



Authoritative DNS Proxies draft-homburg-dnsop-igadp-00

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Problem Statement

In an anycast deployment there may be a reason to create a node in a location where the expected use of a particular site does not warrant the cost of keeping local copies of the zones:

- ▶ if a zone is very large, or
- ▶ if the anycast cluster serves many zones from which only a few are expected to receive significant traffic.



Goal

Create a specification for proxies that act like authoritative DNS servers.



Basics

- ▶ Clear RD bit when forwarding a query
- ▶ Cache the original TTL, do not reduce the TTL as time goes by



Cache replacement strategy

Modelled after after secondary DNS server except applied to a cache: monitor the SOA based on timeout, in response to notify and by looking at SOAs in replies. The cache may try to delay accepting a new SOA and load new hot cache items first.



Miscellaneous

- ▶ A proxy with a cache may implement aggressive negative caching.
- ▶ What about the EDNS Client Subnet Option? Is support needed?



Feedback, Questions?

Contact me at `<philip@nlnetlabs.nl>`

`https://github.com/NLnetLabs/draft-homburg-dnsop-igadp.git`