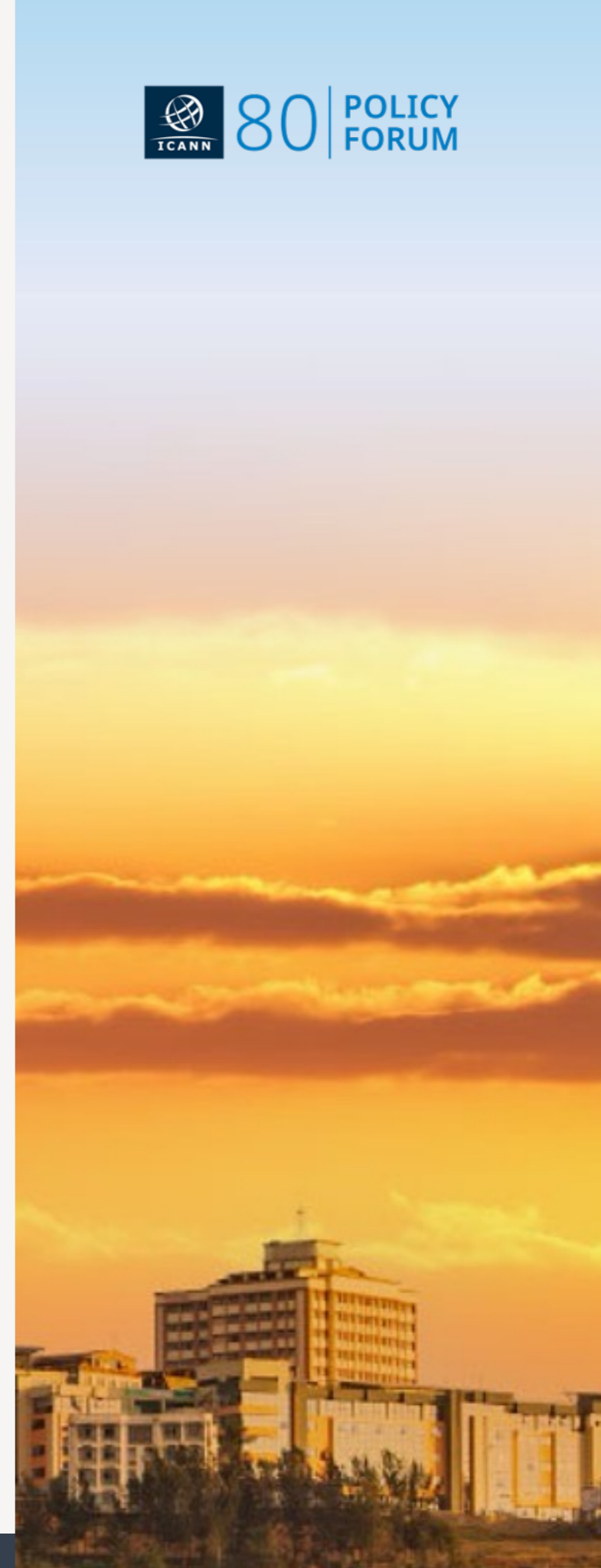# Understanding ccTLD delegation and transfer

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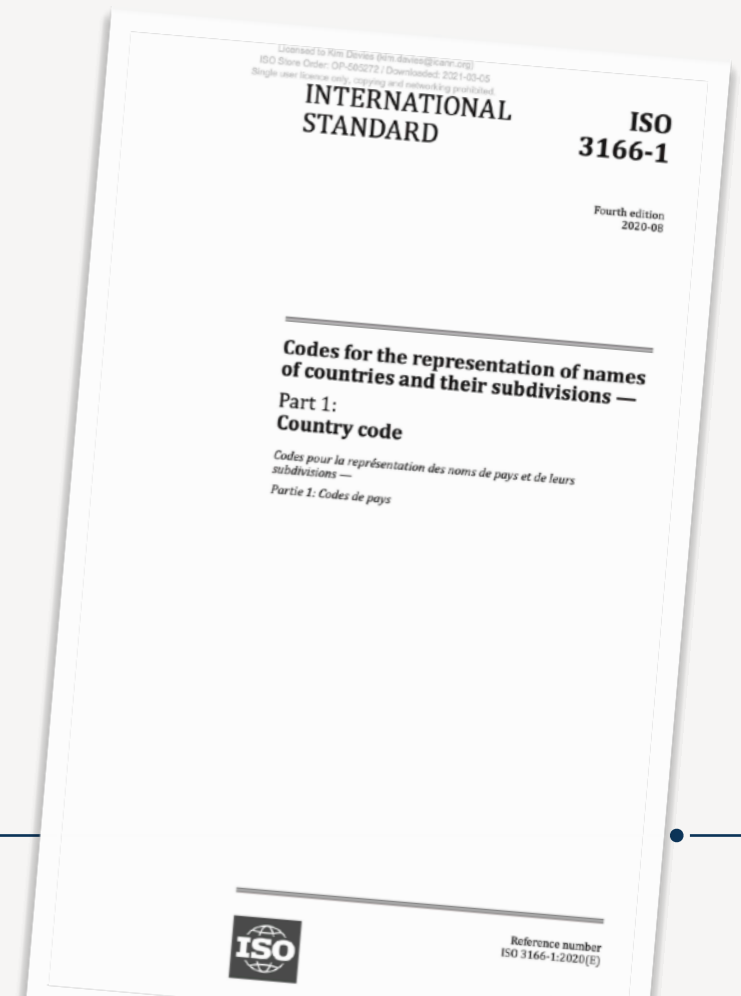
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What are ccTLDs?

- 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.

INTERNATIONAL STANDARD

ISO 3166-1

Fourth edition 2020-08

Codes for the representation of names of countries and their subdivisions —
Part 1:
Country code

Codes pour la représentation des noms de pays et de leurs subdivisions —
Partie 1: Codes de pays

ISO

Reference number
ISO 3166-1:2020(E)

ISO 3166-1 alpha-2 codes

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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

ASCII ccTLD

Assignment of an ISO 3166-1 alpha-2 code

or

Eligible under Resolution 00.74

or

Grandfathered
(delegated to exceptionally reserved code prior to 2000)

IDN ccTLD

Assignment of an ISO 3166-1 alpha-2 code   or   Eligible under Resolution 00.74

Used to determine country's eligibility only, not string

and

String selected through IDN Fast Track Process

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 in 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 results 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 <u>not</u> 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 <u>takes no action to change things unless all the contending parties agree</u>; 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

  - 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

Retirement

- 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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