



Australian Government



International Training Program 2014

Emerging Issues in Numbering

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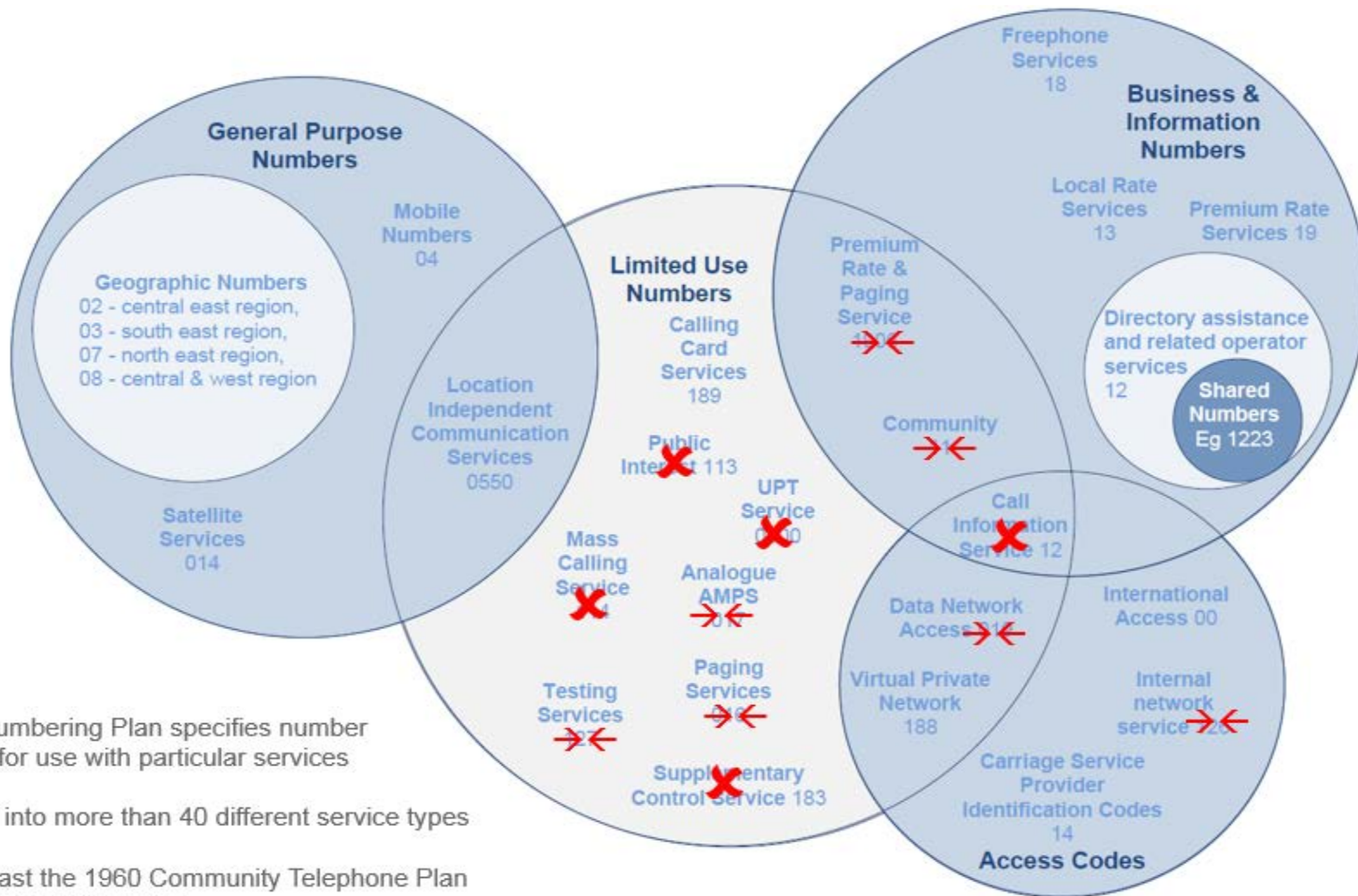
Regulatory Context of Numbering

- > *Telecommunications Act 1997*
- > *Telecommunications Numbering Plan 1997* (the Plan)
- > Informal policies - developed with industry
- > Co - regulation - Industry codes and guidelines

Numbering's role in policy objectives



Telephone numbers and the Numbering Plan



1997 Numbering Plan specifies number ranges for use with particular services

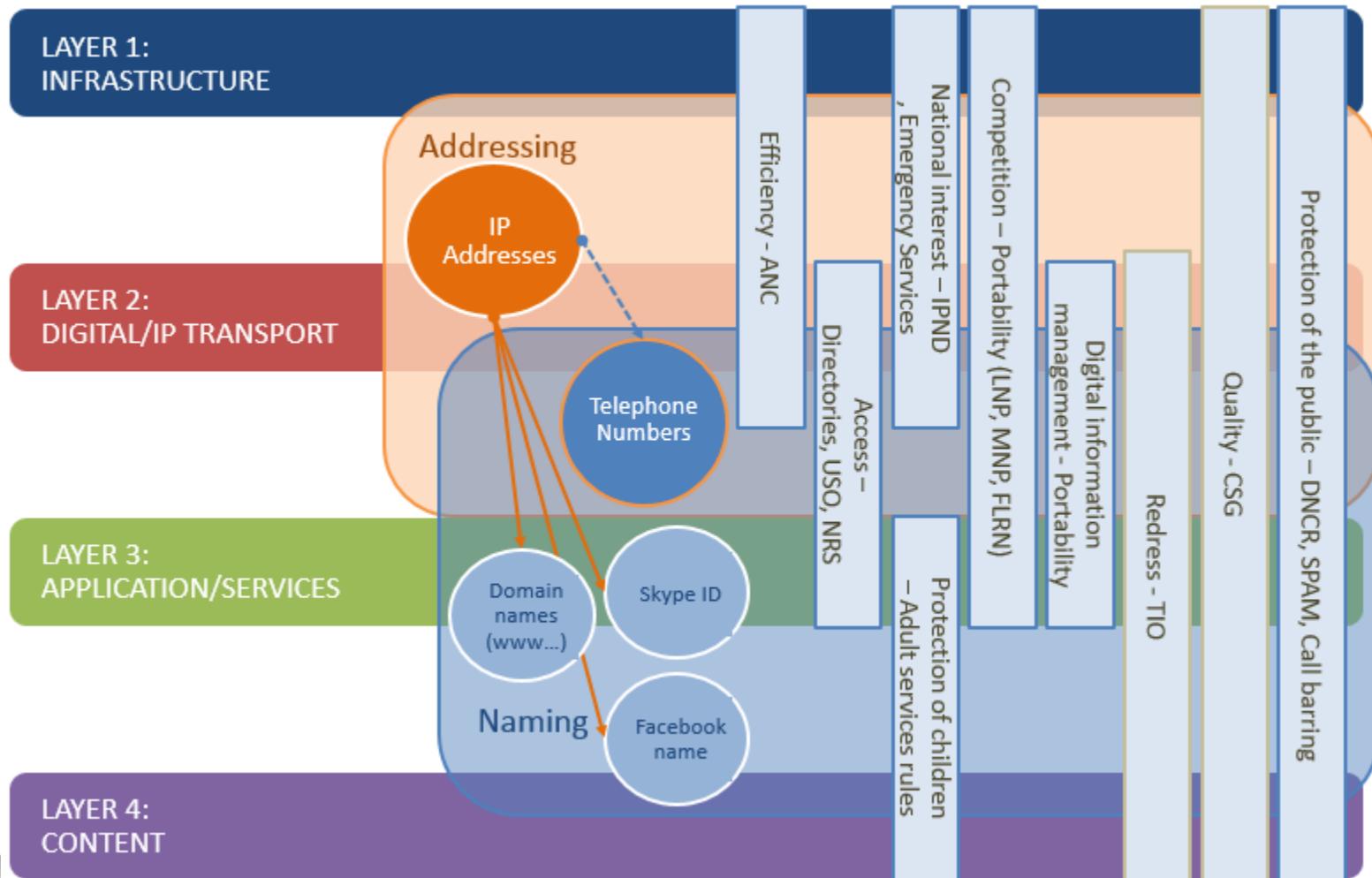
Divided into more than 40 different service types

In contrast the 1960 Community Telephone Plan only had 2 service types

Numbers are one type of identifier in common use

	Assigned by	Allocated to	Structure	International rules & standards	Other rules & policies	Charge for assignment
Telephone numbers	ACMA (in Australia)	Carriage service providers only	Partitioned between 40+ separate types of services; geographic numbers further partitioned between approx 2050 separate geographic areas	Recommendation E.164	National: Numbering Plan	Yes
IP addresses	APNIC (in Asia-Pacific region)	Generally to large ISPs	Partitioned between regional blocks	RFC 1366	N/A	Yes
.au domain names	Registrars accredited by auDA	Organisations and individuals	Partitioned between 18 second-level domains; e.g. <i>.com.au</i> , <i>.org.au</i>	N/A	National: auDA policies	Yes
Application-specific identifiers	Organisation responsible for application; e.g. bank, social networking operator	Individuals	Usually not	None	Application-specific rules	No

Enduring Concepts: A Telecommunications Map





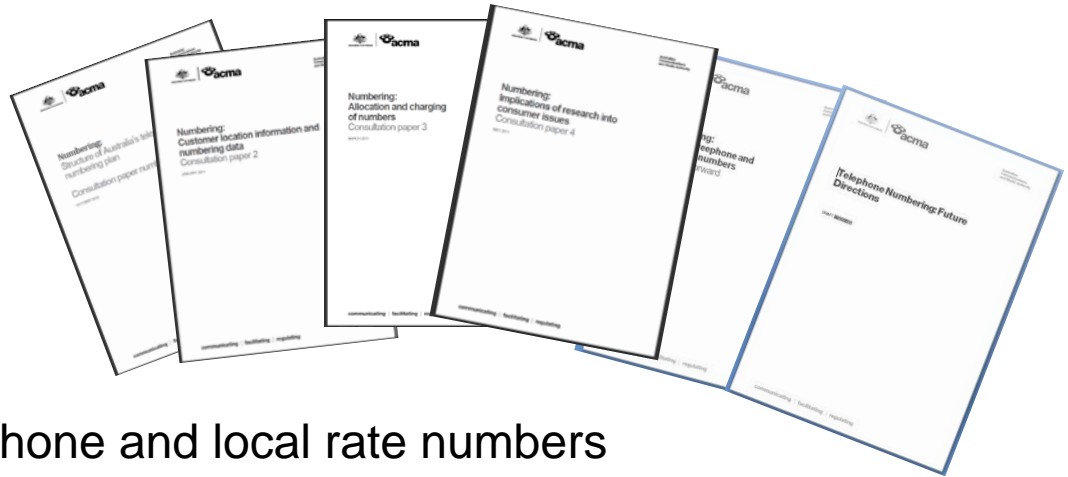
Pressures for change

- > **Technical innovation** at both the network (fixed and mobile) and device level
- > **Service innovation**, including the move away from fixed-voice-only services and the development of software based communications, which are, in some cases, independent of specific networks and devices
- > **New business models**, which are exploring alternative revenue streams
- > Changes in **consumer behaviour** which reflect and in some cases have driven changes in the technology and pricing.



The Numbering Work Program

- > Four consultation papers
- > Two workshops
- > 100+ submissions
- > Short term:
 - > Position paper: Freephone and local rate numbers
 - > Minor and machinery changes
 - > Expanding mobile number capacity
- > Medium and long term: Future directions paper

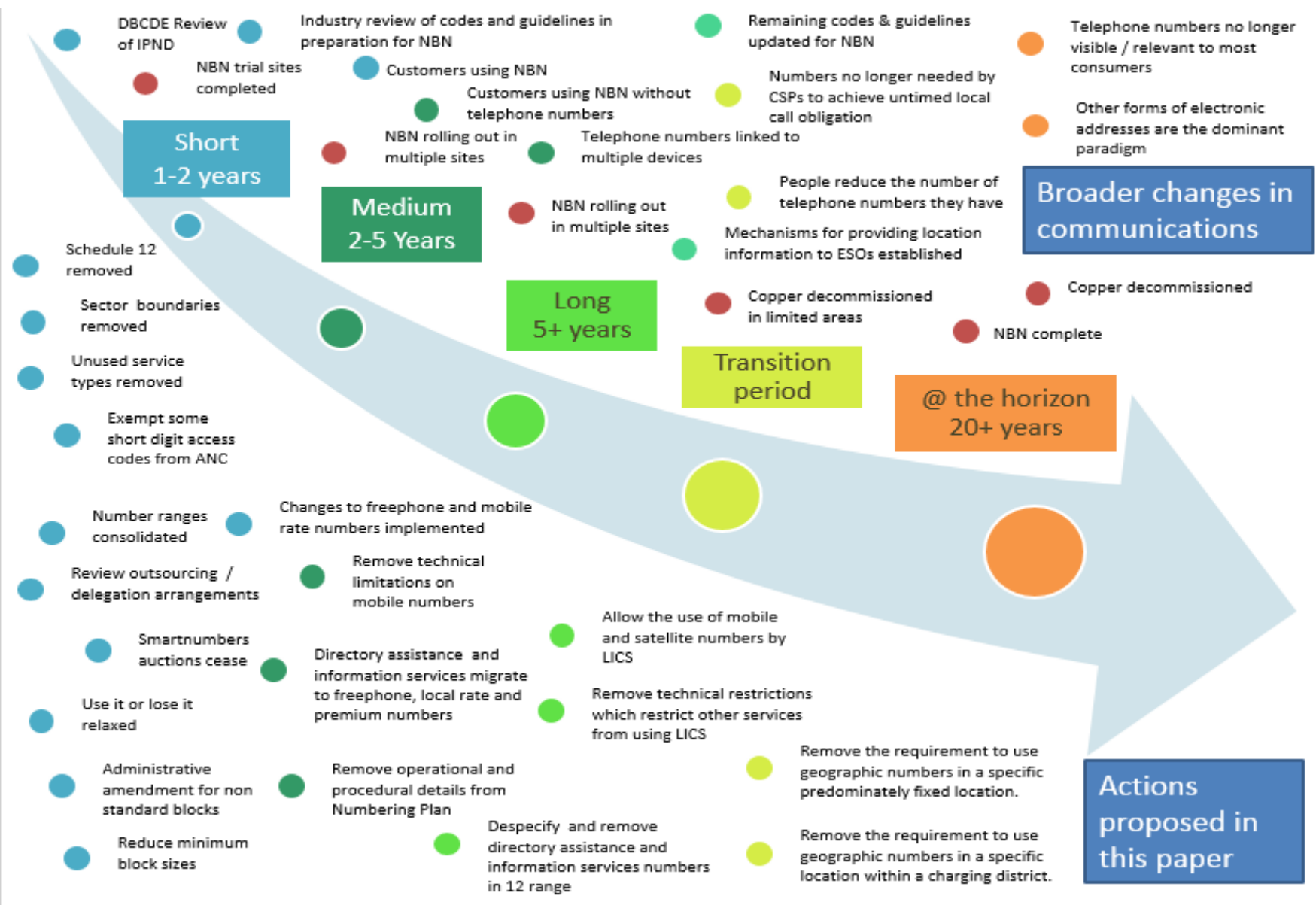


Approach to change

The ACMA faced a stark choice in how to change the regulatory framework:

- > undertake a radical transformation; or
- > develop an evolutionary path.





Conclusion

- > We think the ACMA's Numbering Work Program is an excellent example of convergent regulation through first principles thinking