

Go West, Young Man!

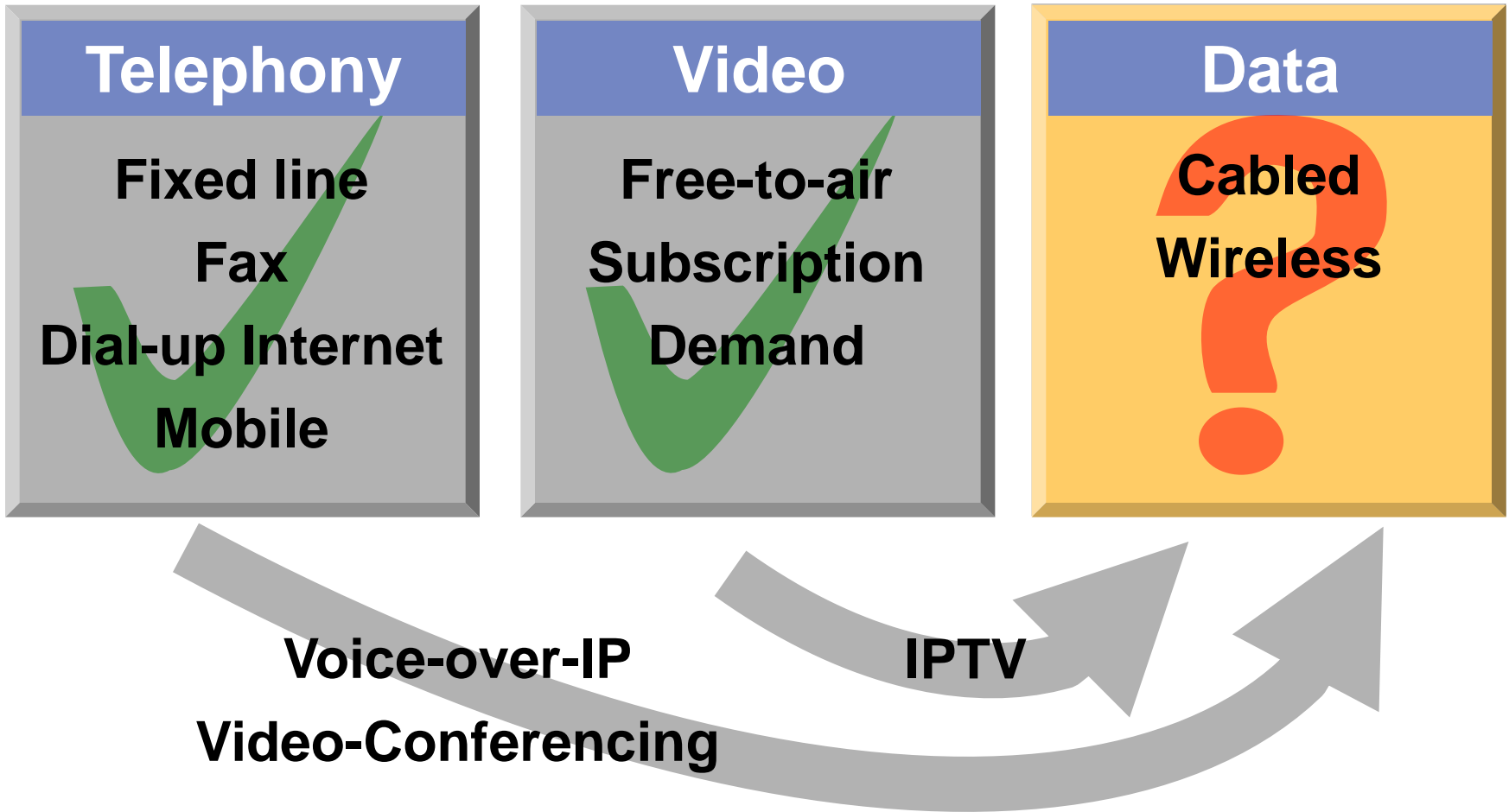
Western Region Telecommunications Forum
Melbourne, 30th October 2008



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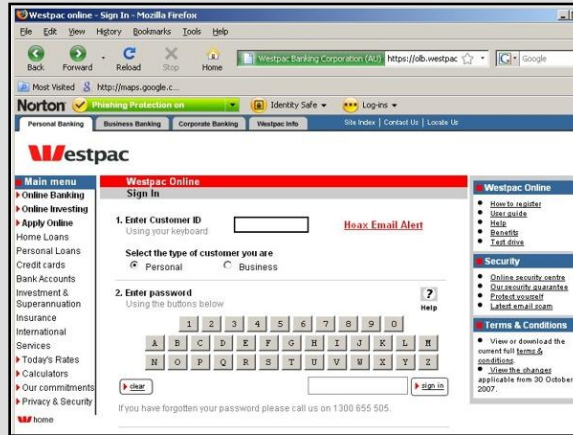
Telecommunications: Services



Broadband Internet: The Next Essential Utility Service



Email



Web Browsing



Entertainment



Voice-over-IP



Video-Conferencing



Security & Surveillance

Broadband Internet: A Critical Business Requirement

A tool to drive productive capacity & innovative behaviour

93% believe the Internet has had a positive impact on efficiency/productivity

Rated as highly important to the business operations of 85% of respondents

70% indicated the Internet provides their business with strategic advantage

74% of businesses would upgrade to higher speed if it were available

Australia's competitors are alive to the economic importance & are taking action accordingly

**Rapid
Growth**

**Underdeveloped
Information &
Services Sector**

**High
Unemployment**

**Culturally
Diverse**

**Inadequate
Transport
Infrastructure**

**Lower
Education
Levels**

**Imbalance
between
Population &
Employment**

Broadband Delivery: Different Technologies

Optical fibre all the way

Fibre to the Home (**FTTH**) or Fibre to the Premises (**FTTP**)

Optical fibre
part of the way

Copper

Fibre to the Exchange (**FTTX**)
or Fibre to the Node (**FTTN**)
or Fibre to the Kerb (**FTTK**)

Coax

Hybrid Fibre Coax (**HFC**)

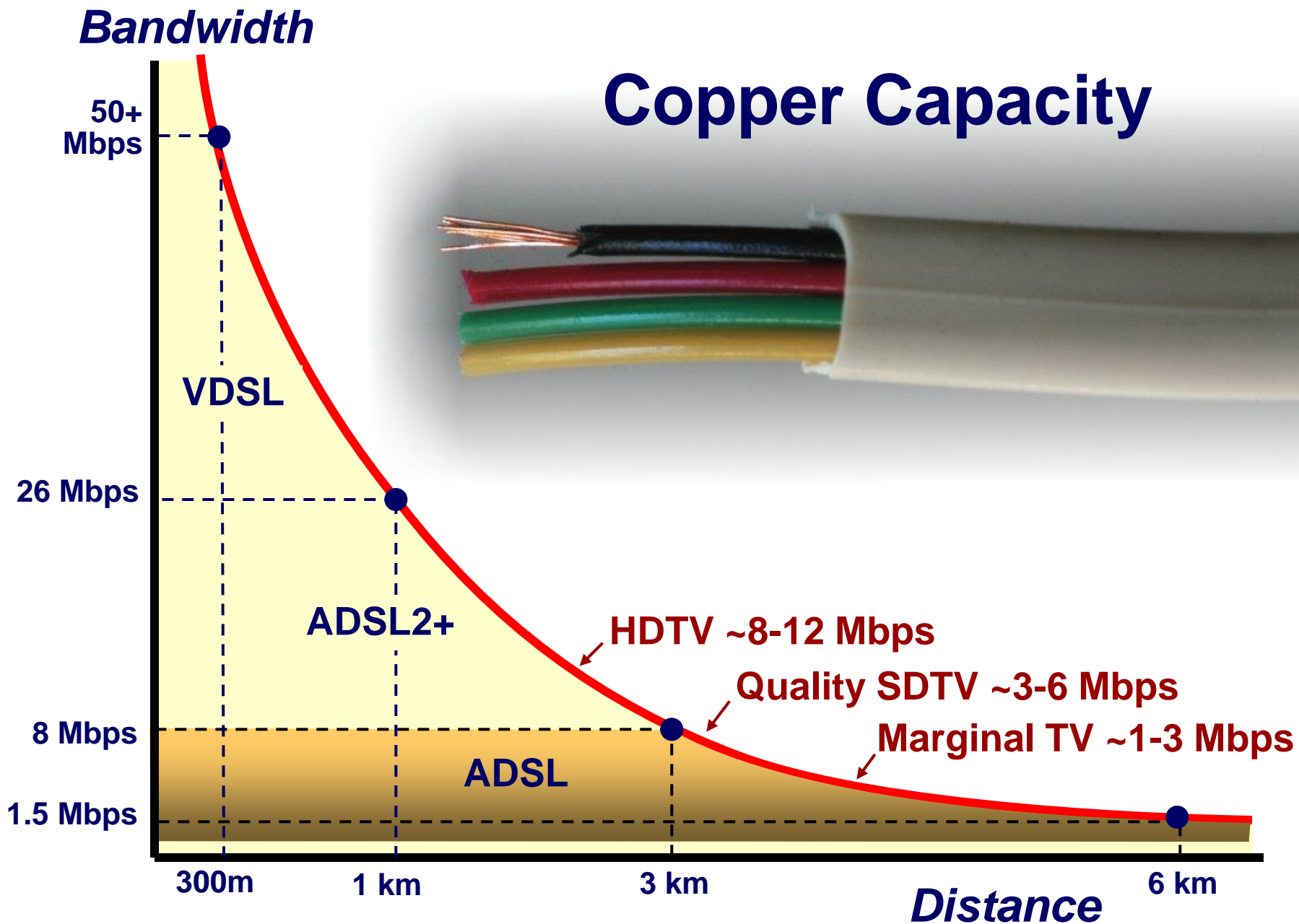
Radio Waves

Wireless (**WiFi**, **WiMAX**, **3G** etc)

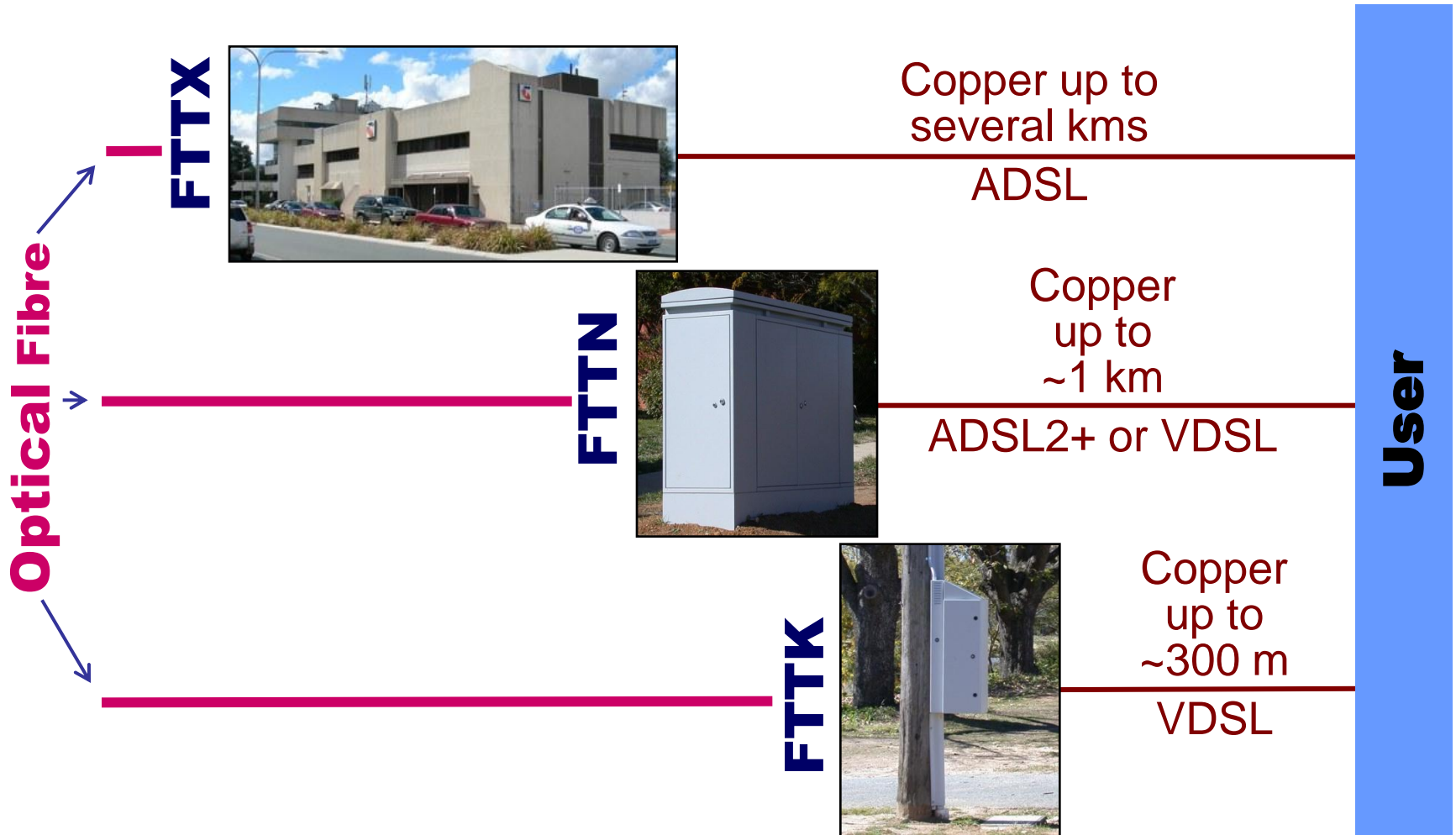
Power Lines

Broadband over Power Line (**BPL**)

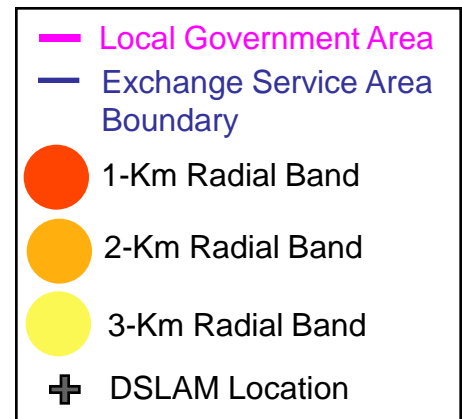
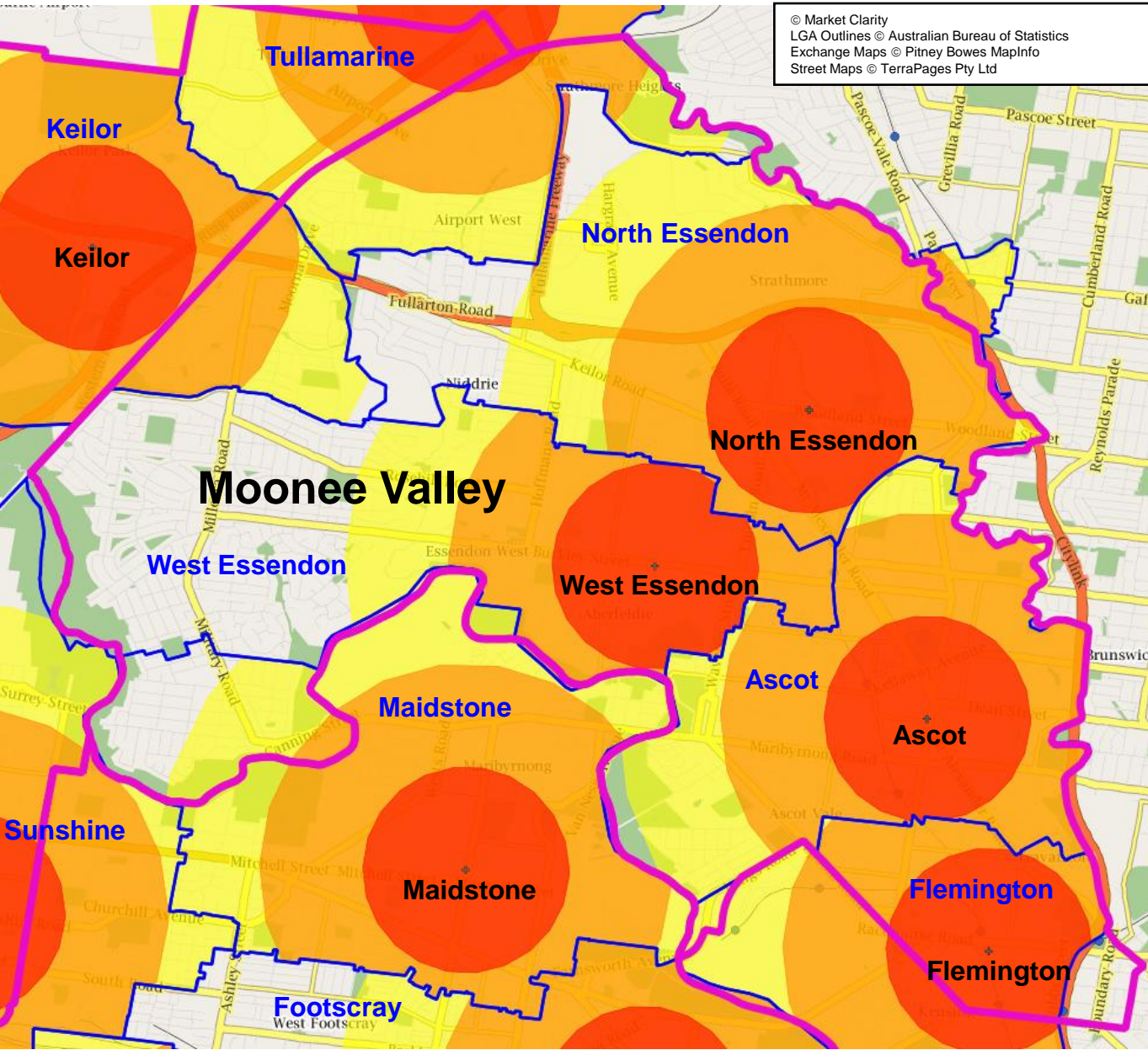
Copper Capacity



Differing Copper Architectures



DSL Reach Maps (by Market Clarity)



**Report
Contains
Separate
Maps
for each
Local
Government
Area**

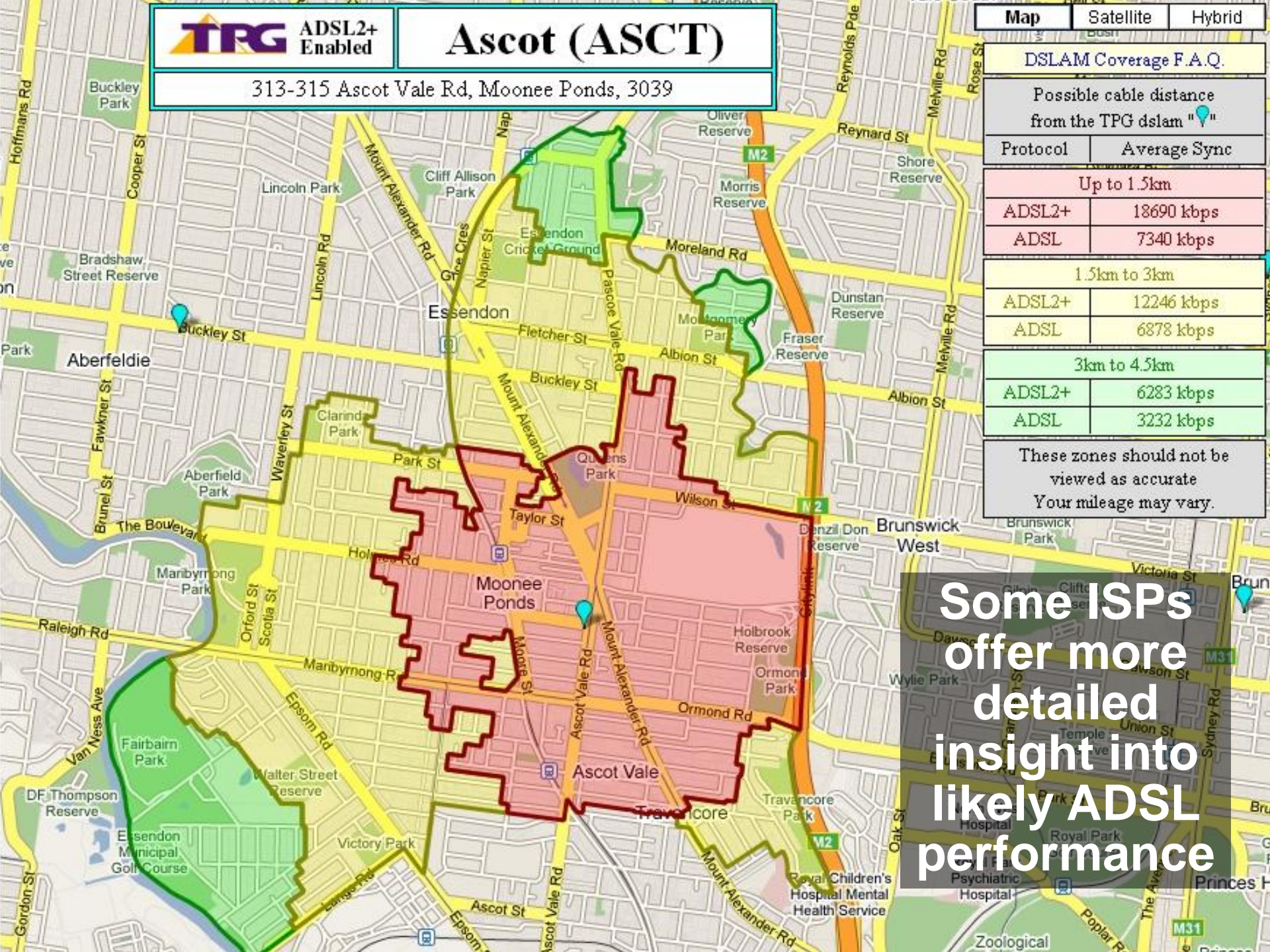
TRG ADSL2+ Enabled

Ascot (ASCT)

313-315 Ascot Vale Rd, Moonee Ponds, 3039

Map	Satellite	Hybrid
DSLAM Coverage F.A.Q.		
Possible cable distance from the TPG dslam "📍"		
Protocol	Average Sync	
Up to 1.5km		
ADSL2+	18690 kbps	
ADSL	7340 kbps	
1.5km to 3km		
ADSL2+	12246 kbps	
ADSL	6878 kbps	
3km to 4.5km		
ADSL2+	6283 kbps	
ADSL	3232 kbps	
These zones should not be viewed as accurate Your mileage may vary.		

Some ISPs offer more detailed insight into likely ADSL performance





MONOPOLY

Parker Brothers Real

Estate (I)

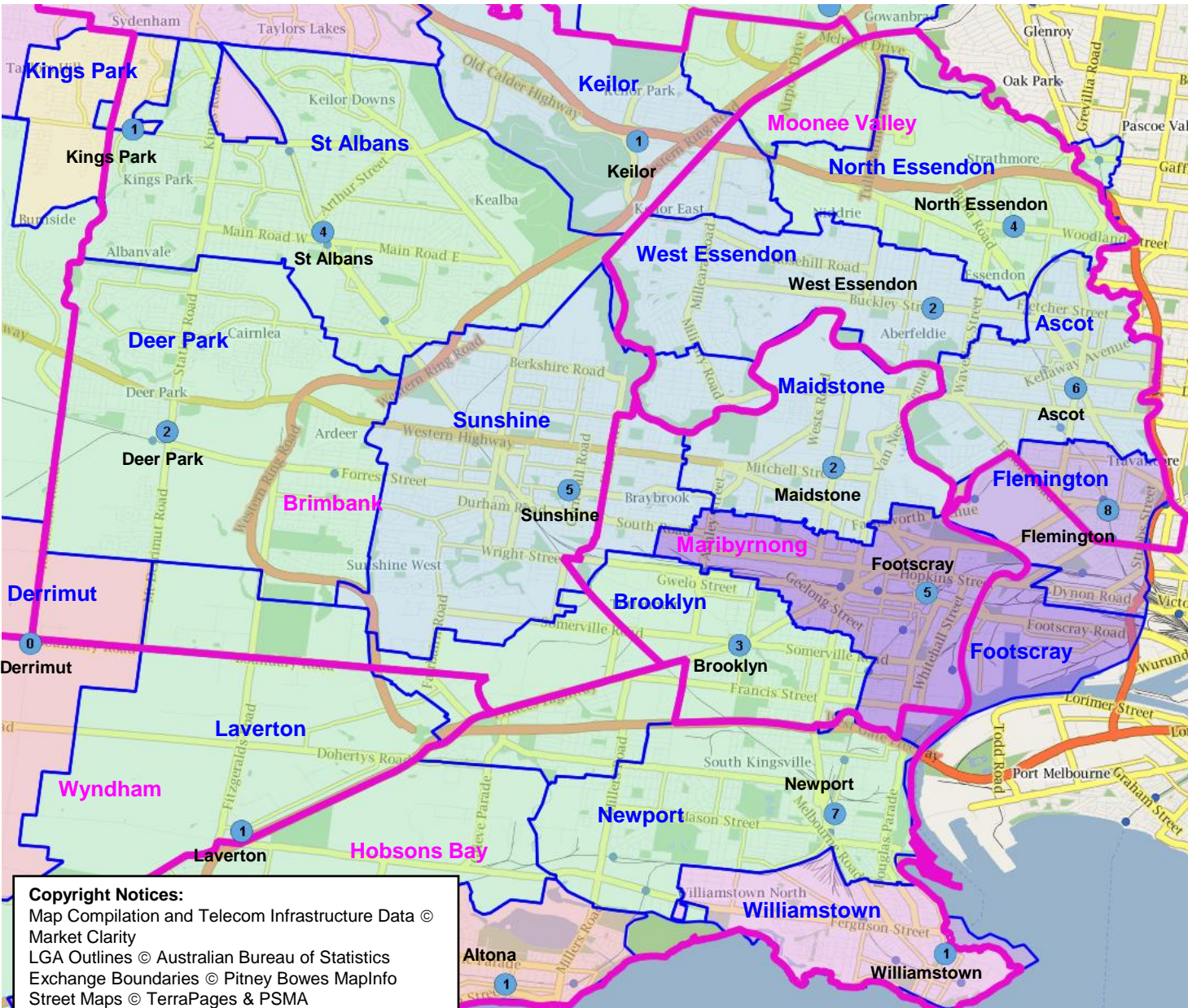
Open Access

(the key to innovation in pricing & services)

Competition based on renting copper circuits from Telstra exchanges at regulated pricing has flourished in more central areas

Reduced competition further out – less attractive revenue opportunities coupled with lack of competitive backhaul

Competition Maps (by Market Clarity)



Local Government Area
— Exchange Service Area Boundary

Access Fibre

- No Fibre Owner
- 1 Fibre Owner
- 2 Fibre Owners
- 3 Fibre Owners
- 4 Fibre Owners
- 5 Fibre Owners
- 6 Fibre Owners
- 7 Fibre Owners

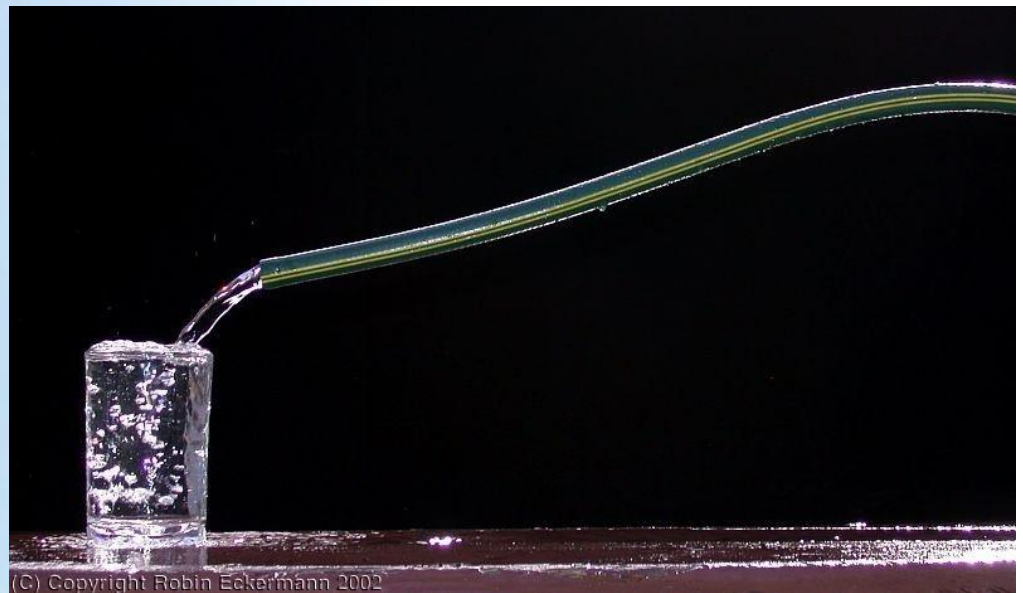
DSLAMs

X Number of DSL Owners

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 Street Maps © TerraPages & PSMA

Wireless Technologies



The Golden Opportunity in Greenfield Developments



Fibre and copper similar in cost ...
... but worlds apart in performance capabilities

Ideal opportunity to future proof estates ...
... but it isn't yet standard in Australia

A wooden utility pole stands on the left side of the image, with several power lines extending from it across the frame. The background is a clear blue sky with some light clouds near the horizon. The pole has various cross-arms and insulators.

Emerging Model

Broadband as the next essential utility service

(the parallel with electricity supply)

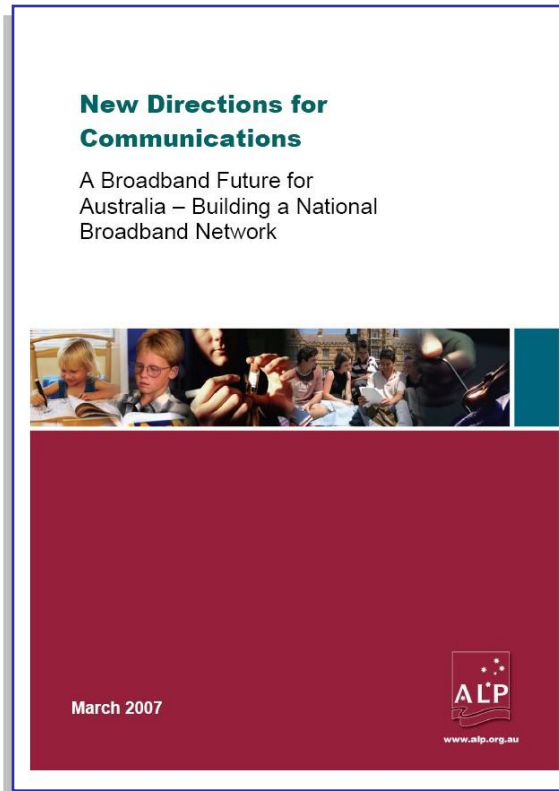
The developer funds the capital cost of infrastructure

Costs recovered in the sale price of “improved” land

Relief from capital costs avoids customer paying hefty premiums in cost of services

Stimulating Brownfield Investment

(the Australian Government Policy Initiative)

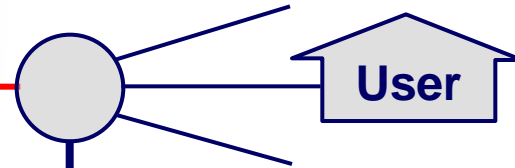


- Fibre-rich network upgrade (FTTN contemplated) delivering 12 Mbps+ to 98% of homes
- Government will support with AUD4.7b public investment
- Open access principles to apply (regulatory changes as needed)
- Competitive bid process
- Tenders close November 2008

Fibre-to-the-Node (FTTN)

(an Interim Step)

- Leverages existing last mile infrastructure
- Lots of issues to be resolved – who will do it, cost, framework for competition etc
- It will raise performance limits and buy time, but pressure for FTTH will continue to build



Another cabinet in the near vicinity of Telstra's cabinet

Copper Access in FTTN Environment?

The level of duplication would be inefficient ...
and all this investment doesn't make sense
just to reach 300 or so potential customers

The framework for competition could be undermined!

NBN Issues

(communicate to Government)

1. Don't allow the uncertainty to linger
2. Preserve Competition
3. Recognise Fibre-to-the-Premises as the “end game” and plan for it
4. Take fibre deeper in Commercial and Industrial areas
5. Seek a FTTP outcome in greenfield areas

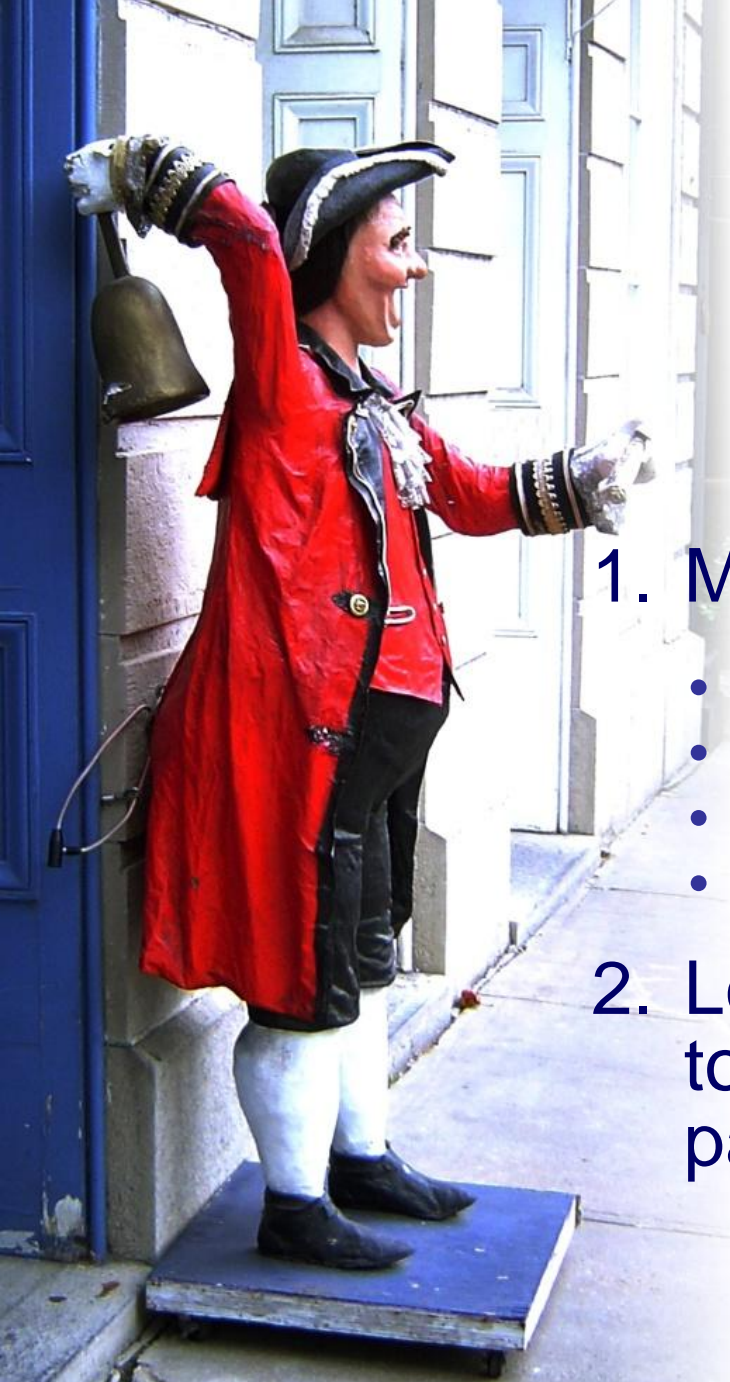


Under Local Government Control

1. Mandate FTTP in greenfield areas

- A “stroke of the pen” solution
- Overcomes problems of pit & pipe only
- Ramifications need to be understood
- Best implemented on wide scale

2. Look for “incremental” opportunities to improve backhaul availability as part of other infrastructure projects



Thank You!



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Report available from www.leadwest.com.au