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Next Generation Networks

Australian Regulatory Practice and Directions

Greg Neylan
Manager Industry Operations
and Licensing
Australian Communications Authority

The Australian Communications Authority is a government regulator of telecommunications and radiocommunications

www.aca.gov.au

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Current Regulation

- Broad social and economic outcomes

  – International Competitiveness of industry
  – Long term interests of end users
  – National interest objectives

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Current Regulation continued

- Regulatory focus is on Voice Service
- Minimal regulation of other Services
- Overarching requirements for all services
  – Protection of confidentiality of consumer communications
  – Interception and assistance to Law Enforcement Agencies

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Is existing regulatory framework applicable to NGN?

- **Yes - because the Australian regulatory framework is 'technology neutral'**
- **The ACA recognises new technologies may raise new pressures on the regulatory framework**
- **The introduction of VOIP, voice over broadband and corporate IP solutions has prompted the ACA to review aspects of the regulatory framework via national public consultation**

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Major Access Requirements (1)

- Service level
  - Local Call Service
    - Interfaces:
      - Ordering and provisioning system
      - Billing feeds
      - Operations system
- Call interconnection
  - Originating and terminating access services for voice (fixed & cellular) and ISDN bearer types
    - Interfaces:
      - CCS#7 interfaces – ACIF specification
      - Billing feeds
      - Operational system
      - O&P system includes pre-selection arrangements for fixed customers

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Major Access Requirements (2)

- **Transmission and data services**
  - Exclusion of inter-capital transmission
    - Interfaces
      - Various data and transmission inter-carrier and customer interfaces
      - Ordering and provisioning systems
      - Billing systems
      - Operations systems

- **Local Loop Services**
  - Both copper pair and spectrum sharing options
    - Interfaces
      - Ordering and provisioning systems - ACIF spec for ULL
      - Operations system
      - ACIF code on signal frequency and power in the copper pairs
      - Associated access to buildings

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Major Access Requirements (3)

- **Facility Access**
  - Ducts, Building Space and Towers
    - Provisioning arrangements include preparatory work processes
    - Industry code on the provisioning and operational processes

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NGN Access Implications

- Current access arrangements
  - technology neutral
  - Underlying service persistence
- New NGN driven requirements
  - New services or service features
    - Market significance
    - Market efficiency
      - Ease of entry
      - Coordination requirements
      - Market structure

Numbering (1)

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- Australian Numbering Plan specifies number ranges according to service characteristics

- Reliance on technology neutral principles, consistency with other regulatory requirements and ITU Reco E.164

- National consultation with industry on whether to amend Plan for VOIP services

Numbering (2)

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- VOIP consultation will examine mobility of services, QOS, call charging, consumer awareness and protection, ease of market entry

- Some VOIP services are active in geographic number ranges

- ACA will consider whether other number ranges may be appropriate – currently no range specified for 'nomadic' services

Number Portability (1)

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- Applies to all network operators using numbers that are 'declared portable'

- Portable numbers include local, mobile, freephone and local rate – porting within ranges

- Market forces determine practical impact of portability – some networks are more attractive than others. Bilateral agreements determine the extent that access seekers make use of portability requirements

Number Portability (2)

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- For example, in fixed line market Telstra provides 90% of exchange lines – the market predominantly seeks portability from Telstra

- New entrants to fixed line market will remain dependent on portability for access to customers

- In mobile market portability maintains pro-competitive incentive

Number Portability (3)

- For NGN services in existing portable number ranges market forces would require porting from successful networks

- If new number ranges are introduced for NGN, new assessments of need for portability required

Quality of Service

- Minimum QOS performance required for end to end circuit switched services
- NGN are requested to use these as a guide
- New entrants attest that VOIP QOS is 'manageable', traditional operators disagree
- When NGN standards are further progressed Australian industry would likely develop end to end performance requirements

USO

- All Australian network operators contribute to the funding of the USO
- Telstra provides the USO service, the Minister determines the cost, operators share the cost relative to their share of 'industry eligible revenue'
- USO service is defined in technology neutral language – 'a voice service with any to any connectivity' – Telstra has discretion to choose the underlying technology

An exciting time for the telecommunications industry

Thank you

Greg Neylan
Manager Industry Operations and Licensing
T: +61 3 9963 6877 F: +61 3 9963 6979
M: +61 408 162 698

Email: greg.neylan@aca.gov.au

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