

## Broadband Backhaul Blackspots Initiative.

### Response to the Issues for Consultation

#### 4.1 Locations

Stakeholder views are sought on the following matters:

1. priority locations that are lacking an alternative backhaul supply and the reasons for their priority

Stanthorpe, Warwick, Allora, Clifton, Nobby, Greenmount and Cambooya

2. possible routes for the links to the priority locations, including any potential locations where backhaul capacity should be broken out

Connection from NexGEN 1 Annand St Toowoomba to Stanthorpe via Warwick, Allora, Clifton, Nobby, Greenmount and Cambooya

3. the contestable market in each location and the wholesale price points required to attract interest from access seekers

There is currently demand for additional backhaul by HaleNET in Stanthorpe. At this stage HaleNET is constrained in deploying new wimax and FTTH services due to a lack of affordable backhaul.

Currently Telstra is the only supplier of backhaul in the area. We currently have access to a frame relay link from Optus which Optus is unable to upgrade. Discussions have been held with Optus to gain access to Optus services via one of their CEV's. This will still require a major build to access the services and the access pricing is based on business rates rather than wholesale rates and does not scale. This option is also lacking in so far as there is no peering capability. This option also does not provide solutions for expanding backhaul between Stanthorpe, Warwick, Allora, Clifton, Nobby, Greenmount and Cambooya.

Currently the closest wholesale access is via NexGEN networks which have a presence at 1 Annand St Toowoomba, 130 Km from Stanthorpe.

As for access pricing, it will need to be set at such a level as to reflect the input costs required to ensure viability in regional communities of various sizes ranging from 700 people to 10,000 people. The access pricing on the link from Toowoomba needs to take into account that the cost of accessing NexGEN networks. Costings can be provided if and when required.

#### 4.2 Design and operational parameters

Stakeholder view are sought on the following matters:

- 1 the type and capacity of services and associated operational arrangements that the network operator should provide to access seekers, including the costs of delivering these services and the charges that should be levied

Dark fibre would be the most suitable means of delivering access in the short term. This would take away the need for expensive buildings and associated costs and would allow access seekers to deploy equipment suitable for their needs, while at the same time minimizing the project cost. This would not prevent access seekers from forming joint ventures to increase equipment utilisation by sharing active equipment. In the medium to long term if demand dictates active equipment may be required to minimize expensive cable upgrades if demand justifies the additional expense.

- 2 the locations at which points of interconnect should be sited to enable secure and ready access by access seekers

The points of interconnect would be via access to fibre patch panels located in roadside cabinets located at each of the towns along the cable route. Similar style cabinets to RIM cabinets. This would minimize the initial installation costs and provide access seekers with the flexibility to tailor solutions to best meet their needs. Access seeker would need to build short fibre links away from the roadside cabinets to locations that suit their needs. In some cases it may be to Telstra exchange buildings, in other cases it could be to access seekers wireless equipment shelters. There is no one size that will fit all requirements.

- 3 the timeframes and costs associated with the planning, construction and commissioning of backhaul infrastructure in various terrains and locations

HaleNET could start the construction / rollout almost immediately as most of the route has already been surveyed. The projects estimated construction cost will be between \$900,000 and \$1,200,000 depending on how much of the construction is directly buried and how much is piped. Depending on the ownership arrangements and access costs HaleNET may be prepared to fund some of the costs and provide a very large in kind contribution.

- 4 the extent to which fibre repeater/regenerator equipment would be required at locations other than population centres, and the approach in regard to the powering and housing of this equipment

All repeater regenerator equipment could be located at an access seekers equipment shelter, however it is most likely this would be in either Allora and or Warwick. This equipment would be funded by the access seeker at the time it is required. Power requirements would also need to be provided by the access seeker or seekers when and where power is required.

- 5 the relative merits of deploying links that provide an alternative route to existing backhaul infrastructure

Current backhaul does not necessarily provide the flexibility required to meet roll out needs.

- 6 the relative merits of completing ring architectures as opposed to constructing spurs.

Ring architectures are always better for redundancy, however in this case it would make the project to expensive and would take twice as long to complete. With appropriate cable route marking and protection then this should not cause too many problems, so long as the repair team is close handy in the event of a cable break. If HaleNET were to build this link then the cable protection and maintenance staff would be within 2 hours of any break therefore avoiding long repair delays which would justify the cost of a ring architecture.

#### 4.3 Operational and ownership arrangements

Stakeholders views are sought on the following matters:

- 1 the proposed model including the ownership arrangements and commercial viability

The model will depend on how much contributed capital is required from the other parties. It would be fair to say that if the government funded the build in its entirety that the ownership would transfer to the Government / NBN company. However if other parties were to contribute substantially or take the project construction risk then the ownership should reflect this. This could be in one of a couple of forms, either the construction party retaining ownership and the Australian Government having an indefeasible right to use over a number of optical fibres between agreed end

points and or a number of fibres being made available to other parties, with agreed access costs for access seekers. The second option will probably result in a lower government financial contribution with the same end result. It would also allow more flexibility for the network owner to gain greater utilisation of the backhaul infrastructure to provide services to towns along the route with FTTH or Wimax services. This would also result in quicker deployment of services and more certainty. The condition of open access could also be negotiated to deliver the governments objectives.

- 2 the period of time for which indefeasible right of use should be available to the network operator, and

This should be an indefinite period depending on the amount of financial risk to be taken by the network operator

- 3 alternative models that would meet the Australian governments objectives.

The preferred model by HaleNET would be for HaleNET to build the fibre infrastructure which would be owned by Oziplex ( a licensed carrier). HaleNET and other access seekers would be able to negotiate with Oziplex for access to the dark fibre infrastructure. HaleNET would be willing to provide some financial contribution to the build as well as a large in kind contribution in exchange for an indefeasible right of use over a number of optical fibres.. This could result in the build cost being substantially reduced. Such a reduction may reduce the build cost by upto 50% and deliver the open access and other objectives of the scheme.