



# End-User Migration to NBN

## Challenges & Priorities

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CEO, Communications Alliance, July 2010



# Communications Alliance

Unified voice representing telecommunications industry in Australia

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



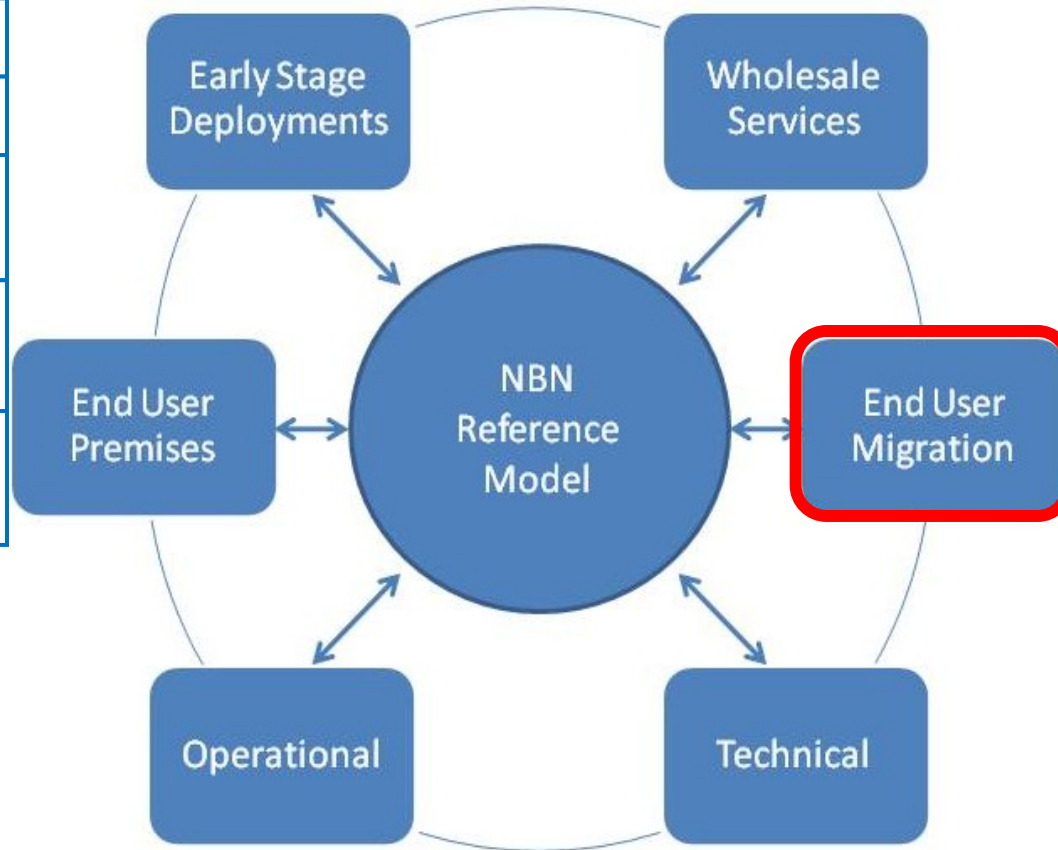
- Self-Regulation**
- Codes of Conduct
  - technical standards
  - operational interworking
  - advice to policy and regulators
  - Responsible Consumer Protection

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



# NBN Project Structure

<b>Seven NBN related topics</b>
<b>Commenced August 2009</b>
To build agreement on requirements for NBN services from customers
To assist NBN Co in delivering the NBN
To accelerate the development and rollout of NBN services

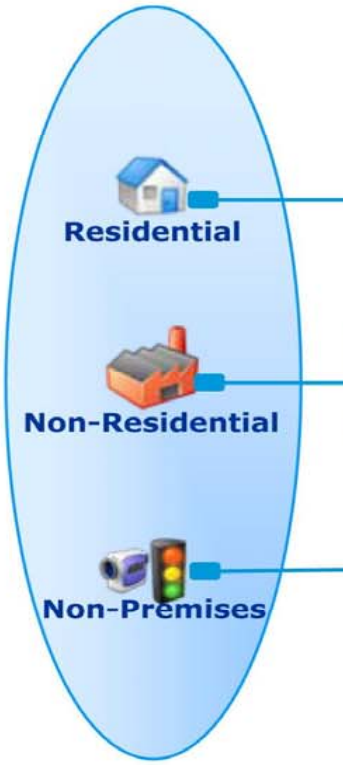


April 2010:  
~~December 2009:~~  
145+  
~~61+~~ 129 people  
~~53~~ organisations

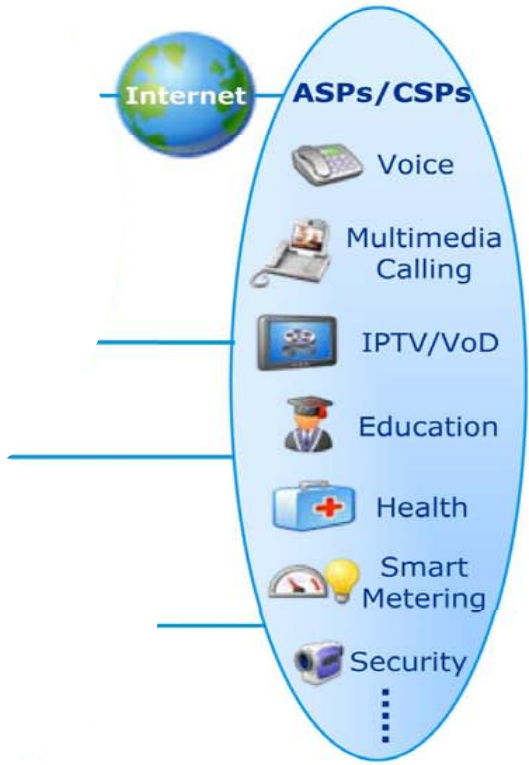


# What End-User Wants to See...

## End Users



## Applications & Content

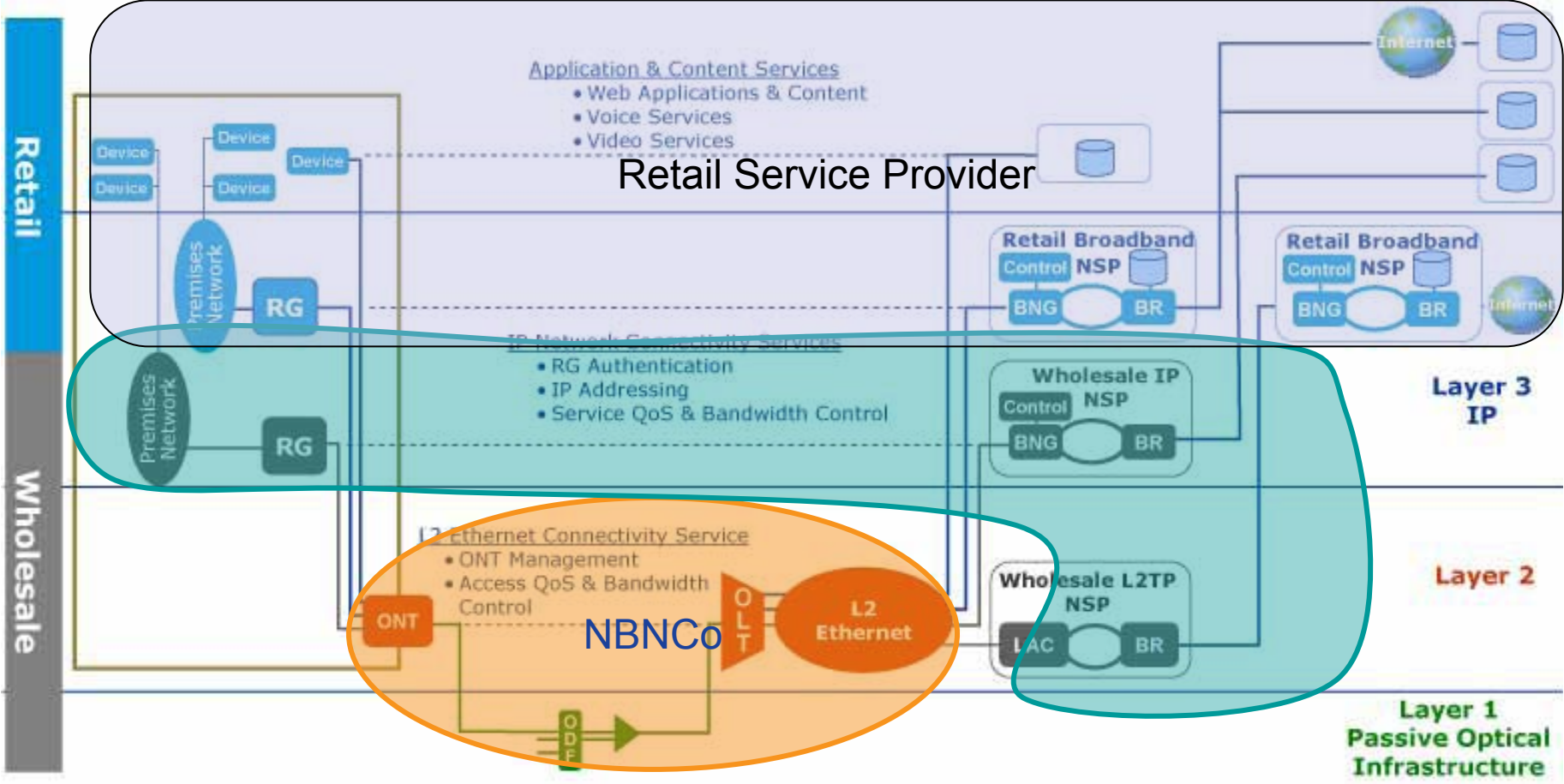


Communications Alliance - NBN Reference Architecture - Release 1 - Jan 2010

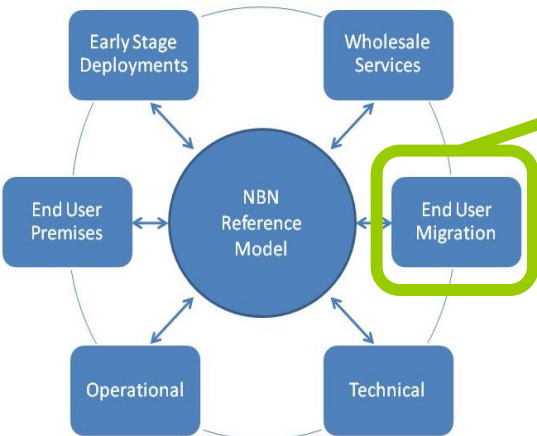
....and will see



# Layered Relationships



# End User Migration Reference Model

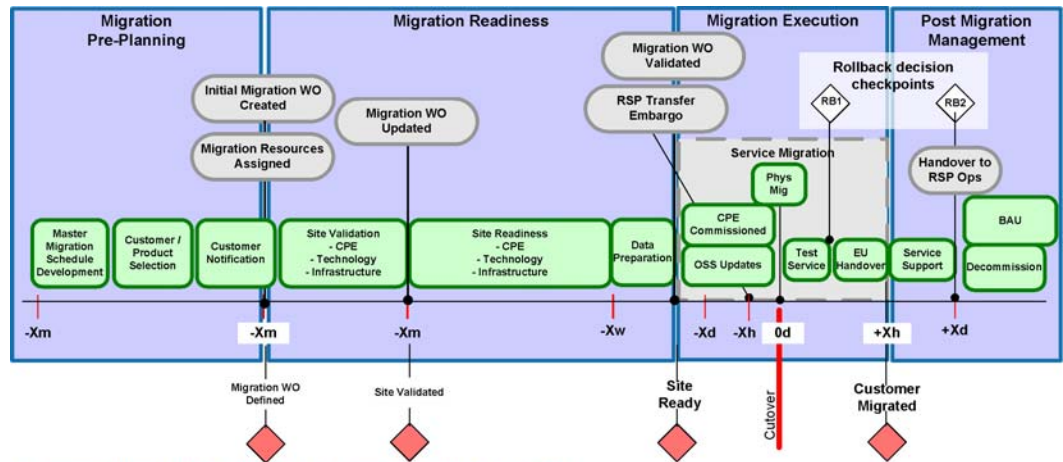


First "Operational Processes" Paper

25 June 2010 – Draft for Comment Release 1

- Covers migration of services from copper-loop access network to/from NBN fibre network
- Processes, Procedures and IT systems interactions
- Coordination of NBN Co, Service Provider and End User activities
- Minimise costs, end-user downtime & truck-rolls

- Definition of Migration
- NBN Migration Principles
- Migration Coordination
- Access Delivery Types
- Premises/Location Types
- Serviceability Status
- Migration Processes
- End User Impacts
- Alarms and Special Cases



Communications Alliance - NBN End User Migration - Release 1- June 2010



# Definition of “Migration”


*“An End User Migration involves change of Access Delivery Type of a pre-existing End User active service from one access network to another, at least one of which is the NBN.”*

- “Retail service centric” definition – end-to-end service, not just NBN component
- The “End User” does not change
- The RSP does not change – before or during migration



# Challenges with "Migration"

*"An End User Migration involves change of Access Delivery Type of a pre-existing End User active service from one access network to another, at least one of which is the NBN."*

- Some service characteristics may have to change
  - e.g, Dialtones / Ringtones, socket shape 
- Some existing RSPs may not participate with the NBN
  - End User may have to choose another RSP or go "mobile only"
- Some services may have no direct equivalent that can be delivered on the NBN



# Stakeholder Management and communication is essential



- End User – residents, businesses, utility
- One **or more** End User's RSPs;
- NBN Co Ltd;
- One or more Wholesale Service Providers;
- Sub-contractors/workforce providers and field staff;
- Premises owners;
- **Migration Order Coordinator;**
- Application and content providers;
- Regulators and other government bodies, and
- Equipment vendors.





# NBN Migration Principles

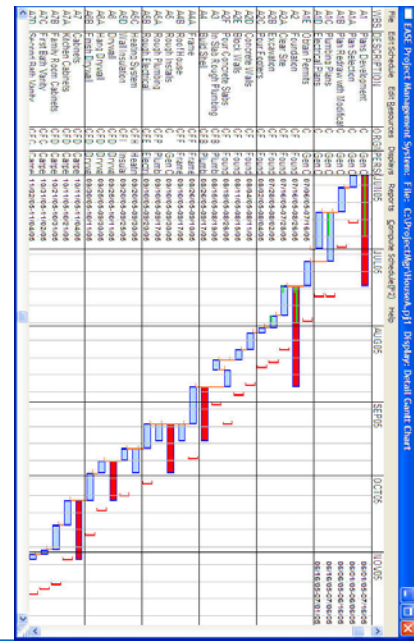
1. **End User inconvenience, disruption and delay must be minimised.**
2. **Costs should be minimised for all participants.**
3. Each service moved on a “like for like” basis where possible.
4. **RSPs have primary responsibility for comms with End Users.**
5. More than one End User can share a single NTU;
6. RSPs should not be required to share End User information with each other to manage Migrations;
7. only one technician appointment should be required per End User address;
8. **Embargo period on service changes.**
9. Existing services without NBN equivalent will be the responsibility of the existing RSP to resolve
10. **RSPs responsible for any changed CPE, adapters, connectors.**
11. Address validation capability will be available from NBN Co.
12. Processes developed for resolution of conflicts between stakeholders.
13. Migration Order status updates will be available in close to real time.



# Migration Coordinator Role

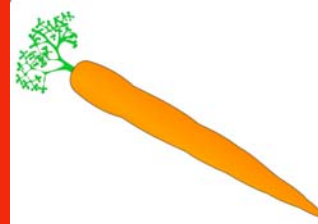
**Complex migrations will require some form of Project Management to minimise End User disruption**

- Minimise technician visits (“truck rolls”)
- Coordinate appointments, technicians – across all RSPs
- Tie together “sub orders” from each existing RSP and any new RSPs
- Make & communicate late changes to plan
- Support Reversal (all or partial) at any stage



**Migration Coordinator probably cannot be a RSP**  
**Who? – (Working Group & NBN Co looking at models for calendar/workforce management)**

# Once Migrated: Future Proofed Infrastructure



Initial NBN: GPON – 2500 Mbps↓ / 1250↑  
Mbps shared amongst up to 32 locations

10GPON ratified: 10 Gbps ↓ / 5 Gbps ↑  
shared amongst up to 32 locations

WDM-PON Operating, non-standard  
(Nortel+LG): 10Gbps bidirectional per user

**Last month** IEEE 802.3 ratified 40Gbps and  
100 Gbps Ethernet interfaces

**4x**

**32x**

**4 - 10x**

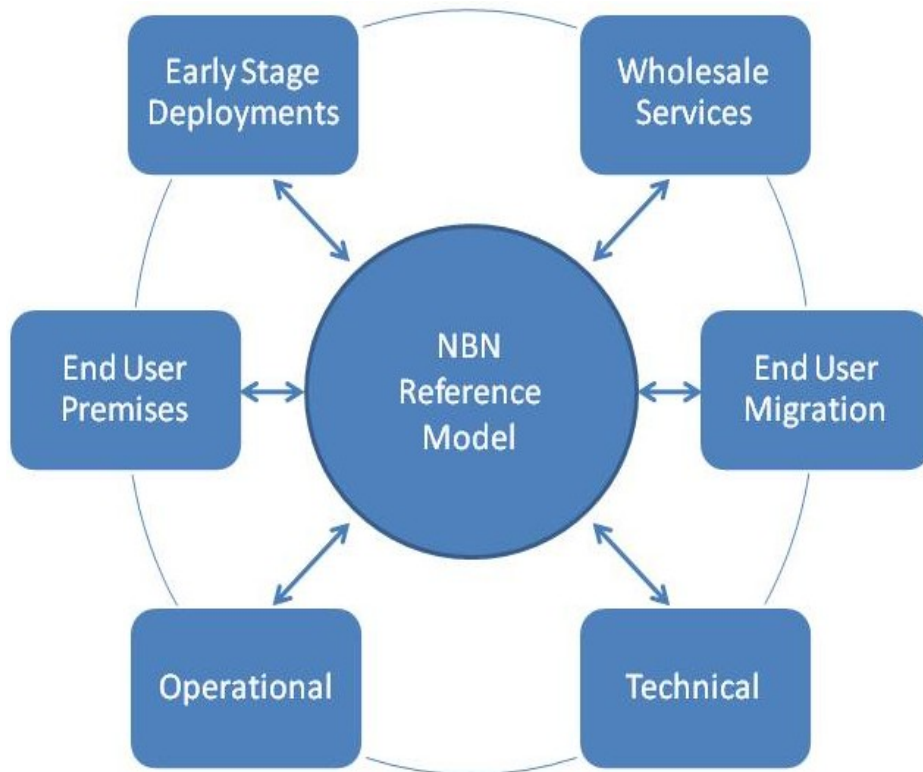
Over next 10-15 years a well understood path to  
increase fibre capacity by 500x – 1000x  
– using initial optical fibre cables



Work in progress...

- **Video Transport Services**
- **Operational:**
  - **Ordering & Provisioning Processes**
  - **IT Systems Interfaces**
  - **Fault & Performance Management**
  - **Network Management Visibility**





# Thankyou

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