

draft-fujiwara-dnsop-avoid-
fragmentation-03
Avoid Fragmentation in DNS

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Changes from 01 to 02(03)

- Changed title as “Fragmentation Avoidance in DNS”
- Refer draft-ietf-intarea-frag-fragile
- Fixed: Minimum MTU for IPv4 is ~~576~~ 68
- Added: “DNS flag day 2020 proposed 1232 as an EDNS buffer size.”
- Added: 'minimal-responses' configuration
- Added: consideration of “DNS packet size”
- Added: How to measure path MTU and calculate maximum DNS/UDP payload size

How to measure and calculate the maximum DNS/UDP payload size

- Linux tool "tracert" or "tracert -d"
- Resolver: measure path MTU to well-known authoritative servers
 - [a-m].root-servers.net or [a-m].gtld-servers.net
- Authoritative: measure path MTU to resolver addresses
 - Collect resolver addresses (or public resolver addresses)
- If the reported path MTU is for example no smaller than 1460,
 - the maximum DNS/UDP payload would be 1432 for IP4
 - which is $1460 - \text{IP4 header (20)} - \text{UDP header (8)}$
 - 1412 for IP6
 - which is $1460 - \text{IP6 header (40)} - \text{UDP header (8)}$

- Is the draft useful ?
- Adopt ?

- May need definition of “minimal-responses”