Understanding ccTLD delegation and transfer

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What are ccTLDs?

- We typically divide top-level domains into two broad categories:
  - **Generic Top-Level Domains (gTLDs)**
    - Global purpose
    - ICANN policy making and oversight
  - **Country-code Top-Level Domains (ccTLDs)**
    - Country-level purpose
    - Local policy making and oversight (within country)
    - Automatic qualification/disqualification

- Policy that applies at the global level is devised within two respective ICANN supporting organizations: the GNSO and ccNSO respectively.
- The enduring principles that define a ccTLD are contained in a seminal document “RFC 1591”, published in 1994 by Jon Postel.
Country-code Top-Level Domains

- As the name implies, derived not from countries but from **country codes**
  - Country codes are specified by the international standard ISO 3166-1
  - This standard is used for many applications, not just ccTLDs (e.g. passports, currency, postal mail, even language subtags discussed earlier)
  - It provides alphabetical and numerical codings for countries and territories, ccTLDs only use one kind of coding — alpha-2 (two letters)
  - It is both the arbiter of (a) what country/territory is eligible, and (b) what their code should be, based on the notion such decisions shouldn’t be done by IANA.
Internationalized ccTLDs

- ISO 3166-1 only provides ASCII codes (i.e. Latin script)
- In the late 2000s, ICANN introduced a new path to pick non-Latin strings to represent countries, known as the “IDN Fast Track”.
  - Underlying country/territory still derived from ISO 3166-1
  - The actual string is supplied by the applicant and subject to ICANN evaluation
How are ccTLDs managed?

- ccTLDs are intended to be managed within their respective jurisdiction
  - An appointed trustee (the “ccTLD Manager”) is responsible for all facets of ccTLD operation within the country
- Local accountability
- IANA is responsible for evaluating requests to manage ccTLDs
  - Evaluates such requests on a number of policy criteria
  - Proceeds with requests when they satisfy all relevant criteria
  - Maintains an ongoing day-to-day operational relationship with the ccTLD manager to ensure the TLD continues to function (managing relevant data in the DNS root zone to enable the TLD)
  - Is not involved in day-to-day administration at the lower level (managing second-level registrations)
How are ccTLD managers assessed?

- The evaluation criteria for a request can be divided into these key areas:
  - **String eligibility** — is the underlying string (e.g. “.za” or “.рф”) eligible to be a ccTLD?
  - **Incumbent consent** — for transfers, does the current manager of the domain agree to transfer to the proposed new manager?
  - **Public interest** — is the act the result of appropriate consensus building within the country? Will the manager perform in a fair and equitable manner?
  - **Local presence** — is the manager based on the country or territory?
  - **Stability** — will the ongoing stability and security of the domain be preserved?
  - **Operational competency** — is the manager adequately skilled to manage the domain?
Different forms of assessment for ccTLDs

- **Delegation** is the initial creation of a new ccTLD (i.e. does not exist prior)
- **Transfer** is the consensual transfer of the ccTLD from an incumbent manager to a new manager
  - Conditional on meeting policy requirements reviewed by IANA
  - Formerly known as a “redelegation” but the ccNSO deprecated the term in 2014
- **Revocation** is designated by the ccNSO to specifically refer to cases where the ccTLD manager misbehaves and loses their ability to manage a ccTLD.
- **Retirement** refers to when a ccTLD is removed when its underlying eligibility is no longer present (i.e. the country no longer exists)
- Note: these terms can have different meanings for gTLDs and for historical cases of ccTLDs
Evaluation process

- Prospective applicants usually talk to IANA staff prior to, or early in, the process to gain a greater understanding of the policies and procedure
- During ICANN meetings we often facilitate private bilateral meetings on these topics
- Applicant submits materials in accordance with published procedures
- Process tends to be iterative with applications refined over time
- If IANA agrees to proceed, procedural review by ICANN Board is a component
- Once IANA recognizes the change, in the case of a transfer, the incumbent begins to transfer operations to the new manager in accordance with the supplied transfer plans
Significantly Interested Parties and Local Law

- One key aspect of ccTLD management is that there is local consensus on how the ccTLD should be managed
- There is an expectation there is a locally-convened multi-stakeholder process around such decisions
- There is no basis in the policy that governments unilaterally appoint ccTLD managers
  - Evaluations seeks diverse perspectives and information on the process that demonstrates appropriate engagement
  - Governments are recognized as key stakeholders, and their explicit opinion will always be sought (support, non-objection, etc.)
- ccTLD managers do need to be in jurisdiction, and thus accountable under local law
ccTLD Managers must have an active role

- It is not designed to be a party with merely an oversight role.
- Oversight mechanisms should operate within the country. Using the IANA process to be nominated as the “ccTLD manager” in order to provide oversight is not appropriate.
- It is important IANA recognizes and deals directly with the party who performs day-to-day management of the domain.
- The manager is responsible for keeping their IANA records accurate and up-to-date; inactive managers result in poor data quality.
- The manager can use vendors to support their role, such as technical back end registry service providers (RSPs), but the manager retains an active role on administration.
- The ccTLD Manager is the party with standing to be the member in the ccNSO.
Transfer consent requirement

• In accordance with the ccNSO Framework of Interpretation, requests to transfer by be consensual. A prerequisite for a transfer is the incumbent manager must willingly agree.

• Pursuing a change of a ccTLD manager without consent must involve a revocation request.

• Revocations are for substantial misbehavior when the manager hasn’t carried out their responsibilities appropriately (as defined by global policy).

• The behavior must be “either egregious or persistent and may include performing the necessary responsibilities of a manager in a manner that imposes serious harm or has a substantial adverse impact on the Internet community by posing a threat to the stability and security of the DNS.”

• IANA is limited to act only when such conduct is proper noticed and a reasonable opportunity to cure, or poses a stability risk to the DNS.
How IANA resolves disputes over who runs a ccTLD

• It is **not** in IANA’s responsibility to adjudicate disputes, disputes must be resolved in-country.

• Postel explicitly stated in RFC 1591:

> Significantly interested parties in the domain should agree that the designated manager is the appropriate party. The IANA tries to have any contending parties reach agreement among themselves, and generally takes no action to change things unless all the contending parties agree; only in cases where the designated manager has substantially mis-behaved would the IANA step in.
Practical realities on jurisdiction

- Prior to ICANN, some ccTLDs were originally delegated to entities outside the country to bootstrap their initial connectivity to the global Internet
  - e.g. researchers in academic networks establishing first links
- In some cases, the ccTLD manager began in-country, but expropriated operations to outside the jurisdiction later
  - Oversight is a local matter. IANA is not empowered by the policies to perform any ongoing compliance in these areas.
- The ccTLD manager may be in-country, but uses an out-of-country RSP by design.
- Practically, the ccTLD manager has control over the essential business data (e.g. customers, which domains are registered) that would be necessary to transfer ccTLD management to a new entity
  - This means incumbent consent is not just a policy requirement to perform a transfer, but a practical one too.
  - IANA is not capable of moving the business data from the incumbent manager to a new manager, only the delegation in the root zone
Considering local escrow

- Escrow arrangements can provide a mutual method of depositing the essential business records with a trusted third party on a regular basis.
- In the event of agreed conditions, these records can be released to enable the transfer or restoration of registry operations in a new location.
- ICANN administers a mandatory escrow program for gTLD registries
  - [https://www.icann.org/resources/data-escrow-services-en](https://www.icann.org/resources/data-escrow-services-en)
  - Eight different accredited data escrow agents that gTLDs can deposit registry data in a common format
  - ICANN is able to use this data to restore registry quickly with an emergency back-end registry operator (EBERO) under defined conditions
- For ccTLDs, there are no such requirements, but locally such solutions can be considered for the same reasons.
- Can provide local options in the event of registry failure.
Policy gaps with ccTLDs

- The ccTLDs policies evolved organically over time:
  - Invented with basic principles in the 1980s
  - Early refinement in the 1990s by Jon Postel, still largely unstructured
  - ICANN org established standardized processes in the 2000s
  - ccNSO develops clarifying guidance in the 2010s
  - ccNSO develops new policy in the 2020s
- There is no single holistic policy document, and there are still practical situations largely unaddressed by policy
- Recent operational event highlighted potential areas where policy is unspecified
- Has triggered a broader discussion between IANA and ccNSO on these gaps, with an eye to future policy work and/or document clarifications
- Session in the ccNSO this Wednesday on this topic
• ccTLDs are predicated on the existence of the underlying countries or territories they represent
  • ISO 3166-1 adds and removes codes in line with country recognition
  • Policy requires that, following the removal of an ISO 3166-1 code, its associated code will be removed within 5 years of that date.  
    • Potentially extendable up to 10 years under certain conditions
• No longer relies on voluntary adherence
• This period of time provides the opportunity to transfer a domain to a successor ccTLD
Resources

- Overall guide to ccTLD delegations and transfers
  - https://www.iana.org/help/cctld-delegation
- Eligibility strings for ccTLDs
  - https://www.iana.org/help/eligible-tlds
- Operational and technical plans for ccTLDs
  - https://www.iana.org/help/operational-plans
- Guide to ccTLD retirement
  - https://www.iana.org/help/cctld-retirement
- Common questions and answers
  - https://www.iana.org/help/cctld-delegation-answers
Talking with IANA

- IANA is happy to meet with parties who are exploring changes to how their ccTLD is managed.
- We will provide neutral advice on the policies and how they may apply to your situation
- We recommend such consultations so that local work is properly informed by the requirements of global policy.
- Such meetings can be arranged through ICANN's regional stakeholder engagement staff, or directly with IANA (root-mgmt@iana.org)
Thank you!

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