Workgroup: Network Working Group
Internet-Draft:
draft-carpay-extra-ede-codes-dnssec-bogus-00
Published: 25 February 2022
Intended Status: Experimental
Expires: 29 August 2022
Authors: T. Carpay W. Toorop
NLnet Labs NLnet Labs

Extra Extended DNS Error codes for DNSSEC status bogus

Abstract

While implementing Extended DNS Errors (RFC8914) in our DNSSEC validating resolver software Unbound, we encountered this specific situations regarding the DNSSEC bogus status where no Extended DNS Error were yet defined. This draft serves as a reference for code points requests.

Status of This Memo

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1. Introduction

While implementing Extended DNS Errors ([RFC8914]) in our DNSSEC validating resolver software Unbound ([UNBOUNDPR]), we encountered this specific situations regarding the DNSSEC bogus status where no Extended DNS Error were yet defined.

1.1. Extended DNS Error Code 26 - Signature Wrong Size

The resolver attempted to perform DNSSEC validation, but the signature is either smaller or larger than expected for the specified algorithm.

1.2. Extended DNS Error Code 27 - Malformed Signer Name

The resolver attempted to perform DNSSEC validation, but the Signer's Name Field in the signature contains a malformed signer (d)name.

1.3. Extended DNS Error Code 28 - Signer Name Out of zone

The resolver attempted to perform DNSSEC validation, but the Signer's Name Field in the signature does not contain the zone name of the covered RRset.

1.4. Extended DNS Error Code 29 - Signature Label Count Wrong

The resolver attempted to perform DNSSEC validation, but the number of labels in the Signature Labels Field is incorrect.

1.5. Extended DNS Error Code 30 - DNSSEC Insufficient NSEC Proof

The resolver attempted to perform DNSSEC validation, but the signed response does not have valid NSEC proof.

1.6. Extended DNS Error Code 31 - DNSSEC Unknown Protocol

The resolver attempted to perform DNSSEC validation, but found a value not equal to 3 in the DNSKEY protocol number field as specified by RFC4034#section-2.1.2.

2. IANA Considerations

This draft requests the assignment of a new EDE code values for the specified EDE codes.

3. Security Considerations

As this draft only seeks to add code points to the EDE registry, the security considerations as the same as in [RFC8914].

4. References

4.1. Normative References

[RFC8914] Kumari, W., Hunt, E., Arends, R., Hardaker, W., and D. Lawrence, "Extended DNS Errors", RFC 8914, DOI 10.17487/RFC8914, October 2020, <https://www.rfc-editor.org/info/rfc8914>.

4.2. Informative References

[UNBOUNDPR] Carpay, T. and W. Toorop, "EDE for Unbound pull request", n.d., <https://github.com/NLnetLabs/unbound/pull/604/>.

Authors' Addresses

Tom Carpay
NLnet Labs

Email: tom@nlnetlabs.nl

Willem Toorop
NLnet Labs

Email: willem@nlnetlabs.nl