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DNS Catalog Zone Properties for Zone Transfers
draft-axu-dnsop-catalog-zone-xfr-properties-00

Abstract

This document specifies DNS Catalog Zones Properties that define the primary name servers from which specific or all member zones can transfer their associated zone, as well as properties for access control for those transfers.

About This Document

This note is to be removed before publishing as an RFC.

Status information for this document may be found at <https://datatracker.ietf.org/doc/draft-axu-dnsop-catalog-zone-xfr-properties/>.

Discussion of this document takes place on the dnsop Working Group mailing list (<mailto:dnsop@iets.org>), which is archived at <https://mailarchive.ietf.org/arch/browse/dnsop/>.

Source for this draft and an issue tracker can be found at <https://github.com/https://github.com/DNS-Hackathon/catalog-extensions-draft>.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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1. Introduction

DNS Catalog Zones [RFC9432] described a method for automatic DNS zone provisioning among DNS name servers by the catalog of zones to be provisioned as one or more regular DNS zones. Configuration associated with the member zones, such as from which primary name servers and with which TSIG keys [RFC8945] to transfer the zones, and from which IP addresses and with which TSIG keys DNS notifies [RFC1996] are allowed, were assumed to be preprovisioned at the catalog consumer.

This document specifies DNS Catalog Zones Properties to specify primary name servers and TSIG keys to use to transfer the member zones in a catalog, as well as properties to specify which IP addresses, using which TSIG keys, are allowed to notify [RFC1996] the secondary name server serving the member zones, in order to remove the need to preprovision those at the catalog consumers.

1.1. Requirements language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

2. Description

Body text [REPLACE]

3. Catalog Zone Structure

These new properties can be at the top of the catalog zone, where they will affect all member zones, or under a member zone label, where they will affect just that member zone.

4. New Properties

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4.1. Primaries

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4.1.1. TSIG Key Name

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4.1.2. TLSA

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4.2. Allow Notify

Body text [REPLACE]

4.3. Allow Transfer

Body text [REPLACE]

4.4. Allow Query

Body text [REPLACE]

5. Name Server Behavior

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6. Implementation and Operational Notes

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7. IANA Considerations

IANA is requested to add the following entries to the "DNS Catalog Zones Properties" registry under the "Domain Name System (DNS) Parameters" page:

Property Prefix	Description	Status	Reference
primaries	Primary name servers	Standards Track	[this document]
allow-notify	Allow NOTIFY from	Standards track	[this document]
allow-transfer	Allow zone transfer from	Standards track	[this document]
allow-query	Allow queries from	Standards track	[this document]

Table 1

8. Implementation Status

[NOTE to the RFC Editor: Please remove this section before publication]

This section records the status of known implementations of the protocol defined by this specification at the time of posting of this Internet-Draft [RFC7942].

9. Security and Privacy Considerations

Security and Privacy Considerations

10. References

10.1. Normative References

- [RFC1996] Vixie, P., "A Mechanism for Prompt Notification of Zone Changes (DNS NOTIFY)", RFC 1996, DOI 10.17487/RFC1996, August 1996, <<https://www.rfc-editor.org/rfc/rfc1996>>.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <<https://www.rfc-editor.org/rfc/rfc2119>>.
- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <<https://www.rfc-editor.org/rfc/rfc8174>>.
- [RFC8945] Dupont, F., Morris, S., Vixie, P., Eastlake 3rd, D., Gudmundsson, O., and B. Wellington, "Secret Key Transaction Authentication for DNS (TSIG)", STD 93, RFC 8945, DOI 10.17487/RFC8945, November 2020, <<https://www.rfc-editor.org/rfc/rfc8945>>.
- [RFC9432] van Dijk, P., Peltan, L., Sur^筆, O., Toorop, W., Monshouwer, C.R., Thomassen, P., and A. Sargsyan, "DNS Catalog Zones", RFC 9432, DOI 10.17487/RFC9432, July 2023, <<https://www.rfc-editor.org/rfc/rfc9432>>.

10.2. Informative References

- [RFC7942] Sheffer, Y. and A. Farrel, "Improving Awareness of Running Code: The Implementation Status Section", BCP 205, RFC 7942, DOI 10.17487/RFC7942, July 2016, <<https://www.rfc-editor.org/rfc/rfc7942>>.

Appendix A. Example Catalog with One of Everything

Example Catalog with One of Everything

Acknowledgements

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Thanks to all of the contributors.

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