DNS over DTLS (DNSoD)

draft-ietf-dprive-dnsodtls-02

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Major changes from 01 to 02

- Now using IANA-registered port 853
- Added Fragmentation and Reassembly

Fragmentation and Reassembly

- Problem: "Big responses cause fallback to DNSover-TLS, so why bother with DNS-over-DTLS?"
- Solution 1: abandon DNS over DTLS
- Solution 2: add fragmentation and reassembly
- Negotiated during DTLS connection
- Overhead only when fragmenting

Layering

```
| DNS
| fragmentation |
| DTLS
| UDP
| IP |
```

Fragmentation Design

- Client and server negotiate # of fragments
- No additional server state
- Works with RR change between re-xmited requests
 - Changing RR is obscure, but robustness important

WG Feedback

Fragmentation: Necessary? Design?

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