



Dear Domain Name Industry Stakeholder,

In 2019, the Registries Stakeholder Group (RySG) requested clarity about situations where a registry operator was informed that ICANN org could not approve a certain Internationalized Domain Name (IDN) table despite that table being approved and utilized in other gTLDs earlier. The intent of this communication is to provide clarity as it relates to the Registry Service Evaluation Policy (RSEP) and Material Subcontracting Arrangement (MSA) service requests that include IDN table reviews.

There has been significant work done over the past few years on the technical design considerations and the linguistic details for IDN tables. This work has resulted in the identification of additional requirements for some IDN tables to ensure security and stability in IDN registration services. The collective knowledge gained by the ICANN community over the past few years has resulted in the understanding that some IDN tables previously approved by ICANN org may have security and stability issues and may not continue to be fit for use.

For services such as RSEP requests or MSA change requests where ICANN org must review any submitted IDN tables, ICANN org will continue to utilize the most current security and stability guidance. For any RSEP or MSA change request requiring a review of IDN tables, if security and stability issues are found, ICANN org will provide feedback to the requesting registry to address these issues. The registry must either address the identified security and stability issues, or the registry may remove such existing or proposed IDN tables, in order for the RSEP request or MSA change request to proceed.

We recognize it can be frustrating for registries to learn that a previously approved IDN table is no longer adequate from a security or stability perspective while in the midst of a service request such as an RSEP or MSA change. Therefore, ICANN org encourages registries to proactively utilize the resources relied on by ICANN org when designing and maintaining the registry's IDN tables. These resources were developed by the ICANN community to ensure IDN tables align to current security and stability requirements. The community's relevant work on IDN tables includes, but is not limited to, the following analyses, recommendations, standards and advisories:

- ICANN org has [published](#) second-level reference IDN tables and [provided](#) the LGR tool to support the latest format for IDN tables.
- *Script communities* have completed detailed analysis presented in the supporting documents of their [finalized](#) solutions for the [Root Zone Label Generation Rules \(RZ-LGR\)](#) for Arabic, Armenian, Bangla, Chinese, Cyrillic, Devanagari, Ethiopic, Georgian, Gujarati, Gurmukhi, Hebrew, Kannada, Khmer, Lao, Malayalam, Oriya, Sinhala, Tamil, Telugu, and Thai scripts. Work continues on other scripts.

- The *Technical community* has provided input and guidance, including the Internet Engineering Task Force (IETF) Request for Comments (RFCs) such as RFC6912, RFC7940, RFC8228 and Security and Stability Advisory Committee (SSAC) [documents](#), such as SAC060, SAC084, SAC089, and SAC095.

These requirements impact the choice of code point repertoire and may require defining variant code points and label-level contextual rules for the IDN tables for various scripts, and languages written in these scripts.

As an example, the Thai script community stipulates¹ (see Section 7.7) that in Thai script labels a “tone-mark ... cannot follow another tone-mark”. Not following such guidance can result in unexpected font or rendering issues which can lead to security and stability problems. In a label, if a Thai tone-mark ” (U+0E49 THAI CHARACTER MAI THO) is allowed to follow itself (U+0E49), it could be rendered as ” which is visually identical to a single tone-mark, because the second tone-mark is completely overlaid on top of the first one instead of being juxtaposed as ””. Therefore, users will not be able to differentiate a single tone-mark from multiple tone-marks. Fonts and their rendering may not be designed to handle such cases as these are not expected in the way Thai is written.

For more information, please see the [supporting document](#) Section 7.7 and the [Thai script LGR](#).

These details are explained in the supporting documents [published](#) by the script communities and captured as rules in their script proposals for the RZ-LGR. It is recommended that those responsible for designing IDN tables at registries also review the reference IDN tables, supporting documents, and other resources given in the bulleted list above while designing IDN tables.

As always, ICANN org encourages registries who are contemplating submitting an RSEP request or MSA change request to consult with their Account Manager to address any questions in advance of submitting the service request. If you have questions or require assistance about such details regarding the IDN tables, please also feel free to reach out to ICANN org’s [Global Support Center](#).

Sincerely,

Russ Weinstein
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