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Minimal EDNS compliance requirements  
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## Abstract

DNS responders must either follow [RFC 6891](#) by implementing EDNS or respond with RCODE=FORMERR to queries containing OPT record. Non-compliant implementations are not worth talking to.

## Status of This Memo

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## [1.](#) Introduction

EDNS version 0 was standardized in 1999, but non-RFC 1035 compliant implementations still exist and cause lot of extra queries and complicated logic in recursive resolvers. [RFC 6891](#) clearly states that FORMERR is the only acceptable answer for implementations without support for EDNS. 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 means that the other side is not a DNS responder and 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.

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## [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>>.
- [RFC2671] Vixie, P., "Extension Mechanisms for DNS (EDNS0)", [RFC 2671](#), DOI 10.17487/RFC2671, August 1999, <<https://www.rfc-editor.org/info/rfc2671>>.
- [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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