

Domain Name System Media Types

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Abstract

This document registers the media types `application/dns` and `text/dns` in accordance with [RFC 2048](#). The `application/dns` media type is used to identify data on the detached Domain Name System (DNS) format described in [RFC 2540](#). The `text/dns` media type is used to identify master files as described in [RFC 1035](#).

Table of Contents

| | | |
|----|--|---|
| 1. | Introduction | 1 |
| 2. | MIME Type Registration of <code>application/dns</code> | 2 |
| 3. | MIME Type Registration of <code>text/dns</code> | 3 |
| 4. | Security Considerations | 4 |
| 5. | IANA Considerations | 4 |
| 6. | Acknowledgements | 4 |
| A. | Disclaimer and License | 5 |
| | Normative References | 5 |
| | Informative References | 5 |
| | Author's Address | 5 |
| | Full Copyright Statements. | 6 |

1. Introduction

Domain Name System (DNS) [\[1\]](#) information is traditionally stored in text files, so-called master files or zone files. The format is described in [section 5 of RFC 1035](#) [\[2\]](#).

DNS data can also be stored in a "detached" format, intended for archiving purposes, described in [RFC 2540](#) [\[4\]](#).

This document registers MIME media types for the two data formats, with the registration procedures described in [RFC 2048](#) [3].

2. MIME Type Registration of application/dns

To: ietf-types@iana.org

Subject: Registration of MIME media type application/dns

MIME media type name: application

MIME subtype name: dns

Required parameters: None.

Optional parameters: None.

Encoding considerations: The data format is binary, and data must be transferred unmodified. Using encodings intended for textual parts is not recommended.

Security considerations: This media type identifies content as being detached DNS information, as documented in [RFC 2540](#) [4]. This data may be security relevant as per [RFC 2538](#) [7] or may be secured information as per [RFC 2535](#) [6]. Securing the content further may be done with standard techniques, such as OpenPGP [5] or CMS [9], but this is outside of the scope here. Further security assessments are not available at this point.

Interoperability considerations: The encoding of detached DNS information is, unlike textual master files, well defined. No further interoperability considerations are known.

Published specification: The format of data that could be tagged with this media type is documented in [RFC 2540](#) [4].

Applications that use this media type: DNS-related software, including software storing and using certificates stored in DNS.

Additional information:

 Magic number(s): None.

 File extension(s): Unknown.

 Macintosh File Type Code(s): Unknown.

Person & email address to contact for further information:

Simon Josefsson simon@josefsson.org

Intended usage: LIMITED USE

Author/change controller: simon@josefsson.org

3. MIME Type Registration of text/dns

To: ietf-types@iana.org

Subject: Registration of MIME media type text/dns

MIME media type name: text

MIME subtype name: dns

Required parameters: None.

Optional parameters: None.

Encoding considerations: The data is textual and should be transferred in a line-oriented mode. Text literals may contain CRLF within the text. Binary transport is possible between systems that use the same end-of-line conventions. Master files are in general ASCII, but non-ASCII octet values may occur and are treated as opaque values by DNS software (compare [RFC 1035, section 5](#)). The master file format permits encoding arbitrary octet values by using the "\DDD" encoding. The use of "\DDD" encoding can be more reliable than transporting non-ASCII through MIME transports, if data passes through a gateway that re-encodes the character data.

Security considerations: This media type identifies content as being DNS information in "master file" format, as documented in [RFC 1035 \[2\]](#). The DNS data may be security relevant as per to [RFC 2538 \[7\]](#), or may be secured information as per to [RFC 2535 \[6\]](#). Securing the content further may be done with standard techniques, such as OpenPGP [\[5\]](#) or CMS [\[9\]](#), but this is outside of the scope here. Further security assessments are not available at this point.

Interoperability considerations: There are interoperability concerns with master files, due to the widespread use of vendor-specific extensions. Non-ASCII comments within master files may have been encoded in locally chosen character sets, which may be difficult to transport interoperably. Non-ASCII data in general can become corrupted by re-encoding gateways. To achieve interoperability, one can use the master file format described in the specification and the "\DDD" encoding for non-ASCII octets. Further interoperability issues with unrecognized RR types exist, which may be handled as discussed in [section 5 of RFC 3597 \[8\]](#).

Published specification: The format of data that could be tagged with this MIME type is documented in [RFC 1035 \[2\]](#).

Applications that use this media type: DNS-related software, including software storing and using certificates stored in DNS.

Additional information:

Magic number(s): None.

File extension(s): 'soa' and 'zone' are known to be used.

Macintosh file type code(s): Unknown.

Person & email address to contact for further information:

Simon Josefsson simon@josefsson.org

Intended usage: LIMITED USE

Author/change controller: simon@josefsson.org

4. Security Considerations

Security considerations are discussed in the security considerations clauses of the MIME registrations in sections 2 and 3.

5. IANA Considerations

The IANA has registered the MIME media types `application/dns` and `text/dns` by using the registration templates in sections 2 and 3, as per the procedure described in RFC 2048 [3].

6. Acknowledgements

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Normative References

- [1] Mockapetris, P., "Domain names - concepts and facilities", STD 13, [RFC 1034](#), November 1987.
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Informative References

- [5] Callas, J., Donnerhacke, L., Finney, H., and R. Thayer, "OpenPGP Message Format", [RFC 2440](#), November 1998.
- [6] Eastlake 3rd, D., "Domain Name System Security Extensions", [RFC 2535](#), March 1999.
- [7] Eastlake 3rd, D. and O. Gudmundsson, "Storing Certificates in the Domain Name System (DNS)", [RFC 2538](#), March 1999.
- [8] Gustafsson, A., "Handling of Unknown DNS Resource Record (RR) Types", [RFC 3597](#), September 2003.
- [9] Housley, R., "Cryptographic Message Syntax (CMS)", [RFC 3852](#), July 2004.

Author's Address

Simon Josefsson

EMail: simon@josefsson.org

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