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RSSAC Activities Update

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Agenda

1 RSSAC Overview

2 RSSAC Publications since ICANN 62

3 A Proposed Governance Model for the DNS Root Server System

4 Updates on Current RSSAC and Caucus Work

5 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
  - 100 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

ICANN 63
Tuesday, 23 October
10:30 – 12:00
Room 129/130

IETF 104
23-29 March 2019
Prague, Czech Republic

Recent RSSAC Publications

RSSAC Publications since ICANN 62

- RSSAC039: RSSAC Statement Regarding ICANN's Updated KSK Rollover Plan

- RSSAC040: Recommendations on Anonymization Processes for Source IP Addresses Submitted for Future Analysis

- RSSAC041: RSSAC Advisory on Organizational Reviews

RSSAC039: RSSAC Statement Regarding the Updated KSK Rollover Plan

- Provides advice on the ICANN organization's updated plan for the root KSK rollover

- Lists two items that the ICANN Board should consider addressing:
    - Potential increase in traffic to the RSS
    - Review of the published recoverability plan

- Conclusion: "[RSSAC does] not see a technical reason for these items to cause any delay in resuming the KSK rollover plan on the current proposed schedule."

RSSAC040: Anonymization Processes for Source IP Addresses

- DNS operators are periodically requested to collect query data and submit it to a central storage location where it is accessible for future research.

- Some operators are uncomfortable sharing IP addresses of the query sources and some are even legally prevented from doing so.

- RSSAC040 provides four algorithms for anonymization and discusses their pros and cons.

- Root Server Operators should consider the advantages and disadvantages of harmonization of anonymization for DITL Data.

- Each RSO should consider the anonymization procedures in this document individually

- AS numbers of original addresses should be made available with the anonymized data if the origin AS is sufficiently general that it does not unnecessarily expose data that should have been anonymized.

RSSAC041: RSSAC Advisory on Organizational Reviews

- Addresses responsibilities of the ICANN organization for the organizational review process.

- Provides advice on writing the RFP and selecting the reviewer

- Includes guiding principles on how an organizational review should be conducted

- Provides five recommendations to the ICANN organization on organizational reviews.

1. The ICANN organization should, with sufficient detail, define an ICANN organizational review. This definition should be documented and available to the community. Details should be crisp and tight in order to ensure complete clarity of scope.

2. The ICANN organization should document the intent of the organizational review, what information it hopes to obtain, and how that information will be used.

3. The ICANN organization should continue to use its RFP process to select the IE. The process should be modified to ensure that the IE are experts in assessment frameworks and methodologies and that they are not from the ICANN community.

4. When an organizational review begins, the ICANN organization should ensure there are actionable checkpoints in place to ensure that the organizational review is meeting contractual obligations. Depending on the outcome of each checkpoint, the ICANN organization should take appropriate action to ensure contractual compliance.

5. At the conclusion of any organizational review, the ICANN organization should report on how the process transpired. If there are any lessons learned from the organizational review, the ICANN organization should demonstrate how the process will be modified.

A Proposed Governance Model for the 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

Scope of the Model

ROOT ZONE PROVISIONING, DISTRIBUTION, AND RESOLUTION

RSSAC037
Root Server System Principles
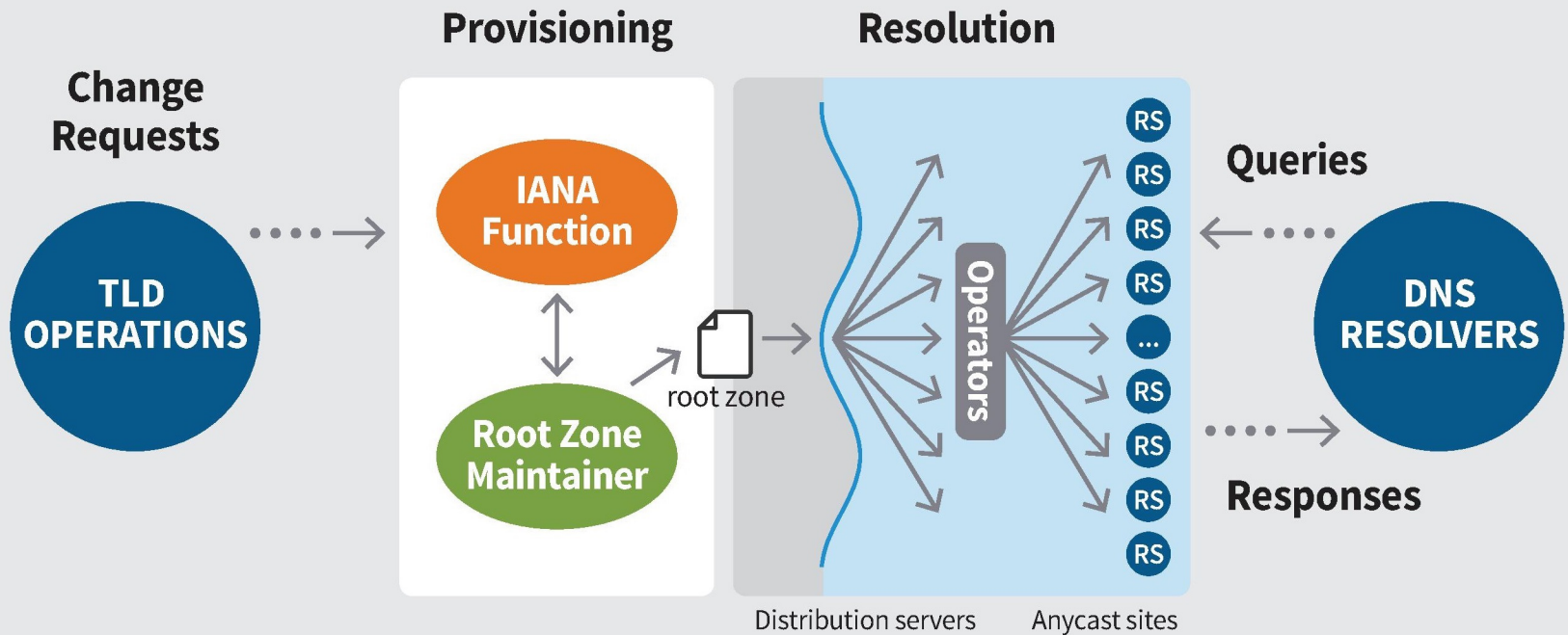
Principle 1

1

To remain a global network, the Internet requires a globally unique public namespace.

Principle 4

4

Diversity of the root server operations is a strength of the overall system.

Principle 2

2

IANA is the source of DNS root data.

Principle 5

5

Architectural changes should result from technical evolution and demonstrated technical need.

Principle 3

3

The RSS must be a stable, reliable, and resilient platform for the DNS service to all users.

Principle 6

6

The IETF defines technical operation of the DNS protocol.

RSSAC037
Root Server System Principles

Principle 7

7

RSOs must operate with integrity and an ethos demonstrating a commitment to the common good of the Internet.

Principle 10

10

RSOs must be autonomous and independent.

Principle 8

8

RSOs must be transparent.
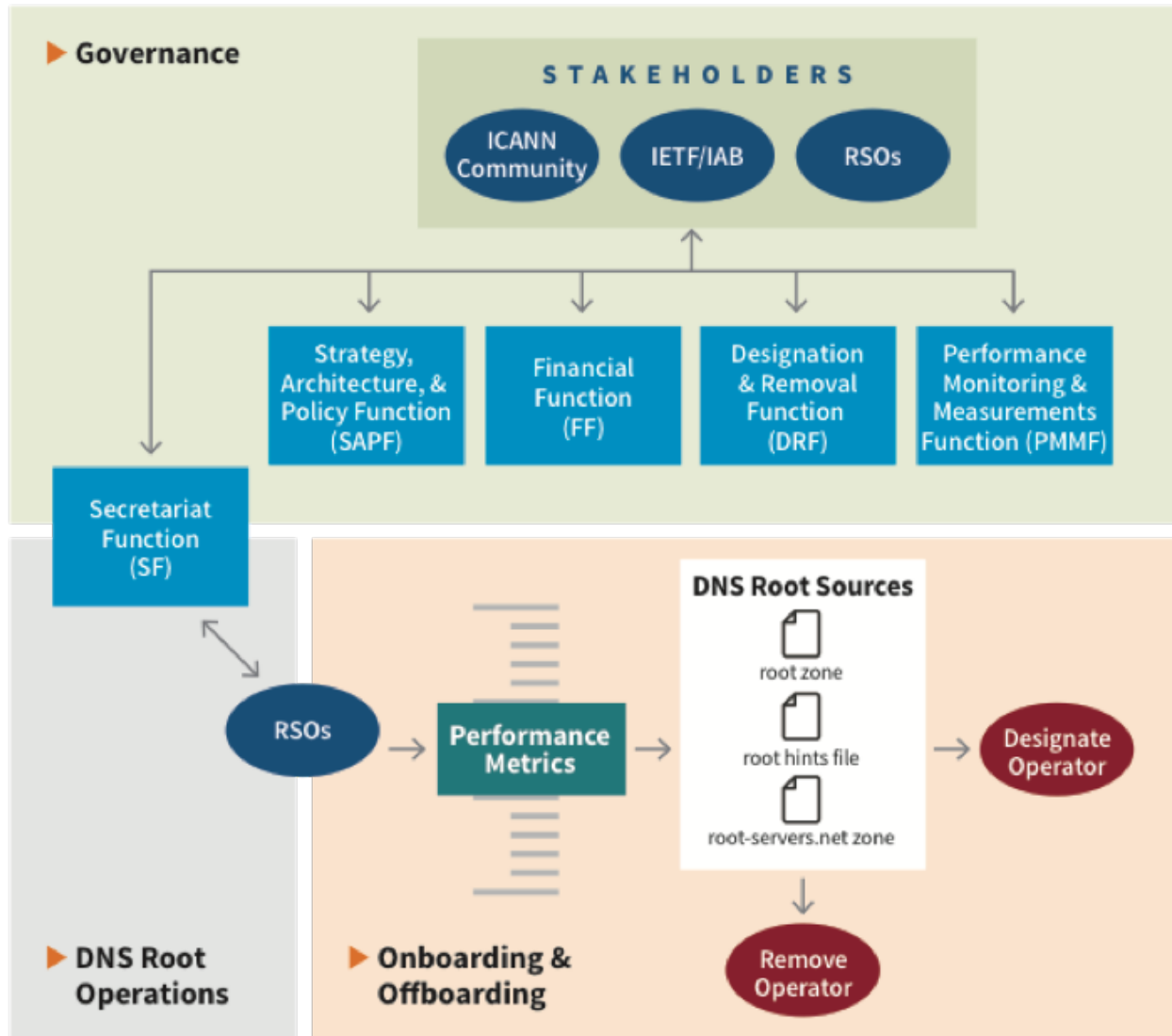
Principle 11

11

RSOs must be neutral and impartial.

Principle 9

9

RSOs must collaborate and engage with the stakeholder community.

RSSAC037: The Proposed Model

THE MODEL

Recommendations that complement RSSAC037. The RSSAC recommends the ICANN Board:

- Initiate a process to produce a final version of the Model based on RSSAC037.

- Estimated cost of the RSS and developing the Model. Initial efforts should focus on developing a timeline.

- Implement the final version of the Model based upon principles of accountability, transparency, sustainability and service integrity.

Updates on Current RSSAC and Caucus Work

RSSAC Second Organizational Review

- In June, an independent examiner concluded the second organizational review of the RSSAC. The final report contained six main recommendations.

- Earlier this month, the RSSAC delivered its Feasibility Assessment and Initial Implementation Plan (FAIIP) to the ICANN Board Organizational Effectiveness Committee (OEC).

- The OEC is now considering the final report and the FAIIP and will make recommendations to the ICANN Board on next steps, including implementation.

Current Work: Service Coverage of the RSS

- Explore the concept of accessibility to the RSS.

- Discover indicators that can be used to define adequate RSS service coverage.

- Suggest procedures or tools that could be used to determine poor service coverage.

- Recommend to RSOs and the Internet community how to enhance the service coverage of the RSS.

Current Work: Studying Modern Resolver Behavior

- Investigate behavior of modern recursive DNS resolvers in how they interact with authoritative servers and the RSS specifically.

- Potentially recommend changes to the DNS protocol and implementations to optimize deployment of DNS recursive resolvers, authoritative resolvers, and root servers.

- Potentially craft advice to the ICANN Board or other ICANN constituencies to benefit the stability of the DNS or RSS.

Current Work: RSSAC Tools

- Software Tools created by the RSSAC Caucus
- Repositories allocated on request
  - https://github.com/rssac-caucus

Community Interaction

Transparency - RSSAC

- Minutes of Meetings
  - 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://63.schedule.icann.org/meetings/901686

- Operational Procedures: RSSAC000v3
  - https://www.icann.org/en/system/files/files/rssac-000-op-procedures-23oct17-en.pdf

Transparency – Root Servers 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

Thank You