DNS Session Signaling

draft-ietf-dnsop-session-signal-01

Ray Bellis, Internet Systems Consortium, Inc.
Stuart Cheshire, Apple (presenting)
John Dickinson, Sinodun Internet Technologies
Sara Dickinson, Sinodun Internet Technologies
Allison Mankin, Salesforce
Tom Pusateri, Unaffiliated

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For managing properties of long-lived sessions (like TCP connections)

- E.g., required frequency of keepalive traffic

Uses abbreviated DNS message header

- 4 bytes instead of 12 bytes

- No Question/Answer/Authority/Additional sections

Open Question 1
No Additional Record Section

Problem:

- No TSIG

- No EDNS(0)

- No EDNS(0) Padding Option for security (RFC 7830)

Solution:

- Restore Additional Record Section?

- Add an EDNS(0) TLV?

- For appropriate EDNS(0) options, define corresponding Session Signaling TLV?

Open Question 2

Does every message require a response?

Server-initiated session signaling idle timeout message
doesn't really need response from the client

DNS push notification message
doesn't really need response from the client

On the other hand, requiring all messages to generate a response simplifies the design

Open Question 3
Change IDLE TIMEOUT to KEEPALIVE INTERVAL?

Instead of:

- Client must send traffic by half of IDLE TIMEOUT time

- Server kills connection if no traffic after IDLE TIMEOUT time

We would have:

- Client must send traffic by KEEPALIVE INTERVAL time

- Server kills connection if no traffic after 2x KEEPALIVE INTERVAL time

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