

SSR2 Pending Recommendation 17.1 - Board Paper
Board Action

ICANN BOARD PAPER NO. 2024.12.11.1b

TITLE: **Second Security, Stability, and Resiliency of the
DNS (SSR2) Review Pending Recommendation
17.1**

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

EXECUTIVE SUMMARY:

This proposed action is in furtherance of [resolution](#) 2021.07.21.13 to place 34 recommendations issued by the second review of the Security, Stability and Resiliency of the Domain Name System (SSR2) in “pending” status¹.

To date, the Board has taken action on a total of 33 recommendations through resolutions passed on [1 May 2022](#), [16 November 2022](#), and [10 September 2023](#) to approve 11 recommendations, and reject 22 recommendations. The Board is now being asked to take action on the remaining SSR2 pending recommendation: Recommendation 17.1.

The Organizational Effectiveness Committee (OEC) reviewed the ICANN organization (ICANN org) assessment and agreed, on 5 December 2024, to recommend the Board approve SSR2 Recommendation 17.1 as fully implemented.

With action on this remaining SSR2 pending recommendation, the status of pending Specific Reviews recommendations will be fully resolved.

ORGANIZATIONAL EFFECTIVENESS COMMITTEE (OEC)

RECOMMENDATION:

The Board Organizational Effectiveness Committee (OEC) recommends the Board to take action on the remaining SSR2 pending recommendation 17.1, more specifically to

¹ The Board placed recommendations into the “pending” category to seek clarity or further information to enable the Board to decide whether to approve or reject a given recommendation. In the detailed rationale for each recommendation, the Board set out the specific reasons for its decision to place the recommendation into the pending category.

approve the recommendation as fully implemented, as documented in the *Board Action/Rationale on & ICANN Assessment of Second Security, Stability and Resiliency of DNS Review (SSR2) Pending Recommendation 17.1*, 11 December 2024.

PROPOSED RESOLUTION:

Whereas, on 22 July 2021, the Board [took action](#) on each of the 63 recommendations issued within the [Second Security, Stability, and Resiliency \(SSR2\) Review Team Final Report](#) dated 25 January 2021, as specified within the Scorecard titled ["Final SSR2 Review Team Recommendations – Board Action"](#), hereafter “July 2021 SSR2 Scorecard”, resolved to place 34 SSR2 recommendations into pending status, and committed to take further action on these recommendations subsequent to the completion of steps as identified in the [July 2021 SSR2 Scorecard](#).

Whereas, on 1 May 2022, the Board took [action](#) on three pending SSR2 recommendations, as documented in the ["Scorecard: SSR2 Pending Recommendations - Board Action 1 May 2022"](#).

Whereas, on 16 November 2022, the Board took [action](#) on twenty-one pending SSR2 recommendations, as documented in the ["Scorecard SSR2 Pending Recommendations - Board Action - 16 November 2022"](#).

Whereas on 10 September 2023, the Board took [action](#) on nine pending SSR2, as documented in the “Board Action/Rationale on & ICANN org Assessment of [Competition, Consumer Trust, Consumer Choice Review \(CCT\) Pending Recommendations 14 and 15, and Second Security, Stability and Resiliency of DNS Review \(SSR2\) Recommendations 9.2, 9.3, 12.1, 12.2, 12.3, 12.4, 13.1, 13.2 and 14.2 - 10 September 2023](#)”.

Whereas SSR2 Recommendation 17.1 was placed in pending status because of dependencies on the SSAC NCAP studies that would inform the Board’s decision on next steps, and whereas, on 7 September 2024, the Board [resolved](#) to accept the [Security and Stability Advisory Committee \(SSAC\)’s advice on Name Collision Analysis \(SAC124\)](#) endorsing the recommendations in the NCAP Study 2 Final Report,

and [resolved](#) to approve all of the recommendations in the [Name Collision Analysis Project \(NCAP\) Study 2 Final Report](#), with the sole exception of Recommendation 4.1, and directed ICANN org to implement.

Whereas, the OEC reviewed the ICANN assessment and, on 5 December 2024, made a recommendation to the ICANN Board to approve SSR2 Recommendation 17.1 as fully implemented.

Resolved (2024.12.11.xx), the Board acknowledges the significant work contributed by the community in addressing name collisions, considers all aspects of the SSR2 Recommendation 17.1 addressed in a holistic fashion, and concludes that no additional actions are necessary. Therefore, the Board approves SSR2 Recommendation 17.1 as fully implemented, as documented in the *Board Action/Rationale on & ICANN Assessment of Second Security, Stability and Resiliency of DNS Review (SSR2) Pending Recommendation 17.1*, 11 December 2024. The Board will continue to support ICANN in further investigating name collision and testing possible new solutions.

Why is the Board addressing the issue?

The Security, Stability, and Resiliency (SSR) Review is one of the four [Specific Reviews](#) anchored in Article 4, Section 4.6 of the ICANN Bylaws. Specific Reviews are conducted by community-led review teams, which assess ICANN's performance in fulfilling its commitments. Reviews contribute to ensuring that ICANN serves the public interest, are critical to maintaining an effective multistakeholder model, and help ICANN achieve its mission, as detailed in Article 1 of the Bylaws.

The SSR2 Review is the second iteration of the SSR Review and is focused on the assessment of ICANN's execution of its commitment to enhance the operational stability, reliability, resiliency, security, and global interoperability of the systems and processes that are affected by the Internet's system of unique identifiers that ICANN coordinates.

What is the proposal being considered?

This proposed action is in furtherance of [resolution](#) 2021.07.21.13 to respectively place 34 SSR2 recommendations in “pending” status. The SSR2 Recommendation 17.1 was placed in a pending status, noting dependencies on the SSAC’s Name Collision Analysis Project (NCAP).

SSR2 Recommendation 17.1 entails four key components: 1) creating a framework that describes the nature and frequency of name collisions and resulting concerns; 2) including metrics and mechanisms that may be used to measure the extent to which controlled interruption is successful in identifying and eliminating name collisions in such framework; 3) having a mechanism to enable protected disclosure of name collision instances; 4) ensuring that the framework allows the handling of sensitive data and security threats.

The [Name Collision Analysis Project Study 1 Final Report](#), published on 19 June 2020, documented prior work on name collisions and assessed name collision datasets while the [Name Collision Analysis Project Study 2 Final Report](#), completed on 5 April 2024, proposes a Name Collision Risk Assessment Framework, which holistically measures the nature and frequency of name collisions, as well as mitigating the name collisions. The NCAP Study 2 report also examines historical data and trends, identifies common scenarios where collisions occur, and explores potential risks. In May 2024, the SSAC released [SAC 124](#) through which it advised the Board to approve and implement the recommendations in the [Name Collision Analysis Project \(NCAP\) Study 2 Final Report](#).

Beyond the NCAP study 2 report, the Board notes that the [Root Cause Analysis - New gTLD Collisions](#) report, dated January 2023, also enumerated and described causes for name collisions. The Root Cause Analysis also studied the effectiveness of controlled interruption as a mechanism to mitigate name collision.

The Board wishes to highlight the name collision related amendments to the Base Registry Agreement that are being considered by the Subsequent Procedures Implementation Review Team (IRT) assisting ICANN org in the implementation of the policy recommendations in the [Final Report in the new gTLD Subsequent Procedures Policy Development Process](#).

The Board also recognizes ICANN's centralized reporting mechanism, that allows users to report instances of name collision, allowing ICANN to handle reported issues.

The Board concurs with the ICANN assessment that taken together, the Name Collision reporting page, the requirements in the Registry Agreement for Registry Operators, and the implementation of the Name Collision Risk Assessment Framework provide sufficient identification and mitigation of name collisions during the introduction of additional new gTLDs.

Which stakeholders or others were consulted?

The SSR2 Final Report was published for public comment and the Board received feedback as part of that process.

What significant materials did the Board review?

The Board considered various significant materials and documents. In addition to the ICANN org assessment, the Board consulted the following:

- [SSR2 Review Team Final Report](#) (25 January 2021)
- [Staff Report of Public Comment Proceeding on SSR2 Review Team Final Report](#) (10 May 2021)
- [Root Cause Analysis - New gTLD Collisions](#) (18 January 2023)
- [Name Collision Analysis Project Study 1 Final Report](#) (19 June 2020)
- [Name Collision Occurrence Management Framework](#) (30 July 2014)
- [Name Collision Analysis Project Study 2 Final Report](#) (05 April 2024)
- [SSAC Advice on Name Collision Analysis \(SAC 124\)](#) (01 May 2024)

Are there positive or negative community impacts?

Taking action on the SSR2 pending recommendation contributes to concluding the work to address the outcome of the SSR2 Specific Review, and enhances ICANN's accountability. With action on this remaining SSR2 pending recommendation, the status of pending Specific Reviews recommendations will be fully cleared.

Are there fiscal impacts or ramifications on ICANN (strategic plan, operating plan, budget); the community; and/or the public?

No direct fiscal impact. This Board resolution is in line with the 7 September 2024 action on the Name Collisions: SAC124 Advice and NCAP Discussion Group Recommendations.

Are there any security, stability or resiliency issues relating to the DNS?

This Board resolution is in line with the 7 September 2024 action on the Name Collisions: SAC124 Advice and NCAP Discussion Group Recommendations. It “constitutes a formal process for managing the security, stability and resilience risks associated with name collisions occurring as a result of the establishment of new generic top-level domains”².

Is this decision in the public interest and within ICANN’s mission?

This action is in the public interest as it is a fulfillment of ICANN Bylaws, as articulated in Article 4, Section 4.6. It is also within ICANN's mission and mandate. ICANN reviews are an important and essential part of how ICANN upholds its commitments.

Is this either a defined policy process within ICANN’s Supporting Organizations or ICANN’s Organizational Administrative Function decision requiring public comment or not requiring public comment?

None required.

Signature Block:

Submitted by: Xavier Calvez

Position: Senior Vice President, Planning & Chief Financial Officer

Date Noted: 11 December 2024

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² <https://www.icann.org/en/board-activities-and-meetings/materials/approved-resolutions-regular-meeting-of-the-icann-board-07-09-2024-en#section2.c>

Board Action/Rationale on & ICANN Assessment of Second Security, Stability and Resiliency of DNS Review (SSR2) Pending Recommendation 17.1

11 December 2024

SSR2 REC# 17.1	Recommendation language: ICANN org should create a framework to characterize the nature and frequency of name collisions and resulting concerns. This framework should include metrics and mechanisms to measure the extent to which controlled interruption is successful in identifying and eliminating name collisions. This could be supported by a mechanism to enable protected disclosure of name collision instances. This framework should allow the appropriate handling of sensitive data and security threats. SSR2 priority: Medium SSR2 directed to: ICANN org
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Board action/rationale:

The Board approves SSR2 Recommendation 17.1 as fully implemented, acknowledging the significant work contributed by the community in addressing name collisions.

In September 2024, the Board took [action](#) on the [Name Collision Analysis Project \(NCAP\) Study 2 Final Report](#) that foresees a Name Collision Risk Assessment Framework that will replace the existing [Name Collision Occurrence Management Framework](#).

The Board believes that, taken together, the Name Collision [reporting page](#), the requirements in the Registry Agreement for Registry Operators, and the Name Collision Risk Assessment Framework provide sufficient identification and mitigation of name collisions during the introduction of additional new gTLDs.

Therefore, the Board considers all aspects of the SSR2 Recommendation 17.1 addressed in a holistic fashion, and concludes that no additional actions are necessary.

The Board is mindful that name collision remains a matter of high interest for the community and will continue to support ICANN in further investigating it and testing possible new solutions.

ICANN assessment:

Name collision has been a longstanding issue. ICANN org has a [Name Collision Occurrence Management Framework](#) which was [approved](#) by the New gTLD Program Committee in 2014.

To allow for further predictability regarding the issue of name collision and high-risk strings, in 2017 the ICANN Board [requested](#) that the Security and Stability Advisory Committee (SSAC) conduct a study to identify potential means to mitigate the risk of name collision. This resulted in the creation of the NCAP.

In its July 2021 action on the SSR2 Final Report, the Board [decided](#) to put Recommendation 17.1 in pending status, noting dependencies on the SSAC's Name Collision Analysis Project (NCAP). It noted that "output of the NCAP studies will inform the Board's decision on next steps".

The SSR2 Recommendation 17.1 entails four key components:

1. Creating a framework that describes the nature and frequency of name collisions and resulting concerns;
2. Including metrics and mechanisms that may be used to measure the extent to which controlled interruption is successful in identifying and eliminating name collisions in such framework;
3. Having a mechanism to enable protected disclosure of name collision instances;
4. Ensuring that the framework allows the handling of sensitive data and security threats.

The SSR2 Review Team noted that Recommendation 17.1 "can be considered implemented when ICANN org produces a framework to produce findings that characterize the nature and frequency of name collisions and resulting concerns by identifying metrics and devising mechanisms to measure the extent to which the controlled interruption mechanism is successful"¹.

The SSAC conducted two studies. The [Name Collision Analysis Project \(NCAP\) Study 1 Final Report](#), published on 19 June 2020, documented prior work on name collisions and assessed name collision datasets. The [NCAP Study 2 Final Report](#) was completed on 5 April 2024. The report contains 11 strategic recommendations. The key proposal of the NCAP Study 2 report is a Name Collision Risk Assessment Framework, which holistically measures the nature and frequency of name collisions, as well as mitigating name collisions.

The NCAP Study 2 report also examines historical data and trends, identifies common scenarios where collisions occur, and explores potential risks. As part of the NCAP study 2 report, the [Root Cause Analysis - New gTLD Collisions](#) report, dated January 2023, also enumerated and described causes for name collisions. The Root Cause Analysis also studied the effectiveness of controlled interruption as a mechanism to mitigate name collision. It concluded that "Controlled interruption is effective at disruption, but not at root cause identification. Controlled interruption has shown to be good at disruption, but not at helping affected users identify the cause of the problem—at least not in the way that was intended."² The [Root Cause Analysis](#) report also found out that the public response to controlled interruption was overall neutral. In May 2024, the SSAC released [SAC 124](#) (SSAC Advice on Name Collision Analysis) through which it advised the Board to approve and implement the recommendations in the [Name Collision Analysis Project \(NCAP\) Study 2 Final Report](#).

In September 2024, the Board considered the [NCAP Study 2 Final Report](#) and [SAC 124](#), and [resolved](#) to approve all recommendations for implementation with exception of Recommendation 4.1 related to .CORP, .HOME, and .MAIL applications. The Board

¹ P. 49 of SSR2 Final Report - <https://www.icann.org/en/system/files/files/ssr2-review-team-final-report-25jan21-en.pdf>

² P. 47 of Root Cause Analysis - New gTLD Collisions - <https://www.icann.org/en/system/files/files/root-cause-analysis-new-gtld-collisions-18jan23-en.pdf>

action recognized that the completion of the NCAP related work was identified as a dependency in the [implementation plan](#) for the next round of new gTLDs.

The Subsequent Procedures Implementation Review Team (IRT) is assisting ICANN org in the implementation of the policy recommendations in the [Final Report in the new gTLD Subsequent Procedures Policy Development Process](#). This implementation will lead towards the production of an Applicant Guidebook for the next round. The IRT is considering amendments to the Base Registry Agreement - as part of its topic 36 - to reflect Name collision related updates.

ICANN has a centralized reporting mechanism, through the Name Collision [reporting page](#), that allows users to report instances of name collision, allowing ICANN to handle reported issues.

Taken together, the Name Collision [reporting page](#), the requirements in the Registry Agreement for Registry Operators, and the implementation of the Name Collision Risk Assessment Framework provide sufficient identification and mitigation of name collisions during the introduction of additional new gTLDs. Therefore, all aspects of the SSR2 Recommendation 17.1 are addressed in a holistic fashion, and no additional actions are necessary.