

**SSR2 Pending - Likely to be Approved Recommendations
Clarifying Questions for Implementation Shepherds
07 December 2021**

On 22 July 2021, the Board took action on the 63 SSR2 recommendations as issued in the [SSR2 Review Team Final Report](#), as noted within the [Scorecard titled "Final SSR2 Review Team Recommendations – Board Action."](#)

The Board directed the ICANN President and CEO, or his designee(s), to provide to the Board relevant information, as requested in the Scorecard, or periodic updates on progress toward gathering relevant information, starting within six months from this Board action, in order to support further Board action on each recommendation. The Board commits to take further action on these recommendations subsequent to the completion of steps as identified in the Scorecard.

This document addresses four of the 34 pending recommendations, specifically those placed into the pending category, likely to be approved.

We are requesting that the SSR2 Implementation Shepherds respond to the clarifying questions for each of the following recommendations.

For context on each of the recommendations we have provided the four SSR2 RT Final recommendations with Defined Measures of Success, Board Action and Board Rationale addressing the need for clarifying questions.

Questions directed to the SSR2 Implementation Shepherds are noted beneath the Board Rationale section for each recommendation.

SSR2 Recommendation	SSR2-Defined Measures of Success	Board Action
Recommendations the Board determines to be pending, likely to be approved once further information is gathered to enable approval		
<p>5.4: ICANN org should reach out to the community and beyond with clear reports demonstrating what ICANN org is doing and achieving in the security space. These reports would be most beneficial if they provided information describing how ICANN org follows best practices and mature, continually-improving processes to manage risk, security, and vulnerabilities.</p> <p>SSR2 designated priority: High SSR2 designated owner: ICANN org</p>	<p>SSR2-defined measures of success for Recommendation 5: Comply with Appropriate Information Security Management Systems and Security Certifications (5.1 - 5.4): This recommendation can be considered implemented when ICANN org has an ISMS oriented alongside accepted standards (e.g., ITIL, ISO 27000 family, SSAE-18), with regular audits that validate the appropriate security management and management procedures. This recommendation can be considered effective when ICANN org has an Information Security Management System that is thoroughly documented and adequately addresses current security threats and offers plans to address potential future security threats.</p>	<p>While implementation of the recommendation appears feasible, the Board requires clarification on several elements of this recommendation in order to accurately assess resource requirements and enable approval. For example, the required granularity of the reports expected by the SSR2 Review Team, and what entities the SSR2 Review Team envisioned ICANN org report out to “beyond” the ICANN community are not clear. The Board directs the ICANN President and CEO, or his designee(s) to seek clarifications from the SSR2 Implementation Shepherds on elements of this recommendation that are not clear. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board’s decision on next steps and whether Recommendation 5.4 can be approved.</p>
<p>Board Rationale: Recommendation 5.4 calls for ICANN org to “reach out to the community and beyond with clear reports demonstrating what ICANN org is doing and achieving in the security space including information describing how ICANN org follows continually improving best practices and process to manage risks, security and vulnerabilities.” While implementation of the recommendation appears feasible, the Board requires clarification on several elements of this recommendation in order to accurately assess resource requirements and enable approval. For example, the required granularity of the reports expected by the SSR2 Review Team, and what entities the SSR2 Review Team envisioned ICANN org report out to “beyond” the ICANN community are not clear. The Board directs the ICANN President and CEO, or his designee(s) to seek clarifications from the SSR2 Implementation Shepherds on elements of this recommendation that are not clear such as those noted above. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board’s decision on next steps and whether Recommendation 5.4 can be approved.</p>		
<p>Questions for Implementation Shepherds:</p> <ol style="list-style-type: none"> a. Please clarify the Implementation Shepherds expectations for the granularity of the reports? b. What reporting cadence would the Implementation Shepherds consider acceptable? 		

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<p>19.1: ICANN org should complete the development of a suite for DNS resolver behavior testing.</p> <p>SSR2 designated priority: Low SSR2 designated owner: ICANN org</p>	<p>SSR2-defined measures of success for Recommendation 19: Complete Development of the DNS Regression Test Suite (19.1 - 19.2): This recommendation can be considered implemented when ICANN org finishes developing a publicly accessible test suite for community testing and research into resolver behavior. This recommendation can be considered effective when there is a test suite available with an annual update cycle that helps ensure the integrity and global availability of the DNS.</p>	<p>The Board notes that the SSR2 Review Team’s discussion and recommendations in the Final Report refer to three different things: a “DNS testbed”; a “regression test suite”; and “a suite for DNS resolver behaviour testing.” While any of these may be feasible, the Board requires clarification from the SSR2 Implementation Shepherds as to the SSR2 Review Team’s intent in order to accurately assess resource requirements. The Board directs the ICANN President and CEO, or his designee(s), to seek clarifications from the SSR2 Implementation Shepherds on elements of these recommendations that are not clear. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board’s decision on next steps and whether Recommendations 19.1 and 19.2 can be approved. Further, the Board understands that the testbed would operate indefinitely so as to be applicable to future changes in resolvers. If the Board eventually approves this recommendation, maintenance of a testbed environment would have to be a persistent budget item in all future budget cycles for continued development and upkeep.</p>
<p>19.2: ICANN org should ensure that the capability to continue to perform functional testing of different configurations and software versions is implemented and maintained.</p> <p>SSR2 designated priority: Low SSR2 designated owner: ICANN org</p>		
<p>Board Rationale: Recommendations 19.1 and 19.2 recommend that ICANN org should “complete the development of a suite for DNS resolver behavior testing” and “ensure that the capability to continue to perform functional testing of different configurations and software versions is implemented and maintained.” The Board notes that the SSR2 Review Team’s discussion and recommendations in the Final Report refer to three different things: a “DNS testbed”; a “regression test suite”; and “a suite for DNS resolver behaviour testing.” While any of these may be feasible, the Board requires clarification from the SSR2 Implementation Shepherds as to the SSR2 Review Team’s intent in order to accurately assess resource requirements. The Board directs the ICANN President and CEO, or his designee(s), to seek clarifications from the SSR2 Implementation Shepherds on elements of these recommendations that are not clear, such as those noted above. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board’s decision on next steps and whether Recommendations 19.1 and 19.2 can be approved. Further, the Board understands that the testbed would operate indefinitely so as to be applicable to future changes in resolvers. If the Board eventually approves this recommendation, maintenance of a testbed environment would have to be a persistent budget item in all future budget cycles for continued development and upkeep.</p>		
<p>Questions for Implementation Shepherds:</p> <p>a. In its introductory comments, the SSR2 RT discusses a "DNS testbed", yet the recommendation title discusses a "DNS regression test suite" and the recommendations discuss a "DNS resolver behavior" test suite. Can ICANN org assume that these three terms all refer to the same thing, namely a "DNS testbed for resolver behavior"?</p>		

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<p>20.2: ICANN org should create a group of stakeholders involving relevant personnel (from ICANN org or the community) to periodically run table-top exercises that follow the Root KSK rollover process.</p> <p>SSR2 designated priority: Medium SSR2 designated owner: ICANN org</p>	<p>SSR2-defined measures of success for Recommendation 20: Formal Procedures for Key Rollovers (20.1 - 20.2): This recommendation can be considered implemented when ICANN org develops formal process and verification that offers verification of the key rollover process after each key rollover, and when ICANN org begins to run regular tabletop exercises to test and familiarize participants with the key rollover process. This recommendation can be considered effective when the SSR of the process by which DNSSEC protections are maintained during root zone KSK key rollovers are formally verifiable. This recommendation must be completed in conjunction with each key rollover.</p>	<p>While the recommendation appears feasible and the Board believes that table-top exercises would be beneficial, more information is needed to understand what the SSR2 Review Team intended to be targeted in the table-top exercises following the Root key signing key (KSK) rollover process. The Board directs the ICANN President and CEO, or his designee(s) to seek clarification from the SSR2 Implementation Shepherds on elements of this recommendation that are not clear, such as those noted above. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board's decision on next steps and whether Recommendation 20.2 can be approved.</p>
<p>Board Rationale: Recommendation 20.2 calls for ICANN org to “create a group of stakeholders involving relevant personnel (from ICANN org or the community) to periodically run table-top exercises that follow the Root Key Signing Key (KSK) rollover process.” While the recommendation appears feasible and the Board believes that table-top exercises would be beneficial, more information is needed to understand what the SSR2 Review Team intended to be targeted in the table-top exercises following the Root KSK rollover process. The Board directs the ICANN President and CEO, or his designee(s) to seek clarification from the SSR2 Implementation Shepherds on elements of this recommendation that are not clear, such as those noted above. The outcome of the engagement with the SSR2 Implementation Shepherds will inform the Board's decision on next steps and whether Recommendation 20.2 can be approved.</p>		
<p>Questions for Implementation Shepherds:</p> <p>a. We understand and agree that once recommendation 20.1 (Formal Procedures for Key Rollovers) is implemented, a tabletop exercise is beneficial. Can the SSR2 Implementation Shepherds clarify some of the targets of this exercise? More specifically:</p> <ol style="list-style-type: none"> i. Would scheduling table-tops to coincide with key rollovers, procedural changes, or other events where the input is considered most valuable be sufficient to meet the "periodic" timeframe recommended by the SSR2? ii. For existing tabletop exercises within ICANN, ICANN org identifies those internal departments and external SMEs that are evaluated to be most appropriate to exercise the planned scenarios. In developing a tabletop exercise in response to this recommendation, ICANN org anticipates a similar process, likely involving external stakeholders such as trusted community representatives. Did the SSR2 intend for there to be additional parameters to guide ICANN org's development of these tabletop exercises, and if so, please identify? <p>This will help the org better estimate the level of effort that would be required, as well as perform a high level cost-benefit analysis of this recommendation.</p>		