TITLE: **Next Steps in Root Server System Governance**

PROPOSED ACTION: **For Board Consideration and Approval**

EXECUTIVE SUMMARY:

RSSAC058 contains success criteria for any proposed root server system (RSS) governance structure. The success criteria form a framework to assess the degree to which any proposed RSS governance structure conforms with previous Root Server System Advisory Committee (RSSAC) advice about RSS governance, including RSSAC037. The success criteria also serve as a framework to compare and contrast different proposals for RSS governance. RSSAC059 contains recommendations on how these success criteria should be integrated with the recommendations in RSSAC038. Both RSSAC058 and RSSAC059 should be read in combination with previous RSSAC advice on evolving RSS governance.

ROOT SERVER SYSTEM GOVERNANCE BOARD CAUCUS GROUP RECOMMENDATION:

The RSS Governance Board Caucus Group recommends that the ICANN Board accepts Recommendations 1 and 2 from RSSAC059 and directs the RSS Governance Working Group (RSS GWG) to incorporate the success criteria for RSS governance from RSSAC058 into its work. The RSS Governance Board Caucus Group also recommends that the ICANN Board consider Recommendations 3 and 4 from RSSAC059 as part of its ongoing evaluation and consideration of Recommendations 2 and 3 from RSSAC038.

PROPOSED RESOLUTION:

Whereas, the Root Server Operators (RSOs) are critical members of the Internet community and participate in the ICANN community through the Root Server System Advisory Committee (RSSAC).

Whereas, the ICANN Bylaws establish the RSSAC with the role to advise the ICANN community and ICANN Board on matters relating to the operation, administration, security, and integrity of the root server system (RSS).

Whereas, the ICANN Board remains committed to evolving RSS governance based on the model outlined in RSSAC037 and principles expanded in RSSAC055 and in accordance with advice in RSSAC038.

Whereas, the ICANN Board convened (Resolution 2019.11.07.42) the RSS Governance Working Group (RSS GWG) to develop a final model of RSS governance and RSO accountability. Through that resolution, the ICANN Board accepted Recommendation 1 from RSSAC038 and noted that evaluation and consideration of Recommendations 2 and 3 from RSSAC038 was ongoing.

Whereas, the ICANN Board supports RSS GWG efforts to achieve consensus outcomes that implement new RSS governance and RSO accountability and is ready to work with the RSS GWG as its proposal evolves.

Whereas, the ICANN Board affirms that it is in the best interest of ICANN that the RSS GWG outcome is supported by the RSS stakeholders.

Whereas, the ICANN Board welcomes the development of success criteria for RSS governance by the RSOs and RSSAC as provided in RSSAC058.

Whereas, the RSS Governance Board Caucus Group has reviewed RSSAC058 and RSSAC059.

Whereas, the RSS Governance Board Caucus Group recommends that the ICANN Board accepts Recommendations 1 and 2 from RSSAC059 and directs the RSS GWG to incorporate the success criteria for RSS governance from RSSAC058 into its work.

Whereas, the RSS Governance Board Caucus Group recommends that the ICANN Board consider Recommendations 3 and 4 from RSSAC059 as part of its ongoing evaluation and consideration of Recommendations 2 and 3 from RSSAC038.

Resolved (2021.11.18.xx), the ICANN Board accepts Recommendations 1 and 2 from RSSAC059 and will consider Recommendations 3 and 4 from RSSAC059 as part of its ongoing evaluation and consideration of Recommendations 2 and 3 from RSSAC038.

Resolved (2021.11.18.xx), the ICANN Board directs the RSS GWG to incorporate the success criteria for RSS governance from RSSAC058 into its work.

Resolved (2021.11.18.xx), the ICANN Board directs the ICANN President and Chief Executive Officer, or his designee(s), to continue supporting the work of the RSS GWG, RSSAC, and RSOs in the spirit of the advice expressed in RSSAC058 and RSSAC059.

PROPOSED RATIONALE:

In June 2018, RSSAC published its proposed governance model for the RSS and the RSOs in "RSSAC037: A Proposed Governance Model for the DNS Root Server System" (RSSAC037). The RSSAC037 Model calls for five functions to provide governance, accountability, and transparency for the RSS. The RSSAC concurrently published "RSSAC038: RSSAC Advisory on a Proposed Governance Model for the DNS Root Server System" (RSSAC038). In RSSAC038, the RSSAC makes three recommendations for next steps in RSSAC038 to the ICANN Board.

Since then, the ICANN Board, through the ICANN Board Technical Committee, oversaw the development of a "Concept Paper on a Community-Driven Process to Develop a Final Model Based on RSSAC037" (Concept Paper) as part of its consideration of RSSAC037 and RSSAC038. The Concept Paper proposed a model based on RSSAC037. The Concept Paper also outlined a community-driven process to develop a final governance model for the RSS. This is in response to Recommendation 1 from RSSAC038, which calls on the ICANN Board to "initiate a process to produce a final version of the Model for implementation based on RSSAC037". There

are three phases in the community-driven process: Design, Consultation, and Implementation. During the implementation phase, there are two tracks: The Root Server System Governance Working Group (RSS GWG) leads the Structural Track to develop a final model, and ICANN org will lead the Administrative Track to plan for implementation of a final model.

The ICANN Board Technical Committee directed ICANN org to develop a draft charter, operating procedures, and work plan for the RSS GWG. RSSAC037; the Concept Paper; and the RSS GWG draft charter, operating procedures, and work plan were available for Public Comment from May to August 2019. ICANN org summarized the nine submissions and proposed next steps to the ICANN Board Technical Committee. The ICANN Board Technical Committee reviewed the Public Comment submissions, amended the charter and operating procedures of the RSS GWG, adjusted the work plan timeline of the RSS GWG, and recommended the convening of the RSS GWG.

RSSAC037; the Concept Paper; and the RSS GWG charter, operating procedures, and work plan provide a starting point for discussions in the ICANN community about evolving RSS governance. By convening the RSS GWG, the ICANN Board completed its consideration of Recommendation 1 from RSSAC038. The ICANN Board continues its evaluation and consideration of Recommendations 2 and 3 from RSSAC038.

As the work of the RSS GWG progressed, the ICANN Board continued to monitor progress. On 10 June 2021, the ICANN Board sent a letter to the RSS GWG Chair thanking the RSS GWG for its ongoing work, and noting the ICANN Board's support for efforts to achieve consensus outcomes to implement RSSAC037 and RSSAC038. In the letter, the ICANN Board noted the importance of the RSS GWG's final recommendations having the support of all RSS stakeholders. The GWG responded to that letter and noted that it was inviting the Root Server Operators (RSOs) to address these concerns. After this engagement with the RSS GWG, the RSOs began their work toward defining success criteria, as now embodied in RSSAC058. The RSS GWG put much of its work on pause pending the RSOs' input and is expected to restart its work in early December 2021.

The ICANN Board is taking this action now in order to facilitate the RSS GWG's work and to provide clarity that the considerations within RSSAC058 are important inputs to the RSS GWG work. The ICANN Board thanks the RSS GWG for its consideration in awaiting this information.

The ICANN Board also notes that the inputs embodied in RSSAC058 and RSSAC059 will be important items for evaluation and consideration of the resulting recommended model for enhanced RSS governance and confirms that Recommendations 3 and 4 from RSSAC059 will be considered as the ICANN Board also considers RSSAC Recommendations 2 and 3 from RSSAC038 at the appropriate time in the future.

RSSAC058 builds on the accumulated work the RSSAC has produced on evolving the governance of the RSS. By incorporating RSSAC058 into the recommendations of RSSAC038 the ICANN Board continues the work it began in November 2019.

Additional Background on RSSAC Work to Evolve RSS Governance
The RSSAC has been actively working on other documentation that supports the evolution of RSS governance. While this action does not impact any of these RSSAC publications, they are described here for additional background:

- In May 2019, the RSSAC published RSSAC042: RSSAC Statement on Root Server Operator Independence. RSSAC042 clarifies and provides further information about principle 10 from RSSAC037, which states that "RSOs must be autonomous and independent."
- In March 2020, the RSSAC published RSSAC047: RSSAC Advisory on Metrics for the DNS Root Servers and the Root Server System. RSSAC047 defines measurements, metrics, and thresholds that RSOs meet to provide a minimum level of performance. These thresholds and metrics are the RSSAC's input to a yet-to-be defined evaluation process for future RSOs.
- In April 2020, the RSSAC published RSSAC049: RSSAC Statement on Joining the Empowered Community. RSSAC049 updates the recommendations in RSSAC038 to state that the RSO community would welcome becoming a member of the ICANN

Empowered Community as part of the implementation of the recommendations in RSSAC038.

- In July 2021, the RSSAC published RSSAC055: Principles Guiding the Operation of the Public Root Server System. RSSAC055 restates the eleven principles from RSSAC037 and provides further clarification on each.
- Also in July 2021, the RSSAC published RSSAC056: RSSAC Advisory on Rogue DNS Root Server Operators. RSSAC056 informs future RSS governance bodies about the types of RSO activity that might be considered rogue and the risks that these activities may pose to the Internet community. RSSAC056 is informed by RSSAC037 and expands on one of the scenarios provided.

Evolving RSS governance is within the ICANN mission of facilitating the coordination of the operation and evolution of the RSS. It is in the public interest because it supports the enhancement and evolution of the DNS. Supporting the evolution of RSS governance contributes to the commitment of ICANN to strengthen the security, stability, and resiliency of the DNS.

Evolving RSS governance will result in significant changes, but those cannot be identified or quantified until recommendations are developed. Any budgetary and financial implications will be handled through ICANN processes that ensure accountability and transparency, including public comments as necessary.

Signature Block:

Submitted by: Kaveh Ranjbar

Position: RSSAC Liaison to the ICANN Board and
ICANN Board Technical Committee Chair

Date: 17 November 2021

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RSSAC058: Success Criteria for the RSS Governance Structure

A Report from the ICANN Root Server System Advisory Committee (RSSAC)
17 November 2021

Preface

This is an Advisory to the Internet Corporation for Assigned Names and Numbers (ICANN) Board of Directors and the Internet community more broadly from the ICANN Root Server System Advisory Committee (RSSAC). In this Advisory, the RSSAC defines requirements for measurements of the local perspective on the root server system.

The RSSAC seeks 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 includes communicating on matters relating to the operation of the root servers and their multiple instances with the technical and ICANN community, gathering and articulating requirements to offer to those engaged in technical revisions of the protocols and best common practices related to the operation of DNS servers, engaging in ongoing threat assessment and risk analysis of the root server system and recommend any necessary audit activity to assess the current status of root servers and root zone. The RSSAC has no authority to regulate, enforce, or adjudicate. Those functions belong to others, and the advice offered here should be evaluated on its merits.

A list of the contributors to this Advisory, references to RSSAC members' statement of interest, and RSSAC members' objections to the findings or recommendations in this Report are at the end of this document.

Table of Contents

1 Introduction

1.1 Principles for Root Server System Governance

The Root Server System Advisory Committee (RSSAC) has adopted various statements concerning the future of Root Server System (RSS) governance with the hope that it will lead to a new RSS Governance Structure (RSS GS). These include:

- RSSAC037: A Proposed Governance Model for the DNS Root Server System (12 June 2018);
- RSSAC042: RSSAC Statement on Root Server Operator Independence (13 May 2019);
- RSSAC049: RSSAC Statement on Joining the Empowered Community (14 April 2020); and
- RSSAC055: Principles Guiding the Operation of the Public Root Server System (7 July 2021)

This document provides additional details that build upon these and other statements by RSSAC and constitutes a more definite statement of RSSAC advice.

1.2 The Role of RSOs in DNS Root Service Governance and Operation

The "DNS root service is a vital part of the DNS resolution process, as it provides the starting point for finding resources across the Internet. The current model of the DNS root service has functioned without interruption since its inception." (RSSAC037, p.2)

Over the course of decades, the Root Server Operators (RSOs):
- while acting collectively with one another;
- while acting collaboratively with the other RSS Stakeholders;
- while remaining individually independent,
- have defined the core principles that govern how the DNS root service should operate;
- have delivered the DNS root service in accordance with those same governing principles; and
- have served (as a group) to maintain trust in the integrity of that service.

From the very early days of the DNS, before the establishment of ICANN, the RSOs have undertaken both an operational and a collective governance role in delivering the DNS root service. In addition to technical expertise, they have worked to assure a stable single Internet by defending the principles that make the RSS successful against all who threaten those principles, and maintaining global trust in the service.[1] The continuing status of RSOs as autonomous and independent entities, with a significant voice in governance, remains an important principle for the success of the RSS Governance Structure (RSS GS).

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[1] The history of the RSS and RSOs is set out in RSSAC023.

2 Application and Interpretation of the Success Criteria

The Success Criteria form a framework to assess the degree to which any proposed RSS GS conforms with the RSSAC statements above concerning RSS governance. They also serve as a framework to compare and contrast different proposals for RSS GS with one another.

The Success Criteria provide a framework for facilitating discussion and refinement of any proposed or existing RSS GS. They are also a source of guidance to those who are responsible for drafting proposed RSS GS Constitutional Documents or amendments to these.

The Success Criteria themselves should be read together with the RSSAC publications above.

The Success Criteria are fashioned as a series of principles that are expected to be embodied, or addressed, in the framework of the RSS GS. Although some of the Success Criteria are sufficiently specific and prescriptive that they can be assessed on a simple "pass/fail" basis (e.g., Criteria B.1.2), most of them describe principles which can be met with widely varying degrees of success. Thus, when comparing multiple proposals for RSS GS one proposal might be found to comply more strongly with a given Success Criteria than other proposals.

Inevitably, tensions can arise between different Success Criteria. Consider, for example, Criteria A.1 (Accountability & Transparency) and Criteria A.2 (RSO Autonomy & Independence). Any given proposal for RSS GS might conform very strongly to one Success Criteria, while simultaneously drifting far away from another. It is for those who negotiate and agree the terms of an RSS GS (and future amendments) to find and implement an appropriate balance between these various tensions. This document has been prepared in the hope of assisting those discussions.

3 Glossary

Empowered Community: The mechanism described as such in the ICANN Articles of Incorporation and Bylaws

ICANN: The Internet Corporation for Assigned Names and Numbers

organizational control: The ability of a person or organization, or any collection of such persons or organizations acting in concert, to direct the affairs or decision-making of another.

root server: An entry point (instance) to the RSS cloud. Within the DNS technical community, a root server is a particular anycast instance, i.e. an authoritative name server that answers queries for the contents of the root zone.

RSO: A Root Server Operator is an organization that operates and manages root servers, designated as such pursuant to the RSS GS. The 12 designated RSOs as of the initial publication date of this document[2] are:

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[2] See RSSAC023 for the history of the RSOs to date.

- Verisign, Inc.;
- University of Southern California Information Sciences Institute;
- Cogent Communications, Inc.;
- University of Maryland;
- NASA Ames Research Center;
- Internet Systems Consortium, Inc.;
- United States Defense Information Systems Agency;
- United States Army Research Laboratory;
- Netnod AB;
- Réseaux IP Européens Network Coordination Centre (RIPE NCC);
- ICANN; and
- WIDE Project.

For the avoidance of doubt, when an RSO (the "outsourcing RSO") outsources the operation or maintenance of one or more root servers to a second organization (the "service provider"), the service provider does not become an RSO and the outsourcing RSO remains responsible for all obligations, and retains all rights, arising under the RSS GS.

RSO Organizational Diversity: A state of heterogeneity among the business and organizational models of the RSOs maintained for the purpose of increasing RSS security, stability, and resilience, as further defined in Success Criteria A.2.1.2.

RSO Technical Diversity: A state of heterogeneity among the network topologies, software, hardware, and service providers used by the RSOs in operating the RSS, maintained for the purpose of increasing RSS security, stability, and resilience, as further defined in Success Criteria A.2.3.

RSS: The Root Server System, the set of root servers that collectively implement the DNS root service and the resulting DNS root service provided collectively (albeit independently) by the RSOs. See also RSSAC037.

RSSAC: The Root Server System Advisory Committee, an advisory committee chartered pursuant to ICANN Bylaws.

RSS GS: The RSS Governance Structure, being the structure that provides organizational governance of the RSS, as adopted and amended from time to time.

RSS GS Body: The body or bodies (e.g., board(s), committee(s), etc) created pursuant to the RSS GS to carry out the various governance functions described, and references to "the **RSS GS Body**" shall be interpreted to mean such body or bodies that are relevant to the issue under consideration .

RSS GS Constitutional Documents: The formal governance documents that describe and implement the details of the RSS GS, the composition, rights and obligations of the RSS GS Body, etc.

RSS GS Functional Description: A description of an existing or proposed RSS GS offered for the purpose of assessing that RSS GS for potential detailed discussion and adoption.

RSS Stakeholders: The people, groups, and organizations specifically identified as such in RSSAC037 §4 (including the Internet Architecture Board, the Internet Engineering Task Force, the ICANN community in the form of several of its constituencies, and the RSOs themselves), and amendments to such list of people, groups, and organizations that might be adopted in future as described in Criteria A.5.4.

Success Criteria (or simply Criteria): The success criteria defined in this document.

4 Success Criteria

For an RSS GS to succeed, it must have well-developed enforceable policies and procedures which define and serve to preserve these various Success Criteria. The rule set (or sets) will be embodied in the RSS GS Constitutional Documents (see Criteria B.1).

References to any Success Criteria shall, unless the context requires otherwise, be assumed to refer to all sub-Criteria subsumed within it (e.g., references to "Criteria X.1" shall be interpreted to mean the bloc of Criteria including X.1, X.1.1, X.1.2, X.1.2.1, etc.). As a result, the term "Criteria" is used interchangeably as both a singular and plural noun.

Part A: Substantive Criteria

No	Criteria	Discussion of Criteria and Relevant Citations
A.1	Accountability & Transparency	
A.1.1	Accountability & Transparency: RSOs	The RSS GS must provide for accountability of the RSOs in respect of their provision of the RSS
A.1.1.1	Security threat and vulnerability information	The RSS GS must include provision for cyber incident oversight and disclosure obligations, and codify security threat and vulnerability information sharing amongst RSOs and the RSS GS Body.
A.1.2	Accountability & Transparency: RSS GS Body	The RSS GS must provide a method to make the RSS GS Body accountable to the RSS Stakeholders. See also Criteria A.5.
A.1.3	Accountability &	The RSS GS should, to the extent practicable, make use of existing accountability and transparency governance mechanisms

	Transparency: Tested Mechanisms	that have been tested and proven over time with real world experience.
A.2	RSO autonomy and independence	"RSOs must be autonomous and independent: An RSO should have autonomy and independence in architecting and operating their service, while also adhering to standards and service expectations." RSSAC037 §3 (Principle 10). "Principle 10 of RSSAC037 states, 'RSOs must be autonomous and independent' and this must be preserved in future RSS governance models. RSOs must remain independent **from each other as well as from any overarching organization, government, or community**. This serves to prevent capture of the RSS by an entity that may diverge from the guiding principles of the RSS as set forth in RSSAC037." RSSAC042 (emphasis added)
A.2.1	Organizational independence and diversity	The RSS GS must be structured in a manner designed to preserve and promote RSO independence and diversity. See RSSAC042. These A.2.1 Criteria would not be violated solely through the act of making the RSOs subject to oversight by the RSS GS Body (see generally Criteria A.1.1), provided that: ● the RSS GS Body is subject to appropriate oversight by the RSS Stakeholders (see generally Criteria A.1.2); and ● such oversight of RSOs is otherwise consistent with the Success Criteria established in this document (which, for the avoidance of doubt, may require that the RSS GS Body is composed of more than one governance body and that some such governance bodies are composed of differentiated voting classes)
A.2.1.1	RSO Independence	Independence is assessed by ensuring: (1) each RSO is not subject to organizational control by any other RSO, and (2) a material number of the RSOs are not subject to organizational control by the same person, organization, government, or community, or a collection of such persons, organizations, governments, or communities acting in concert (see also the reference to diversity of RSO organizational control in A.2.1.2).
A.2.1.2	RSO Organizational Diversity	RSO Organizational Diversity is a collective measure assessed by examining the community of RSOs as a whole. The RSS GS must be structured in a manner designed to preserve and promote an

		appropriate degree of RSO Organizational Diversity and limit the risk of the loss of an appropriate degree of RSO Organizational Diversity. See also RSSAC037 §3 (Principle 4). The overriding purpose of maintaining RSO Organizational Diversity is to encourage security, stability, and resilience of the RSS and the term "diversity" as used in this document and in the RSS GS must be interpreted accordingly. An appropriate degree of RSO Organizational Diversity is achieved when the RSS is operated by RSOs with sufficiently divergent characteristics so as to minimise, so far as practicable, the risk that a significant number of RSOs would suffer a major business process failure (e.g., an insolvency event, a loss of funding, etc) as the result of a common cause external to RSS technical operations (e.g., a significant change in the price of a commodity, the failure of an international trade relationship, the discovery and deployment of a disruptive new computing or telecommunications technology, loss of government license or concession, a global pandemic, etc.) Thus, the degree of RSO Organizational Diversity might be increased by increasing (among other things) diversity of RSO: organizational control; profit/non-profit motive; academic/non-academic status; government agency/non-government agency status; territory of incorporation; and sources of revenue.
A.2.2	Financial independence	The RSS GS must assure that sources of funding for RSO operations are not able to exert undue influence over operational decision-making, such as network and software architecture, design decisions. Expectations of funding sources must be measured solely by reference to service provision in accordance with generally accepted DNS parameters. See RSSAC042. See also Criteria A.3.4.2. RSS GS fundraising and budget decisions are addressed separately in Criteria A.3.
A.2.3	RSO Technical Diversity	The RSS GS must be structured in a manner designed to preserve and promote an appropriate degree of RSO Technical Diversity.
A.2.3.1	Architecture and Engineering Design	The RSS GS must "encourage network diversity and prevent homogeneous network topologies…." RSSAC042. "Each RSO has independent choice of which hardware, software,

		network providers, and locations to use in their respective architectures. RSOs are able to employ their own information assurance architectures for the security of their networks and server configurations, which prevents a single attack from affecting the whole RSS." RSSAC042. "By maintaining independence in design decision making, RSOs ensure their service architectures maintain stability through diversity." RSSAC042.
A.2.3.2	Network Operations and Administration	"RSOs develop and maintain independent and diverse operating environments and procedures. Operational diversity reduces the risk that an attack against a single RSO would have a material impact on the RSS. Scheduled service interruptions, maintenance, and upgrades are done independently within and among RSOs across multiple time zones, therefore, they have limited to no operational impact on the service provided by the RSS." RSSAC042. "Independence in network operations and administration reduces the risk of a single point of failure." RSSAC042.
A.2.4	Changes in RSO Composition	In addition to their potential impact on RSO Autonomy & Independence (Criteria A.2), these Criteria A.2.4 are also closely related to Criteria A.3.6, A.6.2, A.6.3, and A.6.4
A.2.4.1	Transferability	Any action that would have the effect of transferring the business process of acting as a designated RSO from one entity to another by whatever mechanism (e.g., transfer of RSO assets, issuance or transfer of RSO shares, or change of organizational control of an RSO, whether or not for value) must be subject to careful scrutiny to assure that the transferee is an appropriate entity (i.e., a "fit and proper person" to act as an RSO) and does not jeopardize the RSO Autonomy & Independence Criteria.
A.2.4.2	Decreasing number of RSOs	Any action that would have the effect of decreasing the number of RSOs by whatever mechanism (e.g., by withdrawing root server designation from an existing RSO, through the merger of two existing RSOs, RSO insolvency or business failure, etc) must be subject to careful scrutiny to assure that the change does not jeopardize the RSO Autonomy & Independence Criteria.

A.2.4.3	Increasing number of RSOs	Any action that would have the effect of increasing the number of RSOs by whatever mechanism (e.g., by creating additional new root server designators, etc) must be subject to careful scrutiny to assure that the change does not jeopardize the RSO Autonomy & Independence Criteria and that any newly-designated RSO is an appropriate entity (i.e., a "fit and proper person" to act as an RSO).
A.3	Financial function	The RSS GS must create some degree of authority to both raise and spend funds. See generally RSSAC037 at §5.5. From RSSAC037 at §5.5.2: "The operational costs [of the RSS] have become an unfunded mandate [for RSOs]. During the past four decades, this cost has increased with no commensurate funding for the operators from the service stakeholder beneficiaries. Billion dollar DNS businesses profit from DNS sales and resolution in which the DNS root service is a critical step. However, the RSOs receive no funding to provide the service that supports these industries."
A.3.1	Treasury function	The RSS GS must include a secure and auditable mechanism to hold and disburse funds in accordance with the rules of the governance structure.
A.3.2	Spending authority to provide financial assurance to RSOs	The RSS GS must include a method to establish and undertake regular review of payments to RSOs in respect of RSS operational expenses and capital investment.
A.3.3	Spending authority to support the RSS GS Body	The RSS GS must include a method to establish and undertake regular review of budget to support governance structure expenses (Secretariat, Board(s), etc).
A.3.4	Fundraising authority	The RSS GS must include a method to assure the ability to raise funds from a clearly identified source (or sources) in the Internet Community. The authority also extends to decisions to decline sources of funding for the RSS GS as a whole, but does not interfere with individual RSO decisions to accept sources of funding.

A.3.4.1	Sustainability of funding	Sources of funding must be sustainable.
A.3.4.2	Alignment of funding with purpose of RSS	Methods of funding must naturally align with the overall purpose of the RSS. See also Criteria A.2.2.
A.3.4.3	Preserve RSS as a public good	Methods of raising funds to support the RSS should, to the extent practicable, preserve the status of the RSS as a public good: made available for no charge at point of use.
A.3.5	Governance structure operated on not-for-profit basis	To align properly with the goals of Internet governance generally the RSS GS Body must operate on a not-for-profit basis.
A.3.6	Financial consequences of RSO creation/ revocation/ transfer	
A.3.6.1	Financial consequences of designating new RSOs	Any consideration paid to become a newly designated RSO as a result of increasing the number of RSOs (see Criteria A.2.4.3), must accrue to and be applied for the benefit of the RSS as a whole. For the avoidance of doubt, this principle also applies in the case of subsequent increase after reduction of the number of RSOs (see Criteria A.2.4.2).
A.3.6.2	Financial consequences of transfer	Any consideration paid to acquire the root server operations of an existing RSO (see Criteria A.2.4.1) must accrue to the organization (or entity) that transfers ownership or organizational control of relevant business assets, property, etc, to enable the acquisition.
A.3.7	No obligation to accept finance	While the RSS GS must provide opportunities to finance RSOs, there must be no obligation imposed upon RSOs to accept all or any such sources of funding. See also Criteria A.2.
A.4	Preserves Enumerated Principles of	The 11 Principles are specifically enumerated in Section 3 of RSSAC037. The RSS GS must incorporate and defend these same Principles.

	RSS and RSOs	Some of these Principles are already expanded in other Criteria.
A.5	RSS Stakeholder engagement	An overview of RSS Stakeholders and their relationships is found in RSSAC037 §4. The RSS GS must clearly encourage and enable timely communication among and between all identified RSS Stakeholders.
A.5.1	RSS Stakeholder engagement: all identified in RSSAC037	The RSS GS must ensure that all affected RSS Stakeholders are represented in the RSS policy process.
A.5.2	RSS Stakeholder engagement: maintains contact	The RSS GS must encourage regular contact and communication between RSOs and the other RSS Stakeholders.
A.5.3	RSS Stakeholder engagement: appropriate balance of rights	The rights and responsibilities of RSS Stakeholders arising under the RSS GS must be appropriately balanced.
A.5.3.1	RSOs as RSS Stakeholders	The RSS GS must ensure all RSOs have a significant say in policies that govern them (in their capacity as RSOs). Related to discussion in Criteria A.2, A.3, A.7.3, and Part C.
A.5.3.2	Non-RSO RSS Stakeholders	The RSS GS must ensure that all non-RSO RSS Stakeholders have appropriate mechanisms available to make timely inputs relevant to the security, stability, resilience, and continued development of the RSS.
A.5.4	RSS Stakeholder engagement: flexibility	The RSS GS must be flexible enough to account for new or different RSS Stakeholders.

A.6	Anticipated features of RSS GS	The RSS GS must embody each of the features described in detail in RSSAC037 §5. For the avoidance of doubt, an RSS GS may (or a proposal for RSS GS may propose to) reorganize the functions described into varying sub-components of the RSS GS Body so long as the functions described remain within the governance authority of the RSS GS Body, appropriate balance and separation of powers is maintained, and the reorganization does not otherwise subvert the integrity and purpose of the RSS GS.
A.6.1	Secretariat Function	The RSS GS must describe the process to select the Secretariat, promote stability of the Secretariat, while also ensuring appropriate oversight.
A.6.2	Strategy Architecture and Policy Function (SAPF)	The RSS GS must describe how to empanel the SAPF in a manner that preserves the values described in other Criteria. This must include a process to debate and settle the terms of performance measures used to assess the operation of the RSS as a whole, and RSOs individually.
A.6.3	Designation and Removal Function (DRF)	The RSS GS must describe how to fulfill the DRF. Both designation and removal are strongly in tension with the values of RSO Independence described in Criteria A.2 and appropriate safeguards must be adopted to assure that neither designations or removals can be undertaken in violation of those same principles.
A.6.4	Performance Monitoring and Measurement Function (PMMF)	The RSS GS must include a clear method to empanel and empower the group/body responsible for monitoring performance or RSS as a whole and RSOs individually in accordance with standards adopted by SAPF.
A.6.5	Finance Function (FF)	See generally Criteria A.3.
A.7	Mapping governance details to example scenarios in RSSAC037 §6	RSSAC037 describes in detail a number of significant business processes that are important to the good functioning of the RSS. See RSSAC037 at §6. An RSS GS Functional Description and the RSS GS Constitutional Documents must make clear how to map each decision and

		executive action in these various example scenarios onto the RSS GS. While it may be convenient and efficient to define a standard set of decision mechanisms that can be re-used multiple times in this mapping effort, there must be no doubt when interpreting the RSS GS Constitutional Documents which mechanism is meant to apply at any given point for each example.
A.7.1	Mapping example decisions	For each decision point in each example scenario, it must be made clear what person, body, Board, Committee, group of Directors, etc, are empowered to make the decision and on what basis (consensus, simple majority, super-majority, paths of review/appeal, etc.) See discussion of decision-making mechanisms in Part C.
A.7.2	Mapping example executive actions	For each action in each example scenario, it must be clear what person, body, Board, Committee, group of Directors, etc, are empowered to and/or required to execute the stated action. Degrees of freedom (discretion vs mandatory actions) must also be made clear. See discussion of decision-making mechanisms in Part C.
A.7.3	Fundamental Change	In addition to any other voting thresholds and approvals that might be necessary under the RSS GS, a Fundamental Change shall require approval by an appropriately defined supermajority of RSOs. For these purposes, a "Fundamental Change" is action arising under the RSS GS that involves: designating or removing the status of RSO, making a material change to the functioning of the RSS, making a material change to the RSS GS, or otherwise implicating an issue of significant concern to the good order of the RSS. See also Introduction (The Role of RSOs in DNS Root Service Governance and Operation) and Criteria A.2, A.3, A.5.3.1, B.1, C.1, C.2, C.3.
A.8	Effective and Sustainable	
A.8.1	RSS Policy Development	The RSS GS must be structured in a manner that encourages and facilitates thorough and deliberate work on RSS policy.
A.8.2	Emergency Policy	The RSS GS must be structured in a manner that enables development of RSS policy on an emergency basis with clearly

	Development	defined procedures and processes.
A.8.3	Robust & Flexible	The RSS GS must be robust yet nimble enough to address new challenges in a timely manner.
A.9	Fundamental fairness and equality	The RSS GS must provide rights and assure responsibilities in a manner that comports with the values of fairness and equality.
A.9.1	Mechanism to enforce rights under RSS GS	To be successful, the RSOs and other RSS Stakeholders must have a high degree of confidence that parties will conform to the rules of the RSS GS. The general nature of enforcement mechanisms and dispute resolution must be made clear in the RSS GS Functional Description and the precise mechanisms must be specified in the RSS GS Constitutional Documents.
A.9.2	RSOs treated equally within the RSS GS	Governance rights accruing to RSOs under the RSS GS (participation, voting, etc) must be allocated equally to each RSO. See also discussion of decision-making mechanisms in Part C.

Part B: Transition Process Criteria

No.	Criteria	Discussion
B.1	Transition to new RSS GS is conditional upon prior settlement of all RSS GS Constitutional Documents	Parties who will be governed by a new (or revised) RSS GS must have appropriate and enforceable assurance that the governance structure is fully implemented in RSS GS Constitutional Documents prior to transition from existing governance structure to the new form. Checks & balances need to be clear before the new structure moves into force.
B.1.1	Sufficient clarity on the mechanisms of RSS GS	Although an RSS GS Functional Description will not necessarily include full form RSS GS Constitutional Documents, it must be sufficiently clear to enable analysis of the RSS GS against the Success Criteria and to guide subject matter experts who are responsible for drafting and settling the terms of the RSS GS Constitutional Documents.
B.1.2	RSS GS Constitutional Documents as condition precedent	Any RSS GS Functional Description must contain a clear statement that transition to the proposed RSS GS is conditional upon parties who will be subjected to the authority of the RSS GS agreeing to the final terms of the RSS GS Constitutional Documents.
B.2	Operational stability during transition to RSS GS	Any RSS GS Functional Description must contain a clear statement that the process of transitioning from any current RSS governance to any new RSS GS must take extraordinary care not to disrupt the proper functioning of the RSS.
B.3	Current RSOs must be constitutionally capable of joining the RSS GS	The RSS GS must be structured in such a way that all of the current RSOs are constitutionally capable of participating.

Part C: RSS GS Functional Description Clear Statement Criteria

No.	Criteria	Discussion
C.1	Decision-making mechanisms generally	An RSS GS Functional Description must clearly identify appropriate decision-making mechanisms (participation, consensus, voting threshold, veto, etc). A variety of mechanisms may be adopted depending upon the nature of the issue that requires resolution.
C.2	Decisions requiring approval of the RSOs collectively	An RSS GS Functional Description must identify issues to be approved by RSOs (collectively) only. In each case, identify whether decisions are to be made by consensus, by majority vote, by supermajority vote, or some other method. See also Criteria A.7.
C.3	Decisions requiring approval of RSOs in combination with others	An RSS GS Functional Description must identify issues to be decided by RSOs in combination with others. In each case, identify: (1) the identity of the group or collective empowered to make the decision, (2) whether decisions will be made by consensus, by majority vote, by supermajority vote, or some other method, and (3) the extent to which such decision-making requires agreement of more than one group or class of participants. See also Criteria A.7.
C.4	Scope of participation and/or oversight outside of RSO operations	An RSS GS Functional Description must specify to what extent the RSS GS and the RSS GS Body provide inputs, or otherwise act in a supervisory role, to other segments of the RSS Stakeholders.
C.4.1	Relationship with RSSAC	An RSS GS Functional Description must clearly indicate the nature of the relationship (if any) between the RSS GS, the RSS GS Body and RSSAC. For the avoidance of doubt, it is not the current intention of the RSOs to suggest that RSSAC must or must not have a role in the RSS GS. The description of the RSS GS must, however, affirmatively address the issue.
C.4.1.1	Degree of Independence	If there is to be no formal relationship with RSSAC, this must be made expressly clear in the RSS GS Functional Description.
C.4.1.2	Degree of	If the intention is for the RSS GS Body to inherit any of the current

	Merger	functions of RSSAC, this must be made expressly clear in the RSS GS Functional Description.
C.4.2	Relationship with Empowered Community	The RSS GS Functional Description must explain how the RSS GS will advance the goal of incorporating the RSOs as a group into the ICANN Empowered Community. See RSSAC049.

5 Acknowledgments, Disclosures of Interest, Dissents, and Withdrawals

In the interest of transparency, these sections provide the reader with information about four aspects of the RSSAC process. The Acknowledgements section lists the RSSAC members, outside experts, and ICANN staff who contributed directly to this particular document. The Statement of Interest section points to the biographies of all RSSAC members. The Dissents section provides a place for individual members to describe any disagreement that they may have with the content of this document or the process for preparing it. The Withdrawals section identifies individual members who have recused themselves from discussion of the topic with which this Advisory is concerned. Except for members listed in the Dissents and Withdrawals sections, this document has the consensus approval of the RSSAC.

5.1 Acknowledgments

RSSAC thanks the following members, external experts and organizations for their time, contributions, and review in producing this Report.

RSSAC members
Brad Verd
Barbara Schleckser
Daniel Migault
Duane Wessels
Fred Baker
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Jeff Osborn
Karl Reuss
Kaveh Ranjbar
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Kevin Wright
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Sam Eisner (ICANN)

Root Server Operators
Cogent Communications
ICANN
Internet Systems Consortium
NASA
Netnod AB
Réseaux IP Européens Network Coordination Centre
University of Maryland
University of Southern California, Information Sciences Institute
U.S. Department of Defense Network Information Center
U.S. Army Research Laboratory
Verisign, Inc.
WIDE Project and Japan Registry Services

Organizations with Liaisons to the RSSAC
Internet Architecture Board
IANA Functions Operator, ICANN
ICANN Security and Stability Advisory Committee
Root Zone Maintainer, Verisign

ICANN Staff
Andrew McConachie
Danielle Rutherford
Ozan Sahin
Steve Sheng (editor)

5.2 Statements of Interest

RSSAC member biographical information and Statements of Interests are available at:
https://community.icann.org/display/RSI/RSSAC+Caucus+Statements+of+Interest

5.3 Dissents

There were no dissents.

5.4 Withdrawals

There were no withdrawals.

RSSAC Advisory on Success Criteria for the Root Server System Governance Structure
17 November 2021

In RSSAC038, the RSSAC recommended that the ICANN Board initiate a process to, 'produce a final version of the Model for implementation based on RSSAC037.'[1] As a response to this process the ICANN Board chartered the Root Server System Governance Working Group (RSS GWG), which began the work of developing a final version of the Model. As that work progressed it became clear to many of the RSOs that the processes of producing, discussing, and ultimately agreeing to, a new Model would benefit from more detailed criteria to be used when assessing the relative success of any given proposal for such a Model.

With this context, the RSSAC presents **RSSAC058: Success Criteria for the Root Server System Governance Structure**. These criteria, adopted unanimously by RSSAC, serve both as a framework to discuss and assess any proposed RSS governance structure, and also represent further advice needed to make any such governance structure successful.

To complement RSSAC058, and to supplement recommendations in RSSAC038, the RSSAC now presents four recommendations:

Recommendation 1: The RSSAC recommends that the ICANN Board accepts the advice presented in RSSAC058 and communicates its expectation that RSSAC058 shall be incorporated into all ongoing and future work involved in designing, evaluating, agreeing, implementing, and enforcing RSS governance.

Recommendation 2: The RSSAC recommends that the ICANN Board review its response to RSSAC038 Recommendation 1 and take such further action as necessary to take account of the content of RSSAC058.

Recommendation 3: The RSSAC recommends that the ICANN Board take account of the content of RSSAC058 in its response to RSSAC038 Recommendation 2.

Recommendation 4: The RSSAC recommends that the ICANN Board take account of the content of RSSAC058 in its response to RSSAC038 Recommendation 3.

As the ICANN Board and community review these publications and consider these recommendations, the RSSAC is committed to being a strong resource and partner.

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[1] See RSSAC038: RSSAC Advisory on a Proposed Governance Model for the DNS Root Server System

RSSAC059
Approved by the RSSAC on 15 November 2021

ICANN|RSSAC

Root Server System Advisory Committee

15 November 2021

To: ICANN Board
From: RSSAC Chair
Via: RSSAC Liaison to the ICANN Board

We hereby forward to you the following two publications, *RSSAC058: Success Criteria for the RSS Governance Structure,* and *RSSAC059: RSSAC Advisory on Success Criteria for the Root Server System Governance Structure.*

RSSAC058 contains success criteria for any proposed root server system governance structure (RSS GS). These success criteria form a framework to assess the degree to which any proposed RSS GS conforms with previous RSSAC statements concerning RSS governance. They also serve as a framework to compare and contrast different proposals for an RSS GS.

RSSAC059 contains recommendations on how these success criteria should be integrated with the recommendations in RSSAC038.

Both RSSAC058 and RSSAC059 should be read in combination with previous RSSAC advice on evolving root server system governance. RSSAC058 builds upon previous statements the RSSAC has made in *RSSAC037: A Proposed Governance Model for the DNS Root Server System*, *RSSAC042: RSSAC Statement on Root Server Operator Independence*, *RSSAC049: RSSAC Statement on Joining the Empowered Community*, and *RSSAC055: Principles Guiding the Operation of the Public Root Server System*.

The RSSAC welcomes comments and looks forward to answering any questions concerning these publications.

Fred Baker,
Root Server System Advisory Committee Chair