draft-moura-dnsop-authoritativerecommendations-04

Giovane C. M. Moura^{1,2}, Wes Hardaker³, John Heidemann³, Marco Davids¹

DNSOP – IETF 105 Montreal, CA 2019-07-23

¹SIDN Labs, ²TU Delft, ³USC/ISI

Draft History

- First time presented at DNSOP @ IETF104
 - Video: https://www.youtube.com/watch?v=l2ixYuwuaqY
 - Slides: https://datatracker.ietf.org/meeting/104/materials/ slides-104-dnsop-dnsop-authoritative-recommendations-01.pdf
- Today: -04
 - https:

```
// data tracker.ietf.org/doc/draft-moura-dnsop-authoritative-recommendations/04/2009. \\
```

- All changes are documented in the text and on Github:
 - $\bullet \hspace{0.1in} \texttt{https://github.com/gmmoura/draft-moura-dnsop-authoritative-recommendations/issues} \\$
- Today covering most important issues (others on Github, fixed)

Issue #14: s/Recommendations/Considerations/

- Liman pointed at 103 that the word "recommendations" is too strong
 - Could reduce setups' heterogeneity
- So we replace it with "considerations"
- "Considerations" also used on other DNS RFCs (5395,6135,6895,7626)
- Note to self:
 - IETF(Recommendation) != Paper(Recommendation)
 - ullet Paper(Recommendation) \simeq IETF(Consideration)

Issue #13: Draft mostly about anycast, but not exclusively

- Joe Abley pointed that except for the TTL consideration, all the others are related to anycast
- He is right
- Our fix:
 - "It is likely that these considerations might be useful in a wider context, such as for any stateless/short-duration, anycasted service. Because the conclusions of the studies don't verify this fact, the wording in this document discusses DNS authoritative services only."

Issue #17: TTL considerations controversy

- Peter Koch pointed how complex the issue was (and it was tried 15 years ago)
- He points TTLs are for zone maintainers, not DNS Operators
 - However many TLDs ops also run their own DNS servers, and the parent TTL's may affect their child delegations TTLs
- Our fix:
 - Rewritten it completely (highlighting issues pointed out by Peter)
 - New study (Moura19a) on TTLs (presented at IEPG) that covers most issues
 - https://www.isi.edu/~johnh/PAPERS/Moura19a.html

Issue #15: Paper selection could be more diverse

- Our fix: 3 papers (not by the authors) added to references
- Also, paper's related work sections cover it
- "This document describes the key engineering options, and points readers to the pertinent papers for details and other research works related to each recommendation here presented."

Issue #12: Ripe Atlas bias on Consideration on anycast locations (C3) (Slide 1/2)

- George Michaelson pointed that the "view of Atlas is biased to Europe" in C3
- The paper, however, show results per region and country (not mentioned in -03)

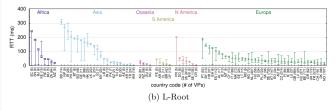


Fig. 5. Median RTT (quartiles as error bars) for countries with at least 5 VPs (number of VPs per country is given between parenthesis). Letters at top indicate continents.

Issue #12: Ripe Atlas bias on Consideration on anycast locations (C3) (Slide 2/2)

- Our fix: "Given that Atlas has better coverage in Europe than other regions, the authors specifically analyzed results per region and per country (Figure 5 in [Schmidt17a]), and show that Atlas bias to Europe does not change the conclusion that location of anycast instances dominates latency."
- Note: this study has been published as a peer-reviewed paper

Questions?

- Questions?
- Draft future?