastructure.

- ***anticipated timing and target areas for their technology deployment in regional Australia.***

Deployment time lines should be made available (in confidence) to ensure multiple providers are not going to target a single small area which could affect the viability of all the providers in that area

Q12 On what basis would you argue that certain specific technologies will have the most impact on the delivery of regional broadband services in the next three to five years?

We believe Wireless based technologies will play a key part in delivering broadband to regional areas over the next three to five years. Wireless breaks down the distance barriers and can reach more customers with less infrastructure.

The backbone networks that are being built to support the wireless last mile infrastructure can support other broadband services like ADSL. Wideband plans to deploy DSLAMs in viable areas using its Microwave backbone as backhaul.

Q13 How would you compare the effectiveness of these technologies to others in the market place?

Wireless is a very effective technology, however for it to compete moving forward the Federal Government through the ACMA needs to make additional licensed spectrum available to smaller regional providers.

WiMAX is an emerging technology with will be very valuable in the deployment of regional services, however this technology primarily requires licensed spectrum. Currently in Australia only two providers have the necessary spectrum to deploy this technology.

Wideband currently only deploys wireless technologies in licensed spectrum as we have found considerable quality of service issues in the unlicensed bands. Wideband holds 7.1 Mhz of 3.4 Ghz spectrum throughout its coverage area and 10 Mhz of 1.9 Ghz spectrum in East Gippsland. This spectrum is currently insufficient to deploy WiMAX.

Q14 To what extent will broadband technologies be able to augment capacity to meet rapidly expanding consumer expectations for higher bandwidth and more advanced applications?

A core component of our business planning at Wideband is the constant assessment our growing customer base and our forward planning to meet anticipated capacity for future needs. KPI's at Wideband associated with this anticipated growing demand revolves around the provisioning of capacity and the scalability of our infrastructure in the short to medium term to meet demand.

We believe with diligent planning by providers and new and emerging technologies that providers will be able to meet demand and expectations from customers for higher speed and delivery of other related broadband products such as voice and video.

Competitive wholesale pricing for providers will into the future be crucial to the viability of competition in the market place most especially in the remote and rural communities serviced through Broadband Connect.

Q15 Can complementary technologies provide better solutions for delivery of services in regional Australia?

At the current time no single technology or emerging technology is going to be able provide a complete solution, we believe that ADSL, Wireless and Satellite are all relevant and required technologies to effectively deploy broadband to regional and remote areas of Australia.

We believe that ADSL and Wireless broadband services can effectively be developed together sharing the same backbone infrastructure and has enormous economies of scale. This is the model Wideband will be moving to in early 2006.

Q16 What innovative approaches should Broadband Connect adopt in its program design to utilise these technologies most efficiently and effectively?

In Wideband's case we believe that Broadband Connect should either make spectrum available or provide funding to purchase spectrum which would allow WiMAX to be delivered under Broadband Connect.

This would allow a raft of services including:

- Mobile wireless solutions including handoff between bases
- Speeds greater than 1.5 Mbits

Q17 What capacity do existing technologies have to accommodate the introduction of new developments, such as increased speeds, usage and other applications?

Most current technologies generally allow for scalability in speed in service, albeit with some limitations and for the throughput of data associated with other complimentary technologies. As previously stated the access to backhaul, and competitive wholesale pricing for the rural providers will allow them to upscale infrastructure and meet demand as needs grow.

Q18 Should the current system of incentive payments to providers for the supply of broadband services be retained?

We have found the current system of payments under HiBIS to be very effective. They encourage providers to invest in regional areas, and limit the governments risk in terms of failed projects.

Our major concern currently is over the proposal to remove incentive payments after 12 months of a new site being developed. We believe this should be the case for ADSL as most of the cost is in establishing the exchange, however Wireless technologies have a very high CPE cost similar to Satellite. A wireless subscriber costs around \$1200 to install. One option could be to limit the payment to a Standard payment after 12 months.

Some examples for keeping an incentive payment are:

- As children move up in the education system their requirements for Internet access become more important. If outside an ADSL enabled area, only satellite will be available to them.
- People moving into a wireless enabled area post funding cut off will not economically have this service available to them.
- New small business starting up post the 12-month cut off period could be economically disadvantaged.
- New housing estates on the city outer limits that have Telstra RIMS will not have economical broadband services available to them.
- Anyone outside an ADSL enabled area but within a wireless enabled area will be disadvantaged after the 12-month cut off period should their broadband needs change.

Q19 Would an up front method of payment be more effective?

For urgent demand areas modest seed funding may be applicable and would assist in kick starting momentum. However we believe the current payment methods “keep the providers honest” because they are required to take make all the normal business decisions when moving into a new area.

Perhaps a “loan” method of upfront payment could be established where a provider receives an upfront payment and uses incentive payments to repay the loan.

Q20 How else could the method of payments to providers be adjusted to achieve more satisfactory outcomes for providers and people living in regional, rural and remote Australia?

As previously stated and apart from some minor comments we believe the current funding model to be a good one.

Q21 Should funding be provided:

- ***based on the number of customers connected?***
- ***the number potential premises with potential access?***
- ***a combination of both methods?***

Funding based on connections has worked well for Wideband as previously stated , this is despite the need to roll out infrastructure and associated large investments which need to be borne by Wideband if at least only in the short term. Some seed funding may be appropriate as previously stated.

Q22 If funding was based on the number of premises with potential access should it then only be provided for infrastructure?

We believe that connections provides the greatest incentive.

Q23 How can methods of payment under Broadband Connect be better structured to ensure that providers are not overcompensated for the supply of broadband services?

It would be hard to justify over compensation to wireless providers based on the inherent high cost of providing wireless infrastructure and its ongoing maintenance and upgrades to keep abreast of new technologies.

Q24 Should the current HiBIS threshold model for speed and usage be maintained at existing levels under Broadband Connect?

We believe the current speed and data thresholds are sufficient for the majority of users.

Over 60% of Wideband customers are on a base threshold plan of 256/64K with 500 meg peak and 500 meg off peak data. The vast majority of these customers would be lucky to use 200 meg a month.

Increasing the minimum speed and usage model would unduly raise the cost of a basic plan and make the service anti-competitive with other non Broadband Connect services in the market. Mandating speed and usage limits would unnecessarily encumber providers for no discernable benefit to customers

Wideband offers a range of Value added higher speed/data plans which cater for the power users in the community.

Q25 Should the model be retained with increased minimum speed and/or usage requirements?

No

Q26 Should two separate minimum speeds with two subsidy levels be introduced?

We don't believe a separate subsidy for higher speed is necessary. The cost of providing a higher speed service is not so much in the setup costs that are Broadband Connect eligible. The main cost is the upstream bandwidth which is classed as an ongoing cost.

Q27 Do threshold requirements need to be expanded to accommodate other issues such as latency?

We find that latency in Wireless services to be around the same as ADSL. The requirement is not so much latency, but jitter. Jitter is where the latency is continuously changing. This effects services such as VoIP. Voice over IP services can deal with one way latency of up to 250ms however Jitter severely effects these services.

If it is the aim of Broadband Connect to encourage the use of emerging technologies such as VoIP then Jitter should be a requirement however it will be difficult to measure monitor and mandate.

Q28 Should the Broadband Connect Stage 1 price caps be retained under Stage 2?

The price caps proposed under either stage of Broadband connect do not effect Wideband as we are operating in a competitive environment which is considerably lower than these price caps.

Q29 Should a greater range of price caps be introduced than the two currently available?

As per 28

Q30 Should the current funding cap level of 60 per cent continue under Broadband Connect?

Yes – This allows competition to grow in the market. Without the funding cap there is very little incentive for independent providers to invest in new infrastructure.

We would like to see the current funding cap reduced to 50% and the clause allowing it to be increased removed.