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Department of Broadband, Communications
and the Digital Economy ("DBCDE")
Australian Government
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**Submission in Response to DBCDE's
Backhaul Blackspots Initiative ("BBI") Stakeholder Consultation Paper**

Introduction

The Australian Government has decided to invest up to \$250 million to improve the supply of transmission (or backhaul) services to a number of regional centres where there is a lack of competitive services (blackspots). To assist in determining which investments are made and the best approach to resolve such blackspots, the DBCDE is consulting with industry and has released a stakeholder consultation paper.¹

Macquarie Telecom Pty Ltd ("Macquarie") is pleased to have the opportunity to make a submission to this important initiative. Macquarie has responded to each of the three groups of issues raised in the Consultation Paper which define the structure of this submission, i.e.,

- Locations;
- Design and Operational Parameters; and
- Operational and Ownership Arrangements.

Locations

There are four major geographic locations in Australia that Macquarie's would regard as major blackspots. These are as follows:

- Adelaide - Darwin;
- Perth - Darwin;
- North Central Queensland; and
- Tasmania.

All of the above locations represent areas where there is an underlying demand for commercial communications services which cannot be satisfactorily addressed by service providers such as Macquarie. This demand cannot be met because of the excessive price of backhaul services caused by the absence of a competitive supply of such services. With excessive wholesale input prices service providers are not able to offer end customers an attractive pricing proposal which affords service providers a satisfactory profit margin. Each blackspot location is discussed below.

¹ Backhaul Blackspots Initiative, Stakeholder Consultation Paper, Department of Broadband, Communications and the Digital Economy, April 2009 ("Consultation Paper").

Adelaide - Darwin

Telstra owns and operates the only backhaul link between Adelaide and Darwin and, as such, is able to set prices for backhaul services on this link. The price of backhaul services to and from Darwin is typically around \$2,000 per megabyte which Macquarie believes is excessive. Macquarie believes that the absence of competitive backhaul between Adelaide and Darwin may be harmful to Australia's national interests and, as such, should be a high priority for the Government to address. Macquarie bases this view on the long-term high demand for communications services to serve the growth and development of Darwin. This in turn is driven by:

- the North West Shelf Venture - an estimated \$27 billion oil and gas resource development; and
- Darwin's proximity to Australia's Asian neighbours making it a natural trade gateway to Australia.

The role of communications infrastructure as an enabler of economic growth and development has been well established. As such, Macquarie is of the view that the absence of competitive backhaul to and from Darwin is retarding Darwin's and Australia's economic growth.

Macquarie notes that the Australian Government has funds of up to \$250 million to invest under the BBI. While this would be insufficient to build a fibre - optic link between Adelaide and Darwin, Macquarie urges the Government to consider whether additional funding could be made available for such a link or whether the available funds could be combined with other funds (from public or private sources) to provide the necessary funds to build a fibre - optic link.

Perth - Darwin

A similar situation to that described above in the case of communications links between Adelaide and Darwin applies to the communications links between Perth and Darwin along the Western Australian coastline. Importantly, terrestrial on-shore infrastructure between Perth and Darwin would address numerous blackspots along the Western Australian coastline, not just in Darwin. The similarities between Adelaide - Darwin and Perth - Darwin include:

- Telstra is the only infrastructure owner and provider;
- Telstra is in a position to control prices of communications links; and
- The North West Shelf Venture, mining activities and trade with Asia drives the underlying demand for communications services.

Similarly, Macquarie recognises that the available BBI funds would not be sufficient to provide an alternative to Telstra's backhaul link between Perth and Darwin. As such, Macquarie would encourage the Government to consider additional funding and / or combine the BBI funds with funds from other sources in order to address all or part of this blackspot.

North Central Queensland

Macquarie considers that the communications link in the geographic area between Townsville and Cairns on the coast and inland to Mt Isa through central Queensland is another



blackspot. This location is characterised by different communications links which are provided by a number of different parties including Telstra, Queensland Rail, Ergon Energy, Reef Networks as well as various local governments.

The situation that confronts service providers like Macquarie in the North Central Queensland area is that securing a communications link to an end customer typically involves combining available links from different operators. An associated problem is that regional operators tend to offer Layer 3 services while the service providers' need is for Layer 2 services. In addition, specific operators are able to control prices of the services that they offer. The price of backhaul services to and from this area is typically up to \$1,000 per megabyte which Macquarie believes is excessive. This leads to prohibitive cost and complexity making the serving of end customers in this area commercially unattractive.

Macquarie believes that an effective solution to the situation in North Central Queensland would be to consolidate ownership and operation of communications links in a single entity. Such an entity would manage all such communications links and provide seamless Layer 2 backhaul services on open and non-discriminatory terms to retail service providers.

Macquarie's view is that the logical entity to undertake this role is the NBN Co as established by the Government under its NBN policy. This would involve NBN Co being provided with BBI funding and using this to acquire network infrastructure through purchase or long-term lease agreements.

Tasmania

Macquarie believes that the economic growth and development of Tasmania has been retarded by Telstra's control of communications links across Bass Strait and between Tasmania's major population centres, in particular, Launceston and Hobart. Numerous proposed investments in Tasmania have failed on basis of prohibitive communications costs. Macquarie's experience is that business opportunities in Tasmania are commercially unattractive for service providers like Macquarie because of Telstra's pricing of communications links. The price of backhaul services across Bass Strait is around \$800 - 1,000 per megabyte while for the link between Launceston and Hobart the price is around \$2,000 per megabyte. Macquarie believes these prices are excessive.

Macquarie understands that the Basslink communications link is set to become operational in July 2009. This will provide for the first time an alternative communications link to that provided by Telstra. The commissioning of Basslink is welcome news for service providers like Macquarie and for end customers. The expectations are that Telstra's prices will soon begin to fall to levels that will be commercially attractive.

It is noted that Optus operates a radio based backhaul service within Tasmania. While *prima facie* this does provide an alternative to Telstra's terrestrial service, the inherent limitations of the wireless link mean that this is not a fully effective competitive service.

Macquarie considers that competitive backhaul across Bass Strait and within Tasmania should be a high priority for the Government. At the same time, Macquarie recognises that Tasmania has been given high priority for the roll – out of a FTTP network under the NBN policy. As such, it is arguable that action is already in train to address the Tasmanian blackspots.

Macquarie understands that the link between the Basslink landing point in Gippsland, Victoria and Melbourne has been a key stumbling block and cause of recent delays. Macquarie

suggests that it may be appropriate for BBI funds to be directed to ensure that this particular part of the Bass Strait link is operational and is efficient and effective. Macquarie would also encourage the Government to consider funding a competitive backhaul link between Launceston and Hobart either through BBI funds or through funds provided for the FTTP project under the NBN policy.

Other Areas

Macquarie has identified four locations as being high priority blackspots. In addition, there are some blackspots which Macquarie would not consider to be 'high priority'. In particular, Macquarie would consider the area between Broken Hill and Adelaide as a blackspot but not of high priority. This is because of the relatively weak demand for communications services in Broken Hill reflecting its limited level and diversity of current and potential economic activity.

Design and Operational Parameters

The Consultation Paper raises various micro-level technical issues concerning backhaul links for consideration. Macquarie is of the view that many of the technical design matters can only be addressed effectively in relation to specific projects in specific locations. In this context, Macquarie believes that it can only offer meaningful comments at a macro-level on some of the matters raised.

In respect of services, the basic type of access service that Macquarie would seek from a backhaul service provider should meet the following attributes:

- the service should be neutral to the underlying infrastructure, e.g., fibre, HFC, copper, etc;
- the service should be neutral to end user applications, e.g., voice, data, video-conferencing, IPTV, etc;
- the service should be provided in a form which provides flexibility for operators to add value;
- the service is capable of supporting SLAs with end customers; and
- the service should be future proof or at least consistent with the services that would be provided by the NBN Co.

Macquarie believes that the appropriate service that would meet such requirements is an uncontended Layer 2 Ethernet access service. Macquarie notes that Ethernet over Layer 3 is not appropriate as latency performance is not acceptable.

Operational and Ownership Arrangements

Macquarie notes the "potential model" of operational and ownership arrangements for BBI investments as outlined in the Consultation Paper. Macquarie also notes that operational and ownership arrangements for the NBN Co are not yet finalised.

Macquarie believes that the operational and ownership arrangements for investments pursuant to the BBI must ultimately be consistent with such arrangements which are finally made for the NBN Co. That is, the ownership of BBI investments should ultimately lie with the NBN Co. This is essential to ensure that the NBN Co consolidates the ownership and operation of public communications infrastructure in an entity which will be a wholesale only operator.

Macquarie supports the “potential model” of operational and ownership arrangements. In particular, Macquarie considers that operational and ownership arrangements for BBI investments should reflect the following principles:

- all access seekers will be offered backhaul services on equivalent terms and conditions;
- BBI infrastructure investments must be in wholesale only entities;
- indefeasible rights to use (“IRU”) over infrastructure held by individual companies or consortia who build new infrastructure should be proportional to their contribution to the cost of the investment;
- IRU’s should have a validity period of 15 years;
- Government ownership interests in BBI investments should be transferred to the NBN Co as soon as possible following the capitalisation of investments.

Should you have any queries in relation to this submission, please do not hesitate to contact me.

Yours sincerely



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