Registry/Registrar Model – Part 1

APTLD Non-Technical Training – Dubai
Tuesday June 5th 2007

Adrian Kinderis
Chief Executive Officer – AusRegistry International
WHO IS AUSREGISTRY?

AusRegistry

- Registry Operator for the .au ccTLD since July 2002
- Operates .au Domain Name Servers (DNS)
- Consultation to industry and government
- Website: www.ausregistry.com.au

AusRegistry International

- Consults globally on ccTLD operations
- Registry Operator for the Australian ENUM Trial
- Registry Operator for the REC Registry
- Website: www.ausregistryint.com

Adrian Kinderis – AusRegistry International
Registry/Registrar Model – Part 1
REGISTRY / REGISTRAR MODEL

“...people can have the Model T in any colour – so long as it's black…”
Henry Ford (1863 - 1947)

“...in theory, there is no difference between theory and practice; in practice, there is…”
Chuck Reid
Across the globe ccTLD administrations are the responsibility of:

- Individuals
- Academic Institutions
- Government Agencies
- Specialist NGOs
- Commercial Entities

These diverse entities and their varied management styles ensure there is no single model for a ccTLD.
• Initial allocation of responsibility for administration of ccTLDs was ad hoc

• There was the perception that domain names were primarily an academic interest

• Many ccTLDs were delegated to academic and government institutions – though there are notable exceptions
Governments are realising the critical nature of the Internet to national security, business and the local community.

IANA is responsible for the delegation of ccTLDs.

Redelegation and transition to new structures for a ccTLD can be time consuming and expensive.
REGISTRY MODELS

- Regulatory Body, Registry and Registrar
- Performs:
  - Administrative
  - Technical
  - Retail function
REGISTRY MODELS

• Pros:
  • Established as central authority
  • Less confusion in the market place
  • Suited to small or emerging markets

• Cons:
  • Lack of competition
  • Pricing structure
  • Registrant customer service
  • Larger staffing requirements for technical, retail and administrative functions

• Examples: .ae
REGISTRY MODELS

- Regulatory Body and Registry combined administrative and technical function
- Registrars and Resellers perform retail function

Adrian Kinderis – AusRegistry International
Registry/Registrar Model – Part 1
REGISTRY MODELS

• Pros:
  • Consistency of message, mission and vision
  • Able to approve and resolve issues efficiently
  • Competitive model
    • Pricing
    • Service
    • Accessibility

• Cons:
  • In-house technical requirement
  • Increased cost of administering Registrars and Resellers

• Examples: .ca
REGISTRY MODELS

- Regulatory Body administrative function
- Outsourced Registry
- Technical function
- Registrars and Resellers
- Retail function

Adrian Kinderis – AusRegistry International
Registry/Registrar Model – Part 1
REGISTRY MODELS

• Pros:
  • Expertise in individual fields
  • Shared responsibility and governance
  • Competitive model
    • Pricing
    • Service
    • Accessibility

• Cons:
  • Loss of control of technical functions
  • Costs associated with RFT process
  • Legal agreements

• Example: .au
THIN REGISTRY

• A thin Registry is one for which the Registry database contains only domain name service (DNS) information:
  • Domain name
  • Name server names and name server address
  • The name of the Registrar
  • Basic transaction data

• It does not contain any Registrant or contact information

• Registrant or contact information is maintained by the Registrar

• Examples: .com, .net, .org
A thick Registry is one for which the Registry database contains:

- Registrant and contact information
- Domain name
- Name server names
- Name server address
- The name of the Registrar
- Basic transaction data

All authoritative information is kept within the Registry.

Examples: .info, .au, .ca
THICK vs. THIN

- Security of data held by Registrars
- Escrow concerns
- Centralised source of standardised WhoIs information
- Privacy and policy considerations
- Registrar resources maintaining a WhoIs infrastructure
- Streamlines the transfer process
Registry/Registrar Model

• Outsourcing:
  • To outsource all or parts
  • Cost
  • Critical resource
  • Sovereignty
  • Security & Control
  • Service Levels
  • Maintenance
  • Time

Adrian Kinderis – AusRegistry International
Registry/Registrar Model – Part 1
WHY BE STANDARD?

- RFC 2026 – The goals of the Internet Standards Process are:
  - Technical excellence
  - Prior implementation and testing
  - Clear, concise, and easily understood documentation
  - Openness and fairness
  - Timeliness

- Proprietary technologies will have a cost of access

- Development of the internet has relied on open standards
  - TCP/IP
  - XML
  - Etc…
EXTENSIBLE PROVISIONING PROTOCOL – EPP

- A protocol for the registration and management of second and lower level domain names and associated name servers
- Specified in RFC’s 4930, 4931, 4932, 4933, 4934, and 4935
- Fast, seamless and accurate exchange of information
- EPP is currently the most commonly used and accepted protocol for TLD Registries
- Allows Registries to adapt specific sections to meet local requirements
EXTENSIBLE PROVISIONING PROTOCOL – EPP

- Allows for Registrars to:
  - Draw on the experiences of others
  - Connect to multiple Registries without the expense of developing multiple solutions

- EPP allows separation of Registration events
  - Domain
  - Contact
  - Name server objects