



Communications Alliance: NBN Project Update

May 2010



Communications Alliance

unified voice representing
telecommunications industry in
Australia

- Membership**
- Carriers
 - service providers
 - equipment suppliers
 - Consultants
 - experts



- Self-Regulation**
- Codes of Conduct
 - technical standards
 - operational interworking
 - advice to policy and regulators
 - Responsible Consumer Protection

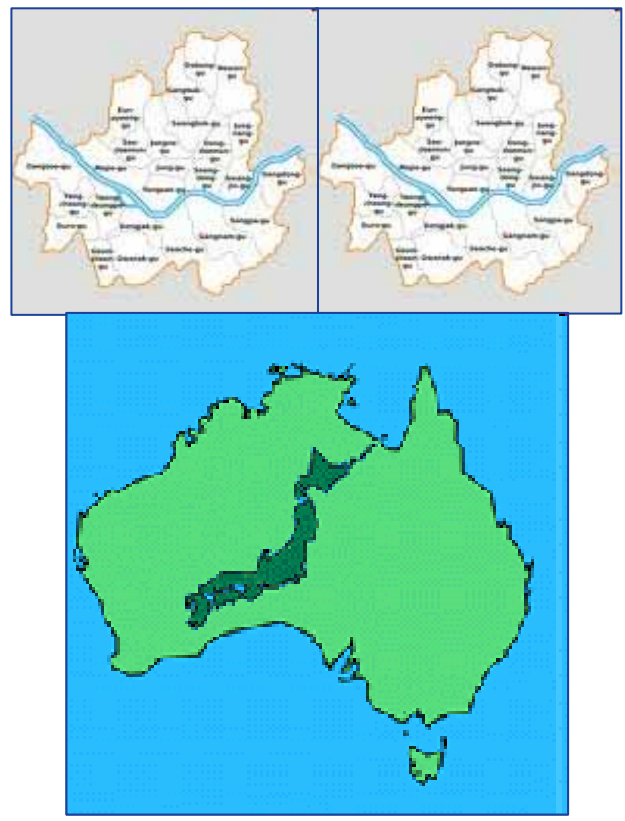
NOT government, NOT NBN Co Ltd
(NBNCo are members)



Scale of NBN is challenging!

2 x Population of Seoul
(22 million)

~20.1 x Area of Japan
(7.62 million km²)



	 50mil	100k km ²	500  /km ²
	 22mil	7,618k km ²	2.8  /km ²

**Very expensive per-user! Economics to be profitable is a challenge...
much political debate as to whether it should be built or not**



NBN Project Structure

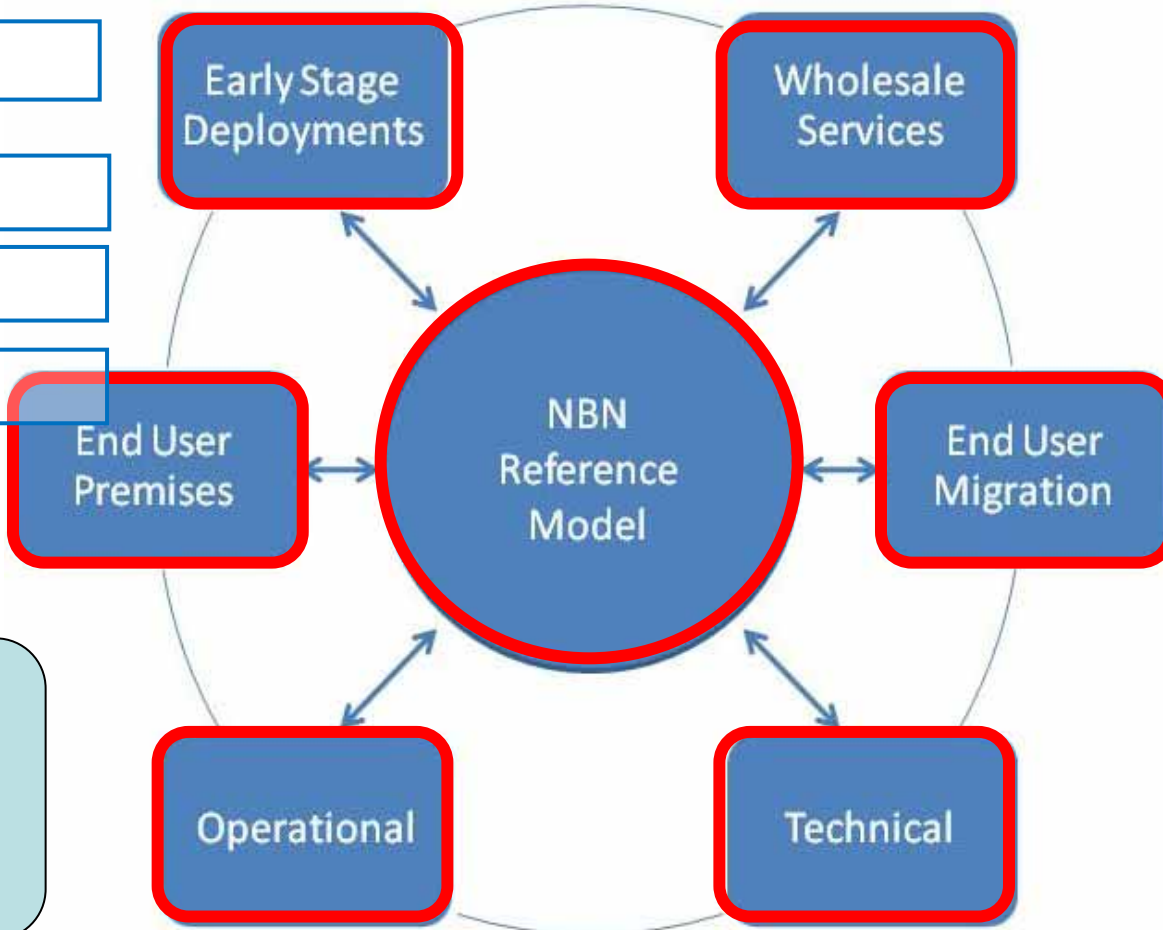
Seven NBN related topics

Aug 09 – first 3 topics started

Sep 09 – additional 2 topics

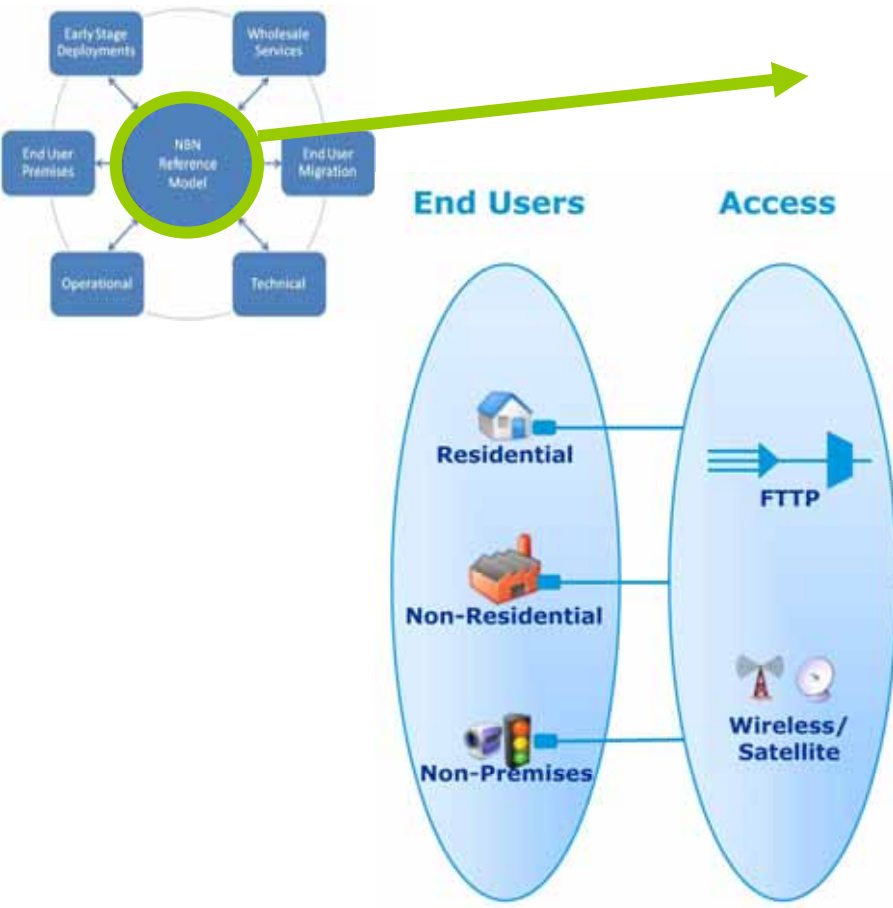
Oct 09 – remaining 2 topics started

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

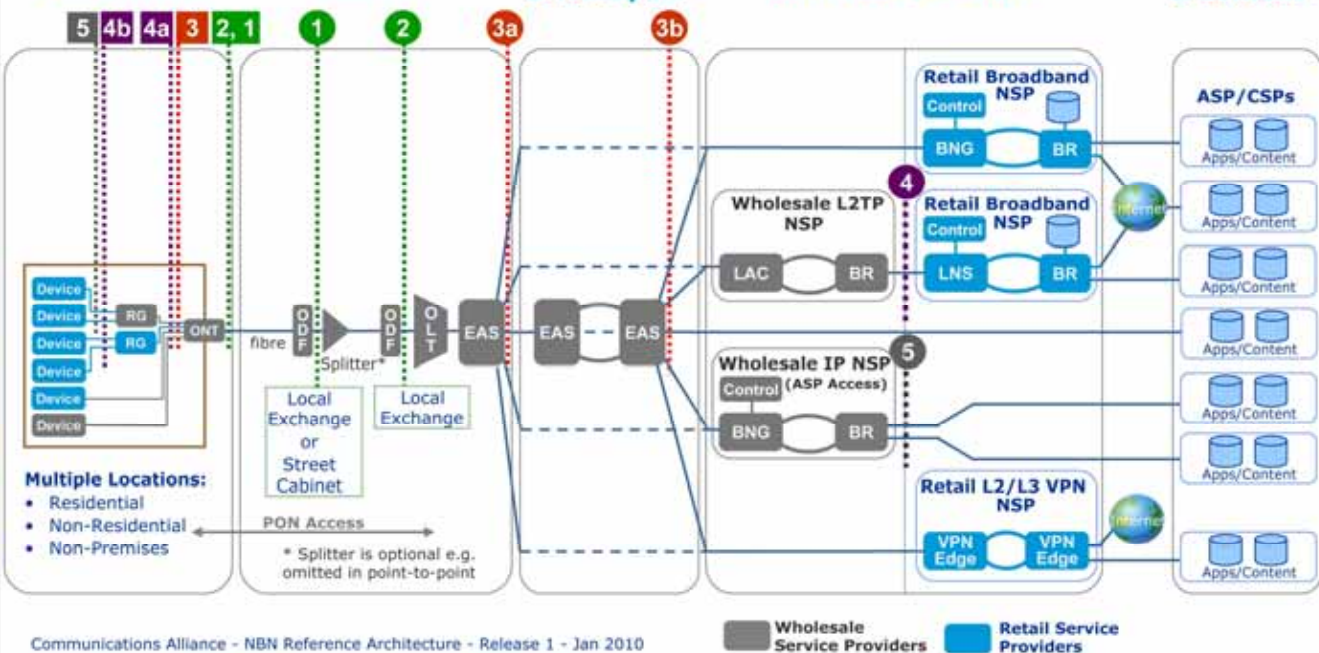
End Users

Access

Aggregation & Transport

Service Edge & Core

Applications & Content



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



FTTP Architecture

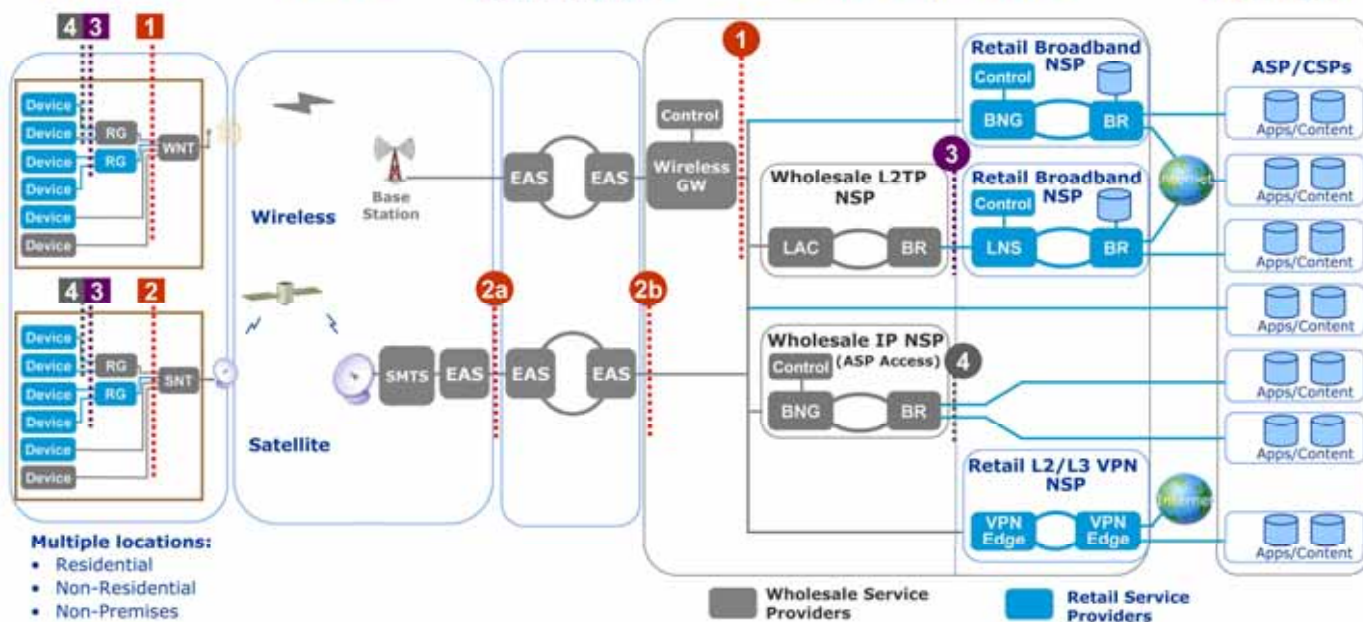
End Users

Access

Aggregation & Transport

Service Edge & Core

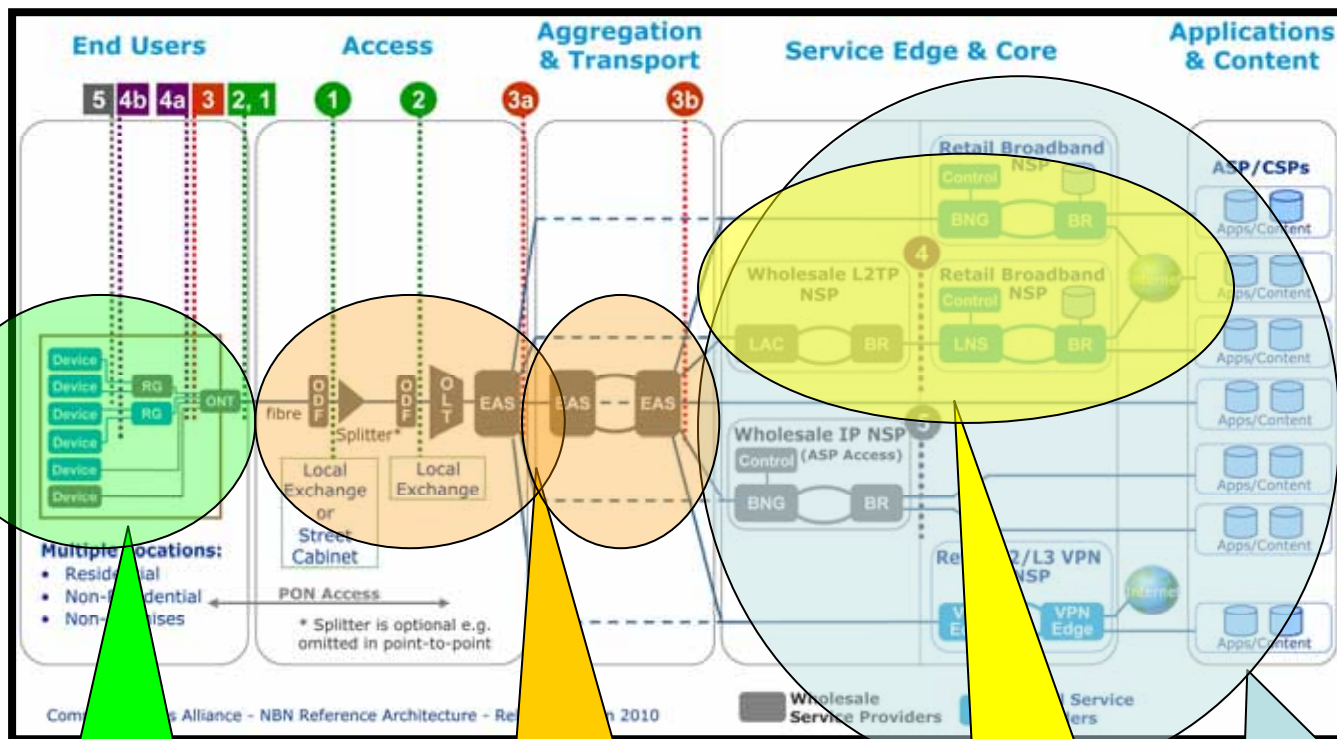
Applications & Content



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

Wireless/Satellite Architecture

Architecture Encourages Choice & Flexibility



Many Active Services Simultaneously

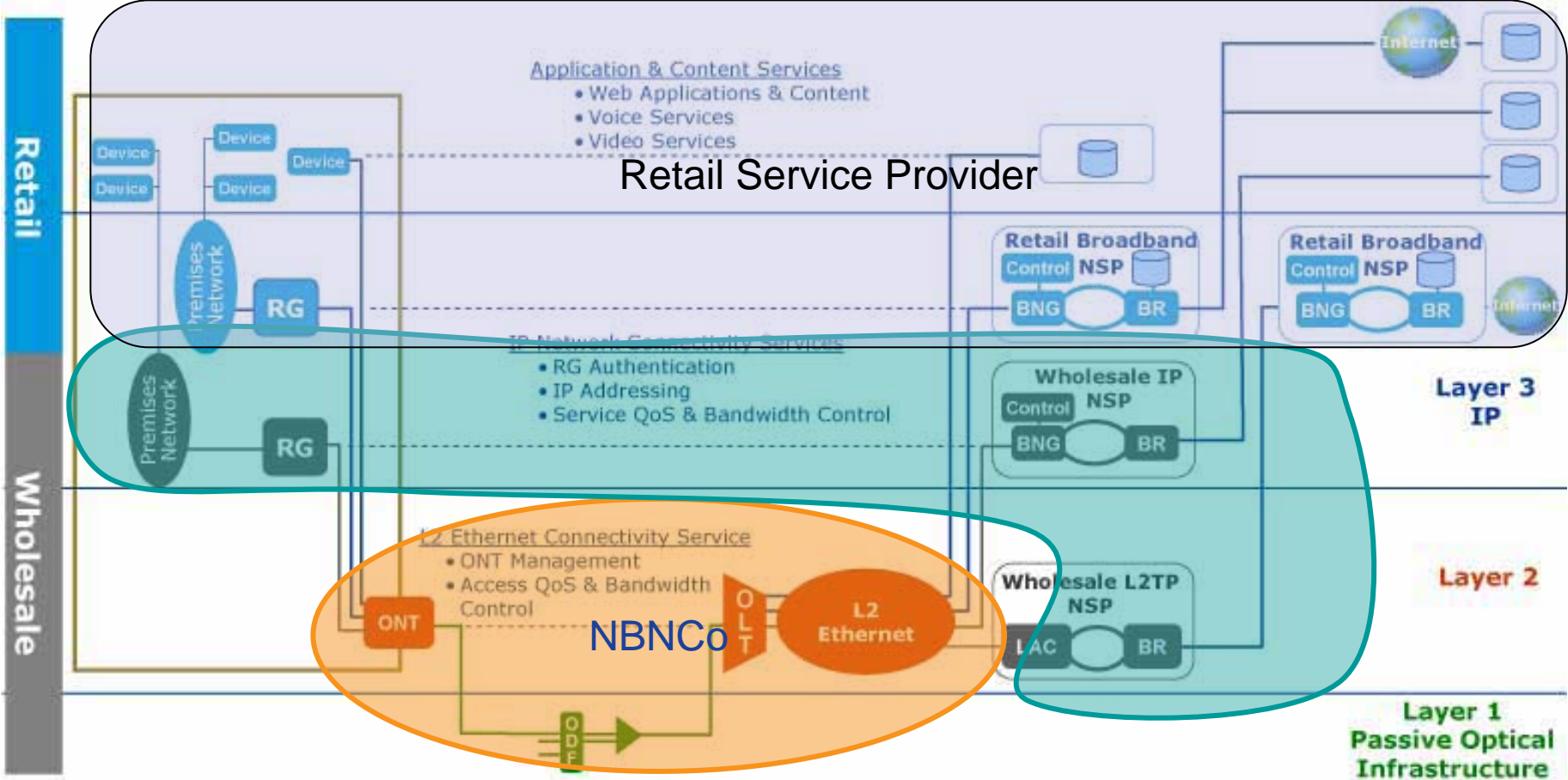
Independent Access and Longhaul Network(s)

Multiple Levels of Wholesale & Retail Service Providers

Multiple Simultaneous Service Providers



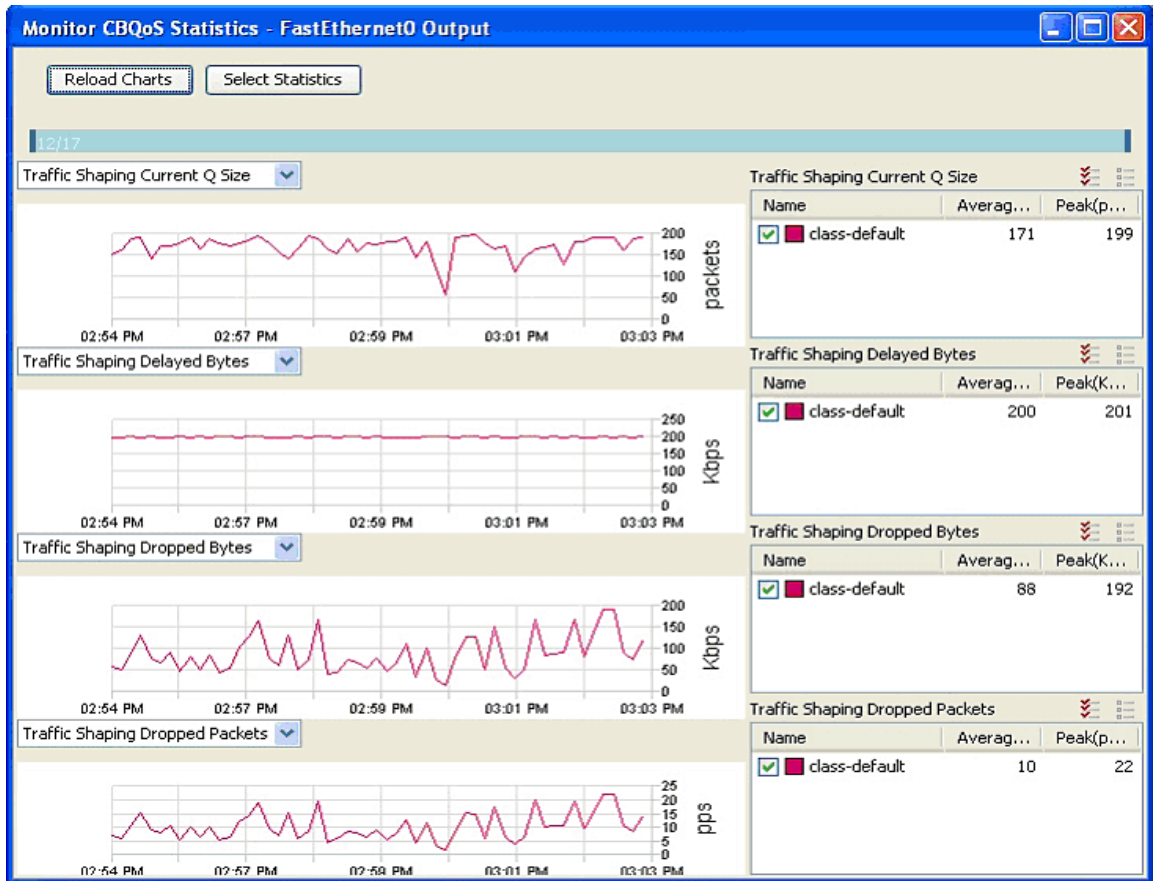
Layered Relationships



Wholesale Service - Not just about speed



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

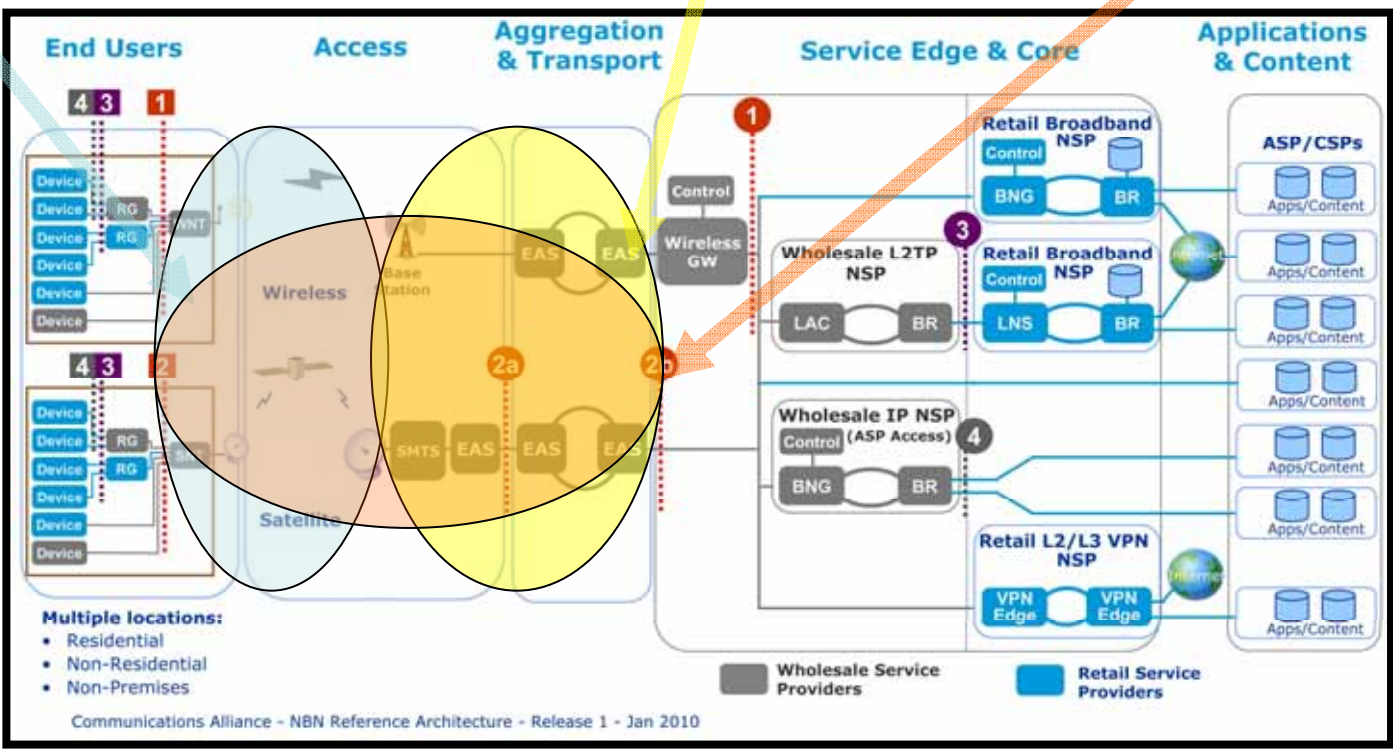




Wholesale Services - Ethernet

- Defines 3 Wholesale Ethernet Services:

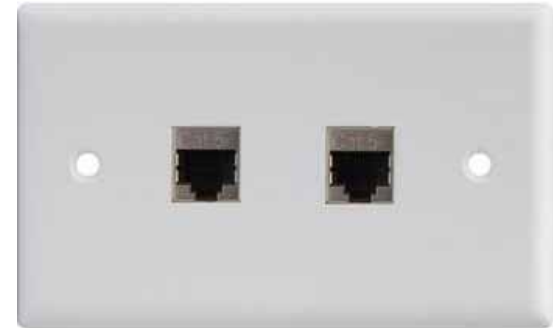
ELAS Ethernet Line Access Service	ELBS Ethernet Line Backhaul Service	EMCS Ethernet MultiCast Service
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End Users See...

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



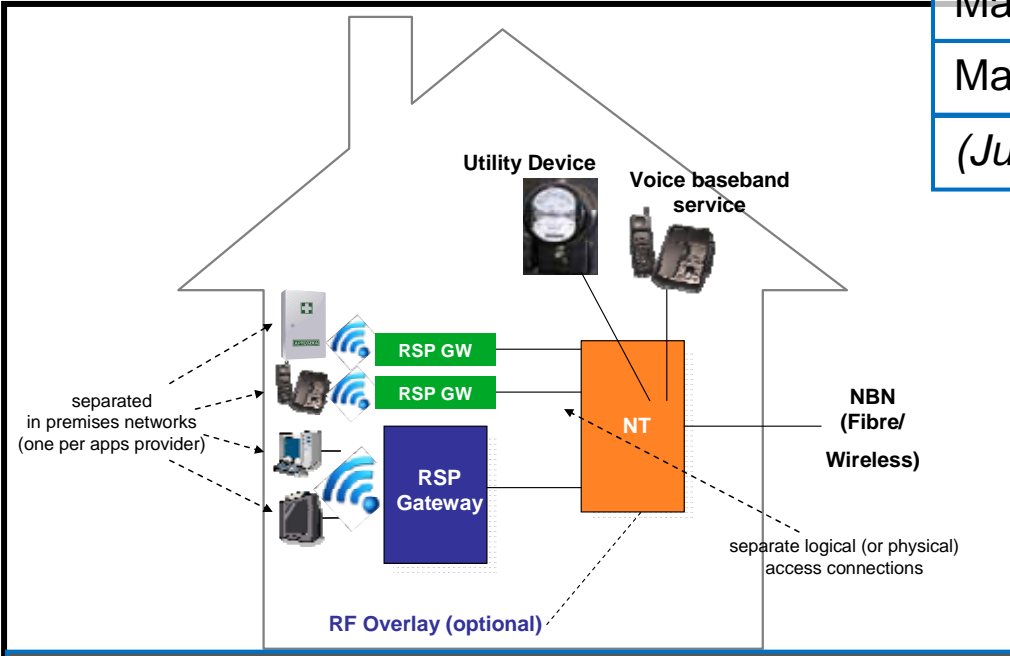


NBN Project Deliverable 3



End User Premises Handbook

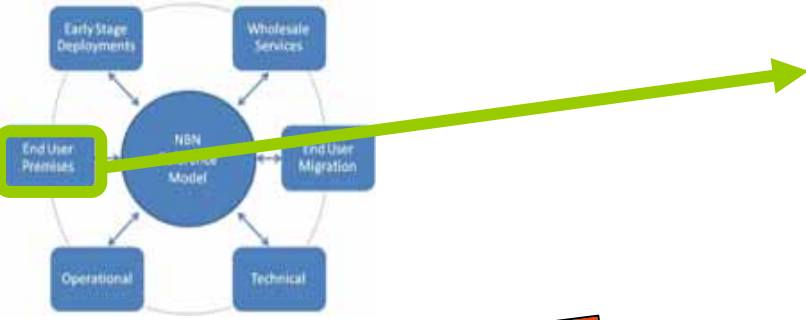
- Jan 2010 – Draft for Comment released
- Feb 2010 – Public comment period
- Mar 2010 – Satellite & Wireless Workshop
- Mar 2010 – Release 1 finalised)
- (June 2010 – Release 2 being finalised)*



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



End User Premises Handbook



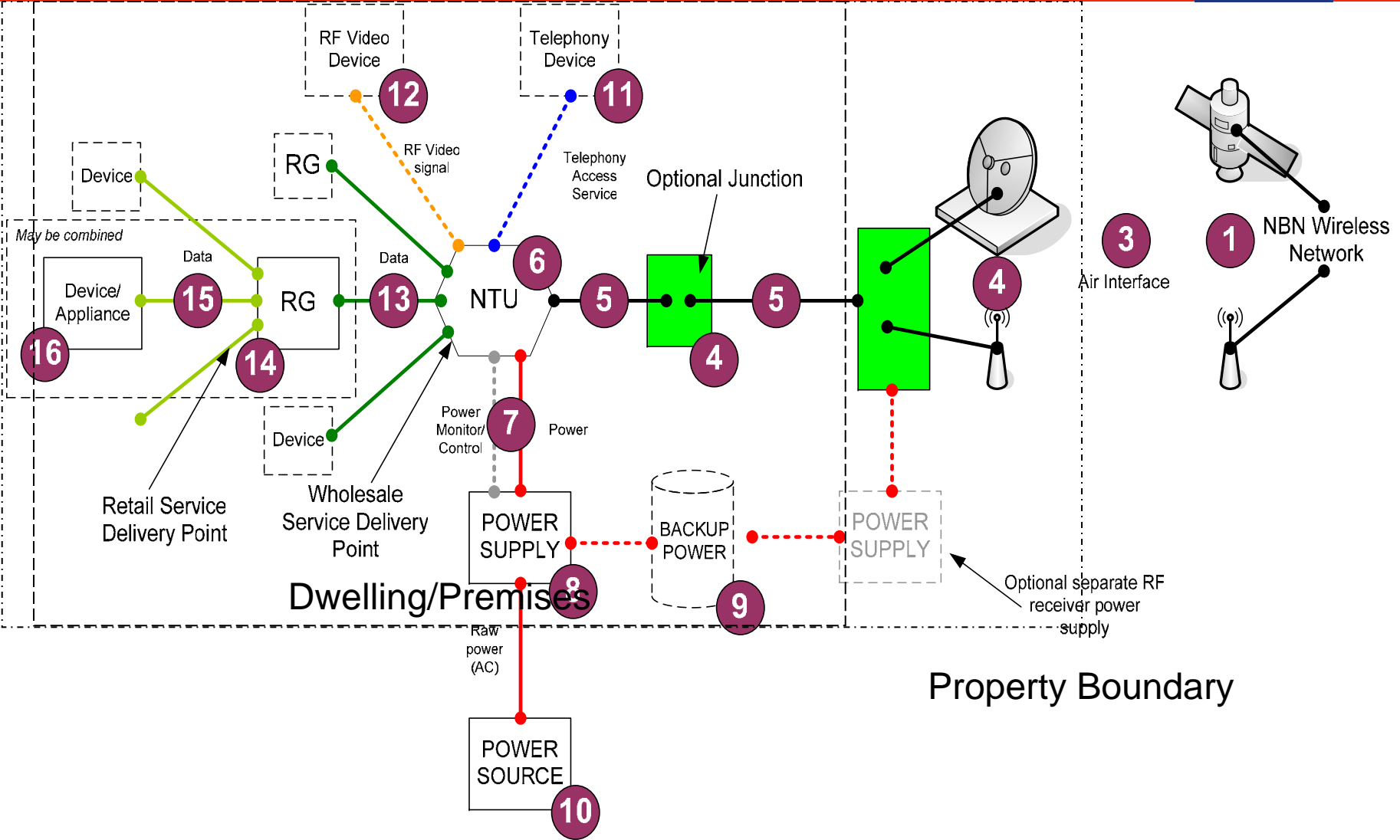
End User Premises Handbook

- 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**



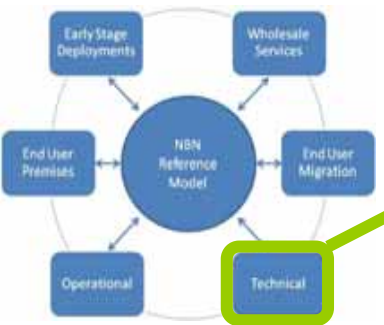


End User – Functional Model





NBN Project Deliverable 4&5



Overview of Technical Standards

Feb 2010 – Draft for Comment – Technical Standards
Mar 2010 – Release 1 – Technical Standards
April 2010 – Draft for Comment – Optical Access <i>(due June 2010)</i>



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 Public Comment

May 2010 – Release 1 Completed





Work in progress...

- Telephony Transport Services
- Video Transport Services
- 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





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 CommsAlliance 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**

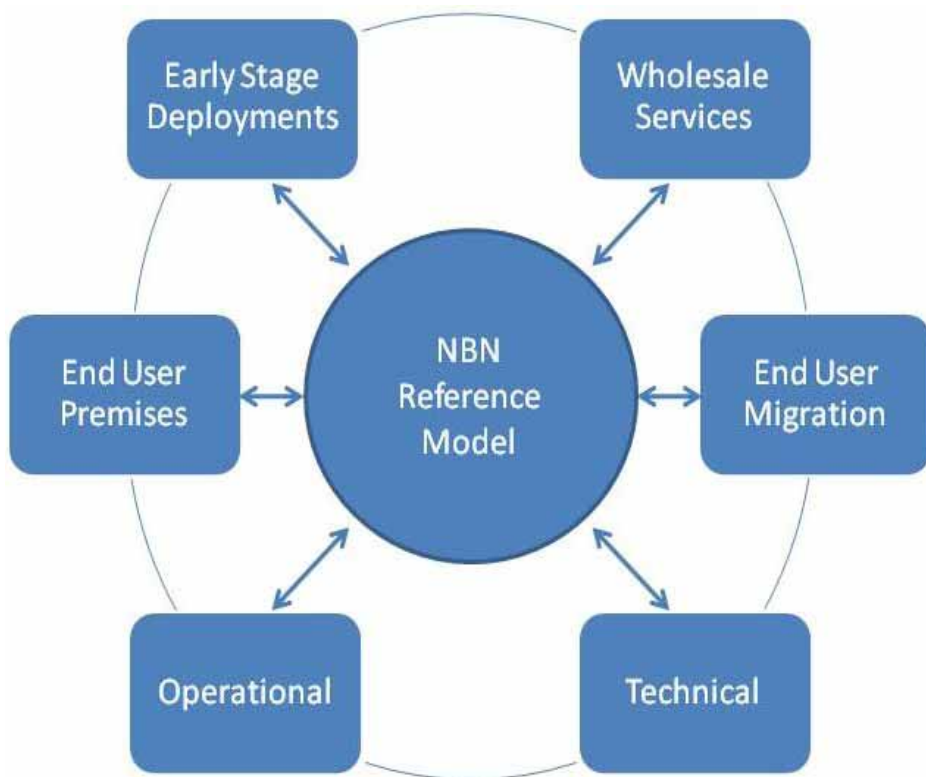


Wide Consultation, beyond CA members



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





Thankyou

Paul Brooks

Project Lead

pbrooks@layer10.com.au

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