RSSAC Activities Update

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Agenda

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2 RSSAC Publications since ICANN 61

3 Updates on Current RSSAC and Caucus Work

4 Community Interaction

RSSAC Overview

What is RSSAC?

- The role of the Root Server System Advisory Committee ("RSSAC") is to advise the ICANN community and Board on matters relating to the operation, administration, security, and integrity of the Internet's Root Server System.

- (This is a very narrow scope!)

RSSAC organization

- RSSAC
  - Appointed representatives from the 12 root server operators
  - Alternates to these
  - Liaisons

- RSSAC Caucus
  - Body of volunteer subject matter experts
  - Appointed by RSSAC

RSSAC Caucus

- Members
  - 92 DNS and root server system experts
  - Public statements of interest
  - Public credit for individual work
- Purpose
  - Pool of experts
    - Expertise, critical mass, broad spectrum
  - Transparency of who does the work
    - Who, what expertise, which other hats
  - Framework for getting work done
    - Results, leaders, deadlines
- To apply, email rssac-membership@icann.org

Caucus – Next Meetings

IETF 102
14-20 July 2018
Montreal, Canada

ICANN 63
20-26 October 2018
Barcelona, Spain

Recent RSSAC Publications
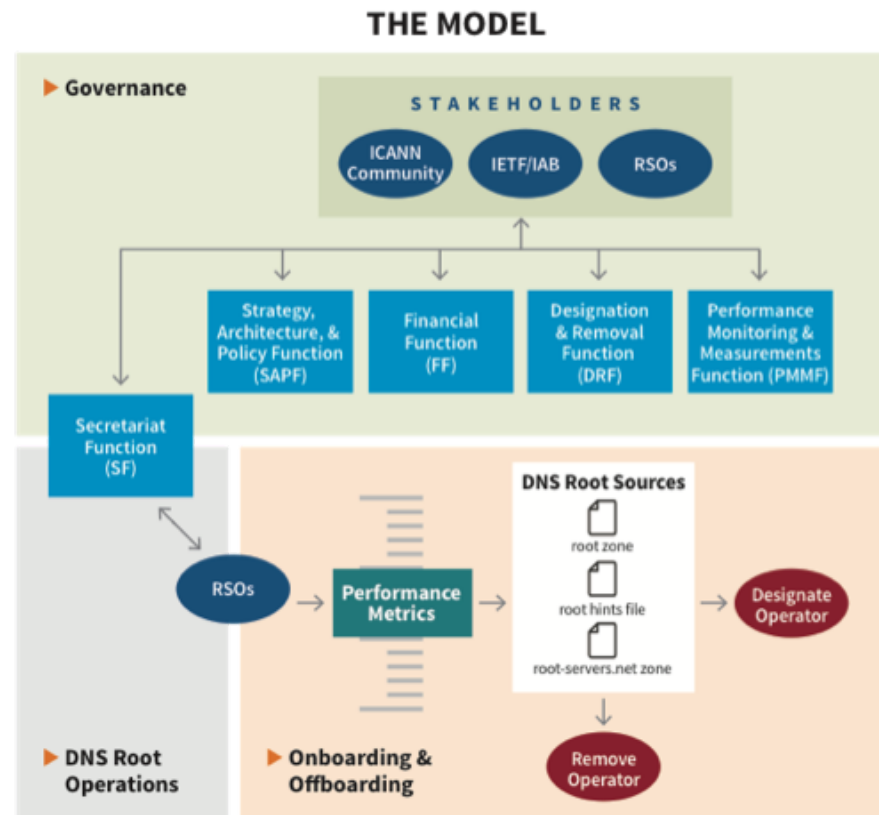
RSSAC Publications since ICANN 61

- RSSAC038: RSSAC Advisory on a Proposed Governance Model for the DNS Root Server System

- RSSAC037: A Proposed Governance Model for the DNS Root Server System

- RSSAC036: RSSAC Statement on the Draft Final Report of the Second Organizational Review of the RSSAC

- RSSAC035: RSSAC Statement on the Draft Final Report of the Second Organizational Review of the Nominating Committee

RSSAC Publications since ICANN 61 (cont.)

- RSSAC034: Report from the RSSAC May 2018 Workshop

- RSSAC033: RSSAC Statement on the Distinction Between RSSAC and Root-Ops

- RSSAC032: Feedback on the Independent Review of the Root Server System Advisory Committee (RSSAC) Assessment Report for Public Consultation

RSSAC037: A Governance Model for DNS Root Server System

- Defines eleven principles for the operation and evolution of the DNS Root Server System

- Proposes an initial governance model (The Model) for the Root Server System and its operators

- Demonstrates how the Model works through a set of scenarios on designation and removal of operators

RSSAC038: RSSAC Advisory on a Proposed Governance Model for the DNS Root Server System

Recommendations that complement RSSSAC037. The RSSAC recommends the ICANN Board:

- Initiate a process to produce a final version of the Model based on RSSAC037.
- Estimate the cost of the RSS and developing the Model. Initial effort should focus on developing a timeline.
- Implement the final version of the Model based upon the principles of accountability, transparency, sustainability and service integrity.

RSSAC033: Statement on the Distinction Between RSSAC and Root-Ops

RSSAC and RSSAC Caucus	Root Ops: Technical Operation of Root Server Operators
• Advises the ICANN Board and community on matters relating to the operation, administration, security, and integrity of the RSS. • Creates RSSAC advisories, comments, statements, procedures and reports. • Organizes and shepherds RSSAC Caucus work parties. • Engages in the ICANN Community. Channels communication regarding issues that pertain to all RSOs from the wider community. • Some RSO staff members participate in the RSSAC and the RSSAC Caucus, but may or may not be the staff members that have operational responsibilities.	• Implements technical advice from the RSSAC, IETF, and other forums. • Performs day-to-day management and operations of the infrastructure that makes the DNS root zone available to Internet users in accordance with RFCs. • A collaboration forum for the RSOs to preserve the integrity and reliability of the RSS. • Shares DNS statistical data with the Internet Community. Some RSO staff members participate both in Root-Ops and in the RSSAC and the RSSAC Caucus, albeit in different roles.

RSSAC036: RSSAC Statement on the Draft Final Report of the Second Organizational Review of the RSSAC

- Expresses serious concerns about the scope of the review, responded to recommendations in the draft final report.
- Believes the review missed the mark by focusing on community's opinions about the RSSAC, not the performance or the work product of RSSAC.

RSSAC034: Report from the May 2018 Workshop

- Provides High-level summary of the outcomes from the sixth workshop

- A Work Party to investigate the harmonization of anonymization procedures for data collecting:

  - Consider whether harmonization of anonymization procedures is something to recommend to the RSO community.
  - If yes, recommend a preferred way to anonymize the data.
  - Consider whether to recommend that anonymization be undertaken by all who share data.

Current Work: Packet Size Work Party

- Define the set of IP, ICMP, UDP, TCP, and DNS parameter configuration options and on-the-wire outcomes, which should be defined and specified for any host providing root DNS service in either stand alone or Anycast configuration.
- Define a registry of this parameter/configuration state which is kept up to date.
- Consider whether a defined requirement should exist to set a common MSS/MTU and to define DNS, UDP, TCP, IP, ICMP and ICMPv6 packet size fragmentation and signaling expectations from root server instances, and their connectivity into the global public Internet.

Current Work: RSSAC Tools

- Software Tools created by the RSSAC Caucus

- Repositories allocated on request

    - https://github.com/rssac-caucus

Potential Topics Under Consideration

1. Research how resolvers choose which root server

2. Research what damage a rogue RSO could do

3. Research geographic diversity of root servers

4. Best current practices for hosting root instances

5. Develop tool to gather local perspective on root servers

6. Study current behavior of DNS resolvers

7. Study node re-delegation attacks

8. Study reducing the priming response size

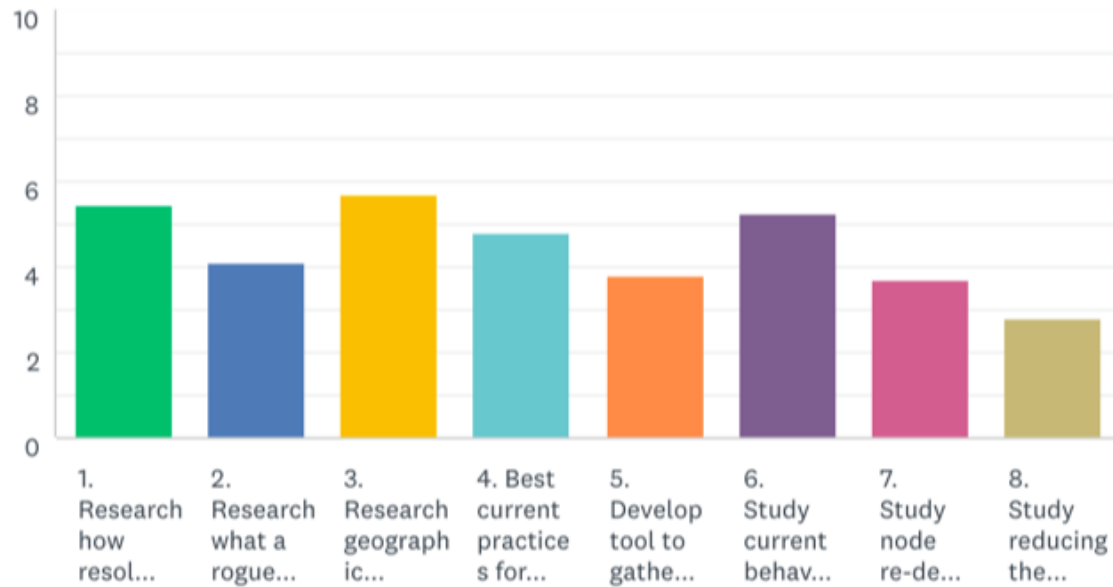# Potential Topics Under Consideration (cont.)

- Items 1, 3 & 6 were the poll winners

- The RSSAC merged items 1 & 6, resulting in two topics

  - Research geographic diversity of root servers

  - Study current behavior of DNS resolvers and how they choose which root server

Community Interaction

Transparency - RSSAC

- Meeting Minutes
  - https://www.icann.org/resources/pages/rssac-meetings-2014-05-06-en
- Publications
  - https://www.icann.org/groups/rssac/documents
- Root Server System Tutorial
  - https://participate.icann.org/sju61-ballroomb
- Operational Procedures: RSSAC000v3
  - https://www.icann.org/en/system/files/files/rssac-000-op-procedures-23oct17-en.pdf
- RSSAC meetings now planned to be open by default

Transparency – Root Server Operators

- Agendas of Root Operator meetings
  - http://root-servers.org/
- Public web page and news of the root servers
  - http://root-servers.org/news.html
- Collaborative reports on major events
  - e.g., http://root-servers.org/news/events-of-20160625.txt
- RSSAC002 statistics
  - See individual root server sites and also on DNS-OARC
- RSO web pages
- RSSAC can respond to technical RSS questions
  - ask-rssac@icann.org

Transparency Feedback

- Were you aware of these transparency items?

- What is missing from these lists?

- How can we further improve our transparency?

Questions?

For more information on the RSSAC

- ⊙ Main webpage
  https://rssac.icann.org/

- ⊙ Publications
  https://www.icann.org/groups/rssac/documents

- ⊙ FAQ
  https://www.icann.org/groups/rssac/faq

For more information on the RSSAC Caucus

- ⊙ Main Caucus webpage
  https://www.icann.org/groups/rssac-caucus