DNSSD Relay, SRP, Proxy Report

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DNSSD Discovery Relay

- Implementation Status:
  - Full implementation of Relay Protocol messages
  - Relay works on OpenWRT, Linux, MacOS
  - DSO keepalives not implemented yet
  - TLS support not implemented yet
  - Apple released a snapshot of mDNSResponder with this code for the IETF 103 Hackathon

- Draft Status:
  - Passed WGLC (IIRC)
  - We didn’t advance it because we wanted to test the TLS language first
  - Should we just ask for expert review?
  - TLS implementation shouldn’t take too long, maybe that would be the right approach. :)


• Updated to working group -00
  • Clarifies how registration domain is discovered
  • Clarifies that TCP can be used for simple registration
  • FCFC now signs hostname and service instance name
    • I don’t remember why we need this (anyone?)
  • The EDNS(0) lease option now has a key lease; we use this as the lease on the KEY record in registrations
  • There was a discussion about a DNS RRtype for lease; this appears to be orthogonal to the EDNS(0) option
  • TTL handling was significantly clarified
  • Clarified that Sleepy End nodes and Sleep Proxies are different things
  • Added text to delegate services.arpa (like home.arpa)
  • Added IANA considerations
I’ve implemented a bare-bones client in C to test simple registration.

I’m in the middle of writing an SRP gateway that can validate and apply policy to SRP updates and then use its own key to update the authoritative primary.

Tim Wattenberg did a partial implementation in Python in Montreal.
DNSSD Discovery Proxy
Implementation Status

• DSO code has been generalized to support DNS Push as well as Discovery Relay
• We will use mDNSResponder as our mDNS cache
• Still need to implement the port 53 listener bit
• This is next on the to do list; hopefully Real Soon Now
How to get the code

- mDNSResponder source with Discovery Relay
  - http://opensource.apple.com/tarballs/mDNSResponder/
- mDNSResponder Service Registration Protocol (C):
  - https://github.com/Abhayakara/dnssd-registration
- mDNSResponder Service Registration Protocol (Python):
  - https://github.com/timwattenberg/dnssd-service-registration
- mDNSResponder Discovery Proxy
  - You can see work in progress in the tarball mentioned above, but there’s not much to see yet.