

2 May 2005

Mr Damian Stevens

Manager
Broadband Connect
Department of Communications, Information Technology and the Arts
GPO Box 2154, Canberra, ACT 2602

Dear Mr Stevens

Thank you for the opportunity to comment on the discussion paper: "Broadband Connect and Clever Networks: Supporting investment in sustainable broadband infrastructure," dated December 2005.

Ocean Broadband Ltd (OBL) is a licensed carrier with a core focus on delivering broadband services to selected regional communities in Australia, leveraging the latest developments in long-range wireless broadband technology.

OBL's executive management, possessing several decades of aggregate experience in the international wireless sector, is keen to offer its point of view on the issues raised in DCITA's discussion paper as they relate to a prospective broadband service provider looking to offer reasonably priced, but high performance wireless broadband service to its regional customer base.

As a registered Service Provider under Phase One of the Broadband Connect program, OBL has focused its response to the questions pertaining to the design of Phase 2 of the Broadband Connect program and we have not addressed issues relating to the design of Clever Networks. This is not however to imply a lack of interest on the part of OBL in participating in the future Clever Networks program. In anticipation we reserve our position to submissions, possibly in partnership with other like minded service providers and community bodies, once that program is operational.

Should you have any questions in relation to our submission, please feel free to contact me on 08 9381 2226 or via email at paul@oceanbroadband.net.au.

Sincerely

Paul Ostergaard
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Response to Broadband Connect Discussion Paper

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?

By the timely flexible delivery of available funding to assist efficient Service providers in covering the maximum number of potential RR&R users in the minimum amount of time with reliable forward compatible broadband solutions.

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?

Funds should be made available to assist with the procurement and roll-out of infrastructure as well as higher incentive, over and above the two-tiered incentive structure.

As a means of supporting demands in working capital for smaller service providers, an upfront payment, say covering 50% of anticipated infrastructure expenses, would serve to reduce the working capital required to roll out such infrastructure. This could be viewed at the program sharing the risk of infrastructure delivery with the service provider, whilst not eliminating it entirely on the service provider's part.

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

As a means of supporting demands in working capital for smaller service providers, an upfront payment, say covering 50% of anticipated infrastructure expenses, would serve to reduce the working capital required to roll out such infrastructure. This could be viewed at the program sharing the risk of infrastructure delivery with the service provider, whilst not eliminating it entirely on the service provider's part.

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

Each technology is capable of servicing different types of communities. We feel that terrestrial is best deployed in regional and semi-rural situations where the economics and subscriber densities of those regions make terrestrial viable, whilst satellite is more appropriate for populations of lower subscriber density.

A hybrid solution should not be ignored, namely satellite for backhaul and terrestrial for "last-mile". We consider that this would adequately service a number of more distant communities that could not economically access a "pure" terrestrial solution.

Q5 Can satellite be delivered as competitively as terrestrial services?

The inherent cost base of satellite will not permit it to be delivered competitively against terrestrial services, except in areas of relatively lower population density to those serviced economically by terrestrial services.

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

How would this impact existing participants? To impose such a requirement would severely limit the flexibility of Service providers to respond quickly and appropriately to the changing needs of potential RR&R users and to deprive Service providers of flexibility in dealing with competitive activity.

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

This would over regulate the service provider environment. Service providers need to make rational economic decisions about the areas they target – it is too difficult to mandate such areas without taking into account the particular business model being followed by a given service provider. Since addressing these areas of highest need will tend to involve the highest cost to Service providers, this should be governed economically by providing higher financial incentive to address the areas of highest need earlier.

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 system of differential incentives would provide a better solution. We have suggested in our response to Q9 below a mechanism for implementing such an approach that provides adequate transparency to service providers, without absolutely mandating which areas are serviced in priority to others.

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

This should be driven by a subscriber density metric, with additional subsidies payable to lower population density areas. This should replace the current regime where incentives are differentiated with respect to the availability of ISDN. A better approach would be to carve up regional Australia into “zones” reflecting broad population density metrics.

Another suggestion is to match dollar for dollar funds made available for investment, in cash or kind, in sustainable technologies from regional development boards, local authorities and service providers acting jointly and targeting the less commercially viable regional areas with clearly defined roll-out plans with timelines.

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?

One possible mechanism would be to offer additional “high cost” incentives to service providers deploying such services – this may evolve to provide a “premium” level of funding for “premium” services (eg. 10Mbps to a SME user, rather than 1Mbps).

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;
- the viable geographic reach of broadband services from central transmission points for service delivery;
- technical barriers limiting the application of providers’ technology in regional communities;
- the capacity of providers’ technology to support varying types of broadband traffic and use;
- the range of service speeds providers’ technology would be able to support;
- the capacity of providers’ technology to provide services now and to accommodate new developments such as increased speed , usage and applications in the future;
- 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
- anticipated timing and target areas for their technology deployment in regional Australia.

Additional reporting of the kind as item above should **not** be made mandatory, as it would simply increase the regulatory burden on service providers. In addition some of this information is impossible to produce in advance, for example deployment plans and priorities may change in response to recently updated market information. Such reporting would best case unnecessarily limit the flexibility of service providers or worst case simply would not reflect the underlying intention of the service provider. Furthermore were any such information to be provided, it should be kept confidential for competitive reasons.

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?

This is a function of subscriber density in the areas being served – as a notional guide we offer the following observations: DSL / Cable being most effective locally in

towns with more than a few hundred residences; Wireless in the next 10-50km radius from such sites; and Satellite more than 50km from such localities.

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

That is evident from the ratio of subscribers connected under the previous HiBIS scheme. Our expectation is that the percentage of wireless subscribers will increase in relation to the DSL/Cable and Satellite over the next 24 months as deployment plans in that sector continue to engage in the market.

Delivery of all technology will depend on viable delivery of the 'last mile to close the 'local loop'. Specifically, terrestrial wireless achieves this best in the foreseeable future.

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

We will comment on terrestrial wireless technology evolution. Current wireless technologies have the ability to deliver up to net line rates of up to 14 Mbps, with the forecast arrival of up to 75Mbps with the advent of WiMAX standard solutions. These speeds are subject to range limitations and therefore the density of towers needs to be taken into account when estimating the potential to deliver such high speeds to a broad community.

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?

Other service providers may care to comment on the technology trajectory for DSL services. We will comment on terrestrial wireless technology evolution. Current wireless technologies have the ability to deliver up to net line rates of up to 14 Mbps, with the forecast arrival of up to 75Mbps with the advent of WiMAX standard solutions. These speeds are subject to range limitations and therefore the density of towers needs to be taken into account when estimating the potential to deliver such high speeds to a broad community. The extent of Service providers ability to respond rapidly will be governed to a considerable degree by the arrangements, going forward, for timing and delivery of Broadband Connect funds, particularly in more remote areas of comparatively less economic viability.

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

Linkages should be encouraged with the Mobile Connect program to encourage **streamlined** and equitable access to towers funded under that program.

On the technology front, we feel it would be worthwhile exploring how high quality voice and video applications could be funded through the program.

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

Provide Service providers with unfettered access to government period contract pricing on a range of materials and services. Cause Education and Health to share access to BB backhaul in RR&R areas.

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

Our experience is that certain solutions, such as the Motorola Canopy solution, have the ability to deliver new features and increased speeds, QoS capabilities, etc., through online software updates. Clearly there are some limits to the expansion of such capabilities, but they are significant nonetheless. We have seen software updates that variously added DiffServ QoS mapping capabilities (critical for integrating to third party VoIP equipment) and increased line rates from 1.9Mbps to 3.7Mbps on the Canopy 900 MHz platform over the past year, to provide a guiding example.

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

We would strongly recommend that the program pays out the subsidy strictly 20 working days following the date of entering the claim into the online management system, rather than 20 working days after the end of the month, as is the case currently. This would match working capital demands placed on the service provider by suppliers and be broadly cost neutral to the program. If this were implemented the benefit would be that service providers could ramp up the number of net subscriber additions per month without incurring an increase in required working capital.

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

As a means of supporting demands in working capital for smaller service providers, an upfront payment, say covering 50% of anticipated infrastructure expenses, would serve to reduce the working capital required to roll out such infrastructure. This could be viewed as a means for sharing the risk of deployment of infrastructure more equitably between the program and the service provider, whilst not eliminating risk entirely on the service provider's part.

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?

Be more flexible about the costs that can be claimed under the program. Certain categories of costs are currently not claimable as allowable costs.

Q21 Should funding be provided:

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

The current arrangements should be maintained, because it matches funding with tangible benefits delivered. Any change to the program would potentially distort investment decisions by service providers away from this benefits-driven approach. There would further be no guarantee that broadband penetration would increase significantly, if a “premises covered” approach were adopted, which we would recommend should be an objective of the program.

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

Not if that were to be the only source of funding – there is significant cost involved at the CPE level using wireless terrestrial technologies for example. This would also move the program away from its goal of technology neutrality, given that subscriber equipment for DSL is much lower than for wireless.

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?

We feel that, in line with the concept of technology neutrality, service providers should receive different levels of incentives based on the technology deployed. The upfront risk associated with the deployment of a DSLAM is substantially lower, for example, than building a wireless broadband basestation. In addition, the incremental cost of adding a subscriber terminal is also different. It makes no sense to us that service providers are compensated equally for these different technologies.

To be truly technology neutral, the program should account for the different average cost bases of a) rolling out infrastructure and b) deployment of end user terminals/modems.

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

The current model works well in terms of enabling the availability of “vanilla” broadband products. Qualification: it may be in the interests of the program to allow a “value added” service with reduced quota (but not speed) thresholds, provided that the price cap is correspondingly reduced. For example, seniors often cannot afford the threshold service, are light users and might therefore be interested in a targeted product for their consumption (say 512/128 200M @ \$15-20 / month).

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

No – arrangements are working well for customers at the current level. In addition, we note that such services are often terminated using wholesale DSL suppliers. The current economics associated with wholesale DSL means that it would be difficult to further reduce pricing *vis a vis* speed and download quota, or alternately increase speed and/or download quota whilst maintaining the (low) cost of the service.

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

The cost of providing the service upfront is broadly similar, regardless of the speed delivered. Therefore any subsidy differential would have to reflect an “upside” increase for the higher speed threshold level, whilst keeping the current subsidy level for the existing (lower) threshold service.

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

It is difficult to do this whilst maintaining a technology neutral position.

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

Yes – this is working well under current arrangements. We would caution the program designers about being too aggressive on downwards adjustments on the price caps in the face of a wholesale market where prices are only moving quite slowly.

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

This would risk creating an overly regulated environment for service providers.

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

Yes – this is a very important feature of the program that supports an adequate balance of competitive outcomes for regional, rural and remote Australians. On the balance of the evidence, we feel this feature delivers sufficiently predictable availability of funding to non-incumbents to allow them to make investment decisions on new service areas and to encourage them to enter such areas.