



ATUG Forum

ACS Telecommunication Society of Australia
(ACS-TSA)

National Broadband Network Reference Model

ICT Professionals Shaping Our Future



NBN Initiative

- ◆ Platform and enabler for participation in the digital economy
- ◆ Visionary: addressing Australia's inadequate investment in BB infrastructure
- ◆ Also addresses Australia's inadequate regulation of market power in wholesale and retail BB markets
- ◆ But the nature of the service that the NBN will deliver is still far from being well understood.



NBN Reference Model

- ◆ Will the NBN reference model enable the development of the digital economy (or will it present a barrier?)
- ◆ Is anything else required?
- ◆ What safeguards to ensure it works?
- ◆ Does it facilitate competition and access?
- ◆ Is layer 2 access the “preferred industry approach”?
- ◆ What impact on service provisioning, network and service management, network security, accounting?



The high level issues

- ◆ What will be the NBN's wholesale service exactly?
- ◆ What will be its guaranteed QoS?
- ◆ Will the NBN serve IPTV providers with network neutrality in respect to the suppliers of content?
- ◆ Should an industry Ombudsman be created to deal with the NBN's retail performance issues?
- ◆ What transitional arrangements and competitive protections will apply for service providers using current networks?
- ◆ Will competitors to the NBN really be permitted or even safeguarded?



What will be the NBN's wholesale service?

At least three components:

- ◆ Implementation service
- ◆ Transmission capability: point-to-point with guaranteed QoS re performance: bandwidth, outages, signal/noise ratio, jitter etc
- ◆ Maintenance service

Layer 2 only or Layer 3 (addressing) as well?

- ◆ Is there economic scope for more than one Layer 3 wholesale provider? If not, better for NBNCo to provide this underlying service rather than inflate the floor price for all retail BB services.
- ◆ If more than one, what risk of bottleneck service?



What will be the guaranteed QoS?

- ◆ Essential for the NBN to offer minimum guaranteed service levels for all service aspects within its (implementation, transmission, maintenance) to provide a basis on which retail service providers can offer QoS to their end customers, especially business customers.
- ◆ Can the NBN offer multiple SLAs? Can it actually deliver a range of SLAs?
- ◆ The realities of service bottlenecks in international links can be allowed for in service agreements

Will the NBN offer network neutrality?



- ◆ Network Neutrality (NN) means no differentiation in terms of price for performance that depends upon the *content source* for transmission through the NBN
- ◆ NN is essential for pro-competition reasons in general – allowing new market entrants to compete with big players having deep pockets.
- ◆ In particular, NN will be important to allow competition in IPTV services (versus the established networks)
- ◆ One implication of NN is that the NBN must provide a basic transmission QoS capable of supporting synchronous streaming services such as IPTV

Is a new industry Ombudsman needed?



- ◆ The current TIO powers relate to end user complaints and not to complaints by ISPs and other customers of a carrier such as the NBN.
- ◆ To maximise public confidence in the NBN, and to minimise the need for litigation, it is desirable that an Industry Ombudsman Office be created with powers to investigate and mediate on complaints by NBN customers on NBN performance.