



NATIONAL BROADBAND NETWORK

SUBMISSION TO THE AUSTRALIAN GOVERNMENT
ON REGULATORY ISSUES

NEXTGEN NETWORKS PTY LIMITED

25 JUNE 2008

1 INTRODUCTION

Nextgen Networks Pty Limited (Nextgen) welcomes the opportunity to provide its submission in response to the Australian Government's request for submissions on regulatory issues associated with the National Broadband Network (NBN).

Nextgen supports the Australian Government's NBN initiative. It does not intend to lodge a proposal for the deployment and operation of a high-speed, fibre-based NBN.

Nextgen is a specialist licensed carrier that owns and operates Australia's third largest long-haul fibre optic cable network. Nextgen's network spans mainland Australia, serving the cities of Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth with inter-connect options in more than 70 regional centres.

Nextgen's core network provides seamless high performance data networking carriage services between rural and regional centres, metropolitan centres, mainland capital cities and international cable routes. Nextgen provides a range of standard transmission carriage products as well as customised solutions. It services the carrier, service provider, corporate and government sectors. Nextgen is actively pursuing a programme to extend its backbone network into new regions and states throughout Australia.

Nextgen's network assets and market position mean that it must be allowed to continue playing an important role in the deployment of competitive telecommunications services to all Australians.

Nextgen would be happy to discuss this submission, or other regulatory issues associated with the NBN, with the Government or Panel of Experts appointed in relation to the NBN.

2 EXECUTIVE SUMMARY AND RECOMMENDATIONS

Australia's telecommunications services are underpinned by infrastructure competition that can generally be defined by type as inter-national, inter-city and town, inter-exchange and customer access network segments as per Figure 1.

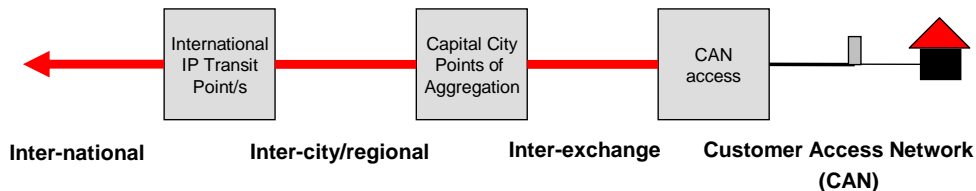


Figure 1 – Transmission Capacity Services Competition

Nextgen believes that the majority of Australians are currently enjoying the increasing benefits of infrastructure competition in each of these network segments. Whilst the NBN will impact the way services are delivered over the existing copper customer access network (CAN), there is a strong rationale for the Australian Government to preserve the role of competition on inter-national, inter-city and inter-exchange backhaul transmission capacity services in Australia.

Nextgen supports the Australian Government's commitment to building an NBN that will deliver a dedicated transmission speed of at least 12 megabits per second (Mb/s) to 98% of Australia's premises. For end-users, this commitment will see a marked improvement to broadband access speeds. However, the provision of broadband services will be subject to bottleneck infrastructure that exists upstream from the access network. Without proper attention being focused on ensuring the appropriate regulatory environment for bottleneck infrastructure is provided, the NBN risks adversely impacting on transmission capacity service competition. Losing the benefits of this competition will have substantial impacts on the delivery of broadband services both now and into the future.

Based on the Request for Proposals issued by the Government in respect of the NBN,¹ (RFP), Nextgen believes that NBN proponents are likely to propose:

- removal of access to some existing unbundled network elements;
- indirect access to end-user premises by the provision of an aggregated bit-stream service delivered at points of aggregation; and/or
- relocation of existing points of network interconnect further upstream to new points of aggregation.

Nextgen considers that these changes, if not carefully considered, will have adverse impacts on the provision of competitive transmission capacity services.

¹ Department of Broadband, Communications and the Digital Economy, *Request for Proposals to roll-out and operate a national broadband network for Australia*, 11 April 2008.

Further, Nextgen considers that the provision of competitive transmission capacity services will be detrimentally impacted where:

- the NBN has monopoly characteristics and its operator is allowed to compete in other markets; and/or
- the NBN is subsidised by grant, favourable funding terms or price ruling that allow the overbuilding of competitive networks.

Nextgen recommends that the Australian Government require an effective undertaking or regulation that 'ring-fences' the NBN in order to ensure that markets and market-segments that lie beyond the CAN remain competitive. This is illustrated in Figure 2.

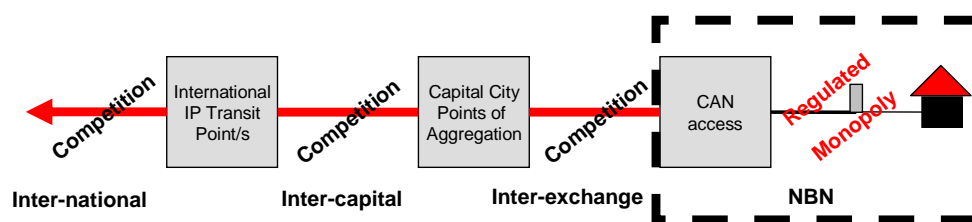


Figure 2 – Ring-fenced CAN “the NBN”

The regulation of the NBN provider should:

- prevent uniform pricing beyond the CAN across all geographies;
- ensure that appropriate controls on the NBN provider limit its misuse of market power; and
- require the NBN provider to provide equitable access, service class and pricing to acquirers of the NBN service.

Nextgen also recommends that if changes to the locations of existing points of interconnect are proposed, new points (which are likely to be more highly aggregated) should:

- allow for the transition of existing competitive transmission capacity service supply to the new NBN;
- encourage competitive investment to meet transmission capacity service undersupply and increasing demand; and
- ensure that points of interconnect are numerous enough to facilitate the further development of broadband services beyond the NBN.

The remainder of this submission is arranged as follows:

- **Section 3 – mandating access to bitstream access points:** this section illustrates why access to an effective replacement for existing unbundled network elements that may be removed by an NBN is needed. Such access may be to the bitstream or on another appropriate basis. Wholesale access is needed in order to promote continued infrastructure investment and competition in the supply of wholesale backhaul or transmission services;
- **Section 4 – maintaining current aggregation points:** this section demonstrates how moving existing points of interconnection and points of aggregation undermines current competitive investment in transmission networks which will impact on access network capacity into the future. The bitstream access point is an all defining competition policy issue;
- **Section 5 – non-exclusivity beyond the CAN:** this section shows how exclusivity in the NBN can be leveraged into wholesale and retail markets and the impact this has on competition, infrastructure choice and innovation;
- **Section 6 – effects of cross-subsidy:** this section proposes that the implementation of uniform pricing, as proposed in the RFP, be limited to the CAN. It also illustrates the importance of compensating parties where existing competitive networks are overbuilt;
- **Section 7 – third-party access terms that promote competition and innovation:** this section reaffirms the importance of equivalence of access, content neutrality, and non-exclusive service class; and
- **Section 8 – services to business and future exclusivity:** this section examines the service class requirements for business services and the potential competitive impact of granting regulatory holidays at a network element or geographic level.

3 MANDATING ACCESS TO BITSTREAM ACCESS POINTS

The Government requirement for the NBN to provide minimum access speeds of 12 megabits per second to end-users will increase the demand by Internet Service Providers (ISPs) for backhaul transmission capacity, i.e. the upstream supply of broadband capacity. Figure 3 illustrates how greater access speeds place pressure on upstream supply.

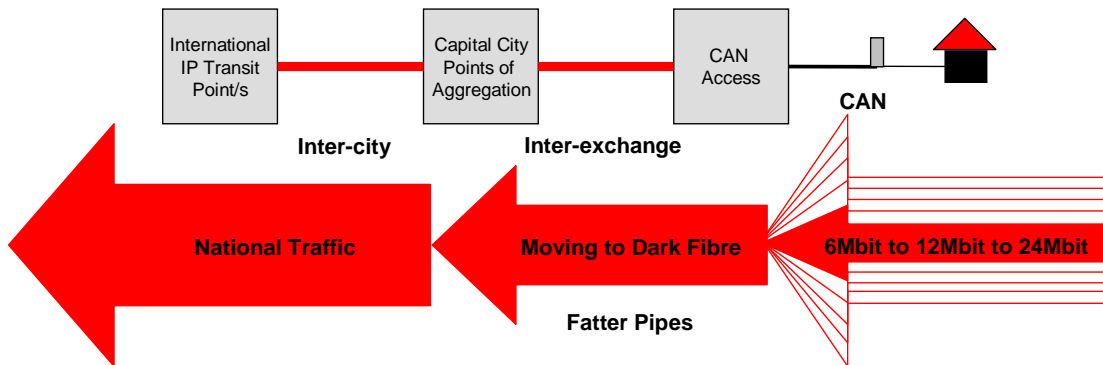


Figure 3 – Greater access speeds to pressure upstream supply

Nextgen submits that in an NBN environment, ISPs should continue to be permitted to choose who supplies such upstream capacity to them, in the same way as they can under current unbundled network arrangements. This will ensure the continued existence of investment and competitive tensions in transmission markets. Allowing ISPs to choose from a range of transmission suppliers, in turn necessitates guaranteed access to the NBN at bitstream access points.

Without access to bitstream access points, a large volume of traffic will not be available for supply by competing providers which will in turn adversely impact competition.

Australians currently enjoy the benefits of a range of optic fibre cable transmission networks. For example, the ACCC has recognised that the existence of multiple competing networks supplying inter-capital and nominated capital-regional transmission routes has created effective competition and sufficient contestability to the extent that the ACCC determined to remove these routes from regulation under the telecommunications access regime.²

The importance of appropriate regulatory settings to ensure continued investment in transmission capacity is illustrated by the position in the United States:

² ACCC, *Transmission Capacity Service, Review of the declaration for the domestic transmission capacity service*, Final Report, April 2004.

Without ample and immediate investment, the information superhighway is destined for gridlock, according to a report released Thursday by the New Millennium Research Council, a Washington, D.C.-based lobby and policy group. Specifically, the report questions the readiness for NBC's Web coverage of the 2008 Olympics in China, which is expected to generate thousands of real-time hours of high-bandwidth programming.

...."Careful attention should be paid to any new regulation which might adversely impact the business case for Internet investment or set preference for one business model over another," the report warns. "Regulators should not inhibit Internet service providers' flexibility to experiment with new traffic management technologies and strategies in order to efficiently deliver new services with the quality and security options that Internet users desire."³

4 MAINTAINING CURRENT INTERCONNECTION AND AGGREGATION POINTS

Nextgen suggests that a key consideration for the Government in assessing NBN proposals should be whether the proposed new network makes use of existing points of interconnection and aggregation.

The NBN provider should be required to make use of appropriate existing legacy infrastructure such as points of interconnection and aggregation so as to:

- avoid unnecessary duplication thereby reducing the cost of the new network;
- maintain the value of current competitive investment in transmission networks and the competitive impacts on the wholesale and retail layers that such networks generate;
- reduce the ability of the NBN provider to compete unfairly with existing transmission providers by selecting interconnection and aggregation points that are unsuitable for other providers; and
- provide arrangements that allow for services migrated to the NBN to have seamless transfer to original transmission capacity services.

³ http://publications.mediapost.com/index.cfm?fuseaction=Articles.printEdition&art_send_date=2007-8-10&art_type=13

5 NON-EXCLUSIVITY BEYOND THE CUSTOMER ACCESS NETWORK

Nextgen submits that the Government should ensure that the regulatory environment does not allow the NBN provider to leverage the monopoly infrastructure rights that it will have in the CAN into other wholesale and retail markets. The Government should conduct a careful review of current regulatory safeguards and prohibitions and their adequacy in an NBN environment.

The NBN provider's commercial incentives to frustrate natural competition through the control of bottleneck assets need to be removed through appropriate regulation. A structure where the NBN provider can exercise its dominance in multiple markets to inflate prices and restrict investment and innovation will certainly not result in a more competitive telecommunications market place that will promote the long-term interests of end-users.

Nextgen suggests that a range of regulatory measures be examined to consider whether they should be implemented to prevent anti-competitive leveraging by the NBN provider beyond the CAN. Such measures would include appropriate access pricing regulation, anti-competitive bundling prohibitions and the need for the NBN to provide an equitable service class to wholesale customers.

6 EFFECTS OF CROSS-SUBSIDY

Nextgen believes that a key consideration for the Government in assessing NBN proposals will be the way in which the requirement in paragraph 1.3.1.6 of the RFP is implemented for an NBN that "*enables uniform retail prices on a national basis*".

Nextgen believes that the Government needs to have particular regard to the following factors in interpreting this requirement:

- subsidies flowing from city users to regional and rural areas will lift the prices of services to city users; providing an incentive for city-based service providers to deploy alternate access networks and undermine the NBN business case;
- having uniform retail prices for services where price differentiation occurs in wholesale markets based on location, volume, and customer type will require a level of provider transparency at structural and functional separation levels in order to ensure equivalence of price and non-price terms and conditions;
- wholesale bundling of access and transmission services into a flat national price will remove the incentive to build alternate transmission infrastructure and perpetuate "download caps" that are a current feature of Australian broadband services; and

- wholesale bundling of access and transmission services into a flat national price redirects traffic to the NBN provider and overbuilds transmission capacity services that are currently servicing unbundled network elements.

Nextgen strongly recommends that uniform retail pricing under the NBN should not also result in requirements for uniform wholesale pricing for transmission capacity services. Rather, wholesale transmission pricing should be required to be supplied by the NBN provider to access seekers on equivalent terms to that which the provider provides to itself. Nextgen believes that this approach is also consistent with paragraph 1.3.1.10 of the RFP which requires that the NBN *“facilitates competition through open access arrangements that ensure equivalence of price and non-price terms and conditions, and provide scope for access seekers to differentiate their product offerings”*.

Nextgen believes that transmission capacity services overbuilt by the NBN should be compensated in the same way as the owners of existing DSLAM equipment that use unbundled networks elements who lose access to these elements.

7 THIRD-PARTY ACCESS TERMS THAT PROMOTE COMPETITION

The Government faces a difficult task to meet the aim that “appropriate open access arrangements are in place to promote competition and ensure efficient investment” as highlighted in paragraph 1.5.14 of the RFP. This is due to a conflict between paragraphs 1.4.1 (b) and 1.5.16 of the RFP as they relate to transmission services and content services. The relevant paragraphs state:

*“1.5.14 As noted above, the NBN will be a central platform for the Australian communications sector. The Government considers that the long-term interests of end-users should continue to be promoted. The Government is therefore determined to ensure that **appropriate open access arrangements are in place to promote competition and ensure efficient investment**. In this context it will be important to ensure that access is provided on equivalent price and non-price terms and conditions.”*
(bold emphasis added)

*“1.4.1 (b) Wholesale services should be taken to include the full range of wholesale services including facilities access, interconnection, **basic access (including bitstream), transmission (including backhaul)** and other wholesale services (e.g. ancillary services), to the extent that they are offered by Proponents, including all those relating to: voice, video, IPTV (interactive: point to point video calls), high-definition television, high-definition video conferencing, multipoint (teleconferencing), data (Ethernet:*

point to point, point to multipoint, permanent and connection-based; other: point to point, point to multipoint, permanent and connection-based) and other services.” (bold emphasis added)

*“1.5.16 Open access arrangements should apply to wholesale services to be provided over the NBN, including upgrades of services, as specified in the contract for the NBN. In accordance with section 1.4 of Schedule 2, Proponents should submit their proposed arrangements for ensuring open access to the NBN, including measures or models to ensure that access is provided on **equivalent price and non-price terms and conditions**. If a Proponent proposes to supply both wholesale and retail services it should demonstrate what structural measures or models it proposes be put in place and maintained to prevent inappropriate self-preferential treatment and ensure that effective open access is achieved on the terms required by the Commonwealth.” (bold emphasis added)*

The aims in the highlighted sections in paragraphs 1.4.1 (b) and 1.5.16 cannot be achieved with the bundling of bitstream access and transmission specified in paragraph 1.4.1 9 (b) unless the NBN is appropriately “ring fenced”. It is Nextgen’s position that preventing self-preferential treatment is not as simple as just implementing structural measures between the wholesale and retail business of the NBN provider. Rather, a third dimension also needs to be considered that involves delineation of the various markets that exist within the wholesale sector. Basic access that is bundled or supplied by the same provider as backhaul services may be priced on a predatory basis or bundled with backhaul components and/or other services to compete with other infrastructure and content providers, undermining the requirement in paragraph 1.5.14 looking to promote competition and ensure efficient investment.

The Government needs to examine the ability of the NBN provider to sell bundles of services to wholesale markets. Without appropriate controls, investment could be undermined. The Government therefore needs to look beyond merely retail and wholesale structural measures.

8 SERVICES TO BUSINESSES AND FUTURE EXCLUSIVITY

Nextgen submits that NBN services may impact on the delivery of access services to both business premises and residential premises. Where existing business grade access services are replaced by NBN services, all access seekers must be able to access the new NBN services.

Telecommunications services are supplied to Australian business premises using a wide array of access network technologies that are supplied by a large number of

independent network and application providers. Therefore, no one access provider will have a practical understanding of the transitional arrangements and the class of service requirements that will be required to maintain continuity of current and future services needed by businesses with the introduction of the NBN.

The Government's analysis of the necessary transitional arrangements should pay particular regard to:

- the array of legacy platforms that currently support business services;
- the cost of transition to new platforms for business services and the impact on carriage service providers; and
- the need for application service providers to have access to replacement services that allow them to control oversubscription ratios, class of service, protocols and quality of service (QoS) in order to support specific applications.

The Government should also have regard to the ability of the NBN provider to further adapt and modify the NBN. This will be particularly important if a "regulatory holiday" is granted to the NBN provider in respect of the NBN network removing for a time telecommunications specific access regulation under the Trade Practices Act 1974, whether or not the holiday is granted over specific infrastructure, technology or geographic areas.

It is highly likely that network elements of the NBN will be used to create unique classes of service and product types. These modifications may be leveraged into locations deep in the NBN to which only the NBN provider has access. Any loss of powers to regulate bottleneck services within the NBN or aspects of it, is likely to distort competitive markets.

For further information regarding this submission, please contact:

Michael Ackland

Nextgen Networks Pty Ltd

Level 6, 333 Collins St, Melbourne Victoria 3000

Ph: 03 8613 3310 Mobile: 0411 478 269

michael.ackland@nn.com.au