



**BROADCAST ENGINEERING
SERVICES (AUSTRALIA) PTY LTD**

SUBMISSION

TO

**AUSTRALIAN COMPETITION &
CONSUMER COMMISSION**

ON

**NATIONAL BROADBAND NETWORK
POINTS OF INTERCONNECT
DISCUSSION PAPER**

8 November 2010

NATIONAL BROADBAND NETWORK

POINTS OF INTERCONNECT

Issues for Discussion

The ACCC and NBN Co have formulated a number of questions designed to promote discussion of the issues raised in this paper.

Effect on relevant markets

1. *To what extent will the number and location of POIs impact competition in the backhaul market in the short term and in the long term?*

It is obvious that the lower the number of POIs, excluding CSA POIs, the less the competition in the backhaul market outside of connecting RSPs from the POI to their networks. With CSA POIs (more POIs) this situation is diminished somewhat if the larger RSPs decide that their customers cannot be served adequately due to the level of aggregation (contention) on the NBN Co transit backhaul between the CSA and the POI. The smaller RSPs would be more likely to accept the level of aggregation offered through the NBN network and keep NNI and wholesale backhaul requirements to a minimum. On the other hand local RSPs (operating only within a local CSA) could require wholesale backhaul outside of the NBN Co network.

2. *To what extent (if any) do you anticipate that any of your transmission assets (or other relevant assets) will become stranded under any of the proposed approaches to POIs on the NBN? What is the value of and location of those assets?*

As an operator of brownfields access networks, HFC and FttP, over a large geographical footprint, and assuming that we will be required to transfer our customers to the NBN network, our microwave backhaul network which we have had to build because of a lack of affordable backhaul will be stranded. The stranding will not be as a result of the positioning and number of POIs as such.

3. *What is the current state of competition in the relevant backhaul markets? To what extent are backhaul services priced competitively in CBD, metro, regional and remote areas?*

Because of the nature of our business which has involved the provision of access networks in greenfields developments in metro and regional Western Australia our experience has been that there is and has been very little competition in backhaul provision where we require it. This has always meant that it is not affordable. Thus the need to build a microwave backhaul network.

4. *How would investment in backhaul infrastructure used for other networks, such as mobile and non-NBN fixed networks, be affected by the number and location of NBN POIs?*

No comment.

5. *To what extent will the number and location of NBN POIs impact competition at the retail level in the short term and in the long term?*

The more POIs, excluding CSA POIs, there are, the higher the cost for RSPs to service large numbers of end-users spread over a large geographical footprint. That is the cost of multiple NNIs and backhaul which would be additional to the wholesale prices from NBN Co for the access network would put pressure on the overall cost of providing retail services to the point where smaller RSPs would have difficulty competing. The smaller RSP's price to cover those costs would render it uncompetitive with the larger RSPs. This would also have the effect of driving up the retail prices to end-users. Therefore BES's position is that the higher the number and more diversified geographically the POIs the less competition at the retail level.

6. *Is the emergence of a Layer 3 wholesale sector likely under the NBN? If so, how will the location of NBN Co's POIs affect this market in the short and long term?*

The higher the number of POIs the higher the cost to RSPs to gain access to large numbers of retail customers (see 5 above). To overcome this, a second tier of wholesale access providers (layer 2 or layer 3) which would "aggregate" a number of smaller RSPs to share the costs of POI access and backhaul could develop. A smaller number of aggregated POIs would reduce the need for the second tier wholesale providers to the smaller RSPs.

The implications of this second tier wholesale market on the price of retail product (through RSPs) to end-users must be considered. Adding another wholesale layer must be added to the base wholesale price from NBN Co. Limiting the number of POIs would limit or at least control the extent of the additional cost of POI access and non-NBN Co backhaul.

Location of POIs on the NBN and provision of related services

7. *What is the preferred number and location of initial NBN POIs and why? How would this be different in the short term and the long term?*

BES's preferred position would be Option 4 for the initial number and location.

8. *What are the strengths and weaknesses of NBN Co's preferred 'composite model' outlined in its Public Position Paper?*

This model offers a compromise between competition in wholesale backhaul and competition in retail services.

9. *Where a composite or low-medium consolidation approach is adopted for NBN Co's POI location, what factors should be taken into account in determining the location of the distributed POIs? For example, is the number of available backhaul routes relevant? If so, what should be the threshold?*

The number of available backhaul routes is very important. There needs to be a minimum of 2 at the very worst with plans to increase that by at least 1 in the medium term.

10. *On what terms should NBN Co supply backhaul from the small number of centralised aggregation POIs to the decentralised disaggregated POIs if its ‘composite model’ is adopted?*

This backhaul should be incorporated within the overall NBN Co wholesale rate (price) for access by RSPs. See the BES response to 1 above.

11. *If NBN Co supplies backhaul, should this be on a Layer 2 Ethernet basis or in the form of dark fibre (or both)?*

Layer 2 Ethernet between the CSA POI and the Aggregated POI.

Timing and Business Rules for interconnection under NBN Co’s composite approach

12. *Under NBN Co’s ‘composite model’, what “business rules” should govern when NBN Co will allow interconnection at the distributed POIs?*

Demonstrated localised nature of the retail services being provided. eg. local datacenter servicing only the region being serviced by the CSA.

Where the level of aggregation on the NBN Co transit backhaul would be detrimental to the retail services being provided. eg. contention.

13. *What should be the process to coordinate the addition of interconnection at the disaggregated POIs?*

No comment.

Changes to the initial POIs

14. *What factors should trigger a review of the location of NBN Co’s initial POIs?*

No comment.

15. *What mechanisms should be used to effect a change to the location of NBN Co’s POIs? (i.e. consultation requirements and notification periods)*

No comment.

Layer 1 Unbundling

16. *What are the implications of the number and location of POIs for potential Layer 1 unbundling and home-run network topology for the NBN?*

Cost to NBN Co of providing fibre cores between CSA POIs and the Aggregated POIs.

Uniform National Wholesale Pricing (UNWP)

17. *To what extent can UNWP be achieved independently of decisions about the number and location of POIs?*

No comment.

18. *Is NBN Co's definition of UNWP "...that Access Seekers should face the same total wholesale cost from any premises to a designated state capital city point of presence" an appropriate one? If not, what alternative definition would you propose?*

No comment.

19. *To what extent can it be ensured that Access Seekers face the same total wholesale cost in supplying services to end-users across regions independently of decisions about the number and location of POIs? That is, are there alternative ways to the approach proposed by NBN Co of ensuring that Access Seekers face the same total wholesale cost in supplying services to end-users across regions?*

If the "total wholesale cost" includes both the NBN Co wholesale cost and the "external" wholesale backhaul, the cost of supplying services to end-users will be dependent upon the number and location of the POIs.

20. *If NBN Co's preferred composite model were to have no price differentiation between interconnecting at designated capital cities or at CSA locations, what impact would this proposal have, particularly on regional retail markets and regional backhaul transmission markets?*

No comment.

Wireless Services

21. *Should the same approach for the number and location of POIs for NBN Co's fibre services be adopted for wireless and satellite services? Why and/or why not?*

No comment.

Other

22. *In relation to the data provided in Appendix A of NBN Co's Public Position Paper, do you believe that NBN Co's input information is accurate, and has NBN Co correctly assessed the current state of the backhaul and competitive DSLAM markets?*

No comment.

23. *Are there any other considerations or information that you think are relevant to the selection of NBN Co's POI locations?*

No comment.

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