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
  • 21 people
Extended Error codes

- SERVFAIL - but why? This will tell you!
- RESULT: Done for Knot resolver & Unbound!
- dnsdist in progress
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

- 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

### First timers @ IETF/Hackathon:

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

### Remote:

- Dick Franks