ITU Regional Seminar on BWA for Rural and Remote Areas for the Asia-Pacific Region
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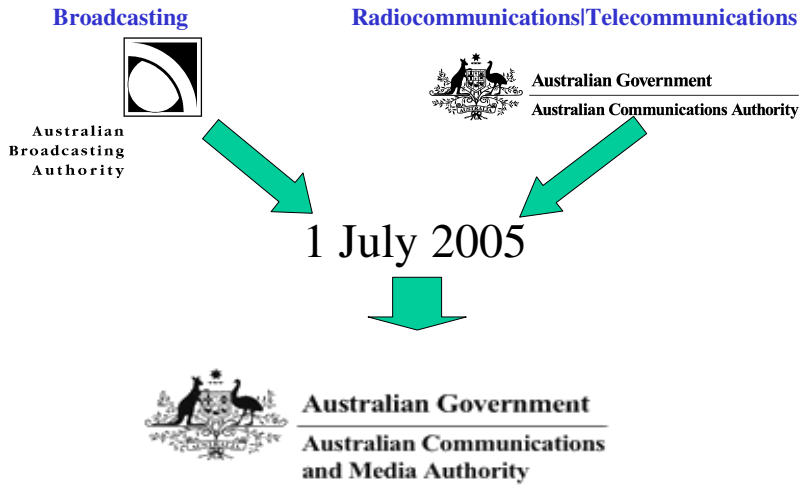
Broadband Wireless - Status and Initiatives in Rural and Remote Australia

Nevio Marinelli
(Australian Communications & Media Authority)

What will be discussed

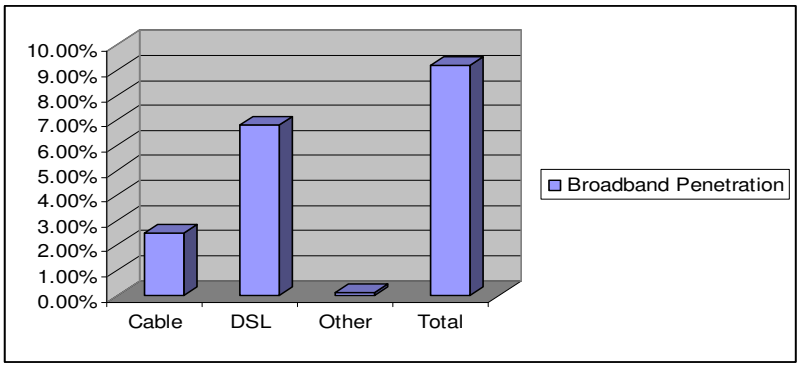
1. ACMA
2. Australia in radio-spectrum terms
3. Current broadband status
4. Current regulatory approaches
5. Possible new initiatives



Australia in Radio-Spectrum Terms

- Geographically large, but isolated country
- 20 million people, but most in urban centres on the coast
- High per capita GDP, early adopter of new technologies
- Small manufacturing base, but strong service/value-added industry sector
- Communications has a key role in connecting the country
- Efficient, innovative communications essential to many sectors of the economy

Broadband Status
(31 March 2005)



- OECD ranking - 21
- Total Subscribers - 1 839 700

Spectrum Management Approaches

- Public Park (Class Licensing)
- Administrative (Apparatus Licensing)
- Market Based (Spectrum Licensing)

Public Park

- Class Licensing (freq/power limits)
- Low power, low interference potential
- No coordination
- Bands – 2.4 GHz & 5.8 GHz
- RLAN, WiFi Hotspots especially cities
- BWA for remote communities

Public Park Initiative

- New 5.8 GHz licence category
- Low cost backhaul (outside populated areas)
- Higher powered applications
- No coordination but site location registered
- Licence fee - cost recovery only

Administrative Approach

- Site specific apparatus licence
- Coordination required for licence issue
- Bands - 1.5 GHz, 3.4 GHz
- Traditionally used for FWA →BWA
- New bands
  - 1900-1920 MHz
  - 2010-2025 MHz

- Only in regional and remote areas

Apparatus Licensing Initiatives

- 1900-1920 MHz, 2010-2025 MHz
  - o Frequency Band Plan gives priority to BWA
  - o Point-to-multipoint primary
  - o Fixed point-to-point secondary
  - o Clearance of existing services only if reqd
- 1785-1805 MHz (GSM 1800 mid band gap)
  - o Technical challenge TDD v FDD sharing

Market Based

- Spectrum Licences via price based allocation (eg auctions)
- Spectrum Space (frequency/geographic boundaries + technical framework)
- Technology neutral/flexible approach
- Bands - 800 MHz, 1900-1920 MHz, 2.3 GHz, 3.4 GHz, 27GHz, 28/31GHz

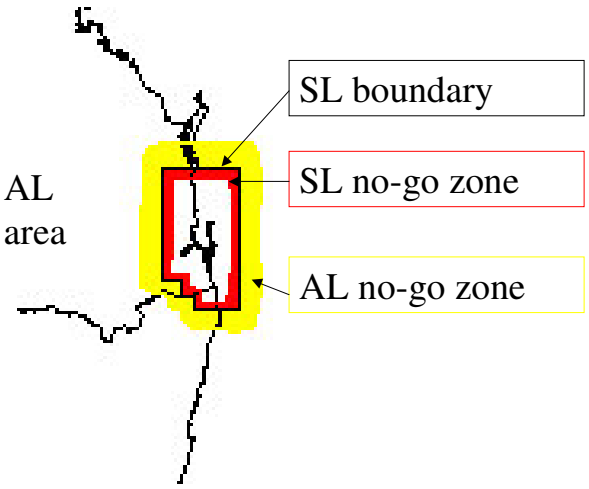
Spectrum Licensing Initiatives

- 2010 – 2025 MHz band
- Technical framework biased to BWA
- Area definitions enable wide area/nomadic services to be deployed
- Suitable for large operators

Licensing Method Comparison

- CL – cheap, no coordination
  - guarantee of QoS/GoS difficult
- AL – good for small operators
  - detailed coordination rules
- SL – good for big operators
  - complicated tech framework,
  - hard boundaries and no-go zones

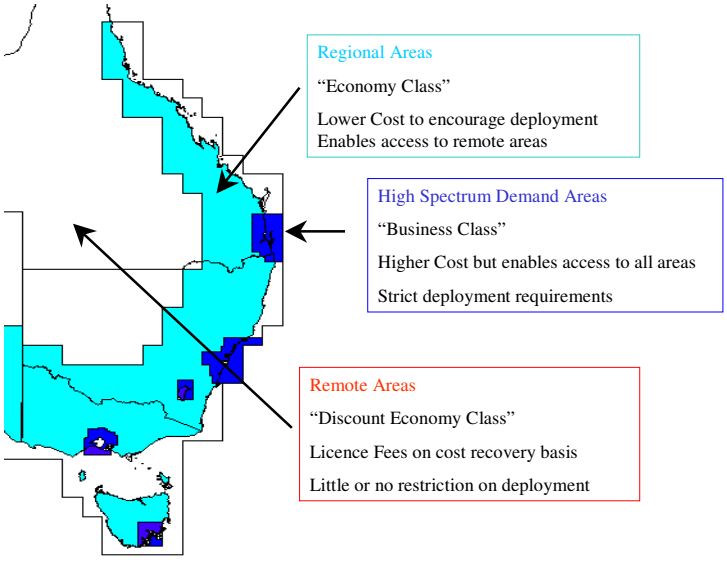
Boundary Issue - SL vs AL Areas



Possible New Initiative

- Combined CL/AL/SL principles
- Non exclusive access but closed user group
- Area based fees and conditions of use
- Technology neutral approach
  - but based on a broad technical framework
- 3.6 GHz band possible option

Possible New Initiative



More Information

See the ACMA website at

www.acma.gov.au

Thank You

Questions?

email: nevio.marinelli@acma.gov.au

+61 2 6219 5249

Spectrum Planning and Engineering Section

Australian Communications & Media Authority