DELEG Updates

David Lawrence

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A Quick Background

- Petr Špaček solicted a brainstorming session at the IETF 118 Hackathon in Prague, November 2023
- We sought to improve the efficiency of leg removal
  - no wait, wrong conference
- The goal was to identify operational pain points in the existing DNS protocol
- Quickly honed in on the idea that we needed a more efficient way to identify when servers for a zone were able to handle new DNS features
- Could also help with deployment considerations for already-approved RFCs
  - Notably, encrypted transports
- Thus DELEG was born, an extensible parent-side record that can specify attributes of nameservers to which a zone is delegated

The Launch Effort

- Used Tim April's NS2 proposal from the summer of 2020 as the basis
  - Petr, Ralf Weber and I signed on as co-authors
- Many contributions from DNS experts in different sectors of the industry
  - Too long to credit here, but some of the more significant additions came from:
    Roy Arends, David Black, Manu Bretelle, Shumon Huque, Ed Lewis, Ben Schwartz
  - Apologies to others not mentioned; you did offer a lot of useful input
- Socialized it beyond the initial Hackathon group, seeking naysayers
  - Reception was largely positive, with some rational concern about the work needed for success
- First draft of an expected set of three was published January 2024
  - https://datatracker.ietf.org/doc/draft-dnsop-deleg/
- Initially sought adoption by the dnsop working group

The Basic Proposal

- DNSSEC-signed record **only** in the parent, mnemonic DELEG
- key=value attributes describing features of delegate nameserver

```
example.com.        86400    IN DELEG  1 ns1.example.com. (
        ipv4hint=192.0.2.1 ipv6hint=2001:DB8::1 )
```

- Could alias to a SVCB record which contained the relevant attributes

```
example.com.        86400    IN DELEG 0   config2.example.net.
config2.example.net  3600    IN SVCB . (
                ipv4hint=192.0.2.54,192.0.2.56
                ipv6hint=2001:db8:2423::3,2001:db8:2423::4 )
```

- Details not important for this talk

Birds-of-a-Feather

- dd@ietf.org was spun up in February 2024 to dive deeper into the proposal
- A Birds-of-a-Feather was proposed for the next general IETF meeting
- The DELEG BoF convened in March at IETF 119 in Brisbane
  - Sought to get feedback about whether useful IETF work could be done
  - If yes, did it warrant yet another DNS working group
- Chaired by Wes Hardaker and Paul Hoffman
- Consensus from participants was yes and yes, make a working group
  - Now there are two things named DELEG
  - The latter might ultimately deliver something that doesn't look much like the former
- Discussion on the dd list in March and April focused on the proposed charter

Working Group Proposal

- Charter proposal to the IESG was finalized a week ago
  - https://datatracker.ietf.org/wg/deleg/about/
  - Specifies first a requirements document, then one or more solutions documents
  - Solutions initially sought for core mechanism, transport identification, and operator aliasing
- Proposed for the Internet Area, where most DNS working groups are
  - add, dnssd, dprive
- Warren Kumari as supervising Area Director (AD)
- Proposed chairs are Brian Haberman and Duane Wessels
  - Many, many qualified candidates made it hard for Warren and co-AD Éric Vyncke to pick
  - Experimental term length, two years ("not a term limit")
  - Tommy Jensen as official Secretary
- On the IESG Telechat for 30 May 2024; approval seems likely
  - First official meeting in July at IETF 120 Vancouver?

Next Steps

- The DELEG draft authors are continuing to improve the original draft
  - 01 version expected to be published in advance of IETF 120
  - Might pull transport attributes into core, originally in a separate document
  - Contribute at https://github.com/fl1ger/deleg
  - At some point will seek working group adoption, but probably not before IETF 121 Dublin
- Requirements document will need writing
  - At this time, I've not heard of anyone having started one
  - I'm more than happy to join with interested co-authors
- Competing ideas have been floated, but not yet drafted
  - For example, hack the DS, which registries already have to deal with
  - Unclear whether to expect drafts on alternative approaches
- Gavin Brown's DELEG for EPP draft likely to wait for deleg WG progress

Queues?

(Google Image search for de-legged things probably put me on a watchlist somewhere.)