

ICANN 48

IDN Variant Program Update

20 November 2013



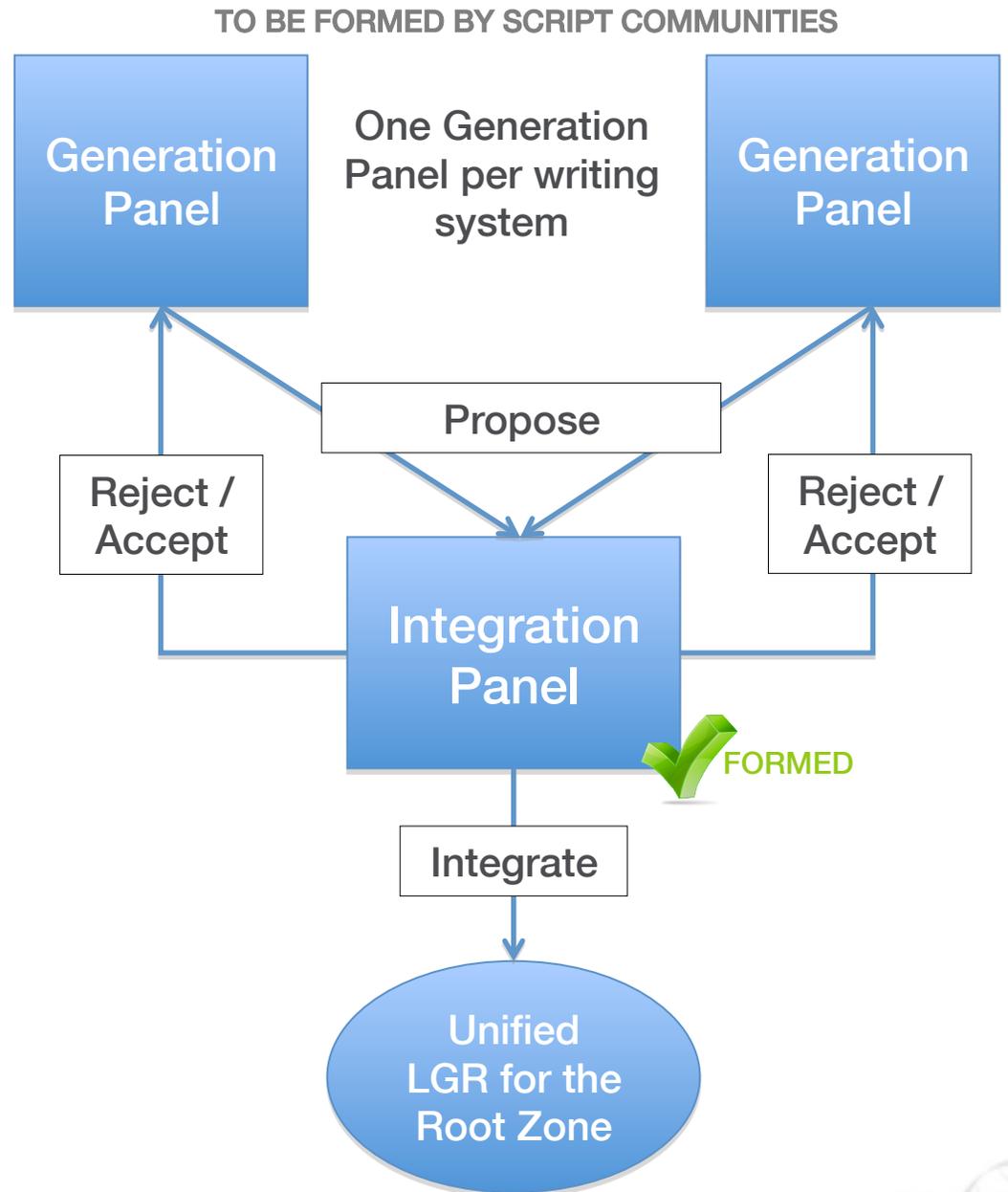
Agenda

- + IDN Root LGR Procedure: Implementation Updates (Project 2.2)
- + LGR Tools: Representing Label Generation Rulesets in XML (Project 1)
- + User Experience Study: Community Input on Implementation of Study Recommendations (Project 7)

- IDN Root LGR Procedure - Implementation Updates (Project 2.2)

Overview of the LGR Procedure

- + Generation Panels generate proposals for script specific LGRs, based on community expertise and requirements
- + Integration Panel reviews proposals and integrates them into common Root Zone LGR while minimizing the risk to Root Zone as shared resource
- + Label Generation Rules (LGR) define:
 - + which labels are permissible
 - + which variant labels exist
 - + which variant labels may be allocated



Integration Panel (IP) Launched

- + Integration Panel [selection](#) completed on 6 September 2013



- + Integration Panel met early October 2013 to launch work on startup tasks for the LGR procedure
- + [Supplemental guide](#) on Integration Panel operations issued and project website launched in November 2013

IP Startup Tasks

- + Integration Panel is working on:
 - + Maximal Starting Repertoire for the Root
 - + Default Whole Label Evaluation rules
 - + Definition of format for LGR submissions
- + The Maximal Starting Repertoire for the Root and the default Whole Label Evaluation Rules will:
 - + provide a common starting point for the Generation Panels

Generation Panels Status

- + To date, ICANN received Statements of Interest for:
 - + Arabic, Chinese, Cyrillic and neo-Brahmi scripts
 - + Interested parties, please send Sol to ldnvariantlds@icann.org
- + Prospective Arabic Generation Panel
 - + Effort carried out by the Task Force on Arabic IDNs, a Middle East Strategy Working Group (MESWG) initiative
 - + Group of volunteers formed - 21 individuals from 12 countries
 - + Cover all major languages and many other languages using Arabic script from South Asia and Africa
 - + Group is currently working on the proposal to form the Arabic Generation Panel for submission to ICANN
 - + Group has started initial discussion on the contents of the LGR, currently discussing scope and general principles
 - + Interested individuals are invited to join the task force on voluntary basis by emailing their CV and Statement of Interest to tf-aidn-admin@meswg.org
- + Prospective Chinese, Japanese & Korean Generation Panel

Forming Generation Panels

+ Where to start?

- + Work with other community members to form a prospective panel
- + Communities with existing relevant working groups can respond to the "[Call](#)" by submitting an SOI for the working group as a whole
- + **When a perspective panel is identified, create a tentative work plan that includes:**
 - relevant writing systems covered by the script
 - user community representation on the prospective panel
 - a tentative schedule, including major milestones
 - all other relevant information: composition, members, information suitable for evaluating any conflicts of interest or diversity requirements, etc.
 - submit to ICANN for review in light of the criteria set forth in the Procedure

Establishing Generation Panels

- + Once composition and work plan are reviewed by ICANN staff with advice from the Integration Panel, the Generation Panel is seated and can start its work on the LGR
- + To provide more information on establishing panels, ICANN published a supplemental guide: ['How to setup and run a Generation Panel'](#) available on the project website

Stay Informed on LGR Work

- + Project website available on [ICANN Community Wiki](#) dedicated to provide:
 - + Updates on LGR Procedure implementation developments
 - + Integration Panel and Generation Panels work status updates
 - + Integration Panel and Generation Panels membership information
 - + Useful documentation and tools
- + Project wide public mailing list LGR@icann.org for:
 - + communications between the Integration and Generation Panels
 - + matters related to LGR work and submissions of LGR proposals
- + For support from ICANN Staff: idnvariantlds@icann.org

- LGR Tools -

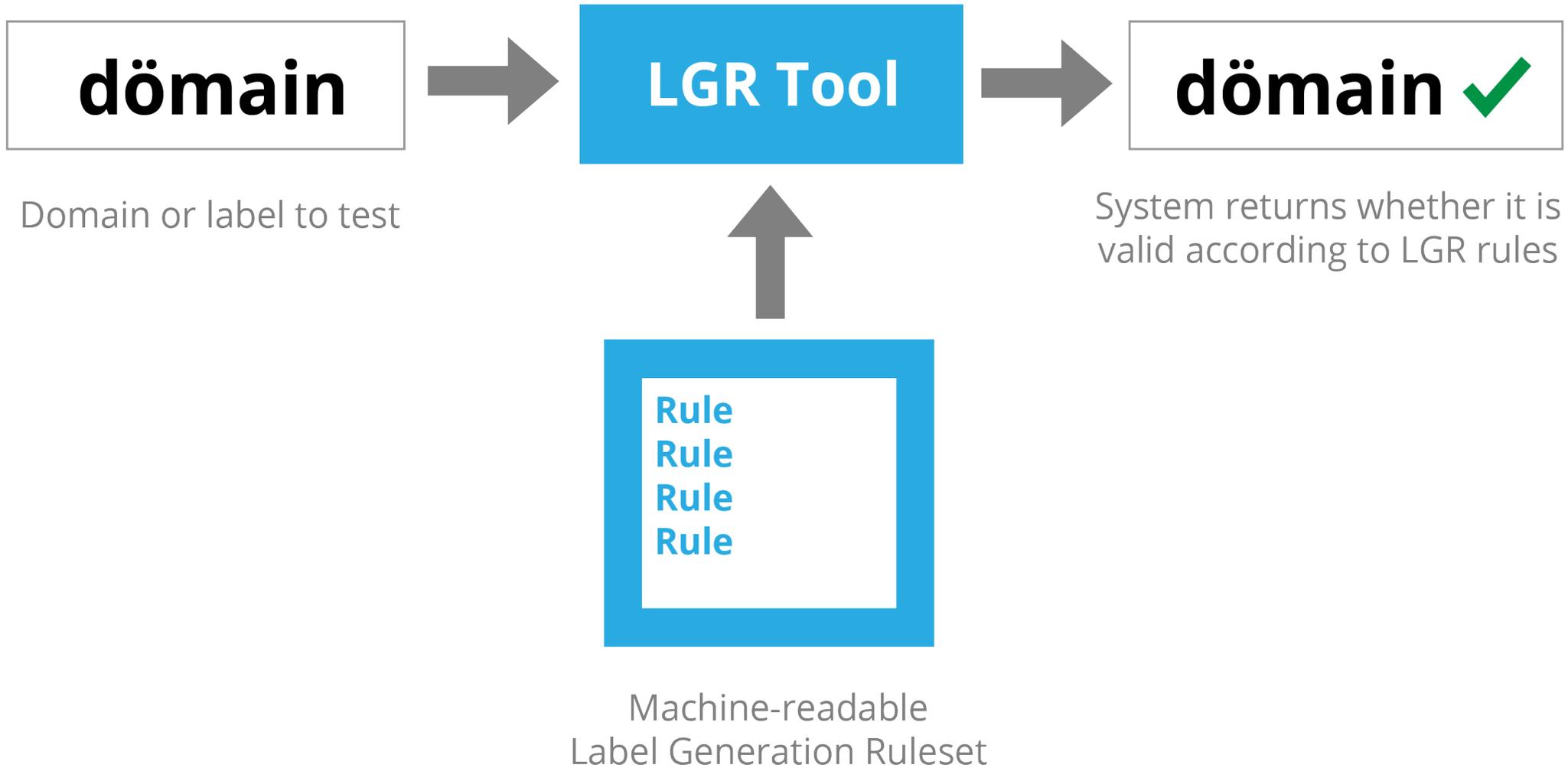
Representing Label Generation Rulesets in XML

(Project 1)

LGR Tools — “Representing Label Generation Rulesets in XML”

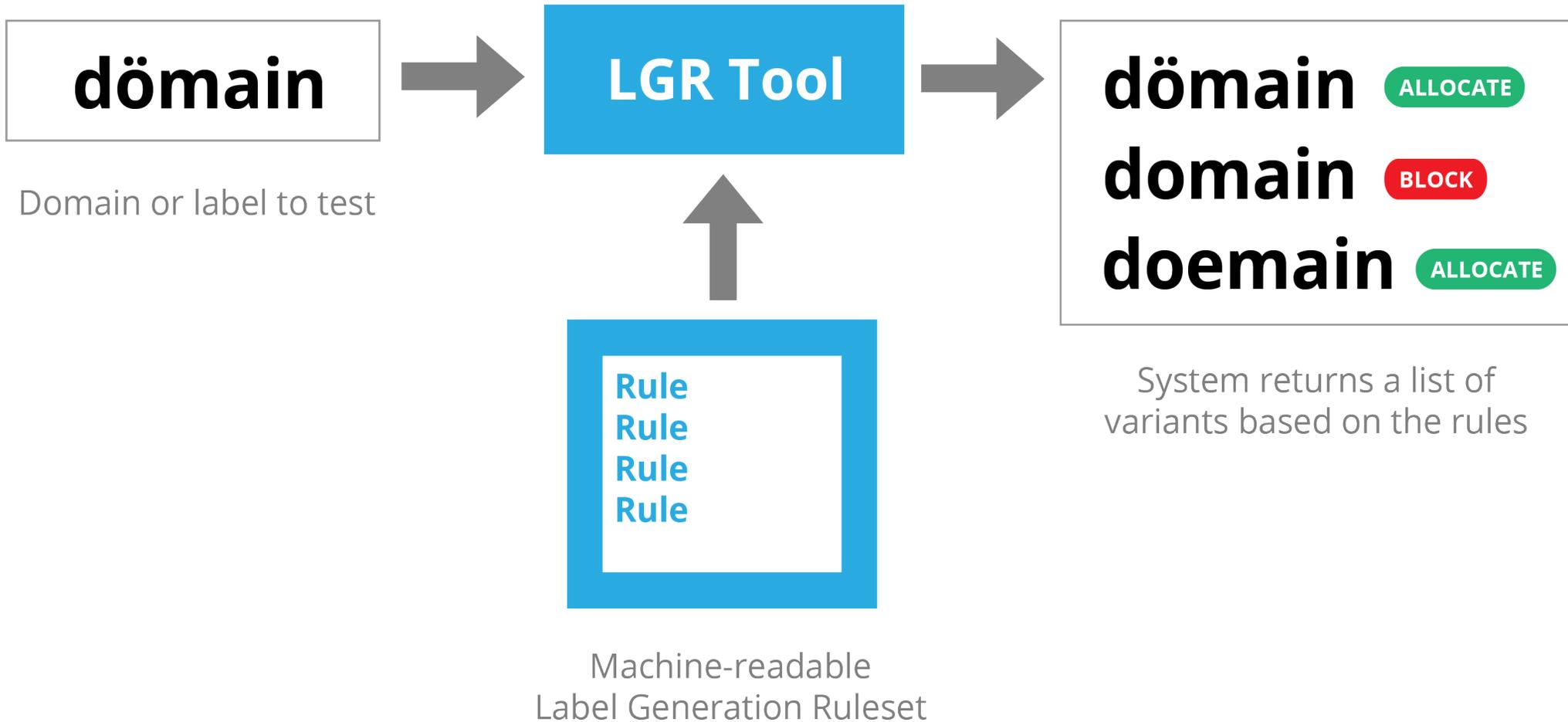
- + A new standard format to express IDN tables and other registration rules, now known as “label generation rulesets” (LGRs)
- + Allows LGRs to be machine-processed
- + Currently under review by Integration Panel, but wider review desirable
- + <http://tools.ietf.org/html/draft-davies-idntables>

What does it enable?



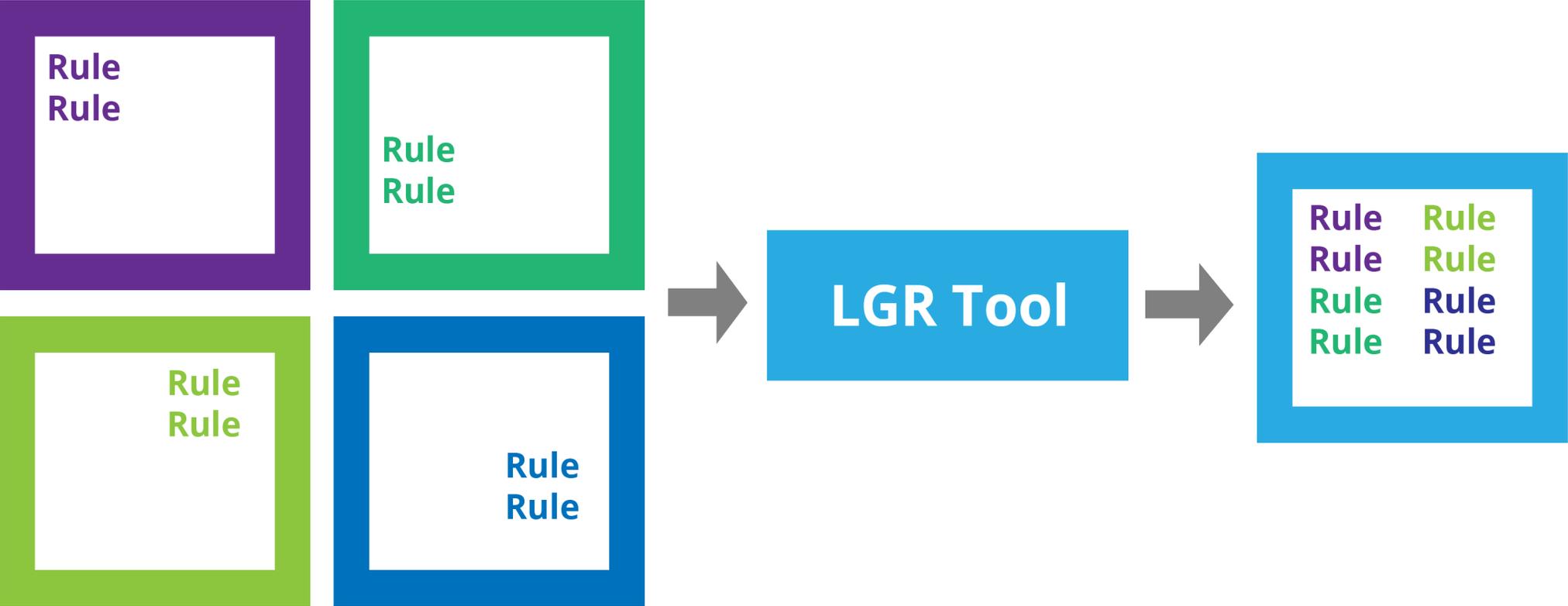
+ Simple label validity checking

What does it enable?



+ Variant label generation

What does it enable?



+ Merge tables from different sources

What does it enable?



+ Compare different tables

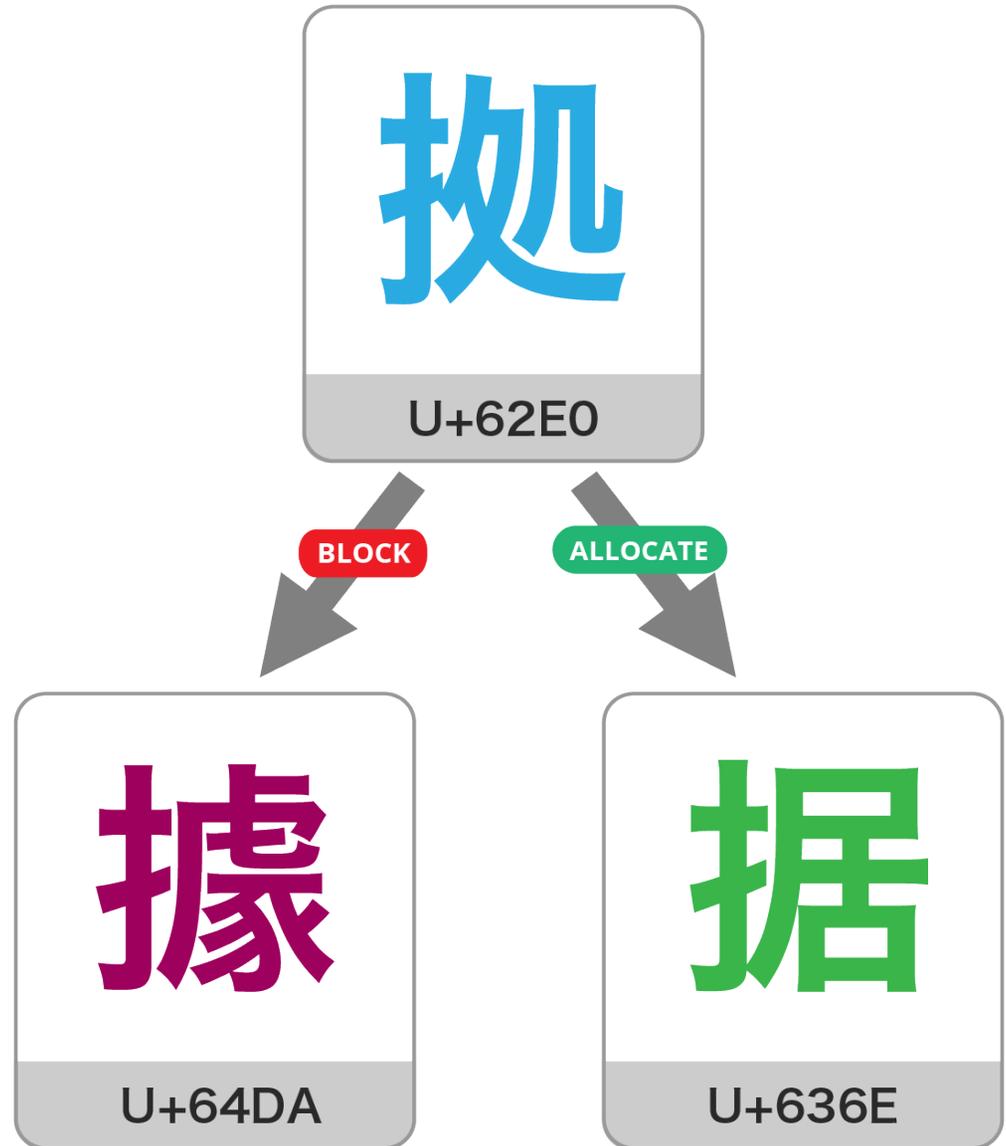
What can be in the rules?

- + Simple codepoint list (specific characters that are allowed or disallowed)
- + Derived codepoint lists (based on Unicode properties, like Greek script characters, or those with specific joining properties)
- + Contextual “whole-label” rules, that return different results depending on where characters appear in the label relative to other characters
- + What actions to take based on a given rule: allocate, block, etc.

Actual example

```
<char cp="62E0">  
  <var cp="636E" disp="allocate"/>  
  <var cp="64DA" disp="block"/>  
</char>
```

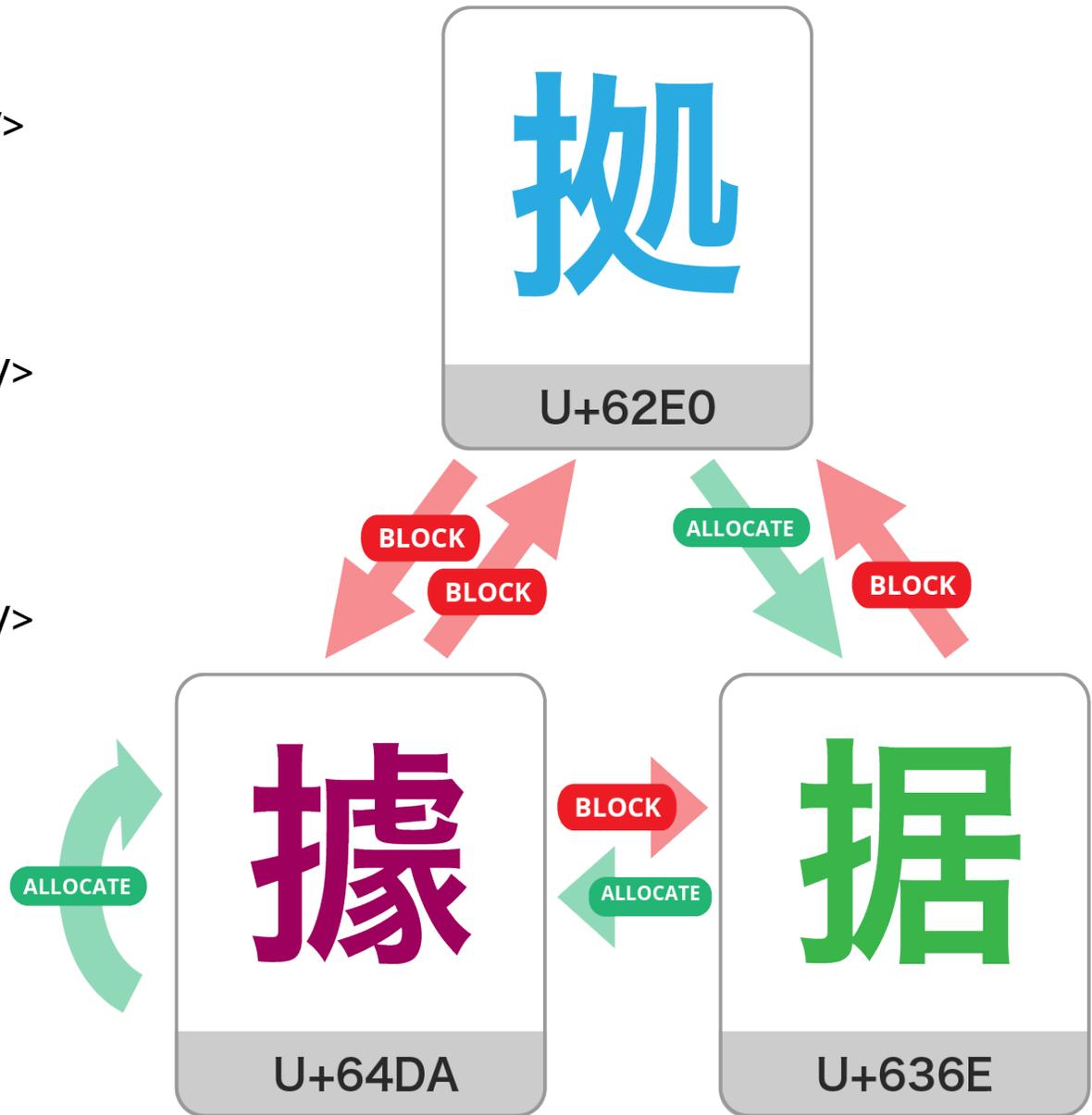
- + Chinese characters can have simplified or traditional forms. These are defined as variants of each other.
- + Variants have dispositions that define whether variant labels should be allocated or blocked



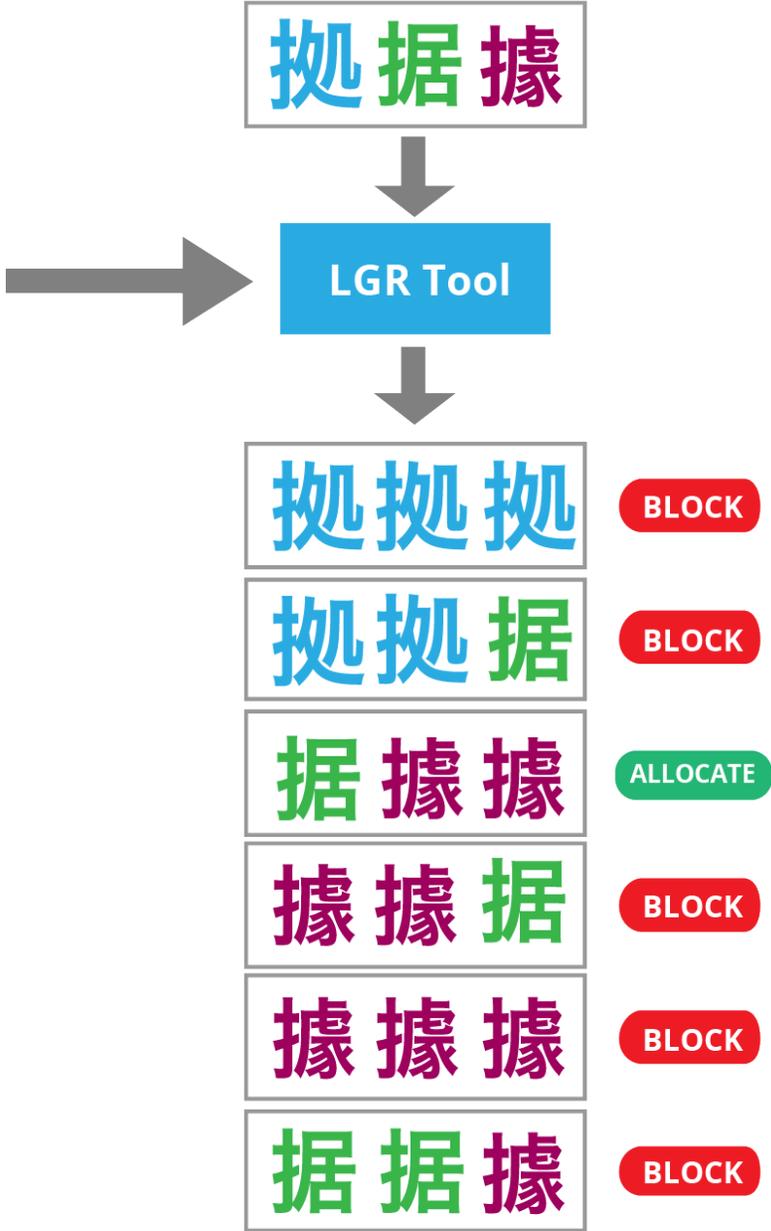
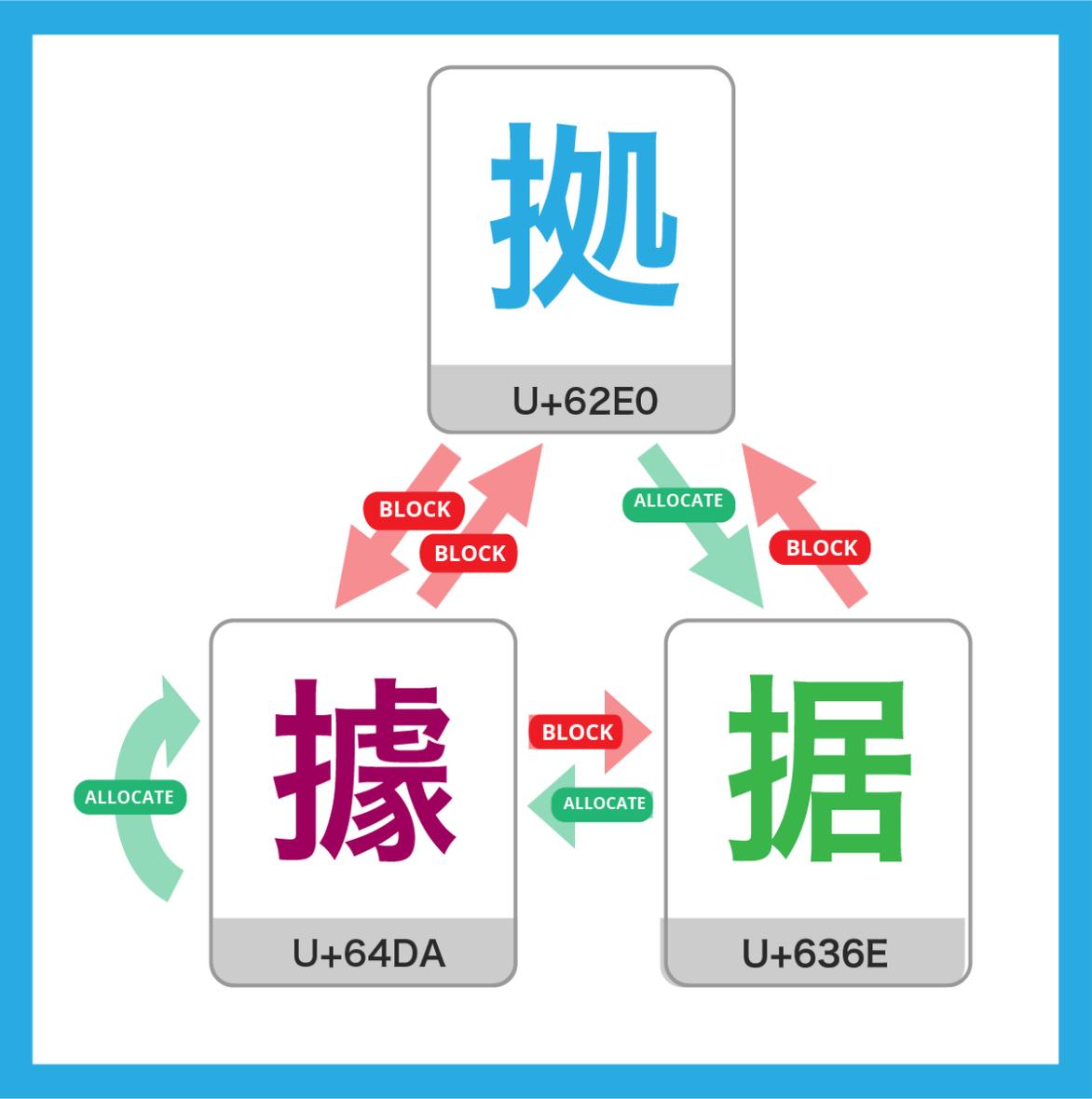
Actual example

```
<char cp="62E0">  
  <var cp="636E" disp="allocate"/>  
  <var cp="64DA" disp="block"/>  
</char>  
<char cp="636E">  
  <var cp="62E0" disp="block"/>  
  <var cp="64DA" disp="allocate"/>  
</char>  
<char cp="64DA">  
  <var cp="62E0" disp="block"/>  
  <var cp="636E" disp="block"/>  
  <var cp="64DA" disp="allocate"/>  
</char>
```

- + Variant relationships are symmetric and transitive and may include identity mapping



Actual example



Current work

- + Refining the specification, particularly based on Root LGR needs
- + Developing several proof-of-concept implementations of the LGR tool, so we can bake them off
- + Testing migrations of existing IDN tables into the new format

Future work

- + Finalize the specification and move tool(s) into production state
- + Use the specification as the basis for Root LGR work
- + Encourage existing implementers to migrate IDN table usage to LGR format

In summary

- + Expands the notion of IDN tables to be beyond just IDNs, and beyond simple codepoint lists
- + Provides comprehensive way to describe registry policies relating to permitted codepoints
- + Universal format that can be implemented in a single fashion across multiple domains and policies
- + Good basis for clear and consistent rulesets for the root zone

**– User Experience Study –
Community Input on Implementation
of Study Recommendations
(Project 7)**

Input from SO's and AC's

- + In April 2013, ICANN Board invited interested Supporting Organizations and Advisory Committees to provide staff with input and guidance to be factored into implementation of the Recommendations from the Report on [User Experience Implications of Active Variant TLDs](#)
- + Community input on the received from:
 - + ALAC
 - + GNSO
 - + SSAC
- + Input is posted on [IDN Variant TLDs](#) page

Input Received

- + Additional policy development is not needed, expedite the introduction of variant TLDs
- + IDN Variant TLDs should be “bundled” with its primary IDN TLD: e.g., single owner, single agreement, single set of registry policies
- + Limit confusion and collision:
 - + Conservatism and minimality
 - + Block delegation of variant TLDs to different operators
 - + Necessity
 - + Automate use of LGR
- + Consult with appropriate language communities when evaluating variant TLD applications

Specific SSAC Recommendations

- + The root zone must use one and only one set of Label Generation Rules (LGR)
- + Be very conservative with respect to the code points that are permitted in root zone labels
- + The LGR must be backward compatible whenever possible
- + Activate the fewest number of strings possible
- + Maintain an objective process to resolve cases in which community members disagree with an LGR result

Specific ALAC Recommendations

- + Facilitate the process of finding common ground between the technical and linguistic communities towards introducing IDN Variant TLDs without undermining the security and stability of the Domain Name System
- + Expedite the implementation of the Root Zone LGR process
 - This describes the essence of the LGR Procedure; the interplay between linguistic community input via GPs and IP as watchdog
 - The Integration Panel is in place; communities are forming Generation Panels

Specific GNSO Recommendations

- + IDN Variant TLD implementation...should not require further policy development processes
- + Rely on findings of the IDN Working Group:
 - + Delegate one string per new IDN gTLD except in the rare cases when there is a need to cover script-specific character variants of an IDN gTLD string. (§4.1.4)
 - + Take measures to limit confusion and collisions due to variants while reviewing and awarding new IDN gTLDs. (§4.1.5)
 - + Take measures to ensure that an IDN gTLD string with variants be treated in analogy with current practice for IDN SLD labels, i.e., strings that only differ from an IDN gTLD string by variants (see above) are not available for registration by others. (§4.1.6)

ICANN IDN Team

Thank you

Useful links

The LGR Procedure

<http://www.icann.org/en/resources/idn/variant-tlds/lgr-procedure-20mar13-en.pdf>

Selection of Integration Panel for the IDN Root Zone Label Generation Rules (LGR)

<http://www.icann.org/en/news/announcements/announcement-06sep13-en.htm>

Call for Generation Panels to Develop Root Zone Label Generation Rules

<http://www.icann.org/en/news/announcements/announcement-11jul13-en.htm>

Setting up and running a Generation Panel

<https://community.icann.org/display/croscomlgrprocedure/Generation+Panels>

Community Wiki LGR Project website

<https://community.icann.org/display/croscomlgrprocedure/Root+Zone+LGR+Project>

Examining the User Experience Implications of Active Variant TLDs

<http://www.icann.org/en/resources/idn/variant-tlds/active-ux-21mar13-en.pdf>

Community inputs on User Experience study on ICANN IDN Variant TLD page

<http://www.icann.org/en/resources/idn/variant-tlds>

