



GIBSON QUAI·AAS
CONSULTING

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NBN Reference Model Forum

GQAAS Discussion



Observations

- Comprehensive document
- Architecture Model looks beyond NBN Co
- Is an industry-wide Model
- Embraces End-Users, NBN Co, Wholesale SPs, Retail ISPs and Application Providers
- Addresses wireless as well as fibre delivery
- Addresses key market structure issues
 - Strengthens retail competition
 - National coverage capability for SPs
 - Equal terms of access for SPs

Discussion Points - Overview

- Wholesale Services provided
- Points of Interconnect
- Network Resilience
- Competitive Services at Retail
- What does 100 Mbit/s mean ?
- Transition Arrangements
- Additional Points

Wholesale Services Provided

- Layer 2 only , or Layer 3 ?
- NBN Co saying L2, CA suggesting L3 option)
- Layer 1 in some locations
- POTS support?
- Will FTA and Pay TV be supported?
- Will Multicast be supported

Points of Interconnect

- Locations where RSPs will pick up aggregated customer traffic
- Capital Cities (Type A) + Regional (Type B)
 - Should be choice
 - No overbuild of existing transmission
 - NBN could buy its 'transport' from existing carriers
 - Possible Implications for End Users
 - Expectation is normalised price across the country
 - Dilemma – Providing choice of cheaper prices for local interconnect drives a distance factor into SPs costs
 - Is one option for NBN Co to purchase required collective backhaul and amortise the cost

Competitive Retail Services

- Internet, Telephony, Video
- Switching outside NBN Co
- Interception still SP responsibility
- Triple Play a key capability for SPs
- Telstra ownership in Foxtel
 - Significant lever on customer proposition
 - still has market power
- Case for a 'scale' wholesale IPTV Multicaster

Network Resilience

- What level of 'availability' do we want at the end user level?
- Telstra achieves ~ 99.90% for PSTN
- Should we be aiming for 99.95% or higher
- Chance now to design-in improved SLA
 - Less failures + faster restoration
 - Ring architecture to OLT , Distribution points
 - Built in service testing capability for SP

What does 100Mbit/s mean?

- Users can pay higher price for higher QoS but
- What will be the characteristics of the most widely-used 'best-efforts' Broadband service
- By necessity, will still be statistical multiplexing in the network
- ACCC very interested in this area in the past
- What will be the minimum speed for best efforts
- User bandwidth increasing 50% every year – in 12 years ~ 100 times what we use today.
- Network must adequately scaled now for longer term
- Possible differentiation point for SPs - how much aggregated backhaul capacity they commit to per user. Will NBN Co set minimum?

Transition Arrangements

- Is ONT provided at time of installation
- Who provides, owns and maintains ONT
- (NBN Co indication it will own and maintain)
- For wireless equivalent , does this still apply
- Which of my Service Providers will be the Access Seeker?
- How is existing service bundle transitioned to the new network?
 - New service level or equivalent?
 - Same Price ?
 - Introductory Broadband service available?
 - Telephony only available?

Other Discussion Points

- Allocation of QoS allowances (packet loss, jitter, delay) between
 - On-net within NBN Co network
 - Off-net – Service Providers and International
- Relation of NBN service to CSG
- Relation to NBN service to USO