

RSSAC Activities Update



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Agenda

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for the DNS Root
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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

- Members
 - Over 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 Meeting

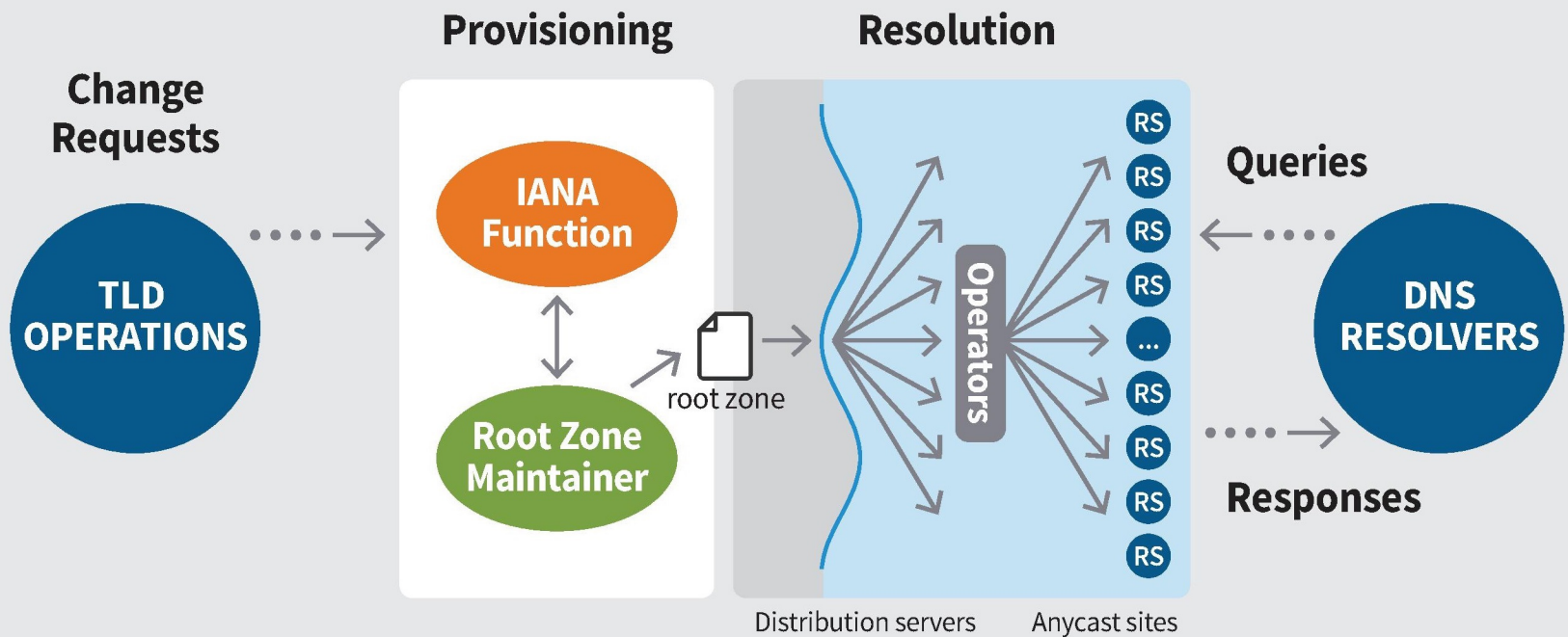


IETF 104
24 March 2019
Prague, Czech Republic

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

ROOT ZONE PROVISIONING, DISTRIBUTION, AND RESOLUTION



RSSAC037 - Root Server System Principles

1

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

4

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

2

IANA is the source of DNS root data.

5

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

3

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

6

The IETF defines technical operation of the DNS protocol.

RSSAC037 - Root Server System Principles

7

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

10

RSOs must be autonomous and independent.

8

RSOs must be transparent.

11

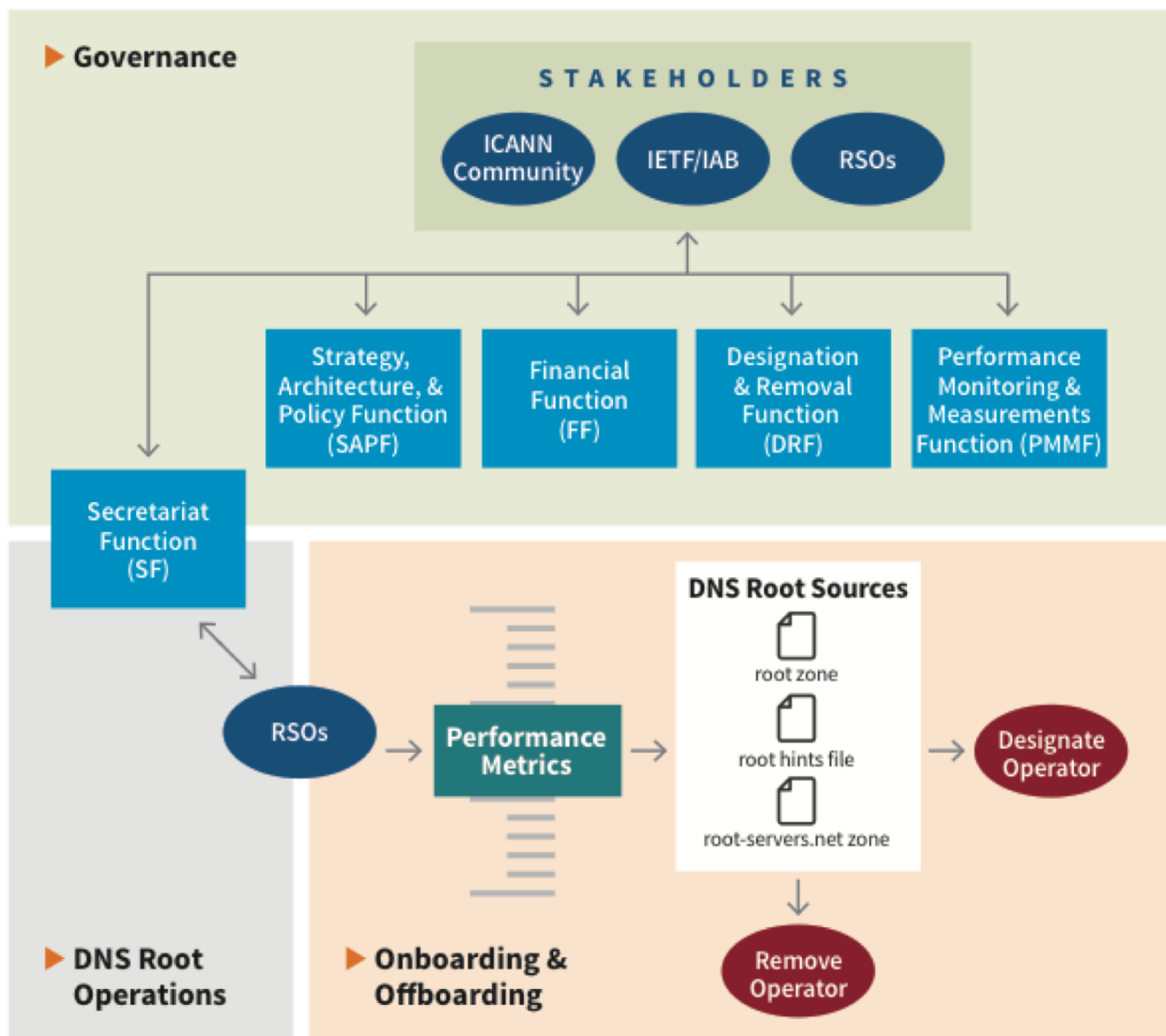
RSOs must be neutral and impartial.

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 2018, an independent examiner concluded the second organizational review of the RSSAC. The final report contained six main recommendations.
- In October 2018, 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: Root Server System Metrics

- Define system-wide, externally verifiable metrics which demonstrate that the RSS as a whole is online, serving correct and timely responses to end users.
- Define measurements to ensure Root Server Operators (RSOs) are meeting a minimum level of performance. These measurements would include technical metrics and thresholds designed to assess the performance, availability, and quality of service that each RSO provides.
- Refine the Bandwidth, Packets per second, and Queries per second (BPQ) measurement methodology first proposed in RSSAC037.

Community Interaction

- 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
 - <http://root-servers.org/news.html>
- 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