

## SAC084

# SSAC Comments on Guidelines for the Extended Process Similarity Review Panel for the IDN ccTLD Fast Track Process



A Comment from the ICANN Security and Stability Advisory Committee (SSAC)  
31 August 2016

## **Preface**

This is a Comment to the ICANN Board, the ICANN community, and, more broadly, the Internet community from the ICANN Security and Stability Advisory Committee (SSAC) commenting on the Proposed Guidelines for the Extended Process Similarity Review Panel (EPSRP) for the IDN ccTLD Fast Track Process.

The SSAC focuses on matters relating to the security and integrity of the Internet's naming and address allocation systems. This includes operational matters (e.g., pertaining to the correct and reliable operation of the root zone publication system), administrative matters (e.g., pertaining to address allocation and Internet number assignment), and registration matters (e.g., pertaining to registry and registrar services). SSAC engages in ongoing threat assessment and risk analysis of the Internet naming and address allocation services to assess where the principal threats to stability and security lie, and advises the ICANN community accordingly. The SSAC has no authority to regulate, enforce, or adjudicate. Those functions belong to other parties, and the advice offered here should be evaluated on its merits.

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## 1. Introduction

The Security and Stability Advisory Committee (SSAC) provides this brief comment on the “Proposed Guidelines for the Extended Process Similarity Review Panel (EPSRP) for the Internationalized Domain Name (IDN) country code Top Level Domain (ccTLD) Fast Track Process”<sup>1</sup> and the related “Draft observations and recommendations of the country code Names Supporting Organization (ccNSO) Working Group on the EPSRP review.”<sup>2</sup>

The SSAC is aware of multiple issues with Internet Corporation for Assigned Names and Numbers (ICANN’s) current collection of plans for handling IDNs in the Domain Name System (DNS) tree close to the root and will address them separately. This comment focuses specifically on the EPSRP, and some very basic issues that have been exposed in a review of these proposed guidelines.

## 2. Design Principles

Request for Comment (RFC) 6912,<sup>3</sup> “Principles for Unicode Code Point Inclusion in Labels in the DNS,” describes “...a set of principles that can be used to guide the decision of whether a Unicode code point may be wisely included in the repertoire of permissible code points in a U-label in a zone.” The SSAC believes that some of these principles, as restated below, also apply to decisions concerning the inclusion of IDN labels in the root zone:

- **Conservatism Principle:** Because the root zone of the global DNS is a shared resource, the decision to add a label to the root should be governed by a conservative bias in favor of minimizing the risk to users (regardless of the language or script they are using and whether the label will be a gTLD or a ccTLD) and minimizing the potential for the need to make decisions that later must be changed or overridden in painful or incompatible ways. In order to minimize risk, doubts should always be resolved in favor of rejecting a label for inclusion rather than in favor of including it.
- **Inclusion Principle:** A TLD label should be added to the root zone only if it is known to be “safe” in terms of usability and confusability. This is particularly important for labels whose form as normally presented to a user<sup>4</sup> contains non-

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<sup>1</sup> Revised Guidelines for the Extended Process Similarity Review Panel (EPSRP) for the IDN ccTLD Fast Track Process, 23 June 2016. Available at <https://ccnso.icann.org/workinggroups/proposed-epsrp-guidelines-23jun16-en.pdf>.

<sup>2</sup> ccNSO Working Group on the EPSRP review – Draft observation and recommendations, 23 June 2016. Available at [https://community.icann.org/download/attachments/56989606/ccNSO Working Group-observations-CONSOLIDATED-23062016.pdf](https://community.icann.org/download/attachments/56989606/ccNSO%20Working%20Group-observations-CONSOLIDATED-23062016.pdf).

<sup>3</sup> RFC 6912: Principles for Unicode Code Point Inclusion in Labels in the DNS, available at <https://tools.ietf.org/html/rfc6912>.

<sup>4</sup> In IDNA (RFC 3490) terminology, the canonical user-presentation form of a label is known as a “U-label.”

ASCII characters because the number and kinds of possibilities for usability and confusability problems is much greater.

- **Stability Principle:** The list of permitted labels in the root zone should change at a rate that does not negatively impact the stability of the root of the DNS, and usually only in the direction of permitting an addition as time and experience indicate that inclusion of such a TLD label is both safe and consistent with these principles.

These principles have been reflected in ICANN IDN guidelines that have been in place for more than a decade,<sup>5</sup> in past SSAC advisories on IDNs,<sup>6</sup> in input documents to ICANN's Root Zone Label Generation Rules (LGRs),<sup>7</sup> and as overall principles for the IDN ccNSO Policy Development Process.<sup>8</sup> The conservatism principle was also a cornerstone to the IDN ccTLD Fast Track Process.<sup>9</sup> Adherence to these principles is critical for the continued interoperability and stability of the DNS root zone and deviation would increase the risk of root zone instability.

Adherence to these principles led the IDN ccTLD Fast Track Process DNS Stability Panel to reject IDN TLD applications from Bulgaria<sup>10</sup> and Greece.<sup>11</sup> The reaction to that rejection led to the initiation of a Policy Development Process (PDP) by the ccNSO that culminated in the ICANN Board's approval on 5 November 2014 of a revised Final Implementation Plan for the IDN ccTLD Fast Track Process,<sup>12</sup> which amended the original process by adding an EPSRP that could apply different criteria to the string similarity review. These different criteria were based on "guiding principles" that are diametrically opposed to those of conservatism, inclusion, and stability:

- ccTLD policy is a matter for the local internet communities to determine.
- A given IDN ccTLD application represents the free choice of a specific

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<sup>5</sup> Guidelines for the Implementation of Internationalized Domain Names, Version 3.0, available at <<https://www.icann.org/resources/pages/idn-guidelines-2011-09-02-en>>.

<sup>6</sup> SAC060: SSAC Comment on Examining the User Experience Implications of Active Variant TLDs Report, available at <<https://www.icann.org/en/system/files/files/sac-060-en.pdf>>.

<sup>7</sup> Procedure to Develop and Maintain the Label Generation Rules for the Root Zone in Respect of IDNA Labels, available at <<https://www.icann.org/en/system/files/files/draft-lgr-procedure-20mar13-en.pdf>>.

<sup>8</sup> Final Report IDN ccNSO Policy Development Process, 29 March 2013. Principle 3: Preserve security, stability and interoperability of the DNS. To the extent different, additional rules are implemented for IDN ccTLDs these rules should: Preserve and ensure the security and stability of the DNS; Ensure adherence with the RFC 5890, RFC 5891, RFC 5892, RFC 5893 and ICANN IDN guidelines. Take into account and be guided by the Principles for Unicode Code Point Inclusion in Labels in the DNS Root. Available at <<https://ccnso.icann.org/workinggroups/idn-ccpdp-final-29mar13-en.pdf>>.

<sup>9</sup> Module 3 of Final Implementation Plan for IDN ccTLD Fast Track Process, available at <<https://www.icann.org/en/system/files/files/idn-cctld-implementation-plan-05nov13-en.pdf>>.

<sup>10</sup> See <<https://features.icann.org/delegation-%D0%B1%D0%B3-bg-domain-representing-bulgaria-cyrillic-script-imenabg-plc-namesbg-plc>>.

<sup>11</sup> See <<https://www.myicann.org/delegation-idn-cctld-%CE%B5%CE%BB-representing-greece-greek-script>>.

<sup>12</sup> Final Implementation Plan for IDN ccTLD Fast Track Process, available at <<https://www.icann.org/en/system/files/files/idn-cctld-implementation-plan-05nov13-en.pdf>>.

linguistic community that has every right to use its language and script in the DNS space. It is essential that the IDN ccTLD evaluation process should do everything possible to facilitate such requests from local communities.

- Where a finding of potential confusability has been made, rather than rejecting the application, the process should allow the applicant to propose mitigation measures.
- A pragmatic approach should be adopted to the issue of potential user confusion. It may not be possible to eliminate confusion entirely, and much user confusion takes place in context (phishing, URL clicking), rather than because of a TLD.
- Where there is a split recommendation (between upper case and lower case), the finding relating to the lower case shall prevail and the application shall go forward.<sup>13</sup>

From a security and stability perspective, the apparent intention of the EPSRP was to create a way for ICANN to bypass the conservatism, inclusion, and stability principles in order to approve new IDN ccTLDs that would be rejected if those principles were applied. The likelihood that this is in fact the intention of the EPSRP is powerfully reinforced by the new proposed guidelines<sup>14</sup> on which SSAC has been invited to comment. Those new guidelines focus almost exclusively on a distinction between "uppercase" and "lowercase" letters. The concept of "case" exists for only two of the many writing systems that are included in the process (Cyrillic and Greek).

The underlying difficulty with all IDNs, including those that are intended to be ccTLD names, is that Internet domain naming does not work like natural language. This is why a conservative approach to approving new IDN TLDs was adopted as a principle. The EPSRP has not solved any part of this problem; it simply provides a way around the original criteria, in a way that increases the risk of instability in the DNS root zone.

### 3. Findings

**Findings:** The SSAC finds that the observation document's focus on detailed timelines and a series of process driven steps to make judgements on the confusability of a string is not feasible. Tight deadlines and turnaround times for various steps of the process disregard the complexities involved in the evaluation of labels in scripts that may require extensive study and analysis prior to any conclusions being reached.

The primary goal appears to be swift approval of whatever string is proposed by an applicant, rather than conservative evaluation of the security and stability consequences

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<sup>13</sup> Draft observations and recommendations of the ccNSO Working Group on the EPSRP review, available at <[https://community.icann.org/download/attachments/56989606/ccNSO Working Group-observations-CONSOLIDATED-23062016.pdf](https://community.icann.org/download/attachments/56989606/ccNSO%20Working%20Group-observations-CONSOLIDATED-23062016.pdf)>.

<sup>14</sup> See Revised Guidelines for the Extended Process Similarity Review Panel (EPSRP) for the IDN ccTLD Fast Track Process, 23 June 2016.

to the global DNS root and its users—not just the applicant’s national or linguistic community—of approving the string as a top-level domain name label. The SSAC finds this to be diametrically opposed to ICANN’s mission<sup>15</sup> to “facilitate the openness, interoperability, resilience, security and stability of the DNS.”

## 4. Recommendations

**Recommendation:** The SSAC recommends that the ICANN Board *not* accept the proposed guidelines for the EPSRP, as those guidelines represent a threat to the security and stability of the DNS. The Board should request a review of the EPSRP to determine why its proposed guidelines do not respect the principles of conservatism, inclusion, and stability.

## 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 SSAC process. The Acknowledgments section lists the SSAC members, outside experts, and ICANN staff who contributed directly to this particular document. The Disclosures of Interest section points to the biographies of all SSAC members, which disclose any interests that might represent a conflict—real, apparent, or potential—with a member’s participation in the preparation of this Comment. 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 Comment is concerned. Except for members listed in the Dissents and Withdrawals sections, this document has the consensus approval of all of the members of SSAC.

### 5.1 Acknowledgments

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Jaap Akkerhuis  
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<sup>15</sup> BYLAWS FOR INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS, 27 May 2016. Available at <<https://www.icann.org/en/system/files/files/adopted-bylaws-27may16-en.pdf>>.

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**5.2 Disclosures of Interest**

SSAC member biographical information and Disclosures of Interest are available at:  
<https://www.icann.org/resources/pages/ssac-biographies-2016-01-04-en>

**5.3 Dissents**

There were no dissents.

**5.4 Withdrawals**

There were no withdrawals.