RSSAC Caucus Statement of Work for RSSAC002v5

July, 2022

Background

RSSAC002 specifies a series of measurements that Root Server Operators (RSOs) gather and then report back to the community. RSSAC002 specifies what measurements are to be gathered, how they are to be gathered, and the format for reporting them. Since publishing RSSAC002v1 in November 2014 the RSSAC has updated the document three times. The current specification is defined in RSSAC002v4.

Recommendation 3 of RSSAC002v4 states that, "Measurements outlined in this document should be reviewed every two years to determine whether they require updating to accommodate changes in DNS technologies." RSSAC002v4 was published in March of 2020 and it is now 2022.

This proposed work effort will determine what changes need to be made to RSSAC002v4 and publish the fifth version of RSSAC002.

Scope

The RSSAC Caucus will be asked to discuss and determine the best course of action for the following topics related to RSSAC002v4:

- 1. Review existing RSSAC002 measurements to determine whether they require updating to accommodate changes in DNS technologies.
- 2. The possible addition of label-count as a new metric. Counting labels in DNS queries might aid in tracking the deployment of QNAME minimization.¹
- 3. Clarify the language explaining the load-time metric.
 - a. What is meant by "If the load-time metric is unavailable, it should not be listed." on page 11 of RSSAC002v4?
 - b. Should load-time values less than one be rounded up to one?
- 4. Discuss new DNS transports (e.g., DoH, DoQ, DoT).
 - a. How might they impact existing metrics? For example, should DoT be counted along with TCP traffic?
 - b. Do we define new metrics for these?

¹ See RFC 9156: DNS Query Name Minimisation to Improve Privacy

- 5. Discuss optionality of existing and new metrics. In theory all metrics are optional, but some are called out as optional in RSSAC002v4. This item is related to discussions also happening in the RSSAC001v2 Work Party.
 - a. What does it mean for an RSSAC002 metric to be optional?
 - b. In RSSAC002v4:
 - i. *num-sources-ipv4* and *num-sources-ipv6-aggregate* are marked as optional in Section 6.6.
 - ii. Identifier-specific Metrics are defined in Section 7
 - c. Do we define a namespace for optional metrics that many, but not all, RSIs implement?

Deliverable

A *final draft* to be voted upon by the RSSAC before becoming an RSSAC publication.

Date of Delivery

The final draft should be submitted to the RSSAC no later than MM 1st, YYYY. Submission prior to the deadline is welcome.

Guidelines

This effort is to be carried out on the main RSSAC Caucus mailing list and involve any member of the RSSAC Caucus that wishes to participate. **\$WP_LEADER** has agreed to be the champion for this work. They will ensure the work progresses forward and give updates on the work effort at RSSAC Caucus meetings and monthly RSSAC meetings. In the event that the deadline will not be realized, the champion should inform RSSAC and provide details of the work that cannot be completed by the deadline.

RSSAC support staff will assist the work party deliberation of the work, including setting up a mailing list for the work party, arranging and supporting regular teleconference calls, taking notes of meetings, and drafting background materials if needed.

References

Presentation on the work from ICANN 74

https://docs.google.com/presentation/d/12hRoD3iFF4H5dPKPOq7_XhU4ZdX3ZYm0Lx5TeG7irh4/

RSSAC002v4

https://www.icann.org/en/system/files/files/rssac-002-measurements-root-12mar20-en.pdf

RSSAC Caucus Statement of Work for RSSAC002v4

 $\underline{https://docs.google.com/document/d/1uKeLGw-E02CYop0XaRaN8LLCw71QskI1vPf9C_iUBj8/}$