Provisioning Related Groups of Domain Objects in EPP

James Galvin (Identity Digital)
Michael Bauland (Knipp)
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Agenda

- Why is this needed?
- Principles
  - Architectural Principles
  - Guiding Technical Principles
- Status Values
- Impact on EPP Commands
- <update> Command
- <check> and <info> Commands

Why is this needed?

- EPP [STD 69] was developed to operate on a single object at a time

- Problem space includes at least the following two examples
  - Spelling may not be uniform - è and e may be regarded as equivalent in some languages and as different in other languages
  - IDNs introduce sets of labels that may be equivalent or confusingly similar to each other, commonly referred to as variants of each other

Architectural Principles

- Backwards compatibility with clients not supporting Related Groups is REQUIRED
  - Specifically registries that support Related Groups may interact with registrars that do not support Related Groups, must prevent accidental activation of domains in related groups
  - Accomplished by the use of an error message that ensures the continuation of normal operations, although the registrar may not fully understand the rejection
- A Related Group MUST be managed by the Same-Entity
  - Registrars implement requirement on registrants
  - Registries implement requirement on registrars
  - TLDs in a Related Group MUST be operated by the same Registry Operator
- A Related Group MUST be managed as a set
  - Derived from the same-entity principle

Guiding Technical Principles

- The members of a Related Group are defined by Registry policy
- Properties of a Related Group

1. First domain created in a Related Group is designated the Primary Domain
2. Primary Domain has two essential functions
    - Defines the members of the Related Group
    - Defines the status value of members of the Related Group
3. If the TLD label is a member of a Related Group, any Related Group in any TLD in that Group MUST have the same members in all TLDs in the TLD Related Group
    - In the case of IDNs, the LGR tables may be different but they MUST be harmonized

Status Values

- EPP today implicitly defines two status values for any domain
  - Registered
  - Available
- Related Group adds the following status values
  - Allocated - the domain is active in the registry; it may or may not be delegated
  - Allocatable - the domain is available to the Same-Entity
  - Blocked - the domain is not available
- Creation of a Primary Domain establishes the implicit existence of a Related Group in all TLDs in the TLD Related Group
- In the TLD in which the Primary Domain is created, the status value of each Domain in the Related Group is set according to registry policy
  - This can be different in different TLDs

Impact on EPP Commands

- Each domain in a Related Group may be the target of any EPP command with the following restrictions.

1. A <transfer> of any domain always acts on the entire Related Group and all other Related Groups in all TLDs in the TLD Related Group
    a. Derives from the same-entity principle
2. A <delete> of a Primary Domain in any Related Group results in the deletion of all domains in that Related Group in the TLD of the Primary Domain
    a. Derives from the essential functions of the Primary Domain

EPP <update> Manages Domains in Related Group

- An extension is defined for use with the <update> command
- When target domain of the <update> command is any member of the Related Group an extension MUST be included
- The extension specifies the following information
  - The Primary Domain of the Related Group in which the target domain is a member
  - If the target domain is not the Primary Domain, an indication if the target domain is to be transitioned to “allocated” or “allocatable”, conceptually equivalent to “created” or “deleted”, is included if appropriate
- All commands function in a “common sense” way to support backwards compatibility
  - When Related Groups are understood, additional information may be needed or returned

EPP <check> and <info> Commands

- <check> and <info> will always act on the target domain in the command
- When Related Groups are understood by the registrar, an extension is returned with the following additional information
- <check>
  - The Primary Domain is indicated; this may match the target domain
- <info>
  - The Primary Domain is indicated; this may match the target domain
  - A list of the domains in the Related Group whose status is “allocated”
  - If the TLD of the target domain is a member of a Related Group, all other groups with domains whose status is “allocated” are included, with an indication of the Primary Domain in that group

Requesting Internet Standard Status

- Most material change throughout the document as compared to prior presentations here is to generalize the scope from “IDN variants” to “Related Groups” defined by Registry policy
- This work is being brought to the IETF to request development as an Internet Standard

Thank you!

James Galvin
Identity Digital
jgalvin @ identity.digital

Michael Bauland
Knipp
Michael.Bauland @ knipp.de