

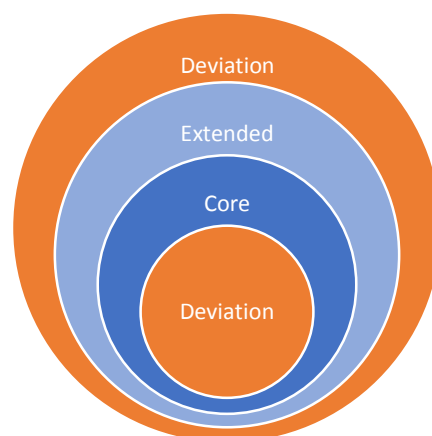
Evaluation of Deviation from the Second Level LGR References

ICANN has developed second level reference Label Generation Rules (LGRs) - machine readable tables for International Domain Names (IDNs). The reference LGRs will facilitate consistency of Pre-Delegation Testing (PDT) and enhance stability of gTLD registry operations by providing a coherent ruleset for selected languages. The process to develop these reference LGRs, as detailed in the [Guidelines](#), ensures both linguistic and technical expert input with finalization based on community review through a formal public comment process. This work builds on the baseline IDN tables already being used in PDT.

The Registries Stakeholder Group (RySG) has identified the need for registries to be allowed to deviate from the reference LGRs to promote competition in the domain name space. Deviations from reference LGRs should be possible but not completely arbitrary and should be managed to promote usability, stability and, above all, security. The current document presents a strategy to accomplish these varied goals.

The reference LGRs are developed in the context of either a language or a script. Current reference LGRs include a core set of code points, variant rules, and Whole Label Evaluation (WLE) rules that must be supported and also include an (optional) extended ruleset serving special needs based on geographical or other variations. A registry would choose the set which best serves the needs of their end users. Remaining within these reference LGRs (core plus an appropriate subset of extended code points along with corresponding variants and WLE rules) will be pre-approved and not considered a deviation. An LGR will be considered deviating from the reference LGR only if it does not meet core requirements or is outside of the extended reference LGR (or a combination thereof), as illustrated below. The deviations can be in one or more of the following categories:

1. Code point repertoire
2. Variant sets
3. WLE rules



The deviations are motivated by the fact that registries would like to remain competitive by offering innovative solutions to address various end-user needs. This innovation may be achieved by deviating from the reference LGRs in different ways. The following provisions apply in such cases:

- A. It is not a goal to make registry implementations identical. LGRs are intended to “facilitate and improve” IDN implementation. Where appropriate, registries may choose to use the LGR to produce a stable and secure IDN implementation. But in order to support a competitive registry marketplace, the rights of registries to differentiate their implementation must remain unabridged, as long as these remain stable and secure and within the scope of the applied-for language or script.
- B. As the name implies, Reference Tables must remain non-normative. Registries are responsible to document their IDN implementations for Pre-Delegation Testing. But ICANN (or ICANN partners) should take the responsibility to identify instances where an implementation fails to meet a specific “security and stability” criterion. ICANN should document those instances and criteria so that Registry Operators can update their IDN implementations. Placing this identification and documentation responsibility with ICANN experts maintains non-normative reference tables, lowers the barrier to entry for new gTLDs, and protects the “security and stability” of IDN implementations. To meet provision A, no part of this process should compel Registries to meet Language Rules codified in an LGR. The larger ICANN body’s shared goal is to focus on “security and stability” criteria.
- C. The reference LGRs apply to new certifications only. IDN implementations that have already been certified during PDT or RSEP would not require recertification to comply with the reference LGRs published.

The following steps are proposed to evaluate IDN tables submitted by the registries and to manage the reference LGRs:

1. The applicant may request an IDN table which covers the relevant core and subset of the reference LGR. The applicant may also request deviation from a reference LGR, preferably documenting the justification for each change in repertoire, variant set and/or WLE rule, clarifying the deviation does not have an adverse stability and security impact.
2. ICANN will evaluate the application based on the provisions above.
 - a. In case the documentation is unclear or insufficient, ICANN may ask for clarification and/or additional supporting documentation.
 - b. In case there are multiple deviations requested from a reference LGR, each deviation will be evaluated separately.
3. ICANN will provide the evaluation results.
 - a. Any IDN table including the complete core and any extended code points with relevant variants and WLE rules will be approved.
 - b. Each deviation point deemed justified based on documentation provided will be approved.
 - c. Any case within the deviation set that does not meet the criteria will be rejected, and a supporting case from ICANN will be provided.
4. ICANN may use the justification and documentation provided to update its reference LGRs, where needed.
5. ICANN may also anonymize and publish deviations which have been accepted or rejected along with the reasons, for the community to consider and utilize in future applications.

It is not required to have IDN tables in the XML format for the registry at this time. The applicant can implement other formats already specified. The registry will be evaluated on the content and not this LGR specification format. However, it is encouraged that the registries adopt the LGR XML specification

in time as it provides a concise, machine readable and interoperable means of representing linguistic data, including code points, repertoire and WLE rules. This format is used by ICANN for defining the [LGR for the Root Zone](#). A [tool](#) is being made available to convert IDN tables to LGR XML format, create new LGRs, compare existing LGRs and use LGRs to validate labels (email IDNProgram@icann.org for access credentials).