

IETF Hackathon: Everything DNS

IETF 104
23-24 March, 2019
Prague



What got done

- As usual, many different projects:
 - 5 biggish projects, 6 other projects
 - 16 people

Extended Error codes

- Feb 2017: <https://datatracker.ietf.org/doc/draft-ietf-dnsop-extended-error>
- SERVFAIL - but why? This will tell you!
- RESULT: Done for *Knot resolver* & *Unbound*!
- *dnscdist* in progress



Witold Kręcicki
Pieter Lexis
Willem Toorop

Multi-vendor interoperable DNS Cookies



- RFC7873: DNS Cookies (May 2016) but interop problems!
- March 11: <https://datatracker.ietf.org/doc/draft-sury-toorop-dns-cookies-algorithms/>
- RESULT: Even before WG adoption working between:
Bind, Knot, PowerDNS, NSD & Unbound!

DNS-over-QUIC

- April 2017: <https://datatracker.ietf.org/doc/draft-huitema-quic-dnsquic/>
- Some previous work, but stalled...
- Client in *flamethrower* (C++ open source perf tool)
 - github.com/DNS-OARC/flamethrower/tree/dns-over-quic
- Server side: Proxy from quic to udp
 - <https://github.com/DNS-OARC/flamethrower/tree/dns-over-quic>
- RESULT: It works!

XoT - XFR over TLS



- March 11: <https://datatracker.ietf.org/doc/draft-hzpa-dprive-xfr-over-tls/draft-hzpa-dprive-xfr-over-tls>
- Work on DoT in NSD (OCSP, DNSSEC Chain Extension)
- Implemented opportunistic AXFR over TLS
NSD (master) -> Unbound (secondary)
- RESULT: Implemented & Working! Auth model needs work.
- DSO (Stateful Operations) version of the draft coming soon!

Other topics

- **Petr Špaček, Pieter Lexis, Norman Kowalewski, Michal Vaško, Aleš Mrázek:** Minimal viable yang model for managing slave zones in an authoritative: Just the model, no implementation yet Yang & netconf for PowerDNS & Knot
- **Jim Hague:** Continued work on DoH support in stubby
- **Manu Bretelle & Jerry Lundström:** DNSTAP Multiplexer to offload and distribute DNSTAP processing
- **Paul Hoffman:** Working Resolver measurements testbed!
- **Ralf Weber:** Started working on DoT for dnspython
- **Dick Franks (remote):** ZONEMD in Net::DNS

Wrap Up

Team members:

Vladimír Čunát
Stephane Borzmeyer
Ralph Dolmans
Shane Kerr
Witold Kręcicki
Pieter Lexis
Pallavi Aras
Shumon Huque
Paul Hoffman
Andreas Schulze
Jan Včelák

Jim Hague
John Dickinson
Sara Dickinson

First timers @ IETF/Hackathon:

Shannon Wyerick
Jakob Walz
Norman Kowalewski
Michal Vaško
Aleš Mrázek
Remote:
Dick Franks