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Department of Broadband, Communications and the Digital Economy

National Broadband Network

Submission to assist in the development of a Request For Proposal

March 2008

INFRASTRUCTURE | MINING & INDUSTRY | DEFENCE | PROPERTY & BUILDINGS | ENVIRONMENT

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Acronyms

DBCDE	Department of Broadband, Communications and the Digital Economy
IPTV	Internet Protocol Television
NBN	National Broadband Network
QoS	Quality of Service
SLA	Service Level Agreement
TDM	Time Division Multiplexing
VOIP	Voice Over Internet Protocol
WiMAX	Worldwide Interoperability for Microwave Access

1. Background

The Australian Government has committed to building an open access, high speed, optic fibre based National Broadband Network (NBN) which will deliver speeds of at least 12Mbps to 98% of Australian homes. To assist in the development and deployment of this network, the Government has set up a Panel of Experts to oversee commercial and technical aspects of rolling out the NBN.

As part of process, the Department of Broadband, Communications and the Digital Economy (DBCDE) and the Panel of Experts are seeking consultation from industry and the general public to assist in the development of the Request For Proposals (RFP) documentation. The purpose of this submission is to briefly note some key issues that the Panel of Experts may wish to take into consideration when developing the RFPs for the NBN.

2. RFP Considerations

Australia's future productivity, competitiveness and wealth creation depends on the development of advanced, nationwide communications infrastructure. The NBN will position Australia as a competitive, innovative, knowledge-based nation and will provide numerous benefits for public and private industry, the Government and the general public. This network can underpin innovative policies into the future and open up new opportunities for Australia in sectors such as health, education, the environment and so forth.

In order to achieve this vision, it is important to accurately capture and understand the technical, commercial, regulatory issues relating to the NBN early in the process so that the RFP documentation invites bidders to put forward solutions that will produce the desired outcome for the network.

2.1 Highlight the key objectives of the NBN

The key objectives and desired outcomes of the NBN should be made clear to potential vendors in the RFPs so that bidders provide solutions that meet the high level key criteria for the network (e.g. Network coverage targets, estimated timeframes for design, procurement and deployment etc.). By providing vendors with the high level outcomes and targets for the network whilst not dictating the specific technologies that should be used, vendors will have the flexibility and opportunity to design solutions that are both innovative and differentiated from their competitors. This approach will also encourage a wider variety of bidders to submit their solutions in response to the RFPs.

2.2 Identify Services and Applications

It is essential that there is a clear understanding and explicit documentation of the anticipated services and applications that should be delivered over the NBN. Detailing the likely voice, video and data services (e.g. TDM and VOIP telephony, security applications, TV services such as IPTV, broadband internet etc.) in the RFP will allow vendors to provide a solution which will carry these services over the backbone network well into the future.

2.3 Underlying Access/Transport

While it is generally recognised that the NBN will utilise a fibre optic backbone, the RFPs should not exclude various other types of distribution mediums as part of the overall solution for the NBN. Wireless technologies such as WiMAX, WiFi, Satellite, and 3G could serve a role in the distribution of broadband services to rural and remote areas where the deployment of fixed line infrastructure may not be possible or cost effective.

The backbone network should be capable of transporting all the applications and services (such as those outlined in 2.2) that are required to be carried over the network.

2.4 Key Performance Indicators and Governance

Appropriate and measureable key performance indicators should be noted in the RFPs so that the performance of the NBN can be quantified, monitored and regulated. By stating the key indicators, vendors must deliver solutions which meet or exceed these targets. Additionally, such indicators will aid the Panel of Experts in discriminating different bidder's solutions as they can be compared with the predetermined baselines set out in the RFP.

2.4.1 Standards based network

Building a network that is compliant with relevant industry standards (international and Australian) is highly desirable as it ensures a level of uniformity and interoperability between different types equipment which may be utilised throughout the network. A standards based network will also aid the process of future expansions and compatibility with legacy equipment.

It is advisable that the RFP lists certain mandatory standards that the network should be compliant to whilst also including certain desirable standards. This will assist in the comparison and evaluation of differing vendor solutions.

2.4.2 Quality of Service and Service Level Agreements

In order to ensure users of the NBN experience acceptable Quality of Service (QoS) levels, certain metrics such as network availability, faults per line, packet latency etc. should be discussed and documented in the RFP. An appropriate regulatory body or bodies should be empowered to monitor and regulate the performance of the network against the key indicators to ensure Service Level Agreements (SLAs) are not being breached.

2.4.3 Role of Legislation, Codes, Guidelines and Standards

The enforcement of SLAs and key performance indicators will be important for maintaining a certain standard of network performance and to protect users of the NBN. Existing legislation will have to be modified and/or new legislation created to empower a body or bodies to oversee the regulation of the NBN and to ensure the focus on and open access network is maintained.

2.5 Pricing Format

The proposed pricing format should not be too rigid and should have sufficient flexibility to allow vendors to structure the costing of their solutions differently. This is necessary as the specific type of transport technology will not be clearly defined in the RFP.

3. Conclusions

The rollout of the NBN has the potential to provide a diverse and numerous range of benefits and opportunities for public and private industry, the Government and the general public of Australia. In order to realise these benefits, it is important to accurately capture and address the key issues and requirements relating to the NBN in the RFP documentation so that vendors provide a network which meets the vision for the NBN well into the future.

In order to invite a variety of bidders with differing solutions, the RFP should not specifically detail the low level transport technology to be utilised. However, key performance criteria should be explicitly stated so that the performance of the network can be measured and regulated by an appropriate body or bodies.

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