

## **Process and methodology for confusing similarity evaluation**

Version 04- 24 October 2022 REDLINE

### **Introduction**

The ccNSO proposed a two-step confusing similarity review in 2013. However over time the Fast Track process evolved further. The IDN Fast Track Process was updated in 2013, following completion of the ccPDP2, to include of the Extended Process Similarity Review Panel. In 2019 the Fast Track was again updated to include of the Risk Mitigation Measures Evaluation. This change was the result of the third review of the Fast Track Process.

For reference are included:

1. ccPDP4 Proposed Policy (page 2-6)
2. References
3. Annex A - Delineation document
4. Annex B - EPSRP Procedures
5. Annex C - Risk Mitigation Measures Evaluation Process.

### **Basic questions to initiate discussion about the evaluation process**

What are pro and cons of each of the 3 steps of the Fast Track Confusing Similarity Review? Which issue(s) are addressed by each step?

To address this question, suggested to understand and be aware of the pro's and con's of each step and overall process.

Which of the processes need to be included in the proposed policy?

Under assumption that confusing similarity review will be required, should it include both an evaluation and opportunity to suggest risk mitigation?

See:

and has to be conducted by external, independent body(ies), should it be a:

- One (1) step process? Original Fast Track process
- Two (2) step process: CS evaluation and Risk Mitigation or CS evaluation and review of CS evaluation.
- Three (3) step process: as currently under the Fast Track Process

1 **Proposed Process and Method Confusing Similarity Evaluation PDP4**

2

3 **Goal and Standard Confusing Similarity Evaluation**

4 **1. Goal Confusing similarity review.** The goal of the confusing similarity review is to  
5 minimize **the risk to the stability and security of the DNS due to user confusion by**  
6 **exploiting potential visual confusing similarity between domain names (eg. be in Latin**  
7 **script vs Be in Cyrillic)** As such confusing similarity should therefore be minimized and  
8 mitigated. The risk of visual confusing similarity is not a technical DNS issue, but can  
9 have an adverse impact on the security and stability of the domain name system.

10

11 *Notes and Observations*

12 The rule on confusing similarity originates from the IDNC WG and Fast Track  
13 Implementation Plan and was introduced to minimize the risk of confusion with  
14 existing or future two letter country codes in ISO 3166-1 and other TLDs. This is  
15 particularly relevant as the ISO 3166 country codes are used for a broad range of  
16 applications, for example but not limited to, marking of freight containers, postal use  
17 and as a basis for standard currency codes.

18 The risk of string confusion is not a technical DNS issue, but can have an adverse  
19 impact on the security and stability of the domain name system, and as such should  
20 be minimized and mitigated.

21 The method and criteria used for the assessment cannot be determined only on the  
22 basis of a linguistic and/or technical method of the string and its component parts,  
23 but also needs to take into account and reflect the results of scientific research  
24 relating to confusing similarity, for example from cognitive neuropsychology<sup>1</sup>.

25 In SAC 060, SSAC advised ICANN (i.e the policy making bodies) that *should they*  
26 *decide to implement safeguards to deal with failing user expectations due to the*  
27 *introduction of variants, a distinction should be made between two types of failure*  
28 *modes: no-connection versus misconnection”*

29 No-connection may be a nuisance for the user, like a typo, however misconnection  
30 may result in the exploitation of the user confusion and this could be avoided though  
31 the similarity review.  
32

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<sup>1</sup> See for example,  
• M. Finkbeiner and M. Coltheart (eds), Letter Recognition: from Perception to Representation. Special Issue of the Journal *Cognitive Neuropsychology*, 2009 and:  
• Simpson, Ian; Mousikou, Petroula; Montoya, Juan; Defior, Sylvia, A letter visual-similarity matrix for Latin-based alphabets, *Behavior Research Methods*; June 2013, Vol. 45 Issue 2, p431  
• Shane Mueller, Cristoph Weidemann, Alphabetic letter identification: Effects of perceivability, similarity, and bias, *Acta Psychologica* 139, (2012)

The last two studies were used as basis for the review methodology of the Extended Process Similarity Review.

1 With the introduction of variants one of the issues in the context of confusing  
2 similarity is to delineate the base for comparison, which is defined as the set of  
3 requested strings (Request Side) that will be compared with the set of potential  
4 visual confusingly similar strings (Comparison Side). Delineating the base for  
5 comparison is needed for reasons of :

- 6 • Scalability
- 7 • Avoiding unforeseen and/or unwanted side effects.

8  
9 The original text (from 2013) included the following example as case in point of  
10 confusing similarity: .PY in Latin script vs PY in Cyrillic. However currently (October  
11 2022) .PY (Latin) and PY are considered variant. At the time (before 2013) a large  
12 pool of characters was considered similar and the example above was  
13 considered one of the best illustration of confusing similarity. However, since then  
14 variants were defined variant characters that were considered to be confusingly  
15 similar are also considered to be variants. The 2013 example is now a good  
16 illustration of this overlap.

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17  
18 **2. Standard for evaluation** A selected IDN ccTLD string is considered confusingly similar  
19 with one or more other string(s) (which must be either Valid-U-labels or any a  
20 combination of two or more ISO 646 BV characters) if the appearance of the selected  
21 string in common fonts in small sizes at typical screen resolutions is sufficiently close to  
22 one or more other strings so that it is probable that a reasonable Internet user who is  
23 unfamiliar with the script would perceive the strings to be the same or confuse one for  
24 the other<sup>2</sup>.

25  
26 **3. Base for comparison Confusing similarity of IDN ccTLD Strings.** Under the ccNSO policy  
27 a Selected string, and its Requested Delegatable Variants should not be confusingly  
28 similar with:  
29 ○ Any combination of two ISO 646 Basic Version (ISO 646-BV) characters (letter  
30 [a-z] codes), nor  
31 ○ Existing TLDs, which includes the already delegated variants or reserved  
32 names.  
33 ○ Proposed TLDs which are in process of string validation and their requested  
34 Delegatable or requested variants (however defined under the ccTLD and  
35 gTLD processes)

36  
37 (From the 2013 policy document) The following supplemental rules provide the  
38 thresholds to solve any contention issues between the IDN ccTLD selection process  
39 and new gTLD process:

- 40 • A gTLD application that is approved by the ICANN Board will be considered  
41 an existing TLD unless it is withdrawn.
  
- 42 • A validated request for an IDN ccTLD will be considered an existing TLD  
43 unless it is withdrawn.

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<sup>2</sup> Based on Unicode Technical Report #36, Section 2: Visual Security Issues

1 NOTE; The base for comparison will need to be revisited after competition of CS Process and  
2 Methodology

3 The evaluation whether or not a selected IDN ccTLD string is confusingly similar is a process  
4 step and should be conducted externally and independently. The recommended procedure  
5 is described in Section [**update section number**], Validation of IDNccTLD Strings

6  
7

## 8 **Stage 2: Validation of IDN ccTLD string**

9

### 10 **1. General description**

11 The String Validation stage is a set of procedures to ensure all criteria and requirements  
12 regarding the selected IDN ccTLD string (as listed in previous section of the Report) have  
13 been met. The actors involved would typically be:

- 14 • The IDN ccTLD string requester. This actor initiates the next step of this stage of the  
15 process by submitting a request for adoption and associated documentation.
- 16 • ICANN staff. ICANN staff will process the submission and coordinate between the  
17 different actors involved.
- 18 • Independent Panels to review the string (Technical, Similarity & Risk Mitigation  
19 Panels).

20

21 The activities during this stage would typically involve:

- 22 1. Submission of selected string and related documentation.
- 23 2. Validation of selected IDN ccTLD string:
  - 24 a. ICANN staff validation of request. This includes
    - 25 i. Completeness of request
    - 26 ii. Completeness and adequacy of Meaningfulness and Designated  
27 Language documentation
    - 28 iii. Completeness and adequacy of support from relevant public  
29 authority
    - 30 iv. Completeness and adequacy of support from other Significantly  
31 Interested Parties
  - 32 b. Independent Evaluations.
    - 33 i. Technical review
    - 34 ii. String Confusion review
- 35 3. Publication of selected IDN ccTLD string on ICANN website or notification to  
36 requester application was terminated
- 37

38  
39 <snip>

40

### 41 **b. Independent Evaluations and Reviews**

42

#### 43 **General description of Technical and string confusion validation**

44

- 45 • To validate a selected string is not confusingly similar, ICANN should appoint an

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1 external and independent “ Similarity Evaluation Panel” to validate that, the selected  
 2 IDN ccTLD string is not confusingly similar,

- 3 • To allow for a final validation review relating to confusing similarity, and only if so  
 4 requested by the requester, ICANN should appoint, an external and independent  
 5 “Similarity Review Panel.”
- 6 • To allow for a review of risk mitigation measures if either or both the Similarity  
 7 Evaluation Panel and Similarity Review Panel have found the requested string to be  
 8 confusingly similar.

9 The goal of the validations is to provide external and independent advice to the ICANN  
 10 Board whether a selected string and/or its requested delegatable variant(s) meet(s) the  
 11 required technical criteria and is/are not considered to be confusingly similar.

12 If according to the definite outcome of the validation a selected string does not meet one or  
 13 more of the technical criteria and/or is considered confusingly similar to another string, the  
 14 requested IDNccTLD string is invalid and not eligible under this policy.

15 It is recommended that ICANN appoint the following external and independent Panels:

- 16 • To validate the technical requirements ICANN should appoint a “Technical Panel<sup>3</sup>” to  
 17 conduct a technical review of the selected IDN ccTLD string.

- 18 • To evaluate a string for string similarity, an external and independent “Similarity  
 19 Evaluation Panel” (hereafter SEP) conducts a review of the requested IDN ccTLD  
 20 string.

- 21 • To review the decision of the “Similarity Evaluation Panel” by using a different  
 22 framework, an external and independent “ Similarity Review Panel” (hereafter: SRP)  
 23 conducts a review of the requested IDN ccTLD string, only if so requested by the  
 24 requester. Due to the specific nature of the confusing similarity and its subjective  
 25 elements the “Extended Process Similarity Review:” is considered a specific review  
 26 mechanism, not to be confused with the general ccTLD Review Mechanism.

- 27 • To allow for an appraisal of the risk mitigation treatment, if either or both the SEP,  
 28 and/or SRP have found the requested string to be confusingly similar appoint a Risk  
 29 Treatment Appraisal Panel

30 Note that under the Fast Track Process the “Technical Panel” and “Similarity Evaluation  
 31 Panel” were combined under the function of the DNS Stability Panel. Whether in future,  
 32 under the ccPDP4 policy, the two Panels will be combined is a matter of implementation.

33 *Notes and observations*  
 34 The details of the roles and responsibilities of the various panels and membership  
 35 requirements and the details of the methods, procedures for evaluations and reviews by the  
 36 respective panels should be developed as part of the implementation planning. It is noted  
 37 that these details have been developed and tested under the IDNccTLD Fast Track Process  
 38

<sup>3</sup> Or any other name ICANN would prefer.

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1 and could be used as an example. The various details of SR process and Risk Treatment  
2 Appraisal are included in Annex B (SR) and Annex C (Risk Mitigation Evaluation).

3

### 4 5 A. Process for Technical Validation

6 A.1. After completion of the ICANN staff validation of the request, ICANN staff will submit  
7 the selected IDN ccTLD string to the "Technical Panel" for the technical review.

8  
9 A.2. The Technical Panel conducts a technical string evaluation of the string submitted for  
10 evaluation. If needed, the Panel may ask questions for clarifications through ICANN staff.

11  
12 A.3. The findings of the evaluation will be reported to ICANN staff. In its report the Panel  
13 shall include the names of the Panelists and document its findings, and the rationale for the  
14 decision.

15  
16 Usually the Panel will conduct its review and send its report to ICANN staff within 30 days  
17 after receiving the IDN ccTLD string to be evaluated. In the event the Panel expects it will  
18 need more time, ICANN staff will be informed. ICANN staff shall inform the requester  
19 accordingly.

20  
21 A.4 If according to the technical review the string meets all the technical criteria the string is  
22 technically validated. If the selected string does not meet all the technical criteria the string  
23 is not-valid. ICANN staff shall inform and notify the requester accordingly.

### 24 25 B. Process for Confusing Similarity Validation

26 B.1 . Introduction. As part of the validation process external and independent advice to the  
27 ICANN Board is provided whether a selected string is valid i.e. not considered to be  
28 confusingly similar.,

29  
30 If according to the Confusing Similarity Validation, the selected IDNccTLDs string and/or its  
31 requested variant(s) is/are considered confusingly similar, the requested IDN ccTLD string(s)  
32 is/are not valid and hence not eligible under this policy.

33  
34 To validate the string(s) are not considered confusingly similar, the validation process  
35 includes the following different, independent, external Panels:

36 • Similarity Evaluation Panel. To evaluate a string for string similarity, an external and  
37 independent "Similarity Evaluation Panel" (hereafter: SEP) conducts the (first)  
38 evaluation of the requested IDN ccTLD string(s). The Similarity Evaluation is further  
39 detailed in section B.2 below,

40  
41 • Similarity Review Panel. If a selected string is found to be confusingly similar by the  
42 "Similarity Evaluation Panel", and, only at the request of the requester, the  
43 "Similarity Review Panel" (hereafter: SRP) conducts a review of the confusing  
44 similarity evaluation of the requested IDN ccTLD string(s), using a different  
45 framework. The Similarity Review is further detailed in section B.3 below.

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- Risk Treatment Appraisal Process Panel. If according to the Similarity Evaluation Process or Similarity Review Process a requested string is considered invalid, the requestor of such an IDN ccTLD string may, request a Risk Treatment Appraisal under the eligibility conditions for this procedure. The Risk Treatment Appraisal Panel (RTAP) will appraise the requester's proposed risk management process and related risk mitigation measures. Further details of the Risk Treatment Appraisal process and procedures are included in section B.4 below.

## **B.2 Similarity Evaluation**

### **B.2.1 Procedural aspects**

**B.2.1** After completion of the Technical Validation ICANN staff will submit the selected IDN ccTLD string to the String Similarity Panel (SSP) for the confusing similarity string evaluation.

**B.2.2** The Panel or SSP shall conduct a confusability string evaluation of the string submitted for evaluation. The Panel may ask questions for clarification through ICANN staff.

**B.2.3** The findings of the evaluation will be reported to ICANN staff. In the report the Panel will include the names of the Panelists, document the decision and provide the rationale for the decision.

ICANN staff shall inform and notify the requester accordingly.

Usually the Panel will conduct its review and send its report to ICANN staff within 30 days after receiving the IDN ccTLD string to be evaluated. In the event the Panel expects it will need more time, ICANN staff will be informed. ICANN staff shall inform the requester accordingly.

### **B.2.2. Results of Evaluation**

- If according to the evaluation, the Panel does not consider the requested string(s) to be confusingly similar, the selected IDN ccTLD is validated.
- Where the string is considered to be confusingly similar the report shall at a minimum include a reference to the string(s) to which the confusing similarity relates and examples (in fonts) where the panel observed the similarity.
- If according to the evaluation by the Panel, the selected IDN ccTLD string presents a risk of string confusion with a ccTLD string (see Base for Comparison above) and this (variant) ccTLD string is associated with the same Territory as represented by the selected IDNccTLD or requested delegatable variant IDNccTLD string(s), this should be noted in the report. ICANN staff shall inform the requester accordingly.

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1 If, within 3 months of receiving the report the requester shall confirm  
2 that:

- 3 (i) The intended manager and intended registry operator for the  
4 IDN ccTLD and the ccTLD manager for the confusingly similar  
5 country code are one and the same entity; and
- 6 (ii) The intended manager of the IDN ccTLD shall be the entity that  
7 requests the delegation of the IDN ccTLD string; and
- 8 (iii) The requester, intended manager and registry operator and, if  
9 necessary, the relevant public authority, accept and document  
10 that the IDN ccTLD and the ccTLD with which it is confusingly  
11 similar will be and will remain operated by one and the same  
12 manager, and
- 13 (iv) The requester, intended manager and registry operator and, if  
14 necessary, the relevant public authority agree to specific and pre-  
15 arranged other conditions with the goal to mitigate the risk of  
16 user confusion as of the moment the IDN ccTLD becomes  
17 operational;

18 then the IDN ccTLD string is deemed to be valid.

19  
20 If either the requester, intended manager or the relevant public authority  
21 do not accept the pre-arranged conditions within 3 months after  
22 notification or at a later stage refutes the acceptance, the IDN ccTLD shall  
23 not be validated.

24  
25 Alternatively, the requester may defer from this mechanism and use the  
26 procedure as described under [B.3](#) or [B.4](#).

- 27  
28 • If according to the evaluation the selected IDN ccTLD string(s) is/are found to  
29 present a risk of string confusion, ICANN staff shall inform the requester. The  
30 requester may call for a Similarity Review or Risk Mitigation Appraisal and  
31 provide additional documentation and clarification referring to aspects in the  
32 report of the Panel. The requester should notify ICANN within three (3) calendar  
33 months after the date of notification by ICANN, and include the additional  
34 documentation. After receiving the notification from the requester, ICANN staff  
35 shall call on the Similarity Review Panel (SRP) or RTAP Panel.

#### 36 **FOR DISCUSSION:**

37  
38 **WHAT IF the Selected IDNccTLD is considered confusingly similar and one or  
39 more variants not? Should:**

- 40  
41 • all requested strings be considered invalid?
- 42 • Only the confusing similar string?

43 **Note: a variant of IDNccTLD string is a variant of the selected string that is  
44 by itself delegatable i.e meets all criteria.**

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1 **WHAT IF the selected IDNccTLD is NOT considered confusingly similar and**  
2 **one or more requested variants are considered confusingly similar? Should in**  
3 **this case only the variant be considered invalidated?**

4  
5 **WHAT IF one or more Selected (Variant) IDNccTLD strings are valid, and other**  
6 **(s) are invalidated, should the review and/or risk mitigation process (B.3**  
7 **and/or B.4 below) remain to be available?**

8  
9  
10 **B.3. Similarity Review**

11 **B.3.1 Similarity Review Process**

12 The SRP can be requested to conduct a second and final confusing similarity assessment of  
13 the requested IDN ccTLD string if:

- 14 1) The selected IDNccTLD string (and/or requested delegatable variant IDNccTLD  
15 string(s)) are deemed to be invalid; and
- 16 2) The request for a Similarity Review is received by ICANN within three (3) months of  
17 ICANN's notification of the Similarity Evaluation.

18  
19  
20 Transitional arrangement: If an IDN ccTLD string request submitted under the Fast Track  
21 Process is still in process or has been terminated due to non-validation of the string per  
22 confusing similarity criteria under the Fast Track, the requester has the option to request a  
23 second and final validation review by the Similarity Review Panel. This option is available to  
24 the requester within three (3) calendar months of the date the SRP is appointed. ICANN  
25 should notify the Requesters who fall in this category as soon as the SRP is operational.

26  
27 If ICANN is not notified within three (3) calendar months after the date of notification by  
28 ICANN of the evaluation Panel's findings, or under the transitional arrangement within three  
29 (3) months of the date the EPRSP is appointed, the Termination Process will be initiated.  
30 (See section XX of the policy).

31  
32  
33 **B.3.2** The SRP conducts its review based on the standard and methodology and criteria  
34 developed for it, and, taking into account, but not limited to, all the related documentation  
35 from the requester, including submitted additional documentation and the finding of the  
36 Similarity Review Panel. The SRP may ask questions for clarification through ICANN staff.

37  
38 **B.3.3** The findings of the SRP shall be reported to ICANN staff and will be publicly  
39 announced on the ICANN website. This report shall include and document the findings of  
40 the SRP, including the rationale for the final decision, and in case of the risk of confusion a  
41 reference to the strings that are considered confusingly similar and examples where the  
42 panel observed this similarity.

43  
44 If according to the Similarity Review, the SRP does not consider the string to be confusingly  
45 similar, the selected IDN ccTLD and/or its requested variant(s) is/are valid.

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1 If according to the Similarity Review, the SRP considers the string to be confusingly similar,  
2 the selected IDN ccTLD and/or its requested variant(s) is/ are invalid.

#### 4 **B.4 Risk Treatment Appraisal**

5 **B.4.1 The Objective of the Review of Risk Treatment Appraisal. The objective is to**  
6 **determine if the risk will be effectively mitigated i.e that if a requested string has been**  
7 **found to be confusingly similar with the upper case version of other strings, the proposed**  
8 **mitigation measures reduce the risks associated with the confusing similarity to an**  
9 **acceptable level or threshold.**

10 The proposed mitigation measures should be evaluated in relation to the strings identified  
11 by the relevant panel (DEP or SRP) as confusingly similar to the requested string(s).

12 The RTAP Panel should consider the likelihood of confusing similarity with specific  
13 consideration of confusability from the perspective that any domain name may be displayed  
14 in either upper- or lower-case, depending on the software application and regardless of the  
15 user's familiarity with the language or script.

16 The proposed mitigation measures meet the objective of Risk Treatment Appraisal if:

- 17 • The requester has made clear how the risk management process and proposed  
18 mitigation measures meet the objective and criteria of the Risk Treatment. This  
19 should be evaluated together with the confusability findings.
- 20 • The residual level of risk, if any, due to the confusability of domain names is  
21 expected to be in the same range as which would occur by adding another IDN ccTLD  
22 which has not been found similar to existing or reserved TLD.

23 **B.4.2 Criteria to appraise the Risk Mitigation proposals. To appraise whether the proposed**  
24 **risk mitigation meet the objective of the RTA, the proposed risk mitigation measures should**  
25 **be:**

- 26 • **Proportionate.** The mitigation measures will be in proportion to risks identified. The  
27 higher the risks, the greater the mitigation measures will be required; conversely,  
28 lower mitigation measures will be a proportionate response to risks that are  
29 identified as low severity or low likelihood,
- 30 • **Adequate.** For each of the case(s), the measures should reduce the risk of user  
31 confusion arising from the potential use of the applied-for TLD to an acceptable  
32 level. The residual level of risk, if any, due to the confusability of domain names is  
33 expected to be in the same range as which would occur by adding another IDN ccTLD  
34 which has not been found similar to existing or reserved TLD.
- 35 • **Self-contained.** The proposed mitigation measures can only apply to the registration  
36 policies of the applied-for TLD and do not assume any restrictions on the availability  
37 or registration policies of other current or future TLD labels.
- 38 • **Global Impact.** The proposed mitigation measures must have global applicability,  
39 and not apply to confusability within the intended user community only.

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1 **B.4.3 Conditions for Eligibility of the RTA.** Only under the following set of conditions, a  
2 request for the RTA is eligible:  
3 I. The DEP or SEP evaluation have determined that the requested string is confusingly  
4 similar in uppercase only.  
5 II. The requester has filed a request for a review of its proposed mitigation measures  
6 within three months from the date the results from the DEP and/or SRP have been  
7 communicated to the requester.  
8 III. In the request for the appraisal of proposed mitigation measures, the requester has  
9 included - at a minimum – a reference to the proposed, internationally recognized  
10 and appropriate risk management and mitigation process the requester intends to  
11 use, and the related, proposed mitigation measures (hereafter the Risk Mitigation  
12 Plan or RMP).  
13 IV. The IDNccTLD Manager, and if so required the relevant public authority, commits to  
14 implement the proposed and agreed upon mitigation measures as of the moment  
15 the IDN ccTLD becomes operational.

16  
17 If the above conditions are met, the review and evaluation of the proposed methodology  
18 and related mitigation measures shall be undertaken by an independent panel (the ‘RTAP  
19 Panel’), appointed by ICANN.  
20

#### 21 **B.4.4 Risk Treatment Appraisal Procedure**

- 22 1. Requester submits the request for appraisal, including the Risk Mitigation Plan (or  
23 RMP) within three (3) months after receiving the communication of the string  
24 similarity review decision
- 25 2. ICANN convenes the RTAP Panel, and forwards the request to the RTAP Panel within  
26 one (1) week of the formation of the RTAP Panel
- 27 3. The RTAP Panel creates a review plan within three (3) weeks for the completion of  
28 the work, which includes at a minimum:
  - 29 a. Tentative work plan and timeline
  - 30 b. Request(s), if any, for additional information which may be needed or  
31 helpful
- 32 4. ICANN reviews the RTAP Panel’s evaluation plan, and informs the requester of the  
33 timeline and any additional information needed.
- 34 5. Requester considers the review plan and shares any feedback, and additional  
35 information requested with respect to the RMP, and any other information  
36 considered necessary and /or relevant as soon as possible and confirms whether to  
37 proceed with the RTA. If the confirmation is not received within eight (8) weeks of  
38 receiving the review plan, the application is closed
- 39 6. ICANN organization forwards the updates with respect to the RMP, if any, to RTAP  
40 Panel, within one (1) week of receiving it.
- 41 7. RTAP Panel undertakes analysis of the RMP. ICANN organization coordinates any  
42 additional interaction between RTAP Panel and requester with respect to any

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D.3 The intended manager shall propose, agree upon and implement adequate pre-arranged risk mitigation measures with the goal to reduce the potential risk of user confusion as of the moment the IDNccTLD becomes operational, including specific consideration of confusability from the perspective that any domain name may be displayed in any case (lower- or upper-case), depending on the software application and regardless of the user’s familiarity with the language or script. ¶

D.4

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- 1 clarifying question RTAP Panel may have or additional information the requestor  
 2 intends to provide with respect to the RMP.  
 3 8. The RTAP Panel creates and hands over to ICANN organization a first RTA-Interim  
 4 Report within eight (8) weeks of receiving the requester’s confirmation to proceed  
 5 with the RTAP.  
 6 9. ICANN organization passes RTA-Interim Report to the requester within one (1 week)  
 7 of receiving it.  
 8 10. Requester submits its response and any additional information it considers relevant  
 9 on the RTA-Interim Report and updated RMP (if at all) to ICANN organization within  
 10 four (4) weeks of receiving the RTA-Interim Report.  
 11 11. ICANN organization sends the response and updates of the RMP (if any) to RTAP  
 12 from the requester. If requester has not submitted a response within four (4) weeks  
 13 after receiving the Interim Report, ICANN will inform the RTAP Panel that they may  
 14 continue to next steps.  
 15 12. The RTAP Panel creates the RTA-Final Report and sends it to ICANN organization  
 16 within (4) weeks of receiving the requester response on the RTA-Interim Report, or if  
 17 no response is received within four (4) weeks of the expiry of the deadline for filing a  
 18 response. ICANN organization coordinates any clarifying questions between RTAP  
 19 Panel and the requester.  
 20 13. ICANN organization sends the RTA-Final Report to the requester and publishes it one  
 21 (1) week after sending it to the requester

- 22  
 23  
 24 **B.4.5 Result of Risk Treatment Appraisal. The result of the RTA procedure is either:**  
 25 **I. A documented and consolidated recommendation from the RTAP Panel, following**  
 26 **consultations with the requester, confirming that:**  
 27 **o The requester has adopted an appropriate risk management methodology**  
 28 **and framework;**  
 29 **o The mitigation measures are proportionate and adequate to treat the risk(s)**  
 30 **identified by the SEP or SRP (as the case may be);**  
 31 **o The requester/ IDN ccTLD manager has committed to implement the**  
 32 **mitigation measures prior to or on launch of the IDN ccTLD string(s);**  
 33 **o The requested IDNccTLD string(s) is/are considered valid.**  
 34 **or**  
 35 **II. A documented and consolidated recommendation confirming the risk is not**  
 36 **adequately treated, given the list of mitigation measures being proposed by the**  
 37 **requester or IDNccTLD Manager and the requested IDNccTLD string(s) is/are**  
 38 **considered invalid.**

39 The RTAP Panel’s recommendation will be made public.

40  
 41 C. Additional details for the string validation process under A and B above are considered a  
 42 matter of implementation.

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1 **References & Background material**

2

- 3 • Guideline EPSRP: <https://www.icann.org/en/system/files/files/epsrp-guidelines-04dec13-en.pdf>

5

- 6 • Guideline Risk Mitigation Measures Evaluation:  
7 <https://www.icann.org/en/system/files/files/guideline-risk-mitigation-measures-evaluation-28mar19-en.pdf>

9

- 10 • EPSRP and Risk Mitigation Reports for IDN ccTLD Applications:  
11 <https://www.icann.org/resources/pages/epsrp-reports-2014-10-14-en>

12

- 13 • Joint ccNSO SSAC Response to ICANN Board (on introduction of Risk Mitigation)  
14 <https://ccnso.icann.org/sites/default/files/field-attached/epsrp-final-response-17aug17-en.pdf>

16

17

**Deleted:** If these measures are agreed upon by the time the delegation request of the IDN ccTLD string is submitted then the requested string is deemed to have passed the string evaluation. ¶  
D.5 If the intended IDN ccTLD manager does not propose mitigation measures or does not implement the agreed upon risk mitigation measures sufficiently within the timeline described above, the Termination Procedure will be initiated. ¶  
To determine whether the proposed risk mitigation measures are adequate ICANN will consult experts in the area of relevant Risk Mitigation measures and the IDN ccTLD string requestor. The proposed measures are to be evaluated together with the finding of the confusability evaluation. ¶  
¶  
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## 1 **Annex A - Delineating Confusing Similarity**

### 2 **Introduction**

3 At its last meeting, the CS sub-group discussed the scope of the base for comparison for the  
4 confusing similarity review. The discussion focused on the which variants, if any, to include  
5 in the comparison to assess possible confusing similarity of requested strings. Basicly the  
6 group started with assumption that the review should be based on:

- 7 • On the submission/ request side:
  - 8 ○ the requested label (level 1) and all allocatable variants (level 2).
- 9 • On the other side it would include:
  - 10 1 Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>4</sup> (letter [a-z]  
11 codes),
  - 12 2 Existing TLDs or reserved names, their allocatable (level 2) and blocked variants (level 3),  
13 and
  - 14 3 Proposed TLDs which are in process of string validation, their allocatable ( level 2) and  
15 blocked variants (level 3)

16  
17 The scope will need to be revisited again. Starting point of this discussion is the goal of the  
18 confusing similarity review.

### 19 20 **Goal Confusing similarity review**

21 The agreed upon goal of the confusing similarity review is to minimize **the risk to the**  
22 **stability and security of the DNS due to user confusion by exploiting potential visual**  
23 **confusing similarity between domain names (eg. .PY in Latin script vs PY in Cyrillic)** As such  
24 confusing similarity should therefore be minimized and mitigated. The risk of visual  
25 confusing similarity is not a technical DNS issue, but can have an adverse impact on the  
26 security and stability of the domain name system.

27  
28 In SAC 060, SSAC advised ICANN (i.e the policy making bodies) that *should they decide to*  
29 *implement safeguards to deal with failing user expectations due to the introduction of*  
30 *variants, a distinction should be made between two types of failure modes: (no-connection)*  
31 *versus misconnection.*

- 32 • **No-Connection (Denial of Service):** *the user attempts to visit http://example.Y,*  
33 *reading it as being the same Uniform Resource Identifier (URI) as the*  
34 *http://example.X that, for example, he or she saw in an advertisement, but the*  
35 *connection does not work (lookup fails) because Y is either blocked, withheld, or X*  
36 *has no variant at all, and example.Y is not registered.*
- 37 • **Misconnection:** *the user attempts to visit http://example.Y, reading it as being the*  
38 *same URI as the http://example.X that, for example, he or she saw in an*  
39 *advertisement, but arrives at a site controlled by a registrant different to that of*  
40 *example.X.*

---

<sup>4</sup> International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991

1 *In case of no-connection, the user is frustrated and may conclude that “the Internet does not*  
2 *work,” but no serious harm has arisen.*

3 From a risk perspective: although there is a possibility ( $p1$ ) of confusion ( $C$ ), there is no  
4 harm ( $H$ ) nor potential ( $p2$ ) harm. The overall estimated impact of the risk is therefore zero  
5 [ $p1 * C * p2 * 0 (=H)$ ].

6 *The second case is problematic even if this effect is not the result of malicious work on the*  
7 *part of Y’s operator or example. Y registrant. Misconnections to a perfectly legitimate site*  
8 *operating at example. Y present issues of possible credential compromise or other accidental*  
9 *disclosure of information in addition to user confusion and frustration.*

10 From a risk perspective: there is not only a possibility ( $p1$ ) of confusion ( $C$ ), there is also a  
11 potential ( $p2$ ) harm ( $H$ ) to be associated with the confusing similarity. The overall estimated  
12 impact of the risk is therefore not zero [ $p1 * C * p2 * H$ , whereby  $H > 0$ ] and should be avoided.

13 Under the evolution of the Fast Track Process a joint ccNSO-SSAC working group<sup>5</sup> noted that  
14 in dealing with risks associated with confusing similarity *there is no general hard and fast*  
15 *rule with respect to the mitigation measures that should be implemented or with respect to*  
16 *the acceptable level of risk. It all depends very much on the circumstances, context and*  
17 *interplay of proposed measures and current and future risks associated with the confusing*  
18 *similarity of proposed strings.*

19

#### 20 **Linking these two risk categories to the goal of the confusing similarity review**

21 Visual similarity is relevant for those situations where as a the result of visual similarity a  
22 user does not connect or misconnects. In line with the SAC060 distinction between No-  
23 connection and Misconnection a distinction should be made whereby as a result of visual  
24 confusion no-connection or a misconnection is established.

25

26 No-connection may be a nuisance for the user, like a typo, however misconnection may  
27 result in the exploitation of the user confusion and this could be avoided though the  
28 similarity review.

29

30

#### 31 **Scope of comparison**

32 Taking into account the goal of the confusing similarity review, **minimize the risk to the**  
33 **stability and security of the DNS due to user confusion by exploiting potential visual**  
34 **confusing similarity between domain names (eg. .PY in Latin script vs PY in Cyrillic)** the  
35 confusing similarity review is limited to avoid misconnection resulting from visual similarity  
36 of strings.

37 With the introduction of variants one of the issues in the context of confusing similarity is to  
38 delineate the base for comparison, which is defined as the set of requested strings (Request

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<sup>5</sup> <https://ccnso.icann.org/sites/default/files/field-attached/epsrp-final-response-17aug17-en.pdf>

1 Side) that will be compared with the set of potential visual confusingly similar strings  
2 (Comparison Side)

3 As a result of the introduction of variants, the potential scope of the Base for Comparison  
4 will expand exponentially. For example, as part of the confusing similarity review a selected  
5 IDNccTLD string needs to be compared with the string “Pakistan” in the Arabic script. As a  
6 result of introducing the comparison could expand to over 1200 strings (including all  
7 allocatable and blocked variants of “Pakistan” in the Arabic script). Therefore delineating  
8 the base for comparison is needed for reasons of :

- 9 • Scalability:
  - 10 ○ Be able to scale the review appropriately. It is expected that for the
  - 11 upcoming years, confusing similarity reviews have to done manually.
  - 12 ○ Without proper limitation, the review may become to resource intensive
  - 13 and/or long in duration, which may additional issues, for example around
  - 14 predictability.
- 15 • Avoiding unforeseen and/or unwanted side effects.
  - 16 ○ If the full set of blocked variants of a would be included in the
  - 17 Comparison Side, a requested selected IDNccTLD could be “invalid” and
  - 18 further processing terminated although the variant string included in the
  - 19 Compare Side is from another script, and co-mingling of scripts is not
  - 20 allowed. In other words, the comparison may include strings/labels,
  - 21 which are not allowed under policy.
  - 22 ○ If a string includes is comprised of or contains blocked variants it will
  - 23 never be delegated.

24  
25 **Comparison Side.** To assess confusing similarity of strings the requested strings needs to be  
26 compared with and should not be visual similar to other strings (Comparison Side) that  
27 would include visual comparable strings from the following set:

- 28 • Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>6</sup> (letter [a-z]
- 29 codes), nor
- 30 • Existing TLDs or reserved names.
- 31 • Proposed TLDs which are in process of string validation.

#### 32 33 34 **Delineating Scope of Request Side**

35 The primary question to determine the scope of the Request Side Question:  
36 Which set of variants should be taken into request side of the base for comparison?

- 37 1. Only the selected string and the requested delegatable variants?
- 38 2. The selected string and **all delegatable** variants?
- 39 3. The selected string and **all allocatable variants** of the selected string, or
- 40 4. The selected string and **all variants (allocatable and blocked).**?

41  
42 **Proposed Request Side.** The proposed policy the request side for the Base for Comparison is  
43 comprised of the:

---

<sup>6</sup> International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991



- 1 • Selected string, and
- 2 • Requested delegatable variants (only those allocatable variants, which are a
- 3 meaningful representation of the name of the territory in the designated language
- 4 and related script and requested at the time of submission of the request)

#### 6 Rationale

- 7 1. The IDN selection process is open and ongoing. Variants may be requested any time
- 8 as long as they meet all criteria, including meaningfulness.
- 9 2. The focus should be minimizing the risk of Misconnection to minimize and/or
- 10 mitigate harm.

11 Abstracting from variants, if the selected string “X X” is considered confusingly

12 similar with the string “xx”, which belongs to the pool of:

- 13 • Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>7</sup>
- 14 (letter [a-z] codes),
- 15 • Existing TLDs or reserved names.
- 16 • Proposed TLDs which are in process of string validation

17 The potential misconnection results from this confusing similarity between “X X” and

18 “xx” and for that reason “X X” is deemed to be invalid and processing under the

19 policy will end.

- 20 3. From a technical point of view the selected sting “X X” and its delegatable variants
- 21 should be viewed as separate TLDs. Therefore each of the requested strings should
- 22 be reviewed on confusing similarity.
- 23 4. As IDNccTLD process is open and at a later stage additional variant strings may be
- 24 requested (for example variants of already delegated IDNccTLD under the Fast Track
- 25 process). Each of these requested variants of an already delegated selected string,
- 26 should be reviewed at its own merits with respect to confusing similarity.

#### 29 Delineating Scope of Comparison Side.

30 Re-iterating, the goal of the confusing similarity review is to minimize **the risk to the**

31 **stability and security of the DNS due to user confusion by exploiting potential visual**

32 **confusing similarity between domain names** or to paraphrase in terms of SAC 060

33 (*Examining the User Experience Implications of Active Variant TLDs*) the goal is to minimize

34 the risk of Misconnection due to visual confusability of two strings.

35 The minimum level of the Comparison Side, before the introduction of variants, includes:

- 37 4 Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>8</sup> (letter [a-z]
- 38 codes), nor
- 39 5 Existing TLDs or reserved names.
- 40 6 Proposed TLDs which are in process of string validation.

41

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<sup>7</sup> International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991

<sup>8</sup> International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991

1 After the introduction of the variants, the minimum set of strings in the Comparison Side,  
2 could be defined as:  
3  
4 7 Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>9</sup> (letter [a-z]  
5 codes), nor  
6 8 Existing TLDs, which includes the already delegated variants or reserved names.  
7 9 Proposed TLDs which are in process of string validation and their requested delegatable  
8 or requested variants (however defined under the ccTLD and gTLD processes)  
9

10 In other words, all strings that:

- 11 1. Should never be delegated under any existing policy (the reserved names),
- 12 2. Should always be delegatable because of other existing policy (ASCII two-letter  
13 country-code TLDs, RFC 1591)),
- 14 3. Have been delegated (existing TLDs and their delegated variants), and
- 15 4. Are in the process of validation at the time the request for the selected IDNccTLD  
16 and its requested delegatable variants was submitted. This would include the  
17 variants of the selected IDNccTLD strings and new gTLD labels and their requested  
18 variants.

19 Secondly, all allocatable variants could be included of all already delegated TLDs, and those  
20 which are in process.  
21

22 Although, by definition allocatable variants may be requested at a later stage. The  
23 allocatable variants will need to be reviewed against all criteria, including confusing  
24 similarity and meaningfulness if they are to be delegated. By including all allocatable  
25 variants in the comparison side, the confusing similarity review could become a reservation  
26 system. Allocatable variants, which have not been requested and may never be requested  
27 could block the introduction and delegation of a selected IDNccTLD.  
28

29 And again, the goal of the confusing similarity review is to minimize risk of misconnection,  
30 and therefore avoid that a requested string is potentially delegated. The goal is not to  
31 minimize or avoid Denial of Service or Non-Connection.  
32

33 With respect to including the blocked variants. The arguments to exclude all allocatable  
34 variants apply even in a stronger sense.  
35

36 In summary: Under the ccNSO policy a Selected string, and its Requested Delegatable  
37 variants should not be confusingly similar with:

- 38 10 Any combination of two ISO 646 Basic Version (ISO 646-BV) characters (letter [a-z]  
39 codes), nor
- 40 11 Existing TLDs, which includes the already delegated variants or reserved names.
- 41 12 Proposed TLDs which are in process of string validation and their requested delegatable  
42 or requested variants (however defined under the ccTLD and gTLD processes)  
43  
44

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<sup>9</sup> International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991

1 **Annex B – Extended Process Similarity Review**  
2 **Extended Process Similarity Review Panel**

3  
4 **Introduction**

5 As part of the DNS Stability Evaluation external and independent advice to the ICANN Board is  
6 provided whether a selected string is not confusingly similar to other existing or applied for  
7 TLDs. If according to the DNS Stability Evaluation the selected string is considered confusingly  
8 similar to another string, the request for the IDN ccTLD with that particular selected string is  
9 not eligible under the Fast Track Process.

10  
11 To evaluate potential similarity, the DNS Stability Evaluation includes the following evaluation  
12 Panel:

- 13 • To evaluate a string for string similarity, an external and independent “Similarity  
14 Review Panel” conducts a review of the requested IDN ccTLD string.
- 15  
16 • To evaluate a string for string similarity If a selected string is found to be confusingly  
17 similar by the “Similarity Review Panel”, an external and independent “Extended  
18 Process Similarity Review Panel” (hereafter: EPSRP) conducts a review of the  
19 requested IDN ccTLD string second panel, using a different framework, and, only if so  
20 requested by the requester.

21  
22 The EPSRP shall review the requested string(s) on the basis of the framework described  
23 below, with a clear focus on the overarching principle to preserve and ensure the security,  
24 stability and interoperability of the DNS.

25  
26  
27 **Extended Proces Similarity Review Procedure**

28 The EPSRP can be requested to conduct a second and final confusing similarity assessment of  
29 the requested IDN ccTLD string if:

- 30 3) The DNS Stability Panel, in performing its string similarity review, deems the string to  
31 be invalid; and
- 32 4) If the requester seeks review by the EPSRP within three (3) months of ICANN’s  
33 notification of the DNS Stability Panel’s determination.

34  
35 Transitional arrangement: If an IDN ccTLD string request submitted under the Fast Track  
36 Process is still in process or has been terminated due to non-validation of the string per  
37 confusing similarity criteria, the requester has the option to request a second and final  
38 validation review by the Extended Process Similarity Review Panel. This option is available to  
39 the requester within three (3) calendar months of the date when the EPSRP is appointed.  
40 Requesters who fall in this category will be notified by ICANN staff of their eligibility for this  
41 process when the panel has been seated.

42  
43 If ICANN is not notified within three (3) calendar months after the date of notification by  
44 ICANN of DNS Stability Panel findings, or under the transitional arrangement within three (3)  
45 months of the date the EPRSP is appointed, the Fast Track Termination Process will be  
46 initiated (See section 5.4. of the Implementation Plan).

47

1 The requester may call for the second and final Extended Process Similarity Review by  
2 sending a request to <insert address> (INCLUDE SAMPLE?). Additional documentation and  
3 clarification, if any, referring to aspects in the report of the DNS Stability Panel may be also  
4 provided. The additional material should be send to: <insert address> .  
5

6 After receiving the notification from the requester, ICANN shall call on the EPSRP.  
7

8 Within one (1) month after receiving the notification from ICANN staff, the EPSRP will request  
9 the external research team to measure similarity and confusability of the selected IDN ccTLD  
10 string to similar and dissimilar comparison letter strings, taking into account the  
11 documentation provided. The request will include at a minimum the font and font size  
12 conditions.  
13

14 The EPSRP conducts its evaluation of the string based on the methodology and criteria  
15 described below, and, taking into account, but not limited to:

- 16 • All the related documentation from the requester, including submitted additional  
17 documentation,
- 18 • IDN tables and
- 19 • The findings of the DNS Stability Panel.

20 During the evaluation process the EPSRP may seek further clarification from the requester  
21 through ICANN staff, if deemed necessary.  
22

23 The findings of the EPSRP shall be reported to ICANN and will be publicly announced on the  
24 ICANN website. This report shall include and document the findings of the EPSRP, including:

- 25 • The final decision
- 26 • The rationale for the final decision.

27 In case the string is deemed to be invalid the report shall also include:

- 28 • A reference to the strings that are considered confusingly similar and
  - 29 • Examples where this similarity was noted.
  - 30 • Report of the external research team.
- 31

32 If according to the EPSRP the selected IDN ccTLD string is valid on string similarity grounds,  
33 the requester is notified by ICANN staff that the DNS Stability Evaluation has successfully  
34 been completed and that the requested string(s) will be queued for public posting.  
35  
36

### 37 **Methodology and criteria**

38 A selected IDN ccTLD string should not be confusingly similar with:

- 39 ○ Any combination of two ISO 646 Basic Version (ISO 646-BV) characters<sup>10</sup> (letter [a-z]  
40 codes), nor
  - 41 ○ Existing TLDs or reserved names.
- 42

43 As stated in the proposed IDN ccTLD policy, the rule for confusing similarity is that if the  
44 appearance of the selected string, in both upper and lower case, in common fonts in small

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10 International Organization for Standardization, "Information Technology – ISO 7-bit coded character set for information interchange," ISO Standard 646, 1991

1 sizes at typical screen resolutions, is sufficiently close to one or more other strings, it is  
2 probable that a reasonable Internet user who is unfamiliar with the script perceives the  
3 strings to be the same or confuses one for the other<sup>11</sup>.

4  
5 In order to determine whether this is the case in particular for the two letter codes, under  
6 the Fast Track Process, the EPSRP will establish whether a selected IDN ccTLD string is too  
7 similar to another to recommend acceptance, based on a behavioral metric that objectively  
8 measure the visual similarity of a candidate IDN ccTLD strings to other letter strings, and in  
9 particular the reserved 2-letter ISO3166-1 country codes. The behavioral metric provides  
10 quantitative and statistical evidence about the likelihood of confusing two possible IDN  
11 ccTLDs and its methods are open and repeatable to enable replication by third parties<sup>12</sup>.

12  
13 An external and independent research team will provide the behavioral metric relating to the  
14 selected IDN ccTLD string under evaluation by the EPSRP. The metric itself is a combined  
15 metric derived from three (3) different measuring methods to assess similarity:

- 16 • Subjective Rating Task: Participants judge on a multi-point scale the visual similarity  
17 of two letter strings. Although this is necessarily a subjective measure, the outcomes  
18 from such ratings can be very reliable within and between raters, and this can easily  
19 be treated as a numerical scale.
- 20 • Delayed Match to Sample / 2-AFC: Participants in the test are shown a stimulus,  
21 which later must be selected from a set of options. When only two options are given,  
22 this is sometimes referred to as a two-alternative forced choice (2-AFC) task.
- 23  
24 • Visual Search Task: Participants search for and identify a stimulus either by matching  
25 a target or miss-matching the rest of the stimuli in a field of text strings.

26  
27  
28 **Panelists Extended Process Similarity Review Panel**  
29 (Initially include a placeholder)

30  
31  
32  
33 **Research Team**

34  
35  
36  
37  

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<sup>11</sup> Based on Unicode Technical Report #36, Section 2: Visual Security Issues

<sup>12</sup> This takes into account the latest literature in study of letter recognition, neuropsychology and cognition for example:

**A letter visual-similarity matrix for Latin-based alphabets,**  
Simpson, Ian; Mousikou, Petroula; Montoya, Juan; Defior, Sylvia,  
Behavior Research Methods; June 2013, Vol. 45 Issue 2, p431

**Alphabetic letter identification: Effects of perceivability, similarity, and bias.**  
Shane Muleler, Cristoph Weidemann, *Acta Psychologica* 139, (2012)

1 **Annex C - Risk Mitigation Evaluation Procedure**

2 **1. Introduction**

3 As per proposed policy, a requested IDN ccTLD string should not be confusingly similar with  
4 (i) any Reserved Name, existing TLDs (both ccTLDs and gTLDs) or potential future TLDs to  
5 avoid risk associated with “misconnection” (see Annex A above).

6  
7 To evaluate possible confusing similarity, ICANN has appointed the following two panels:

- 8 • **Similarity Evaluation Panel (SEP).** The DSP conducts the initial DNS Stability  
9 Evaluation, which includes a string similarity review of the requested IDN ccTLD  
10 string.
- 11 • **Extended Process Similarity Review Panel (EPSRP).** The EPSRP conducts a review of  
12 the requested IDN ccTLD string for contention cases identified by DSP upon the  
13 request of the requester, using the same criteria but with a different methodology  
14 from DSP<sup>13</sup>.

15 The process description includes the evaluation of mitigation measures to reduce risks  
16 associated with confusingly similarity of TLD strings. This describes the process on how to  
17 propose and review mitigation measures.

18  
19 **2. High level overview Risk Treatment Appraisal Process**

20 At the request of the requester of an IDN ccTLD string and under the eligibility conditions of  
21 this guideline, the Risk Treatment Appraisal Process Panel (RTAP Panel) will need to be  
22 satisfied that the requester has followed an appropriate risk management process and  
23 adequate, related risk mitigation measures.

24 Should the RTAP Panel have concerns as to the adequacy of the proposed risk management  
25 process or the proposed mitigation measures, the RTAP Panel will communicate with ICANN  
26 and the requester during the process to understand the objective and the Risk Mitigation  
27 Proposal (RMP), and the requester may provide additional information and clarification.  
28

29 **3. Conditions for Application of these Guidelines**

30 In accordance with the proposed ccPDP4 procedure and under the following limited set of  
31 conditions, a requester is eligible to propose measures to mitigate the risk associated with  
32 confusing similarity:

- 33 III. If the DSP or EPSRP evaluation have determined that the requested string is  
34 confusingly similar in uppercase only.
- 35 IV. The requester has filed a request for a review of its proposed mitigation measures  
36 within three months from the date the results from the DRP and/or EPSRP have  
37 been communicated to the requester or, if at a later date, within 3 months after the  
38 date at which this guideline becomes effective.

---

<sup>13</sup>. Following the methodology in its guidelines, for the scripts which are bicameral the EPSRP provides separate recommendations for uppercase and lowercase versions of the applied-for IDN ccTLD strings given that from a visual similarity point of view, uppercase and lowercase characters of the same letter are distinct entities (see for example: <https://www.icann.org/en/system/files/files/epsrp-greece-30sep14-en.pdf>)

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- 1 V. In the request for a review of proposed mitigation measures, the requester has  
2 included - at a minimum – a reference to the proposed, internationally recognized  
3 and appropriate risk management and mitigation process the requester intends to  
4 use, and the related, proposed mitigation measures.  
5 The requester commits to implement the proposed and agreed upon mitigation  
6 measures as of the moment the IDN ccTLD becomes operational.  
7

8 If the above conditions are met, the review and evaluation of the proposed methodology  
9 and related mitigation measures shall be undertaken by an independent panel (the ‘RTAP  
10 Panel’), appointed by ICANN.  
11

12 The RTAP Panel shall evaluate the proposed risk management process and related risk  
13 mitigation measures to assess whether the risks of confusing similarity identified through  
14 the evaluation or review has been mitigated.  
15

#### 16 **4. Objective and Criteria for Review of Risk Mitigation Measures**

17 The mitigation measures proposed in the RMP should meet the objective of Risk Mitigation  
18 Measures and the criteria for review of Risk Mitigation Proposal.

19 The requester should make clear how the risk management process and proposed  
20 mitigation measures contained in the RMP meet the objective and criteria and should be  
21 evaluated together with the confusability findings.

22 The residual level of risk, if any, due to the confusability of domain names is expected to be  
23 in the same range as which would occur by adding another IDN ccTLD which has not been  
24 found similar to existing or reserved TLD.  
25

#### 26 **4.1 The Objective of the Review of Risk Mitigation Measures**

27 The objective is to determine if the risk will be effectively mitigated, as per the statement  
28 below:

29 If a requested string has been found to be confusingly similar with the upper case version of  
30 other strings, the proposed mitigation measures should reduce the risks associated with the  
31 confusing similarity to an acceptable level or threshold. The proposed mitigation measures  
32 should be evaluated in relation to the strings identified by the relevant panel (DSP or EPSRP)  
33 as confusingly similar to the applied-for string. In accordance with the IDN ccTLD  
34 Implementation Plan, the RTAP Panel should consider the likelihood of confusing similarity  
35 with specific consideration of confusability from the perspective that any domain name may  
36 be displayed in either upper- or lower-case, depending on the software application and  
37 regardless of the user’s familiarity with the language or script.  
38

#### 39 **4.2 The Criteria for assessing the risk mitigation measures**

- 40 1. **Proportionate:** The mitigation measures will be in proportion to risks identified. The  
41 higher the risks, the greater the mitigation measures will be required; conversely,  
42 lower mitigation measures will be a proportionate response to risks that are identified  
43 as low severity or low likelihood,  
44 2. **Adequate:** For each of the case(s), the measures should reduce the risk of user  
45 confusion arising from the potential use of the applied-for TLD to an acceptable level.

- 1 The residual level of risk, if any, due to the confusability of domain names is expected  
2 to be in the same range as which would occur by adding another IDN ccTLD which has  
3 not been found similar to existing or reserved TLD.
- 4 3. **Self-contained:** The proposed mitigation measures can only apply to the registration  
5 policies of the applied-for TLD and do not assume any restrictions on the availability or  
6 registration policies of other current or future TLD labels.
- 7 4. **Global Impact:** The proposed mitigation measures must have global applicability, and  
8 not apply to confusability within the intended user community only.

#### 9 **5. Risk Treatment Appraisal Process Panel (RTAP Panel)**

10 Effective risk analysis and mitigation require expertise in the area of risk management and  
11 risk management processes and procedures. To guide the discussion and coordinate the  
12 assessment work and given the paramount nature of this kind of expertise, at least one  
13 person on the panel should be a recognized expert in this area. The RTAP Panel members  
14 shall appoint one of their members to be the chair of the RTAP Panel.

15 The team doing the risk analysis should also include persons who are 1. considered experts  
16 in the area of internationalized domain names and how related registration policies are  
17 implemented by the registries (to review the practicality of implementing the RMP), 2. how  
18 IDNs may be confusing, to what extent such confusion can cause harm and how such  
19 confusion and harm could be prevented.

20 Therefore, the RTAP Panel will have three (3) to five (5) members, ensuring all the following  
21 requirements/skill sets are represented:

- 22 ○ Expertise in and understanding of various risk mitigating processes and standards  
23 and risk mitigation practices.
- 24 ○ Expertise on IDN implementation by registries, good understanding of the  
25 implementation opportunities and challenges for different IDN policies at the second  
26 and other levels, and knowledge of the relevant security and technical standards  
27 relating to IDNs.
- 28 ○ Expertise in brand protection, trade mark law and domain name disputes pertaining  
29 to the use of domain names as instruments for phishing and other sorts of abusive  
30 use, their impact and measures to address them.
- 31 ○ Expertise in the relevant language(s)/scripts.

32

33 ICANN organization convenes the RTAP Panel to review the anticipated RMP.

34 The names of the members of the RTAP Panel will be listed on the ICANN Website as soon  
35 as possible following their appointment, and included in the report.

36

#### 37 **6. Risk Treatment Appraisal Procedure**

- 38 1. Requester submits the RMP within three (3) months after receiving the  
39 communication of the string similarity review decision<sup>14</sup>

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<sup>14</sup> For applications in the process before the implementation of these guidelines, this period will start from the date of publishing of the announcement that these guidelines are applicable.



- 1 2. ICANN organization convenes the RTAP Panel, and forwards RMP to RTAP Panel
- 2 within one (1) week of the formation of the RTAP Panel
- 3 3. The RTAP Panel creates a review plan within three (3) weeks for the completion of
- 4 the work, which includes at a minimum:
  - 5 a. Tentative work plan and timeline
  - 6 b. Request, if any, for additional information which may be needed or helpful
- 7 4. ICANN organization reviews the RTAP Panel’s evaluation plan, and informs the
- 8 requester of the timeline and any additional information needed.
- 9 5. Requester considers the review plan and shares any feedback, and additional
- 10 information requested with respect to the RMP, and any other information
- 11 considered necessary and /or relevant as soon as possible and confirms whether to
- 12 proceed with the RTA. If the confirmation is not received within eight (8) weeks of
- 13 receiving the review plan, the application is closed
- 14 6. ICANN organization forwards the updates with respect to the RMP, if any, to RTAP
- 15 Panel, within one (1) week of receiving it.
- 16 7. RTAP Panel undertakes analysis of the RMP. ICANN organization coordinates any
- 17 additional interaction between RTAP Panel and requester with respect to any
- 18 clarifying question RTAP Panel may have or additional information the requestor
- 19 intends to provide with respect to the RMP.
- 20 8. The RTAP Panel creates and hands over to ICANN organization a first RTA-Interim
- 21 Report within eight (8) weeks of receiving the requester’s confirmation to proceed
- 22 with the RTAP,
- 23 9. ICANN organization passes RTA-Interim Report to the requester within one (1 week)
- 24 of receiving it.
- 25 10. Requester submits its response and any additional information it considers relevant
- 26 on the RTA-Interim Report and updated RMP (if at all) to ICANN organization within
- 27 four (4) weeks of receiving the RTA-Interim Report.
- 28 11. ICANN organization sends the response and updates of the RMP (if any) to RTAP
- 29 from the requester. If requester has not submitted a response within four (4) weeks
- 30 after receiving the Interim Report, ICANN will inform the RTAP Panel that they may
- 31 continue to next steps.
- 32 12. The RTAP Panel creates the RTA-Final Report and sends it to ICANN organization
- 33 within (4) weeks of receiving the requester response on the RTA-Interim Report, or if
- 34 no response is received within four (4) weeks of the expiry of the deadline for filing a
- 35 response. ICANN organization coordinates any clarifying questions between RTAP
- 36 Panel and the requester.
- 37 13. ICANN organization sends the RTA-Final Report to the requester and publishes it one
- 38 (1) week after sending it to the requester

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39  
40 **7. Closure of procedure**

- 41 The end result of the review procedure is either:
- 42 o A documented and consolidated recommendation from the RTAP Panel,
  - 43 following consultations with the requester, confirming that:

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- 1                   ▪ The requester has adopted an appropriate risk management
- 2                   methodology and framework;
- 3                   ▪ The mitigation measures are proportionate and adequate to treat the
- 4                   risk(s) identified by the DSP or EPSRP (as the case may be);
- 5                   ▪ The requester/ IDN ccTLD operator has committed to implement the
- 6                   mitigation measures prior to or on launch of the IDN ccTLD string(s);
- 7                   **or**
- 8                   ○ A documented and consolidated recommendation confirming the risk is not
- 9                   adequately treated, given the list of mitigation measures being proposed by
- 10                  the requester.
- 11 VI.           The end result of the review, will be made public.
- 12

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13 **8. Risk Treatment Appraisal (RTA) Reports**

14 There are two kind of reports generated by the panel. There is *RTA-Interim Report* which

15 identifies gap(s) and (possibly) recommends any additional controls and solutions to

16 mitigate risks identified. The second, the *RTA-Final Report* provides the final consolidated

17 recommendation after evaluating the RMP by the requester. These reports would contain at

18 least the following:

19 **RTA-Interim Report**

- 20 1. *Objective and scope of the risk management process.*
- 21 2. *Summary of the external and internal context and how it relates to the system*
- 22 *being assessed.*
- 23 3. *Summary of the methodology used for various stages of risk management.*
- 24 4. *Assessment of risk and breakdown of overall risk into its itemized component*
- 25 *risks, with description of each component risk, the gap it causes, the end-user*
- 26 *communities it impacts, and its evaluation.*
- 27 5. *Summary of the initial RMP by the requester, its break down into constituent*
- 28 *controls, and how applicable constituent controls address each component risk.*
- 29 6. *Analysis of the degree (and description) of residual risk for each component risk*
- 30 *after applying the proposed constituent controls.*
- 31 7. *For each component risk and in accordance with the objective and criteria set out*
- 32 *in these guidelines, a detailed evaluation if the residual risk is still at significant*
- 33 *level. Why? Why not?*
- 34 8. *Any suggestions, if available, for effectively addressing any of the residual risks*
- 35 *which is still considered significant.*
- 36 9. *Based on the RMP, the residual risk for each component risk, what is the interim*
- 37 *consolidated recommendation: is the cumulative risk effectively mitigated based*
- 38 *on the RTA objective? Why? Why not?*

39 **RTA-Final Report**

- 40 1. *Objective and scope of the risk management process.*
- 41 2. *Summary of the external and internal context and how it relates to the system*
- 42 *being assessed.*
- 43 3. *Summary of the methodology used for various stages of risk management.*

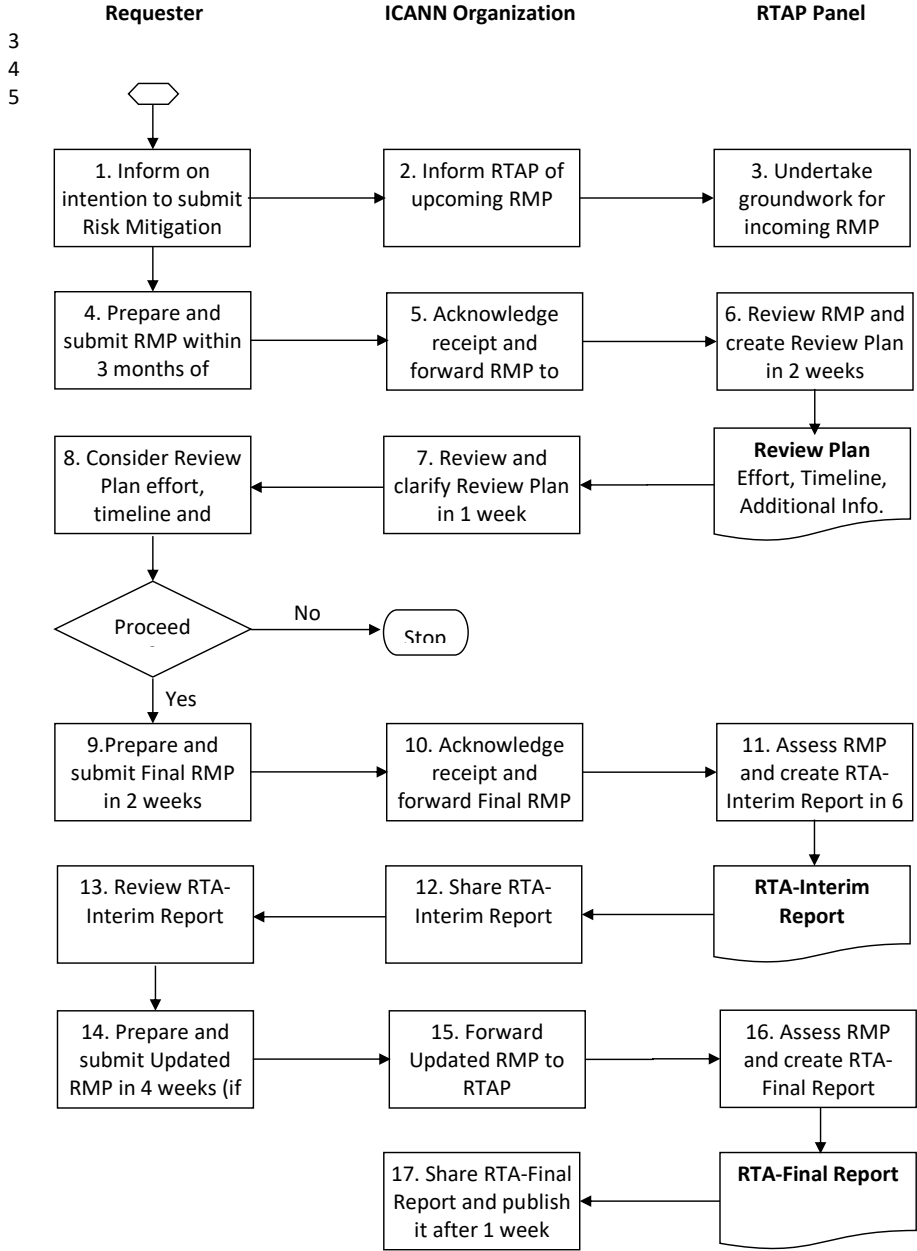
- 1 4. *Assessment of risk and breakdown of overall risk into its itemized component*  
2 *risks, with description of each component risk, the gap it causes, the end-user*  
3 *communities it impacts, and its evaluation.*  
4 5. *Summary of the initial RMP, and any response or changes to the mitigation*  
5 *measures proposed by the requester in response to the RTA-Interim report,*  
6 6. *Summary of the final RMP, its break down into constituent controls, and how*  
7 *applicable constituent controls address each component risk.*  
8 7. *Analysis of the degree (and description) of residual risk for each component risk*  
9 *after applying the proposed constituent controls.*  
10 8. *For each component risk, and in accordance with the objective and criteria set*  
11 *out in this guideline, a detailed evaluation if the residual risk is still at significant*  
12 *level. Why? Why not?*  
13 9. *Based on the RMP, the residual risk for each component risk, what is the final*  
14 *consolidated recommendation: is the cumulative risk effectively mitigated based*  
15 *on the RTA objective? Why? Why not?*

16

17 **Glossary**

- 18 • Risk Mitigation Proposal, by the requester – RMP. The RMP should include at a  
19 minimum the proposed internationally recognized and appropriate risk management  
20 and mitigation process the requester has used and intends to use, and the proposed  
21 mitigation measures.  
22 • Risk Treatment Appraisal Process- RTAP  
23 • Risk Treatment Appraisal Process Panel – RTAP Panel (none DRP EPSPR or ICANN  
24 employees or contractors)  
25  
26  
27

1 To be updated  
 2 Process Flow Diagram



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