RootCache overview: draft-hoffman-rootcache

Paul Hoffman

IETF 125, 深圳市 (Shenzhen)
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A possible successor to RFC 8806

- RFC 8806 defines a way for resolvers to get the entire root zone and serve it locally as if they were an authoritative root server
- If the resolver doesn't get a good copy of the root zone, it has to switch back to normal querying the root servers and serving responses from its cache
- RootCache changes this to instead having the resolve simply put the root zone records directly in its cache

Significant difference from RFC 8806

- If a resolver running RFC 8806 fails to get a good copy of the root zone, eventually it has to automatically change configuration to not be serving the root authoritatively
- If a resolver running RootCache fails to get a good copy of the root zone, nothing else in the resolver changes
- Thus, easier to code and less likely to end up stopping resolution

Similarities to LocalRoot proposal

- Requires verifying the zone with ZONEMD
- More focus on getting the zone over HTTPS, probably from CDNs

Differences from LocalRoot proposal (1)

- LocalRoot allows a resolver to run as authoritative for the root; RootCache is for cache-filling only
- LocalRoot creates a new IANA registry for root sources; RootCache assumes implementations come with a reasonable set

Differences from LocalRoot proposal (2)

- LocalRoot reduces the role of the root server operators as critical infrastructure
- LocalRoot motivations include “longer-than-desired round-trip times to the closest DNS root server”

More WG considerations (for mic line later)

- How much privacy is really gained by these proposals?
- What is the appropriate RFC status value?
- What should the stated motivations be?
- Is spending time on this worthwhile for the WG?