Registry Functions

Essential components for operating a ccTLD registry
Functions of a Registry

T = technical data (zone content)
P = policy data (local community policies, IANA policies)
S = social data (contact info, billing data etc.)
Second Level Domains
Functions inside a Registry

Client: Registrar / Registrant

Registration Process

DNS Service

Registry Data Store

whois Service

"Boxes"
Hardware / Operating System / Connectivity

Registry Implementation
Registration Process

• Primary function
  – interface to the client (registrar, registrant)

• Secondary function
  – Enforcement of local policies and regulations, e.g.
    • name valid and unique
    • registration number (if required by government etc.)
  – Billing information

• Methods: Web services, email client, EPP, Fax, phone etc.
Registry Data Store

• Internal data store
  – Archive of transactions
  – Maintains consistency between the blocks
  – Source for management information, statistics, billing etc.

• Internal social data
Whois Service

- Public/external data store
  - Classic: port 43
  - Via web interface
  - New: Crisp

- Implementation of local privacy rules

- Public social data
DNS Service

- DNS & BIND
- Authoritative DNS
- Primary/secondary
- Caching DNS as service (optional)
- Reverse DNS (pointer to RIR’s)
Technical Infrastructure

- Hardware
- Connectivity, Routing
- Operating System
- Editor, scripts
- Registration Tools