ICANN|55
MARRAKECH
5 – 10 MARCH 2016

Overview of Presentation

- IDNs at Top Level
  - IDN TLD Program
    - Label Generation Rules (LGR)
    - LGR Toolset
    - IDN Variant TLD Implementation
  - IDN ccTLD Fast Track Process Implementation
- IDNs at Second Level for gTLDs
  - IDN Implementation Guidelines
  - Reference Second Level LGRs
- Community Outreach and Communication

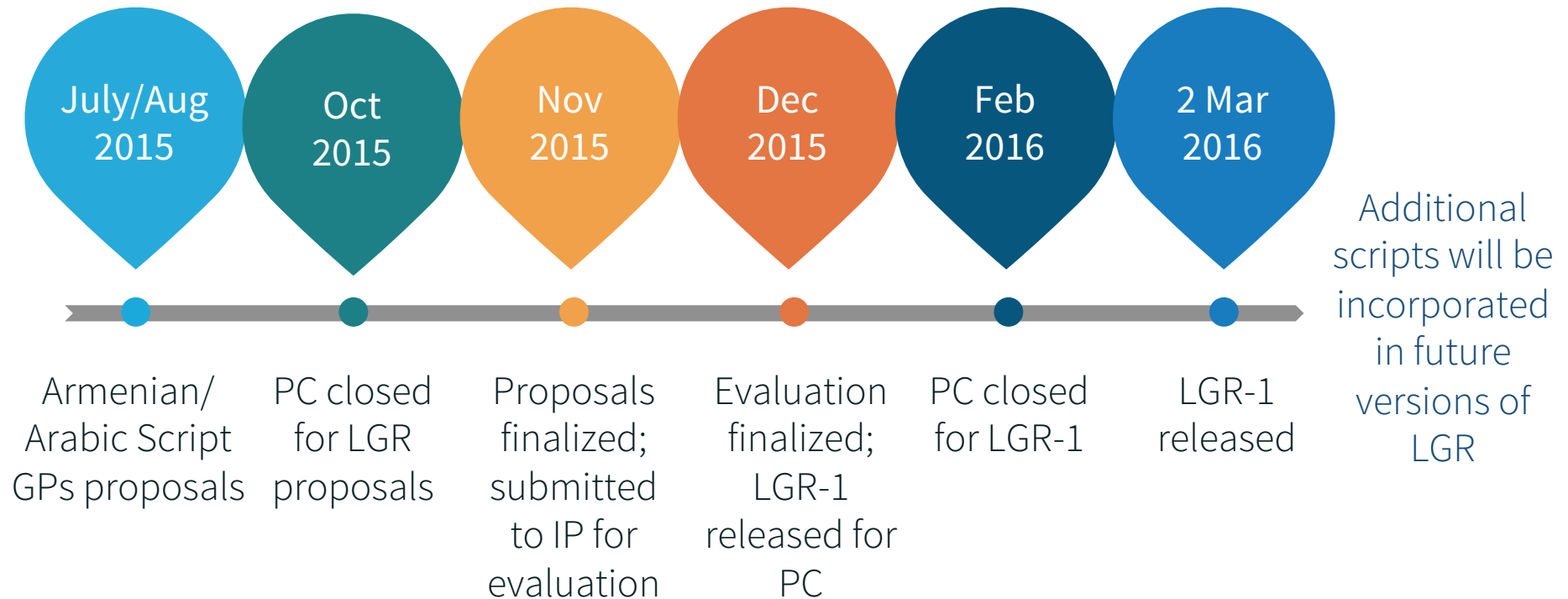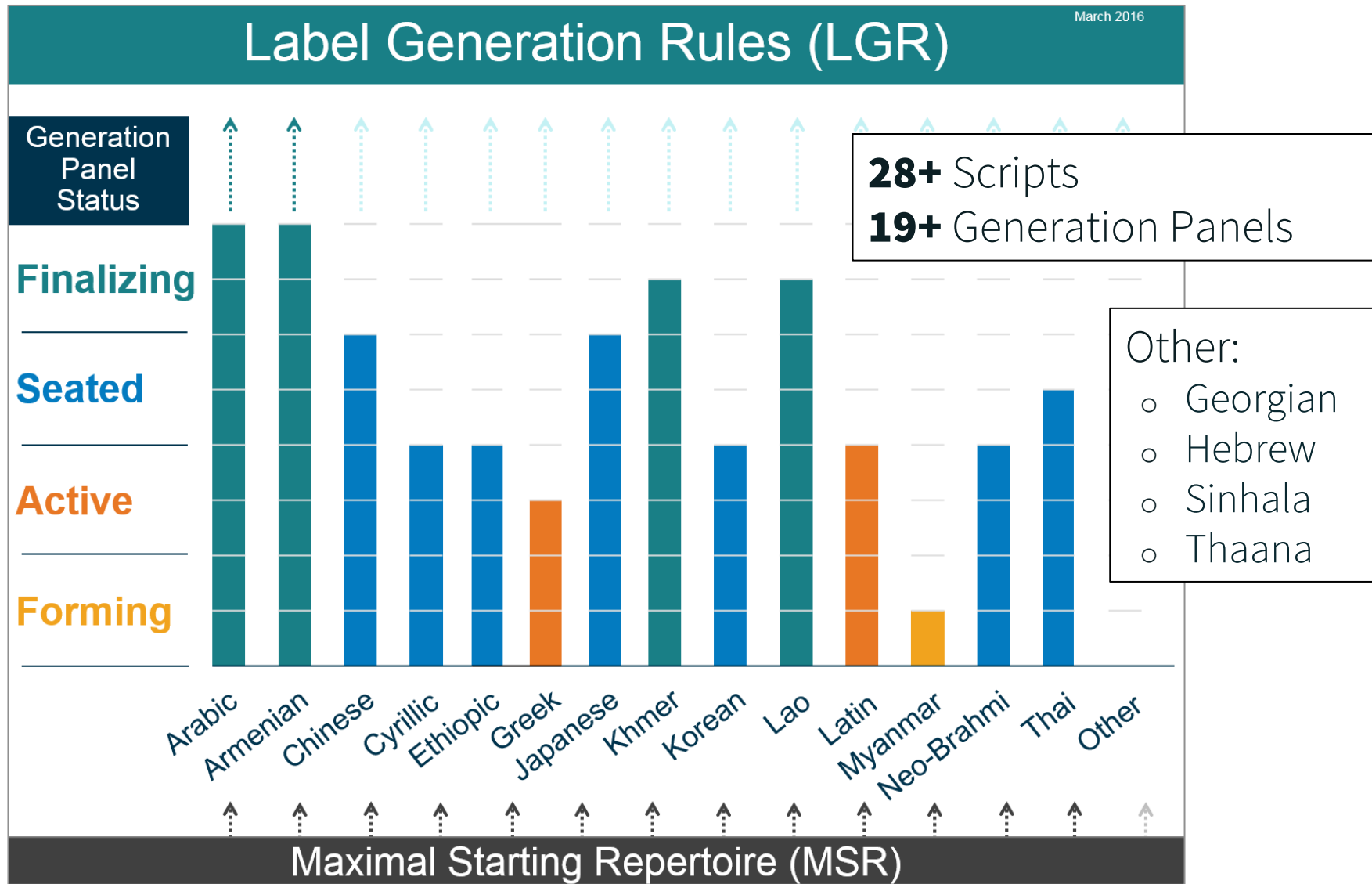| |
|---|
| LGR Specification and Tool (P1) |
| LGR Development (P2.2) |
| IDN Variant TLD Implementation (P7) |
| IDN ccTLD Fast Track |
| Reference Second Level LGRs (IDN Tables) |
| IDN Implementation Guidelines |
| Community Outreach and Communication |

Root Zone Label Generation Rules (LGR)

July/Aug 2015	Oct 2015	Nov 2015	Dec 2015	Feb 2016	2 Mar 2016	Additional scripts will be incorporated in future versions of LGR
Armenian/ Arabic Script GPs proposals	PC closed for LGR proposals	Proposals finalized; submitted to IP for evaluation	Evaluation finalized; LGR-1 released for PC	PC closed for LGR-1	LGR-1 released	

LGR version 1 released

- Arabic and Armenian Script GPs submitted LGR proposals
  - Arabic Script LGR Proposal incorporated
  - Armenian Script LGR Proposal successfully evaluated
    - Not integrated due to dependencies on other scripts

Status of LGR Development

Label Generation Rules (LGR) — March 2016

28+ Scripts
19+ Generation Panels

Generation Panel Status: Finalizing, Seated, Active, Forming

Scripts: Arabic, Armenian, Chinese, Cyrillic, Ethiopic, Greek, Japanese, Khmer, Korean, Lao, Latin, Myanmar, Neo-Brahmi, Thai, Other

Maximal Starting Repertoire (MSR)

Other:
- Georgian
- Hebrew
- Sinhala
- Thaana

LGR Specification and Toolset

⊙ Specifications (IETF LAGER WG)
  https://tools.ietf.org/html/draft-ietf-lager-specification-08

```xml
<xml>
    ...
    <char cp="06CC" >
    <var cp="0649" type="blocked" />
    <var cp="064A" type="allocatable" />
    </char>
    ...
</xml>
```
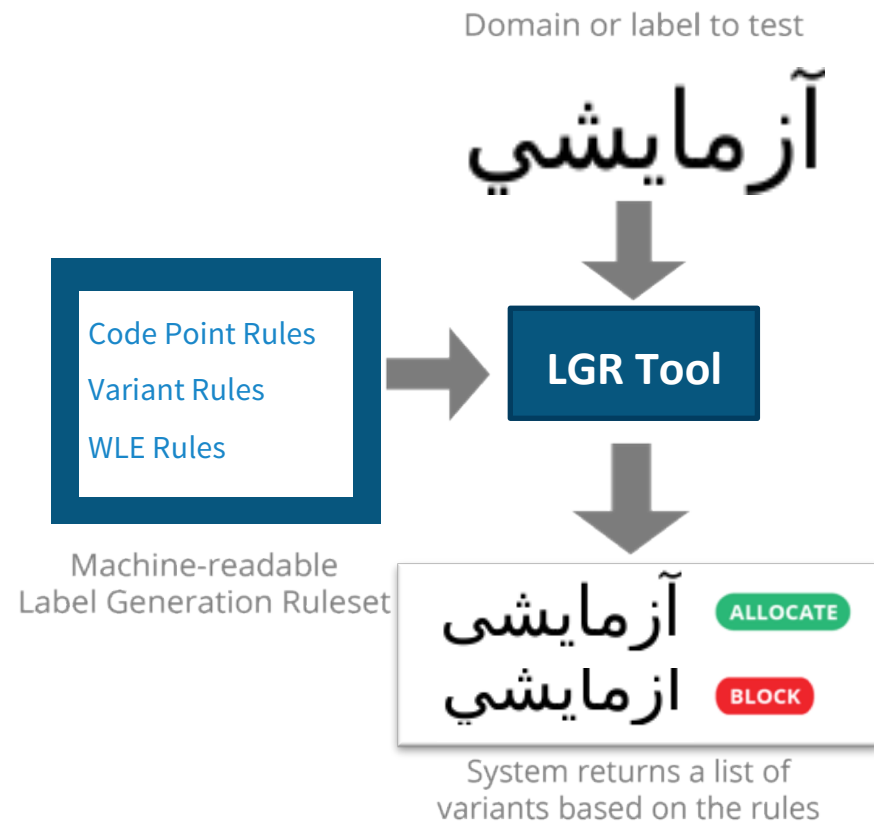
⊙ Toolset:
  https://lgrbuilder.icann.org/
  • Create LGR – available
  • Use LGR – available
  • Manage LGRs – available
  • Label collision – 05/2016
  • Open source – 06/2016

Domain or label to test

آزمایشي

Code Point Rules

Variant Rules

WLE Rules

LGR Tool

Machine-readable
Label Generation Ruleset

آزمایشی ALLOCATE
ازمایشي BLOCK

System returns a list of
variants based on the rules

LGR Toolset – Phase 1: Create LGR

LGR Toolset – Phase 3: Manage LGRs

IDN Country Code Top-Level Domains

ccTLDs: 49 for 39*

* Successfully evaluated IDN ccTLDs for total countries and territories

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IDN ccTLD Fast Track Process

⊙ Launched in late 2009

- o 49 IDN ccTLDs evaluated representing 39 countries/territories
- o 43 IDN ccTLDs delegated representing 33 countries/territories
- o Requests cover 18 scripts for 27 languages

⊙ Currently under annual review

- o Public comment announced on 15 Jan. 2015
  - Second similarity review and process
- o Public comment closed on 17 March 2015
- o Board resolution on string similarity review on 25 June 2015
- o ccNSO formed EPSRP working group
- o Public comment to close after EPSRP Guidelines updated

IDN Implementation Guidelines

⊙ Purpose
  o Guidelines for IDN registration policies and practices at the second level
  o Designed to address end-user concerns, e.g., minimize user confusion

⊙ Relevance
  o Contractually binding for registrars and registries
  o Recommended for IDN ccTLDs

⊙ Status
  o GNSO community requested for updating the guidelines
    • Previous version ([3.0](#)) updated in 2011
  o Currently being reviewed and updated by IDNGWG
    • Members: GNSO (6), ccNSO (2), SSAC (2), ALAC (2)

IDN Guidelines Potential Topics

	Topic	IDNGWG current position
1	<u>Transition and Terminology.</u> IDNA2008 adopted; address any residual IDNA2003 issues. Identify terminology through Label Generation Rules, relevant RFCs and additional IDN work at ICANN	Relevant
2	<u>Format of IDN Tables.</u> Formal machine-readable format Label Generation Rules or LGR	Relevant
3	<u>Consistency of IDN Tables.</u> Content more consistent across registries and across levels for predictable user experience by sharing the LGRs across registries, considering reference IDN tables and other relevant work	Relevant

IDN Guidelines Potential Topics

	Topic	IDNGWG current position
4	<u>IDN Variants.</u> Nomenclature, states of variants and management process; relevant policies, e.g., ownership, automatic activation, ceiling value, choice between variants, etc.	Guidance at high level
5	<u>Similarity and Confusability of Labels.</u> Confusability at second level, arising from homoglyphs, cross-script homoglyphs, relevance of upper case, script mixing and other (e.g., semantic) mechanisms	Guidance at high level
6	<u>Registration Data.</u> Represent and manage registration data for variants of IDNs	Will be considered

IDN Guidelines Feedback

⊙ Face to face during ICANN 55

  o Date: Wed, 9 March 2016 - 17:15 to 18:30
  o Room: Ametyste

⊙ Email us at: idngwg@icann.org or IDNProgram@icann.org

⊙ Visit us at:
  o IDN Program webpage:
    https://www.icann.org/resources/pages/implementation-guidelines-2012-02-25-en
  o Community Wiki page:
    https://community.icann.org/display/IDN/IDN+implementation+Guideline

Reference Second Level LGRs

- GNSO council and members discussed issue of IDN tables in PDT and RSEP with BV-WG at ICANN 50 London

- Twenty-nine language-based LGRs currently under development

  - <u>Latin script</u>: Bosnian, Danish, English, Finnish, French, German, Hungarian, Icelandic, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Spanish, Swedish
  - <u>Cyrillic script</u>: Belarusian, Bosnian, Bulgarian, Macedonian, Montenegrin, Russian, Serbian, Ukrainian
  - <u>Mixed scripts</u>: Japanese, Korean
  - <u>Other scripts</u>: Arabic, Chinese, Hebrew

Reference LGR Status

- [Public comment](#) on process in March 2015
- Process for development
    - ✓ *Development of guidelines*
        - ✓ *Public comments on guidelines*
    - ✓ *Documentation of authoritative sources*
    - ✓ *IDN table in LGR format*
    - ✓ *Expert review: linguistic and security/stability*
        - ○ *Public comments on reference LGRs*
    - ○ *Publication after incorporating public feedback*

- [Public comment](#) on guidelines in Nov. 2015
- Guidelines finalized and published in Feb. 2016
- Ongoing discussion with RySG members on public comments

Reference LGR Discussion on PC

- Waiting for LGRs for the root zone for consistency
  - Root zone at script level vs. second level at language level
  - Root zone would take longer time to finalize

- Changing to reference LGRs may have stability implications on existing implementations
  - Extent of implications being analyzed

- Justifying deviation from reference LGR, if needed
  - Justification criteria being reviewed - based on security, stability, consistency and usability

Communication and Outreach Efforts

- Updated IDN web pages at icann.org/idn
- IDN Program sessions at ICANN meetings
- IDN Program updates to SOs/ACs at ICANN meetings
- Direct outreach

26-27 Nov. 2015	Workshop on IDNs and African Languages	Pointe-Noire, Congo
11 Jan. 2016	Training on XML Specification for LGR	Seoul, Korea
15 Feb. 2016	Workshop on Khmer Root Zone LGR	Phnom Penh, Cambodia
18 Feb. 2016	Workshop on Lao Root Zone LGR	Vientiane, Laos
1-2 Mar. 2016	G77 Meeting of Experts on ICT and Sustainable Development for South-South Cooperation	Bangkok, Thailand

- Blogs
  - LGR-1 Blog – 2 March 2016
- IDN community wiki pages
- IDN mailing lists
  - {vip, lgr, ArabicGP, ArmenianGP, ChineseGP, …}@icann.org

Engage with ICANN and IDN Program

Thank You and Questions

Reach us at: IDNProgram@icann.org
Website: icann.org/idn

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