Projects

• DNS Privacy
  • Monitoring plug-in for DNS-over-TLS servers
  • Performance of DNS-over-TLS servers
  • Implementation of DNS Padding
  • Implementation of new forwarder

• DNSSEC: Zero configuration DNSSEC in getdns
DNS-over-TLS Monitoring plug-in

- Based on Nagios API - tests for:
  - DNS response on port 853 over TLS
  - Server authenticated (hostname/pinset)
  - Checks if certificate is about to expire
  - FUTURE - QNAME MIN, Keepalive

RFC 7858 (DNS-over-TLS), RFC 7766 (DNS-over-TCP), RFC7815 (QNAME-MIN), RFC7858 (Keepalive), draft-ietf-dprive-dtls-and-tls-profiles
DNS-over-TLS Monitoring plug-in
Performance of DNS-over-TLS servers

- Implementation of test script comparing local resolver to existing DNS-over-TLS servers
- “Interesting” results
- Basis for much more in depth investigation

RFC 7858 (DNS-over-TLS), RFC 7766 (DNS-over-TCP),

Christian Huitema

github code
DNS Padding

- `draft-mayrhofer-dprive-padding-profile` => Default policy to pad queries to mult of 128 octets, responses to mult of 468

- Implementation (patches submitted)
  - `libknot` - new API with ‘sensible’ default padding policy
  - `kdig` uses this by default for TLS queries
  - `kresd` - makes use of libknot API
  - Plan is for `getdns` + Unbound

RFC7830 + `draft-mayrhofer-dprive-padding-profile` + dkg paper
**kresd** as a DNS-over-TLS forwarder

- Client side DNS-over-TSL - Already have Stubby, Unbound
- **kresd** implementation in progress
  - basic implementation + config done
  - but... still debugging

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**Work in to Knot Resolver**

Ondrej Sury

RFC 7858 (DNS-over-TLS), RFC 7766 (DNS-over-TCP),
draft-ietf-dprive-dtls-and-tls-profiles
Zero configuration
DNSSEC in getdns

• Root KSK is rolling! New key is public, roll will happen Oct 2017

• Some DNS implementations use static config of root trust anchor and rely on RFC5011 but…

• getdns would like to implement purely dynamic key management (RFC7958)
Team

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