draft-adpkja-dnsop-special-namesproblem and draft-tldr-sutld-ps

A Joint Presentation.

Reminder: Personal Viewpoints Expressed Here,
Not Representing the Views of
ICANN, Dyn, Google, DENIC, Nominum, Cisco or anyone else!

Three Streams Form a River

- We have a situation where both ICANN and IETF can take strings in the top level part of the name space:
 - ICANN delegates TLDs
 (done in batches, current round is closed)
 - IETF reserves "special names" (reserved ad-hoc)
 - Operator policy trumps all (my resolver, my rules)
 - Note: There is also an impact on other communities, such as NX-Domain rewriting.

The Name Space: a Commons

- "Names" only exist in a name-resolution context. However, application developers don't want to carry an explicit name resolution context.
- The net result is a unique name space that is larger (as in, it includes more things) than DNS
- DNS names are the installed base, new name resolution protocols have to exist under a label reserved under RFC6761
- That label is a string at the root of the name space that is no different than any other string used by DNS TLDs. It is used by client libraries to decide how to perform the name resolution (aka protocol switch).

Being Special or Not?

- There exists no signaling mechanism that would allow a resolver to distinguish a particular special-use name like '. local' from an ordinary global top-level DNS name.
- As a result, client libraries have to have knowledge of how to specially process some names in the RFC6761 registry.
- There is nothing special in the reserved "string" itself. To the casual observer, it is just another "label".
- The "socio-economic" pressures (e.g. IPR, political, name collisions,...) that we have seen within ICANN about "names" could apply to those "reserved names".

Technology vs Policy

- The IETF, as an organization, is optimized for developing technology.
- In the past we (the IETF) have been trying very hard to separate technology from policy.
- Institutional relationships are confusing and ambiguous to some people. Mechanisms for cooperation are an implementation issue.

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