Australian
Competition &
Consumer
Commission

Assessment of Proposals

National Broadband Network Process

Report to Expert Panel

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Abbreviations

AAL	Acacia Australia Pty Limited
AAT	Acacia Australia Trust
ABS	Australian Bureau of Statistics
Acacia	Acacia Australia Pty Ltd
ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ACT	Australian Capital Territory
ADC	access deficit charge
ADSL	asymmetric digital subscriber line
AER	Australian Energy Regulator
APR	Anchor Product Regulation
ARPU	average revenue per user
AMDF	automated main distribution frame
Axia	Axia Netmedia Corporation
BBM	building block model
BBSY	bank bill swap bid rate
bps	bits per second
BSAL	Broadband Services Access Link
BSS	business support system
BT	British Telecom
CAN	customer access network
CAPM	capital asset pricing model
CAV	capital asset value
CBD	central business district
CCA	current cost accounting
c-i-c	commercial-in-confidence
CPE	customer premises equipment
CPI	consumer price index
DAC	depreciated actual cost
DBCDE	Department of Broadband, Communications and the Digital Economy
DHC	depreciated historic cost
DORC	depreciated optimised replacement cost

DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexers
EBITDA	earnings before interest, tax, depreciation and amortisation
EOI/O	equivalence of inputs/outputs
ERG	European Regulators Group
ESA	exchange service area
FTTC	fibre-to-the-curb
FTTH	fibre-to-the-home
FTTN	fibre-to-the-node
FTTP	fibre-to-the-premises
FY	financial year
Gbps	giga bits per second
HCA	historical cost accounting
HFC	hybrid fibre-coaxial cable
IP	internet protocol
IPO	initial public offering
IPTV	internet protocol television
IRR	internal rate of return
ISP	internet service provider
kbps	kilobits per second
KPI	key performance indicators
LASP	local access service provider
LCS	local carriage service
LRIC	long run incremental costs
LSS	line sharing service
LTE	long-term evolution
LTIE	long-term interests of end-users
MAR	maximum allowable revenue
Mbps	megabits per second
MDF	main distribution frame
MEA	modern equivalent available asset
MSAN	multi-service access node
N/A	not applicable
NBN	National Broadband Network

NEC	National Electricity Code
NER	National Electricity Rules
NGA	next generation access
NGN	next generation network
NOC	network operations centre
NPTC	non-price terms and conditions
NPV	net present value
NZCC	New Zealand Commerce Commission
OECD	Organisation of Economic Cooperation and Development
Ofcom	British Office of Communications
ONI	Optus Network Investments Pty Ltd
OSP	operational separation plan
OSS	operational support system
p.a.	per annum
PCR	price cap regulation
POI	point of interconnection
POP	point of presence
POTS	plain ordinary telephone service
PPP	public private partnership
PSTN	public switched telephone network
PSTN OA	public switched telephone network originating access
PSTN TA	public switched telephone network terminating access
POTS	plain old telephone service
QoS	quality of service
RAB	regulatory asset base
RAF	regulatory accounting framework
RIIF	Rural Infrastructure Investment Fund
RTIRC	Regional Telecommunications Independent Review Committee
RFP	Request for Proposals
RKR	record keeping rule
RSP	retail service provider
SAU	special access undertaking
SAO	standard access obligation

recognises trade-offs between them. The value for money assessment includes consideration of:

1. the overall costs and benefits of the Proposal (including long-term costs and benefits) to the Australian community as a whole;
2. the extent to which proposed legislative and/or regulatory changes may be required to implement the Proposal and the acceptability of those changes to the Commonwealth;
3. affordability, national security and strategic considerations relating to the NBN project;
4. the cost to the Commonwealth of the Proposal; and
5. other whole-of-government considerations.

The Panel is under no obligation to recommend any Proposal should it decide that no Proposal offers value for money (clause 10.2.2).

Stand-alone State or Territory-based Proposals are addressed in clauses 9.3 and 9.4 of the RFP:

9.3 Part Proposals

9.3.1 The Commonwealth may consider stand-alone State or Territory-based Proposals where any such Proposal is assessed as assisting the Commonwealth to achieve an outcome which best satisfies the Commonwealth's stated evaluation criteria including its overall NBN Project objectives. Such Proposals:

1. should provide sufficient information to satisfy the Schedule of Required Information;
2. must meet the conditions for participation specified in clause 10.9; and
3. should identify how a stand-alone State or Territory-based solution will contribute to meeting the Commonwealth's objective of achieving coverage for 98 per cent of Australian homes and businesses.

9.3.2 Failure to provide the information requested in clause 9.3.1.1 and 9.3.1.3 may result in the Commonwealth not considering the State or Territory-based Proposal. Failure to comply with the requirements of clause 9.3.1.2 will result in these Proposals not being further considered.

9.3.2 If a Proponent wishes to submit a Proposal for more than one State or Territory, the Proponent needs to submit a Proposal for all States and Territories. Proponents may only lodge one Proposal except where a Proponent lodges a separate Proposal as a member of a consortium. Failure to comply with this requirement will lead to a Proposal being excluded from further consideration.

9.4 Commonwealth's right to ask Proponents to revise National Proposals

9.4.1 If, subject to clause 9.3.3, a Proponent has lodged a Proposal for all States and Territories, and separate stand-alone State or Territory-based Proposals have also been received, the Commonwealth may subsequently request that Proponent to submit (a) separate Proposals for nominated components of the

However, the ACCC's report also provides an overview and assessment, in respect of each Proposal, of any significant changes to the regulatory framework and the roles of existing regulatory institutions in so far as it relates to competition and economic regulation.

slash its own entry level retail DSL prices some 25%, from $39.95 to $29.95. Take-up accelerated almost immediately (see Broadband technologies – total services in operation, chart 4.1 above).

While take-up accelerated at this time, customers were still largely on low-speed plans, with the highest-speed offerings around the 1.5Mbps mark.

This changed with the second major competitive development. In 2005, firms such as iiNet and Internode commenced investments in competing DSLAM[69] infrastructure in major population centres around Australia. These firms were amongst the first to offer higher-speed DSL services (up to around 20Mbps using ADSL2+ technology) to end-users. When Optus also started installing its own infrastructure – using MSANs[70], which also allow it to provide voice services – Telstra responded by upgrading to ADSL2+ technology itself, albeit initially only in those areas where competitors had entered. Telstra's refusal to roll-out higher speed ADSL2+ services to all areas it had DSL infrastructure - because of specious claims of concerns about wholesale regulation[71] - is a compelling example both of the monopoly problem and, conversely, the power of competition.

This competitive investment was underpinned by, and relies upon, ongoing access to the unconditioned local loop service (ULLS) – access to which had been regulated since 1999, but which was not utilised to a great degree until recently. However, as demonstrated by chart 4.3 below, by 30 September 2008 there were more than one million unbundled services in operation (out of a total of approximately 3.9 million DSL services).[72]

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69 Used in conjunction with regulated access to the unconditioned local loop service (ULLS) or the line sharing service (LSS), a digital subscriber line access multiplexer (DSLAM) can provide access seekers with an alternative to reselling Telstra's wholesale broadband offerings. By gaining access to the copper line (or in the case of the LSS, the high frequency portion of the line) over Telstra's copper network, access seekers are able to interconnect with their own DSLAM equipment to provide retail customers with broadband services.

70 A Multi-Service Access Node (MSAN) is an access technology similar to a DSLAM. However, MSANs can terminate both DSL and voice-band traffic, thus allowing the access seeker to provide retail voice services in addition to broadband. The voice service is either handled by a soft switch in an IP network or sent via a voice gateway to a traditional voice switch.

71 Unlike most other jurisdictions, wholesale broadband has never been subject to access regulation in Australia.

72 Snapshot of Telstra's customer access network as at 30 September 2008, published on the ACCC website. Note this figure includes line-sharing services (LSS), which is where an access seeker uses the copper loop for providing a broadband service, while another party uses the same loop to provide the end-customer a voice service.

backhaul capacity. Contention ratios of 10's to 100's are not unusual. The contention ratio chosen and maximum capacity of a transmission link will affect the speeds experienced by end-users and is a matter of trading-off cost versus customer capacity.

Second, while transmission services can be provided on a pure 'point to point' basis, for reliability reasons transmission service providers usually aim to also have 'redundant' (back-up) paths in case of network failure on a given link. This is often done by creating a network of transmission 'rings', with many individual paths sharing traffic which might be on quite different 'end to end' pathways (and conversely, traffic on the same 'end to end' pathway potentially travelling via different intermediate links / paths). This enhances the economies of scale and scope associated with transmission networks, and adds considerable complexity to issues regarding how transmission services should be priced.