



Communications Alliance NBN Project Update

April 2010



NBN Project Structure

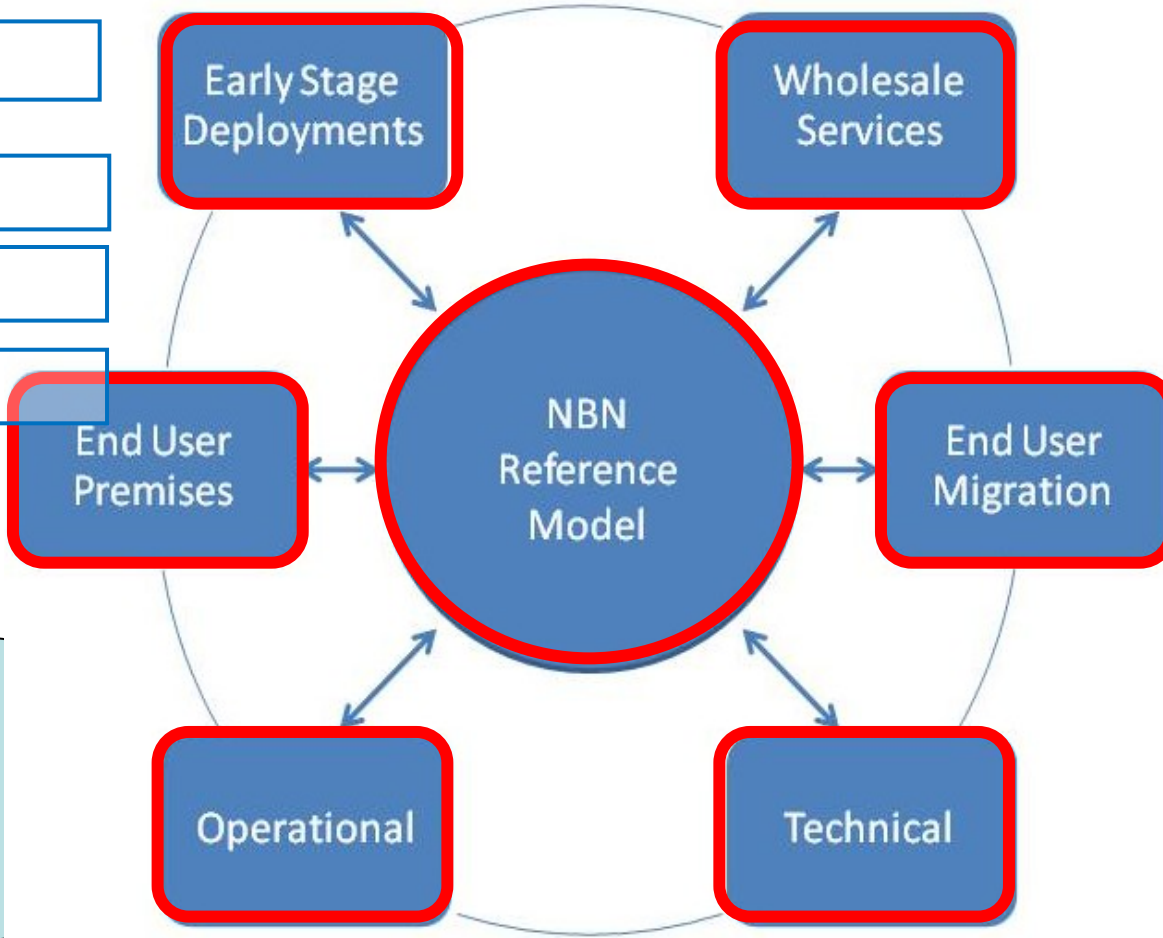
Seven NBN related topics

Aug 09 – first 3 topics started

Sep 09 – additional 2 topics

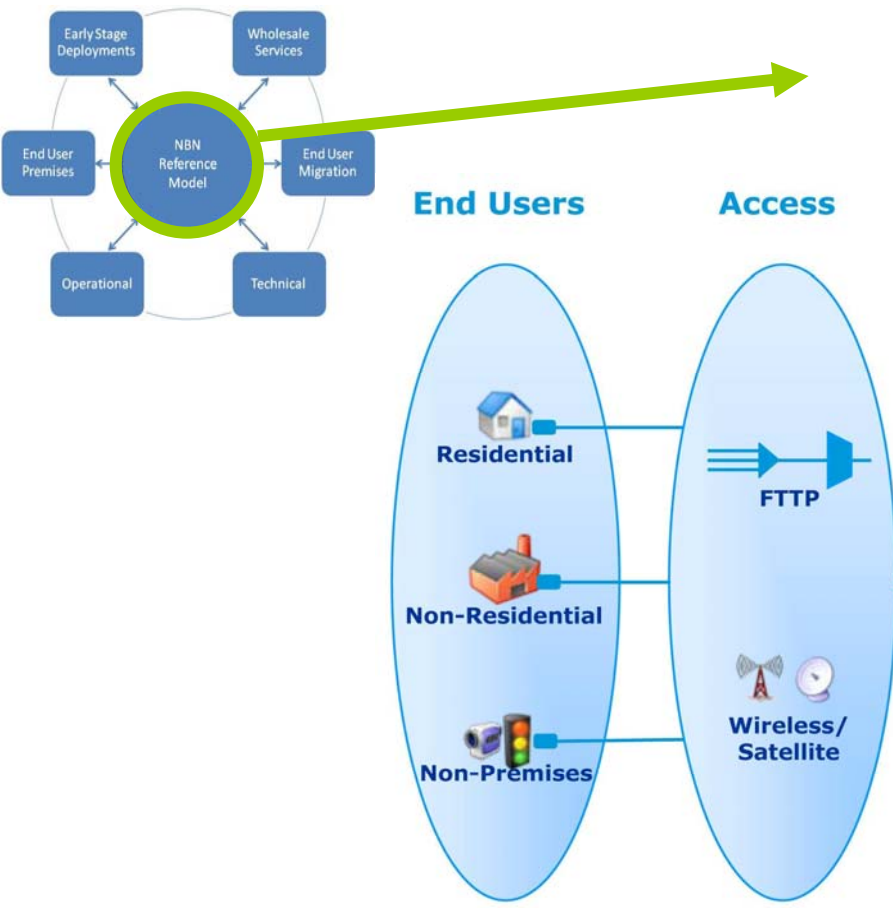
Oct 09 – remaining 2 topics started

April 2010:
~~December 2009:~~
145+
61+ ~~129~~ people
~~53~~ organisations

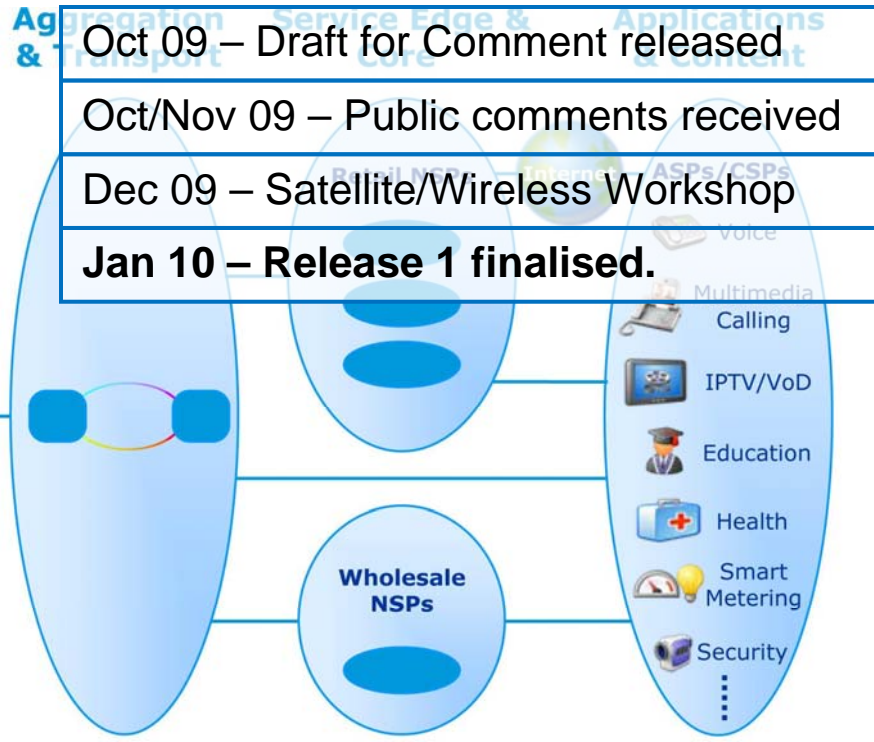




NBN Project Deliverable 1



Reference Architecture – High Level Options for the NBN



- Oct 09 – Draft for Comment released
- Oct/Nov 09 – Public comments received
- Dec 09 – Satellite/Wireless Workshop
- Jan 10 – Release 1 finalised.**

Communications Alliance - NBN Reference Architecture - Release 1 - Jan 2010

http://www.commsalliance.com.au/_data/assets/pdf_file/0012/20730/NBN_Reference_Architecture_Release1_Jan_2010.pdf

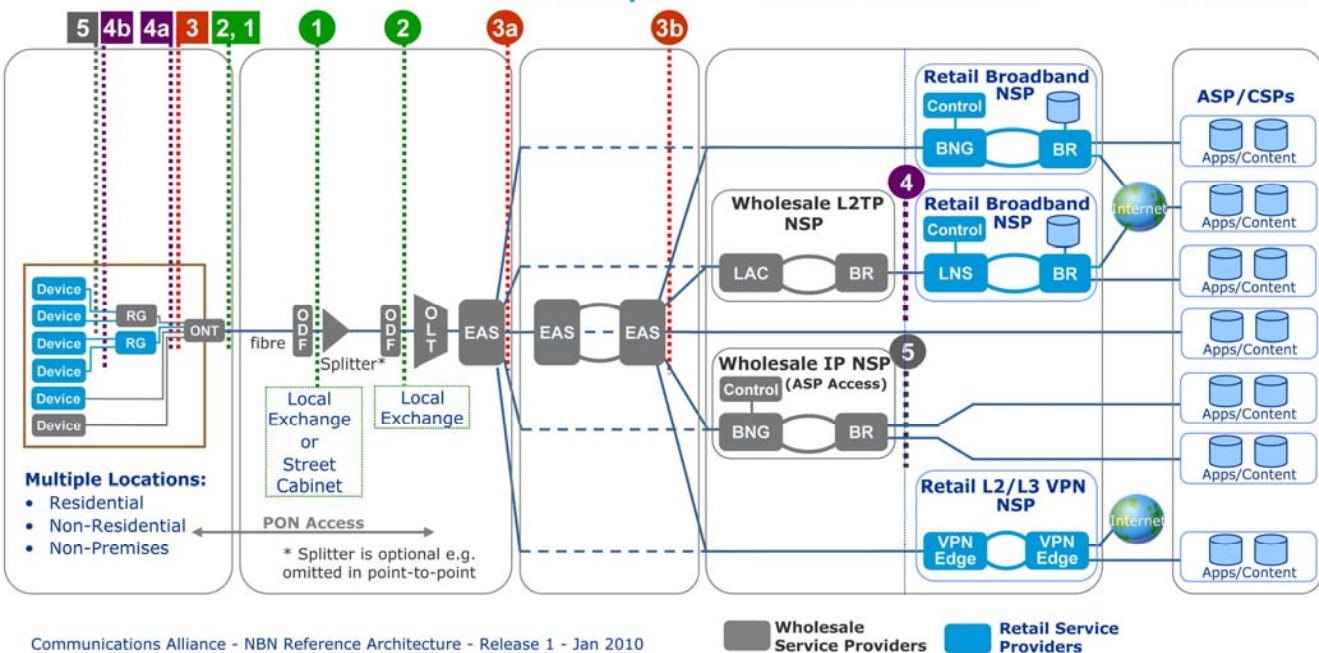
End Users

Access

Aggregation & Transport

Service Edge & Core

Applications & Content



Communications Alliance - NBN Reference Architecture - Release 1 - Jan 2010

FTTP Architecture

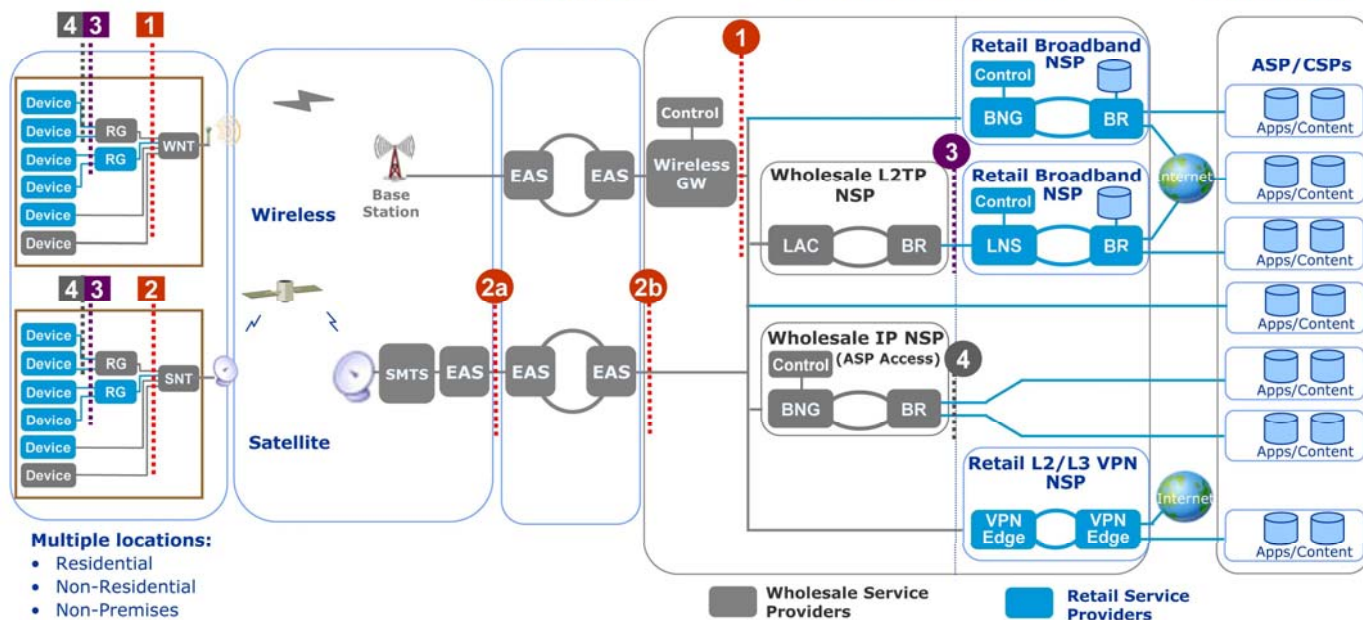
End Users

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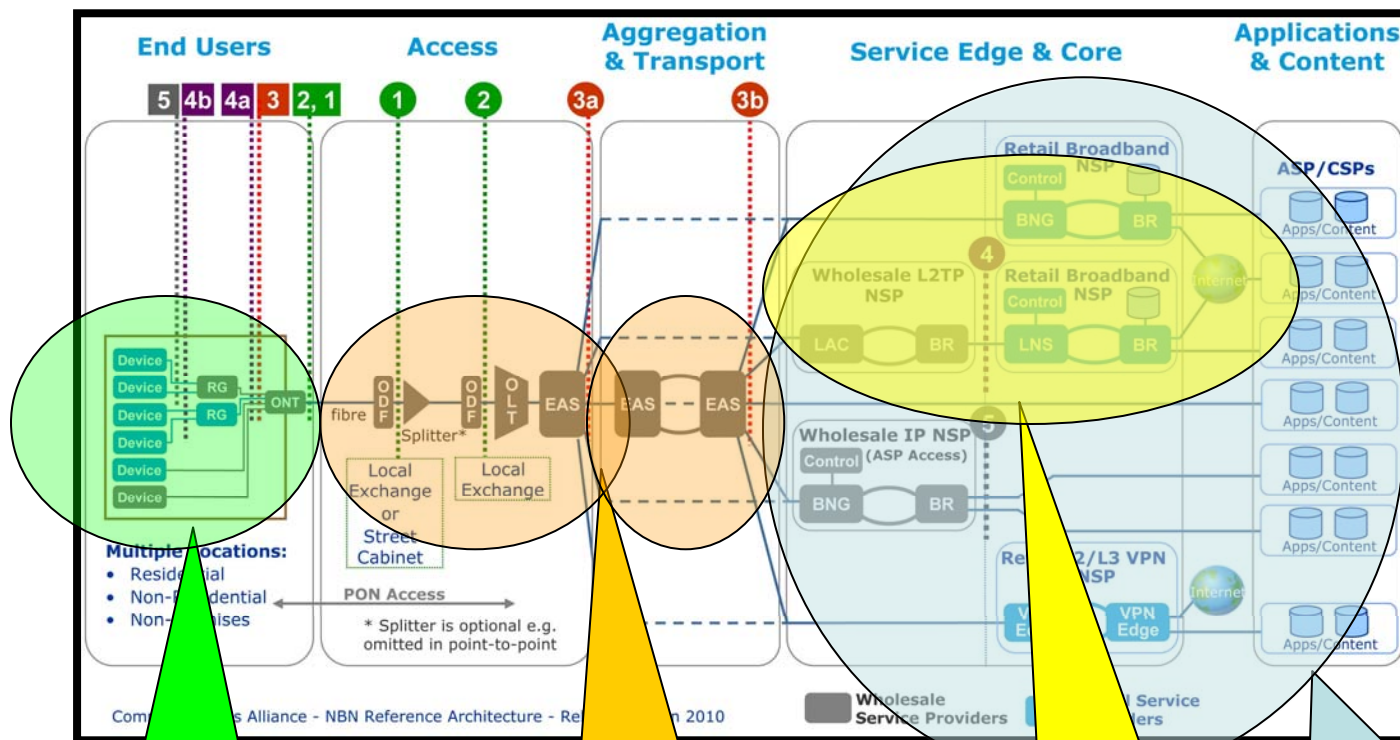


Wireless/Satellite Architecture

- Multiple locations:**
- Residential
 - Non-Residential
 - Non-Premises

Communications Alliance - NBN Reference Architecture - Release 1 - Jan 2010

Architecture Encourages Choice & Flexibility



Many Active Services Simultaneously

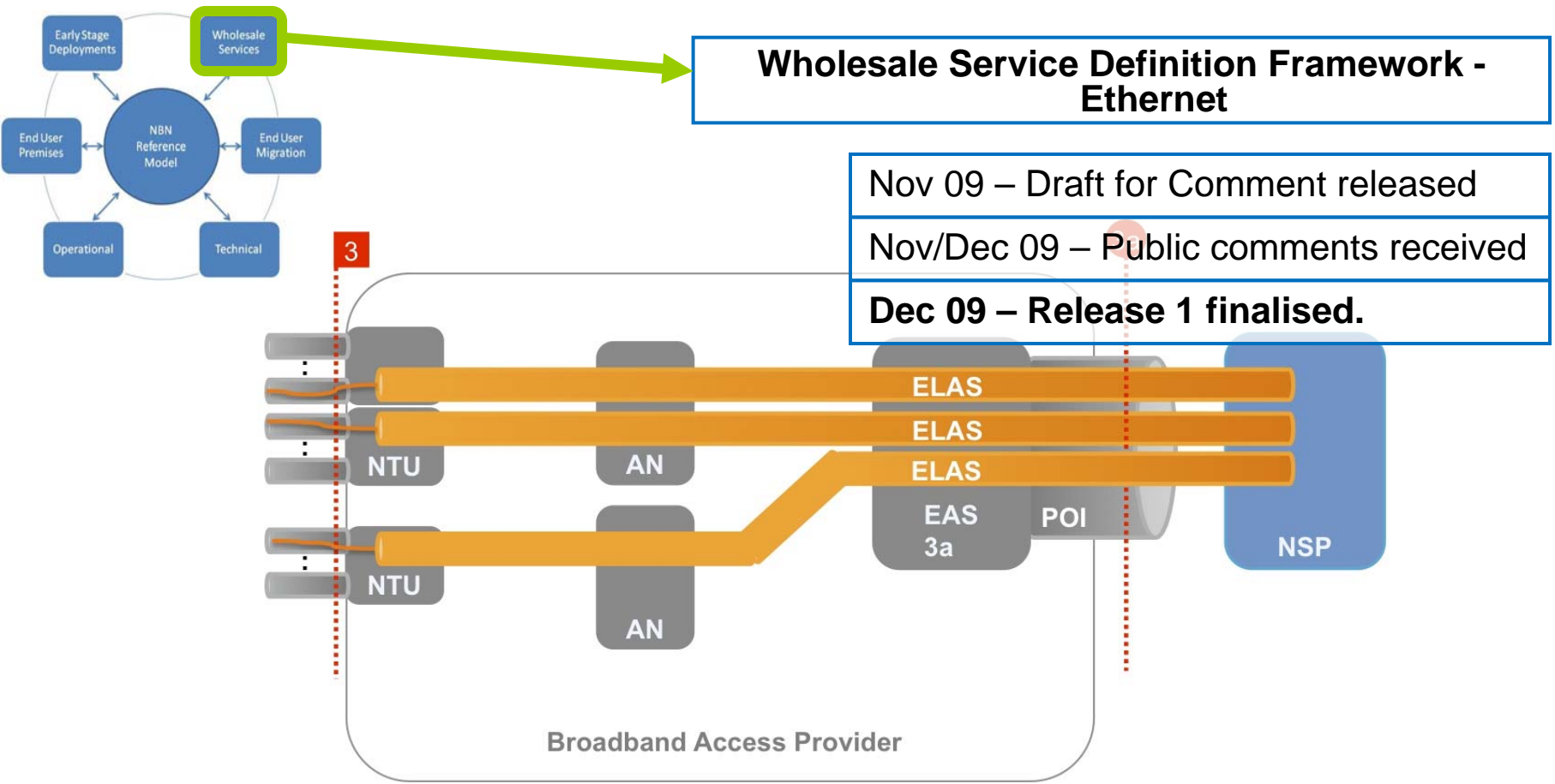
Independent Access and Longhaul Network(s)

Multiple Levels of Wholesale & Retail Service Providers

Multiple Simultaneous Service Providers

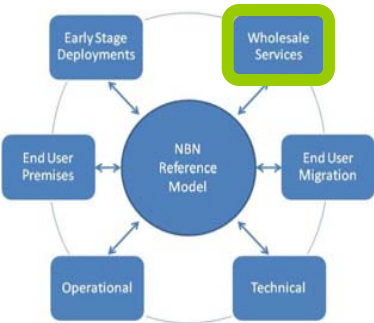


NBN Project Deliverable 2

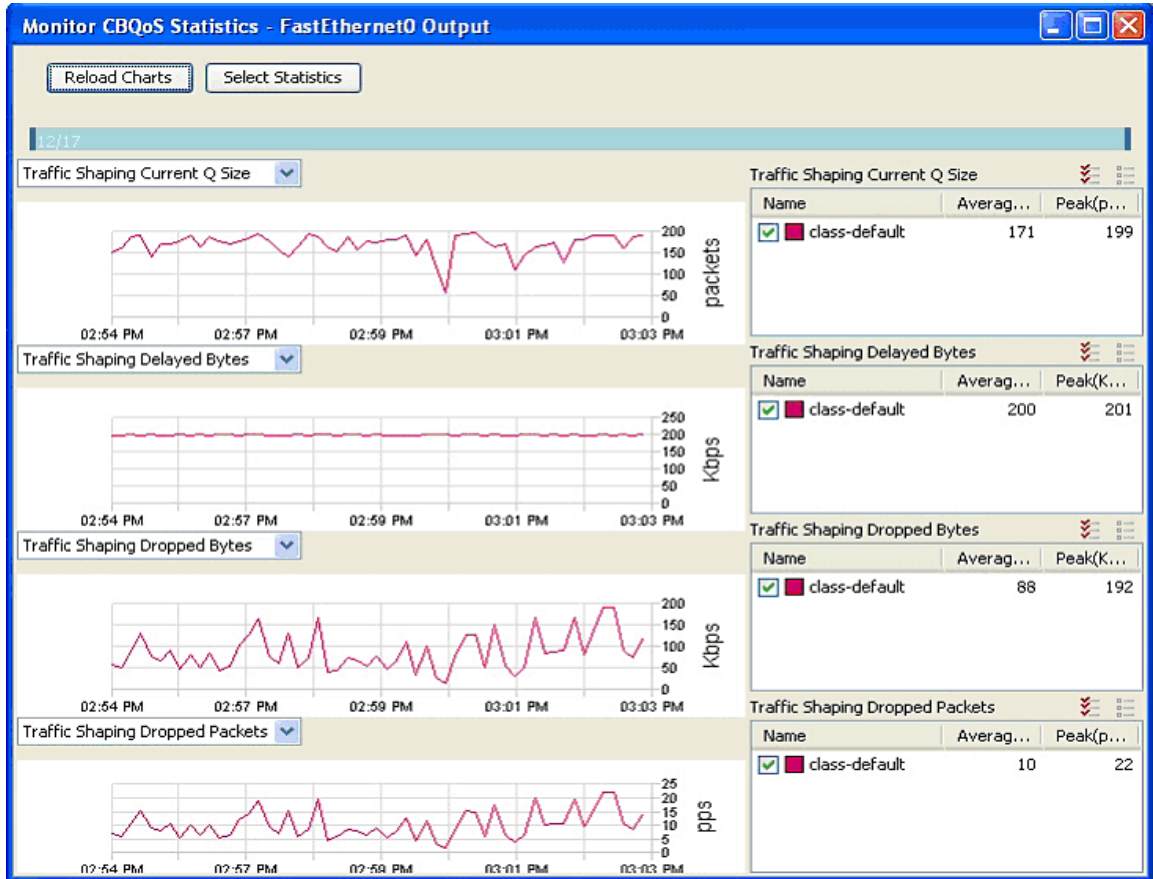


http://www.commsalliance.com.au/_data/assets/pdf_file/0016/20725/NBN-Wholesale-Service-Definition-Framework-Ethernet-Release1-Dec-2009.pdf

Wholesale Service - Not just about speed



- Latency
- Traffic Shaping
- QoS queuing
- Encryption
- IPv6
- Data, Voice, Video

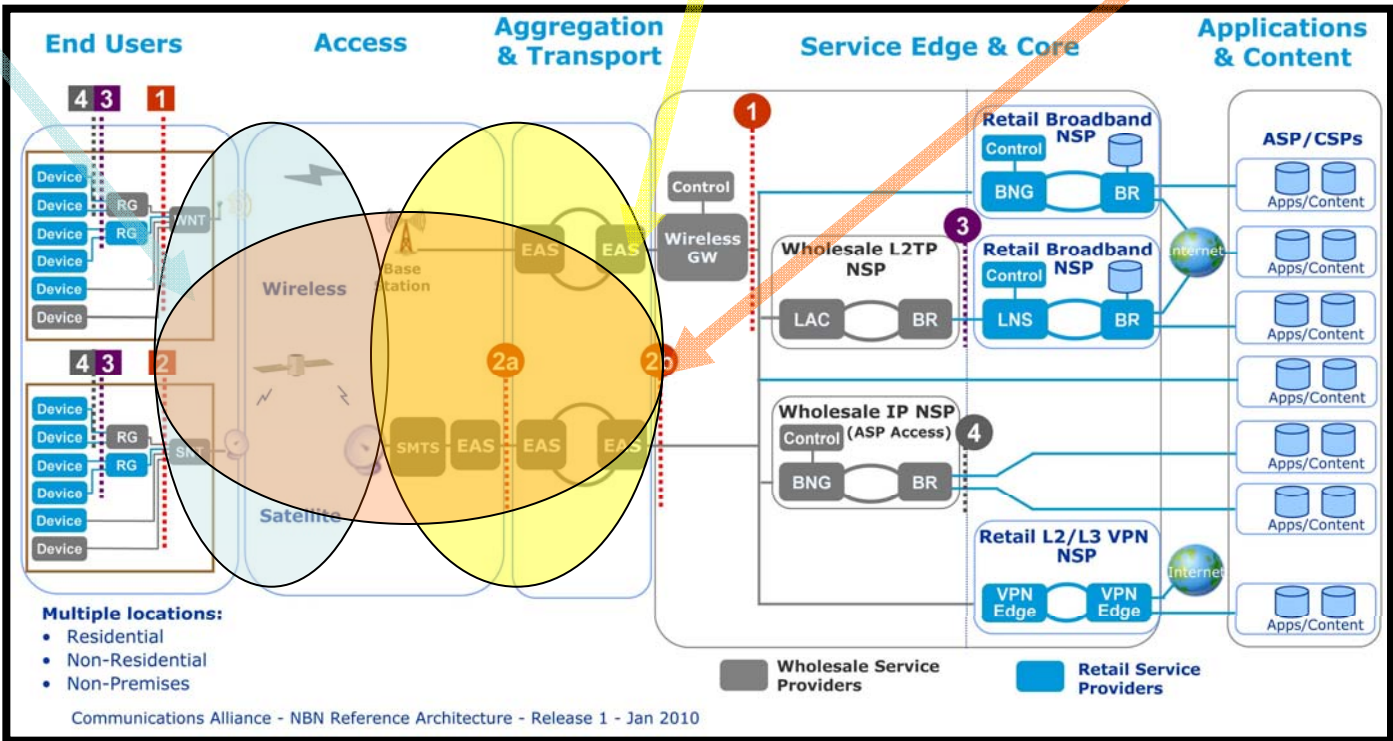




Wholesale Services - Ethernet

- Defines 3 Wholesale Ethernet Services:

ELAS Ethernet Line Access Service	ELBS Ethernet Line Backhaul Service	EMCS Ethernet MultiCast Service
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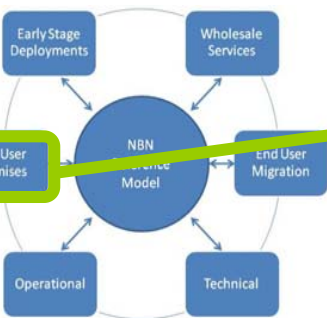
End Users See...

- Ethernet Wallplate
 - 4+ independent sockets?
- Transparent link to their SP of choice
- QoS-enabled – 802.1p/Q
- VLAN capable



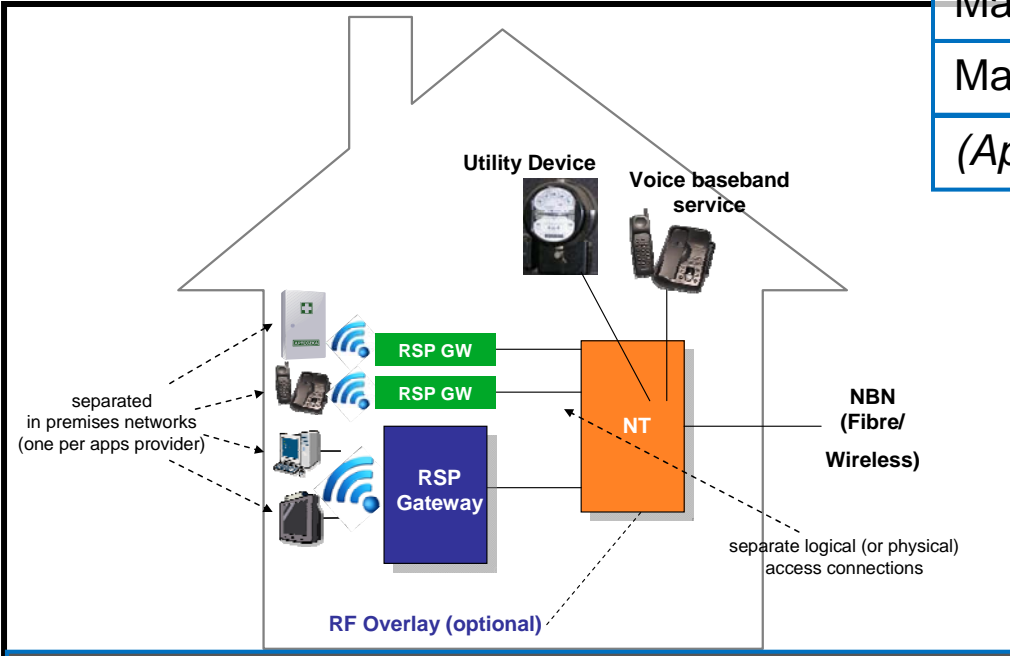


NBN Project Deliverable 3



End User Premises Handbook

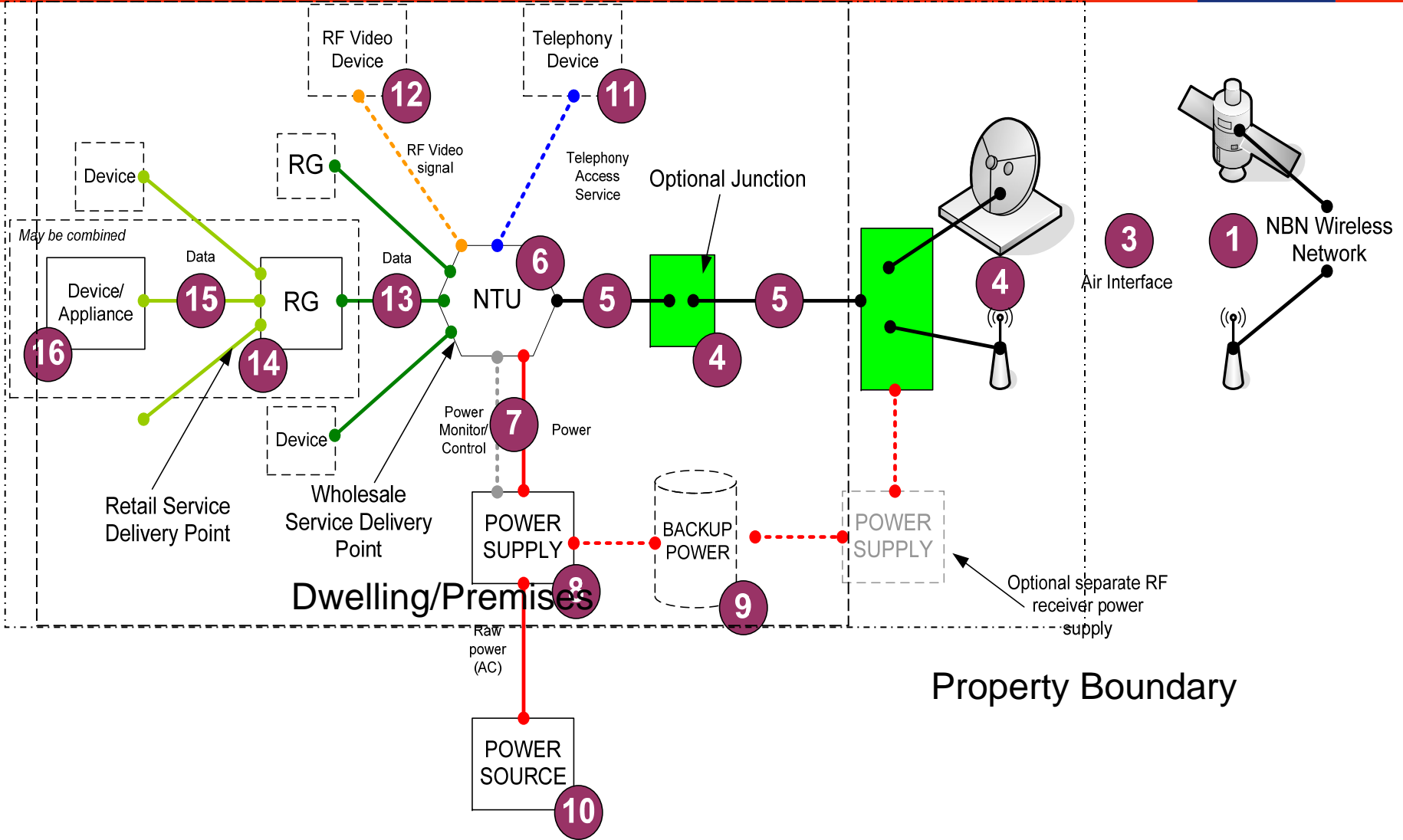
- Jan 2010 – Draft for Comment released
- Feb 2010 – Public comment period
- Mar 2010 – Satellite & Wireless Workshop
- Mar 2010 – Release 1 finalised)
- (Apr 2010 – Release 2 being finalised)



http://www.commsalliance.com.au/_data/assets/pdf_file/0017/20771/Draft_NBN_End_User_Premises_Handbook_Dec2009.pdf

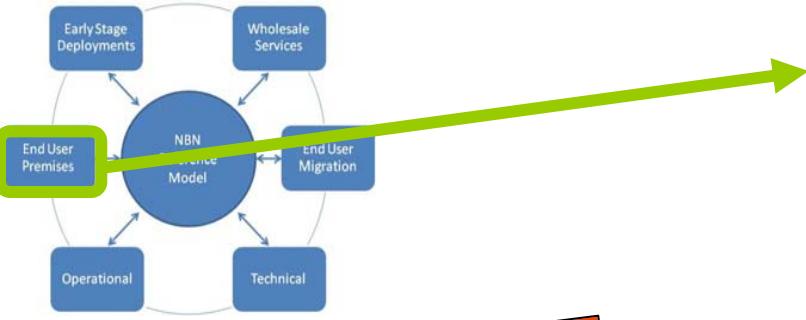


End User – Functional Model





End User Premises Handbook



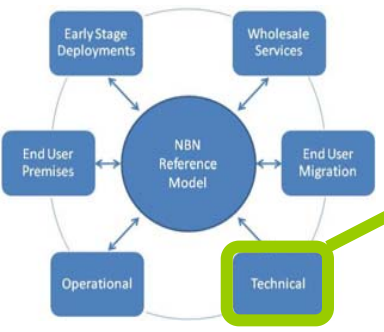
End User Premises Handbook

- Architecture Overview
- Architecture Components
- Architecture – Wireless/Satellite Access
- Distribution Technologies
- Installation Practices
- Testing and Diagnostics
- Sustainability
- Robustness
- Security
- IPv6
- Future Proofing
- Industry Codes and Practices
- References





NBN Project Deliverable 4&5



Overview of Technical Standards

- Feb 2010 – Draft for Comment – Technical Standards
- Mar 2010 – Release 1 – Technical Standards
- 21 April 2010 – Draft for Comment – Optical Access (till 7th May)**





Work in progress...

- Telephony Transport Services
- Video Transport Services
- Optical Standards
- Common Terminology
- FTTP in Greenfields Developments
 - FTTP Physical Plant Planning Guidelines
- End User Migration Strategy
- Operational:
 - Ordering & Provisioning Processes
 - IT Systems Interfaces
 - Fault & Performance Management
 - Network Management Visibility



Early Stage Deployments “Greenfields” Construction Standards



- Express Conduit
- Distribution Conduit
- “pit and pipe”
- Developer and Approval authority checklists



Express Conduit Guidelines

Distribution Conduit Guidelines

Apr 2010 – Draft for Comment expected





DBCDE FTTP in Greenfields Estates

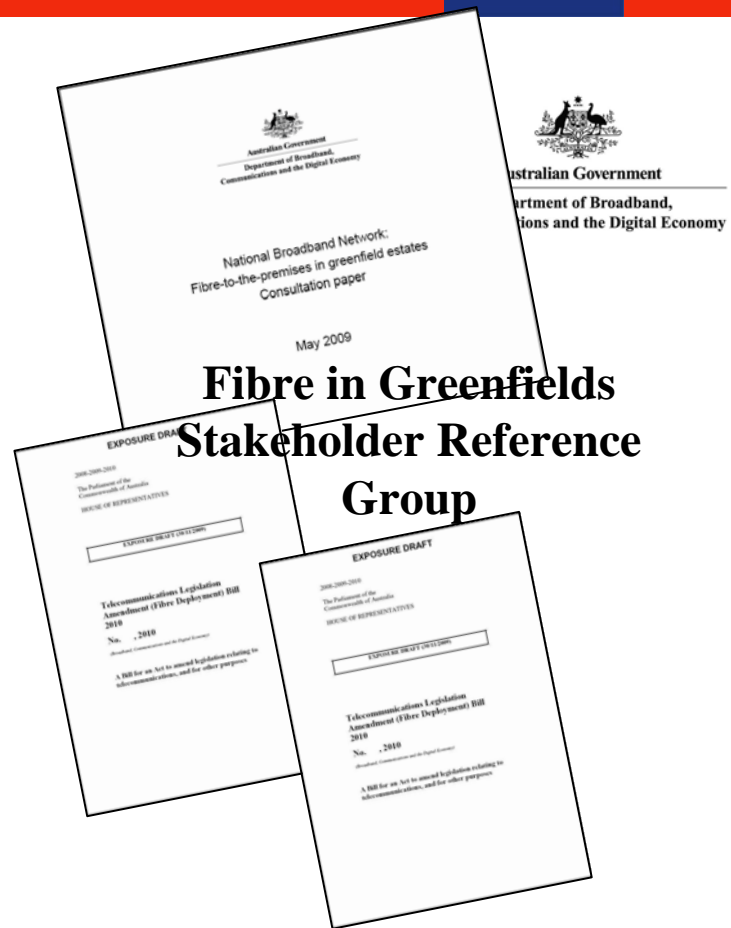
May 09 – DBCDE Consultation Paper released – 80+ submissions

Aug 09 – Stakeholder Reference Group formed

Dec 09 – Draft Fibre Deployment Legislation released for comment – introduced to Parliament March 2010

16 Apr 10 – Proposed Subordinate Legislation paper for comment

http://www.dbcde.gov.au/broadband/national_broadband_network/fibre_in_greenfield_estates





Greenfields FTTP – Technical Standards

- From Fibre Deployment in New Developments Explanatory Memorandum:

provisions under the Act. The enforcement regime will apply to both carriers and non-carriers, consistent with application of the Act.

The Bill also amends Part 6 of the Act, which deals with industry codes and standards, to more readily enable the development of industry codes and standards relating to fibre optic lines and related facilities, and to give further examples of the types of topics which industry codes or standards might cover. In addition to providing necessary guidance on relevant technical matters, these measures respond to calls from stakeholders for such guidance to promote nationally consistent network and service outcomes.

New Comms Alliance Project: FTTP in New Developments Reports



Separate parallel project funded by DBCDE



Australian Government

**Department of Broadband,
Communications and the Digital Economy**

**Part A:
Literature Survey**

**Part B:
FTTP Construction
Guidelines**



Wide Consultation, beyond CA members



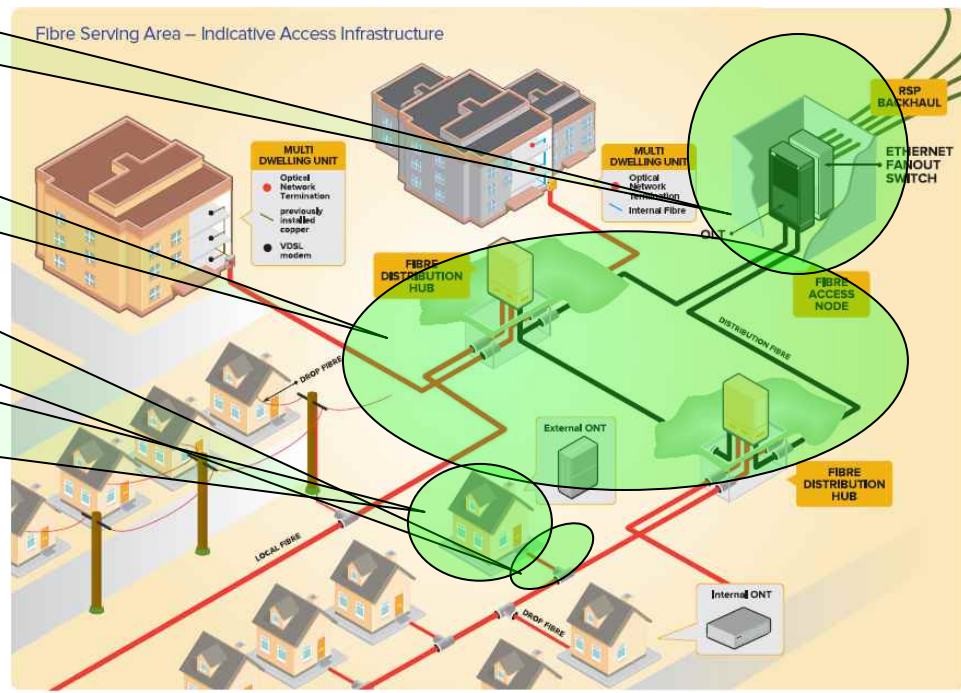
- Reference Catalogue of:
 - international and national standards,
 - specifications
 - guidelines & requirements
- Sources:
 - National government
 - State governments
 - Local governments
 - Key industry bodies
 - FTTP Operators



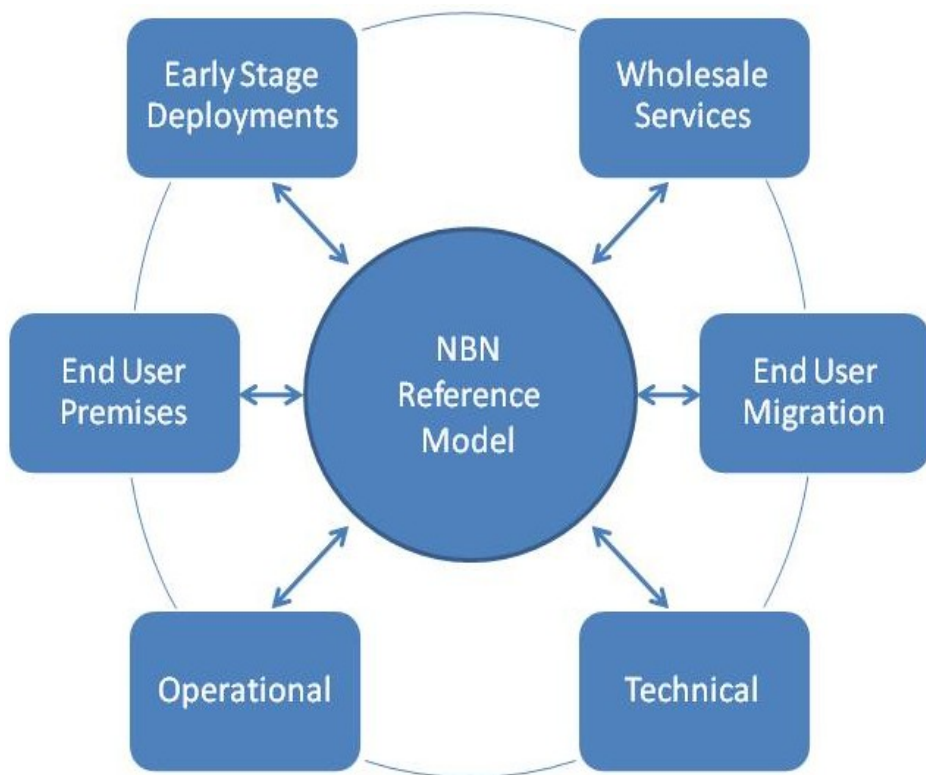


FTTP Guidelines subject areas

- “Head End” Facilities
- “Pit and pipe” including trenching & conduit
- “Lead-in” conduit & cabling
- Location & nature of ONT, Network Boundary Points, Service Delivery Points & Connection to in-premises cabling
- Optical fibre specifications, incl. joints, connectors, optical characteristics
- Anything else to ensure estate is “fibre ready”



(NBNC Co Diagram – NBNC Co Wholesale Services Consultation Paper)



Thankyou

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<http://www.commsalliance.com.au/Activities/national-broadband-network>