Simplifying DNSSD's Advertising Proxy draft

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Current State

The current Advertising Proxy design is tightly coupled with Service Registration Protocol (SRP)

Multicast DNS name conflicts (including spurious unintentional conflicts) are reflected back to the SRP client as an error, which is expected to pick a new name

Matter devices assume fixed unique names, and have no way to rename

We discussed this at IETF 117 in San Francisco; now we’re putting the solution in place

Proposed Simplification

Decouple Advertising Proxy from Service Registration Protocol

Advertising Proxy simply replicates a zone into a given
link-local Multicast DNS namespace

- Zone could come from anywhere
- Could be a manual zone file configured by hand
- Any name conflicts simply result in an incomplete replication
- Advertising Proxy re-tries failed Multicast DNS record registrations
  at some appropriate interval — details TBD
  (Don’t want the Advertising Proxy state to gradually “rot” over time)

Outcome of New Proposal

Service Registration Protocol creates a zone

- Zone not necessarily visible in the global DNS hierarchy
- The SRP replication document this is called a “dataset”

Advertising Proxy replicates that zone to the best of its ability,
and automatically recovers from transient errors