

IETF Hackathon: Everything DNS

IETF 104
23-24 March, 2019
Prague



What got done

- As usual, many different projects:
 - 5 biggish projects, 5 other projects
 - ~27 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*!
- *dnstest* 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-dnsoquic/>
- 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/ns1/doq-proxy>
- 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, Normen 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
Willem Toorop
Petr Špaček
Manu Bretelle

Jerry Lundström
Ralf Weber
Paul Hoffman
Jim Hague
John Dickinson
Sara Dickinson

First timers @ IETF/Hackathon:

Shannon Weyrick
Jakob Walz
Normen Kowalewski
Michal Vaško
Aleš Mrázek
Neda Kainpour

Remote:

Dick Franks