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Abstract

This memo documents the result from the RFC 3597 (Handling of Unknown DNS Resource Record Types) interoperability testing.

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1. Introduction

This memo documents the result from the RFC 3597 (Handling of Unknown DNS Resource Record Types) interoperability testing. The test was performed during June and July 2004 by request of the IETF DNS Extensions Working Group.

2. Implementations

The following is a list, in alphabetic order, of implementations tested for compliance with RFC 3597:

DNSJava 1.6.4
ISC BIND 8.4.5
ISC BIND 9.3.0
NSD 2.1.1
Net::DNS 0.47 patchlevel 1
Nominum ANS 2.2.1.0.d

These implementations covers the following functions (number of implementations tested for each function in paranthesis):

Authoritative Name Servers (4)
Full Recursive Resolver (2)
Stub Resolver (4)
DNSSEC Zone Signers (2)

All listed implementations are genetically different.

3. Tests

The following tests was been performed to validate compliance with RFC 3597 section 3 ("Transparency"), 4 ("Domain Name Compression") and 5 ("Text Representation").

3.1 Authoritative Primary Name Server

The test zone data (Appendix A) was loaded into the name server implementation and the server was queried for the loaded information.

3.2 Authoritative Secondary Name Server

The test zone data (Appendix A) was transferred using AXFR from another name server implementation and the server was queried for the transferred information.

3.3 Full Recursive Resolver

A recursive resolver was queried for resource records from a domain with the test zone data (Appendix A).

3.4 Stub Resolver

A stub resolver was used to query resource records from a domain with the test zone data (Appendix A).

3.5 DNSSEC Signer

A DNSSEC signer was used to sign a zone with test zone data (Appendix A).

4. Problems found

Two implementations had problems with text presentation of zero length RDATA.

One implementation had problems with text presentation of RR type code and classes >= 4096.

Bug reports were filed for problems found.

5. Summary

Unknown type codes works in the tested authoritative servers, recursive resolvers and stub clients.

No changes are needed to advance RFC 3597 to draft standard.

6. Normative References

[1] Gustafsson, A., "Handling of Unknown DNS Resource Record (RR) Types", RFC 3597, September 2003.

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Appendix A. Test zone data

```
; A-record encoded as TYPE1
a  TYPE1  \# 4 7f000001
a  TYPE1  192.0.2.1
a  A      \# 4 7f000002

; draft-ietf-secsh-dns-05.txt
sshfp  TYPE44  \# 22 01 01 c691e90714a1629d167de8e5ee0021f12a7eaa1e

; bogus test record (from RFC 3597)
type731    TYPE731    \# 6 abcd (
                           ef 01 23 45 )

; zero length RDATA (from RFC 3597)
type62347  TYPE62347  \# 0
```

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