It’s Always DNS

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It’s Always DNS Themes

Group of DNS software engineers, working on:

• DNS privacy
• DNS protocol improvement
• DNS and services provisioning
• DNS monitoring
DNS Privacy

• DNS-over-TLS to authoritative (new DPRIVE WG working item) *(Manu Bretelle)*
  – Unbound: set of net blocks + hostname verification
    • Enforce DoT in these cases
    • a.b.c.0/24 do DoT authoritative name server
    • DPRIVE WG activity bootstrapping DoT discovery
• DNS-over-HTTPS (RFC 8484) *(Ondrej Sury)*
  – DoH design for BIND 9
• DNS-over-HTTP/3 *(Bernie Innocenti)*
  – proof of concept implementation using Quiche
  – work in progress
DNS Protocol Improvement

- DNS Server Cookies (draft-ietf-dnsop-server-cookies) (*Willem Toorop & Ondrej Sury*)
  - Updated (bis) specification and implementation of DNS cookies
  - Interoperable implementation between different open source DNS name server software
- Extended error (draft-ietf-dnsop-extended-error) (*Tim Wattenberg & Loganaden Velvindron*)
  - Updated code in Unbound to the latest draft
  - Work in progress
DNS and Services Provisioning

- Service binding and parameter specification via the DNS (draft-ietf-dnsop-svcb-httpssvc) *(Ralph Dolmans)*
  - Previous hackathon implementation of first version of draft in Unbound
  - This hackathon update implementation to match with new & updated version of draft
  - Some feedback for the draft wrt. Implementation details
DNS Monitoring

• New project for metrics of the root server operators *(Paul Hoffman & Willem Toorop)*
  – correctness of answers from the root servers
  – check the validation of a DNS responses from the past
  – new command line tool `getdns_validate_dnssec` available on IETF Hackathon GitHub
Wrap Up

Team members:
- Manu Bretelle
- Ralph Dolmans
- Paul Hoffman
- Bernie Innocenti
- Benno Overeinder
- Ondrej Sury
- Willem Toorop
- Loganaden Velvindron
- Tim Wattenberg