

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. :)

DNSSD Service Registration Protocol Draft Status

- 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

DNSSD Service Registration Protocol Implementation Status

- 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.