

15 February 2019

Wang Wei, Co-chair of Chinese Generation Panel
Kenny Huang, Co-chair of Chinese Generation Panel
Hiro Hotta, Chair of Japanese Generation Panel
Kim Kyongsok, Chair of Korean Generation Panel
Edmon Chung, Advisor to the Chinese, Japanese and Korean Generation Panels

Re: Variant Code Points in Root Zone Label Generation Rules

Dear Wang Wei, Kenny Huang, Hiro Hotta, Kim Kyongsok and Edmon Chung,

Thank you for your communication on 25 January 2019 with regards to the variant code points in Chinese, Japanese and Korean (CJK) label generation rules for the root zone.

Your letter has been posted to the ICANN correspondence page at <https://www.icann.org/en/system/files/correspondence/wei-et-al-to-marby-25jan19-en.pdf>.

ICANN organization recognizes and highly appreciates the significant effort and continued cooperation between CJK Generation Panels (GPs) to produce its respective Root Zone Label Generation Rules (RZ-LGR) proposal.

As described in the Integrated Issues Report¹, a foundational document in the development of the LGR process, the nature of internationalized identifiers and domain names so defined has to be much more restrictive than the full range of normal human writing². On the other hand, identifiers are not restricted to being actual words, so there is the potential for characters to be inserted into an unexpected context, which may interfere with readers' recognition and discrimination ability of characters. The RZ-LGR Procedure³ (the Procedure) and the Internet Architecture Board statement⁴ have directed the process to be biased to the conservative side, in order to ensure the security of the Internet. In particular, a TLD label cannot be visually identical to another one because users may be misled, thus compromising their security.

The CJK GPs correctly note that visual similarity of strings causing confusability should be resolved by String Similarity Panels during TLD string evaluation, String Confusion Objection and String Contention Mechanisms. While recognizing this, the Procedure additionally states that "the LGR process is designed to clear the table of all the straightforward, non-subjective cases, mainly by returning a 'blocked' disposition," further explaining that "Even for variants based on visual similarity, there exists a subset of evaluation rules that could be applied in an automated manner, obviating the need for further case-by case or even contextual review."

¹ See <https://www.icann.org/en/system/files/files/idn-vip-integrated-issues-final-clean-20feb12-en.pdf>, section 1.1 point 4.

² This is also noted by Security and Stability Advisory Committee (SSAC): "Because the root zone of the global DNS is a shared resource, it is unrealistic to expect local linguistic conditions to always be accurately represented in TLD labels" in [SAC089](#).

³ See <https://www.icann.org/en/system/files/files/draft-lgr-procedure-20mar13-en.pdf>.

⁴ See <https://www.iab.org/documents/correspondence-reports-documents/2018-2/iab-statement-on-identifiers-and-unicode/>.

Because the Integration Panel (IP) is governed by the Procedure, it has asked every GP to provide a list of visually identical code points or sequences, limited to the cases which are “straightforward and non-subjective”, to be treated as blocked variants. All GPs up to date have undertaken the analysis and provided a list of the candidates determined.

This is an important part of the Procedure and helps ensure that the RZ-LGR satisfies the “Contextual Safety Principle” which asks to minimize the risk of malicious use of IDN labels⁵. As well noted in your communication, the visually similar strings, which are not deemed identical, will continue to be evaluated by the String Similarity Review processes.

Due to the independent nature of the working of the IP, as stipulated by the Procedure, ICANN org suggests that the CJK GPs continue discussions with the IP in order to find a mutually agreeable solution based on the Procedure. ICANN org will organize a face to face meeting of the GPs and IP at the ICANN64 meeting in Kobe, Japan to continue to support this dialogue.

Best regards,



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Vice-President
Global Domains Division

⁵ Also see [RFC 6912](#).