Working with IANA for ccTLDs
Caribbean ccTLD Policy Workshop, June 2007
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Internet Assigned Numbers Authority
Agenda

‣ What is IANA? What does it do?
‣ Are are ccTLD Managers obligations to IANA?
‣ Redelegations
What is IANA?

- “Internet Assigned Numbers Authority” is responsible for global Internet unique identifier systems.
- One of the oldest Internet institutions, its role dates back to 1970s.
- Since 1998, operated by ICANN - a non-profit internationally-organised entity setup by the global community as the steward for the IANA functions.
- Today, “IANA” may refer to either the functions, or the department within ICANN that runs the IANA functions.
IANA’s areas of responsibility

**Domain Names**
- Root Zone
- .int
- .arpa
- IDN Repository
- Service Zones

**Number Resources**
- Global pool of:
  - IPv4
  - IPv6
  - AS Numbers

**Protocol Assignments**
- 100’s of registries in protocols:
  - Port Numbers, XML Namespaces, MIME Types, etc.
IANA’s Root Zone Management
As we know, domain name authority involves delegating authority ‘down the tree’
Each zone has a party responsible for it, and responsible for making any delegations below their zone.
As operator of the ‘root’, IANA is responsible for the assignment of top-level domain operators.
How we manage the root

- Maintain data for the DNS root
  - Technical data (NS records, “glue”)
  - Social data (admin and tech contacts, sponsoring organisations, WHOIS, Registration URL)
- Two types of changes
  - Routine Changes (easy)
    - confirm authenticity, check for technical problems, implement
  - Redelegations (easy-to-hard)
    - perform evaluation, submit to board, implement
    - we can streamline certain requests so they are much quicker and simpler
What we don’t do

- Don’t set root zone management policy
  - We follow precedent where possible, encourage review of our operations by community.
- Don’t unilaterally decide what the two letter codes should be
  - ISO 3166 standard provides these, ISO Maintenance Agency makes revisions
    - ICANN is one of ten members of the ISO 3166 MA
- Don’t decide who runs a ccTLD
  - ccTLD Operators are decided by the local Internet community
  - IANA performs due diligence to ensure the community’s opinion is represented in its changes. Also performs baseline technical checks.
  - IANA performs due diligence.
What are the obligations a ccTLD Manager has to IANA?
The IANA-ccTLD Parent/Child Relationship

- ccTLDs are responsible for setting policy and operating domains according to their local community’s needs.

- However, IANA needs to have accurate details on who is running the ccTLD:
  - Technical details - to ensure correct and robust operation of the DNS
  - Social details - to ensure we know who to verify changes with, and for public policy reasons
Therefore:

ccTLD Operators should ensure IANA has the correct details for your ccTLDs. You should provide timely updates to us to ensure our records are current.

Take a moment to review your ccTLD’s entry at whois.iana.org and check your details.
Redelegations
(the complicated changes)
Redelegations

- Assignment of a new operator of a top-level domain
- Unlike routine requests to alter the root zone, tested for public interest criteria in addition to the normal processing checks.
Guiding Documents

- Domain Name Structure and Delegation (1994)
- Domain Name Structure and Delegation (1999)
  - [http://www.icann.org/icp/icp1.htm](http://www.icann.org/icp/icp1.htm)
- The Governmental Advisory Committee Principles for Delegation and Administration of ccTLDs.
Redelegation Procedure

- Request for redelegation is sent to IANA
- IANA performs evaluation
  - consultations with:
    - requestor to understand situation, seek additional documentation
    - current operators to determine consent
    - local Internet actors to confirm assertions on LIC support
    - governments to identify support
    - ICANN staff who have insight into local situation
- If assessed to proceed, considered by ICANN board
- Upon approval, implement normally (incl. USDOC, VeriSign)
- Report published on website
Criteria for assessing applicant (1 of 2)

1. **Operational and technical skills**
   
a. The prospective manager has the requisite skills to operate the TLD appropriately. (ICP-1 §a, RFC 1591 §3.5)

   b. There must be reliable, full-time IP connectivity to the nameservers and electronic mail connectivity to the operators; (ICP-1 §a; RFC 1591 §3.1)

   c. The manager must perform its duties in assigning domains and operating nameservers with technical competence (ICP-1 §d; RFC 1591 §3.5)

2. **Operator in country**
   
a. The prospective manager supervises and operates the domain name from within the country represented by the TLD; (ICP-1 §a; RFC 1591 §3.1)

   b. The prospective administrative contact must reside in the country represented by the TLD. (ICP-1 §a; RFC 1591 §3.1)
3. **Equitable treatment**
   
a. The prospective manager must be equitable and fair to all groups encompassed by the TLD that may request domain names (ICP-1 §c; RFC 1591 §3.3)

4. **Community/Governmental support**
   
a. The prospective manager has the requisite authority to operate the TLD appropriately, with the desire of the government taken very seriously. (ICP-1 §a, GAC Principles)

   b. Significantly interested parties in the domain should agree that the prospective manager is the appropriate party to receive the delegation (ICP-1 §a; RFC 1591 §3.4)
Other evaluation considerations

- Transition plan
- Consent of the current operator
- Malfeasance by the current operator
Summary
What you should do

› Operate your ccTLD in the public interest
› Ensure IANA’s details are correct:
  › If they are wrong, start a discussion with IANA/ICANN on how best to remedy the deficiencies.
    › Simple changes: regular change request approved by contacts
    › More complex: administrative redelegation or a redelegation
  › If there is an anticipated change of management in your country, IANA and ICANN can advise on our requirements
› Maintain minimum technical standards
  › Bad configurations can hurt the root (i.e. the whole Internet, not just in your country)
Thank you for your attention!

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