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Minimal EDNS compliance requirements
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Abstract

DNS responders must either follow RFC 6891 by fully implementing EDNS or at least respond to queries containing OPT record according to older specifications. Non-compliant implementations which do not respond at all are not worth talking to.

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1. Introduction

Neither the original DNS standard RFC 1035 nor its extensions RFC 2671 and RFC 6891 allow not to respond to a DNS query. Many years later non-compliant implementations which drop queries still exist and cause lot of extra queries, latency, and complicated logic in recursive resolvers. The cost of supporting these non-compliant implementations keeps increasing.

1.1. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119.

2. The Protocol

No DNS response message to a repeated DNS query containing EDNS extension implies that the other side is not a DNS responder. The querier MUST NOT retry its query without EDNS.

3. Security Considerations

Instruction to follow EDNS standard does not change security properties beyond what is written in RFC 6891.

4. Privacy Considerations

This has no effect on privacy of DNS.

5. IANA Considerations

[Note to IANA, to be removed prior to publication: there are no IANA considerations stated in this version of the document.]

6. Normative References

- [RFC1035] Mockapetris, P., "Domain names - implementation and specification", STD 13, RFC 1035, DOI 10.17487/RFC1035, November 1987, <<https://www.rfc-editor.org/info/rfc1035>>.
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- [RFC6891] Damas, J., Graff, M., and P. Vixie, "Extension Mechanisms for DNS (EDNS(0))", STD 75, RFC 6891, DOI 10.17487/RFC6891, April 2013, <<https://www.rfc-editor.org/info/rfc6891>>.

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