Let's Talk CNAME @ APEX

RFC1034 3.6.2. Aliases and canonical names

If a CNAME RR is present at a node, no other data should be present; this ensures that the data for a canonical name and its aliases cannot be different. This rule also insures that a cached CNAME can be used without checking with an authoritative server for other RR types.
Use case: name redirect (for web)

- example.com CNAME www.example.com
- #1 asked for feature by users
- Cloud DNS providers have it (*stupid DNS tricks*)
  Open Source DNS software do not
- Address in standards compliant manner
Other protocols have it

- Mail has **MX**
- SIP, XMPP, Minecraft etc. have **SRV**
- Why not HTTP?

Deployability? Latency?
DNAME?

- example.net DNAME example.com

- Allowed at apex and next to other RR types

- Redirects *.example.net but not example.net
ANAME?

- Only address records
- Special care needed for offline signed DNSSEC

Op 18-07-17 om 18:09 schreef Tony Finch:

; ANSWER
dotat.at. A 212.13.197.229
dotat.at. RRSIG A

; ADDITIONAL
dotat.at. AAAA 2001:ba8:1e3:0:0:0:0:0
dotat.at. RRSIG AAAA

dotat.at. ANAME www.chiark.greenend.org.uk.
dotat.at. RRSIG ANAME

www.chiark.greenend.org.uk. A 212.13.197.231
www.chiark.greenend.org.uk. RRSIG A
www.chiark.greenend.org.uk. AAAA 2001:ba8:1e3:0:0:0:0:0
www.chiark.greenend.org.uk. RRSIG AAAA

Note that neither the resolver nor the client needs any algorithm updates to avoid being confused by this additional information; they just need a code update so that they are able to make good use of it.

If the resolver knows the client is DNSSEC-oblivious then it can do the substitution itself and return a simple answer like this:
dotat.at. A 212.13.197.231

Validating but ANAME-oblivious resolvers won't get to enjoy clever latency minimization tricks.
CNAME+DNAME Name Redirection
draft-sury-dnsextn-cname-plus-dname-01

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