Registry/Registrar Model – Part 1

APTLD Non-Technical Training – Bali

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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 Solomon Islands .sb ccTLD
- Registry Operator for the Australian ENUM Trial
- Registry Operator for the Australian REC Registry
- Website: www.ausregistryint.com
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
REGISTRY / REGISTRAR MODEL – Part 1

- Introduction
  - What are the different models?
  - How did they come about?

- Importance of Industry Standards – EPP

- Different Options - Thin vs Thick Registry

- Implementation Considerations
REGISTRY / REGISTRAR MODEL

- 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
REGISTRY / REGISTRAR MODEL

- 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
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
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
  - 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
- E.g. .com, .net, .org
THICK REGISTRY

- 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
- E.g. .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 and the issues it creates/ solves:
  - To outsource all or parts
  - Cost
  - Critical resource
  - Sovereignty
  - Security & Control
  - Service Levels
  - Maintenance
  - Time

- Covered in the presentation ‘Domain Name Registration System’
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 3730, 3731, 3732, 3733, 3734, and 3735
- 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