

# Examining the User Experience Implications for Active Variant IDN TLDs

*Webinar*

*13 February 2013*

# Webinar Information

**US Toll-free**  
**1-800-550-6865**

**US Toll**  
**1-213-233-3193**

**Access Code**  
**46389**

- Recorded session will be available at the end of the webinar
- Q&A session at the end
  - Phone questions given priority: instructions on Notes pod on right
  - Questions in the Questions & Comments pod will be addressed as time permits

# Webinar Information

- Questions & Comments pod
  - Located at the bottom of the presentation screen.
  - You only see what you put in.
  - You cannot see what anyone else puts in.
  - We will filter out duplicate questions.
  - Questions received on the phone will be given priority.
  - If you experience problems with Adobe Connect or the Call please tell us in the Questions & Comments pod.

# Webinar Agenda



1. Welcome – Dennis Chang
2. Overview of IDN Variant Issues Program – Francisco Arias
3. Overview of P6: User Experience Implications for Active IDN variant TLDs – Steve Sheng
4. Findings & Recommendations from P6 draft final report – Steve Sheng
5. Questions & Answers – IDN P6 Team

# IDN Variant TLD Program Overview

# IDN Variant TLDs Program Origins

- Long-standing request from a number of IDN user communities
- No variants of gTLDs will be delegated until appropriate variant management solutions are developed:

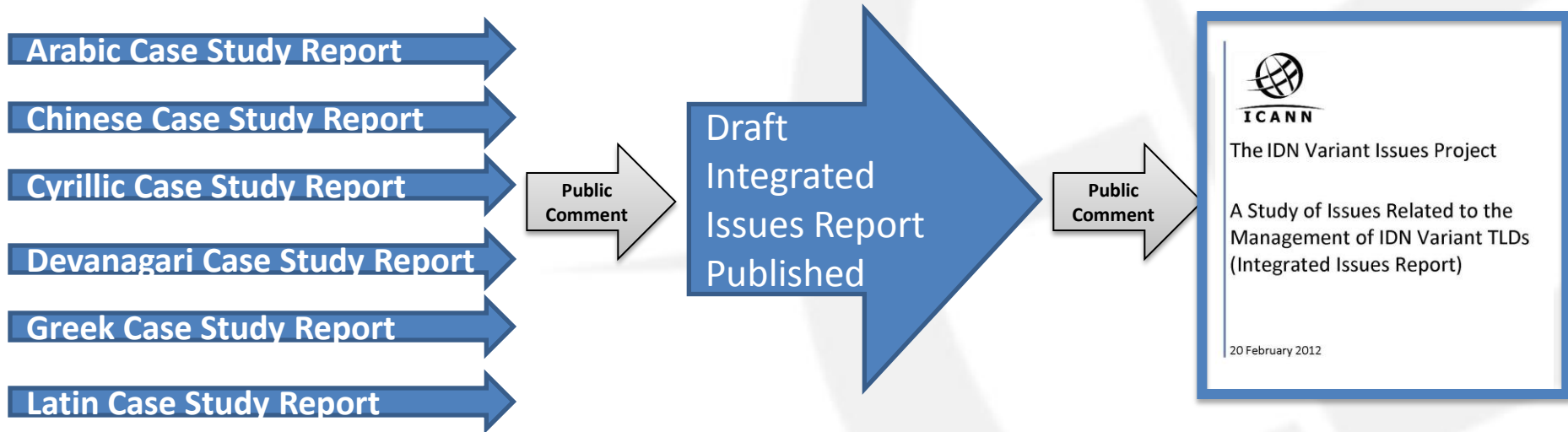
<http://www.icann.org/en/groups/board/documents/resolutions-25sep10-en.htm#2.5>

- IDN Variant Issues Project:

<http://www.icann.org/en/groups/board/documents/resolutions-10dec10-en.htm#7>

# IDN Variant Issues Program Phases 1 & 2

Completed in 2011



# IDN Variant Issues Program - Current Projects in Phase 3

- Label Generation Rules tool format to represent registration policy for IDNs (P1)
- Procedure to Develop and Maintain the Label Generation Rules for the Root Zone (P2.1)
- Examining the User Experience Implications of Active Variant TLDs (P6)



# Next Steps for the Program

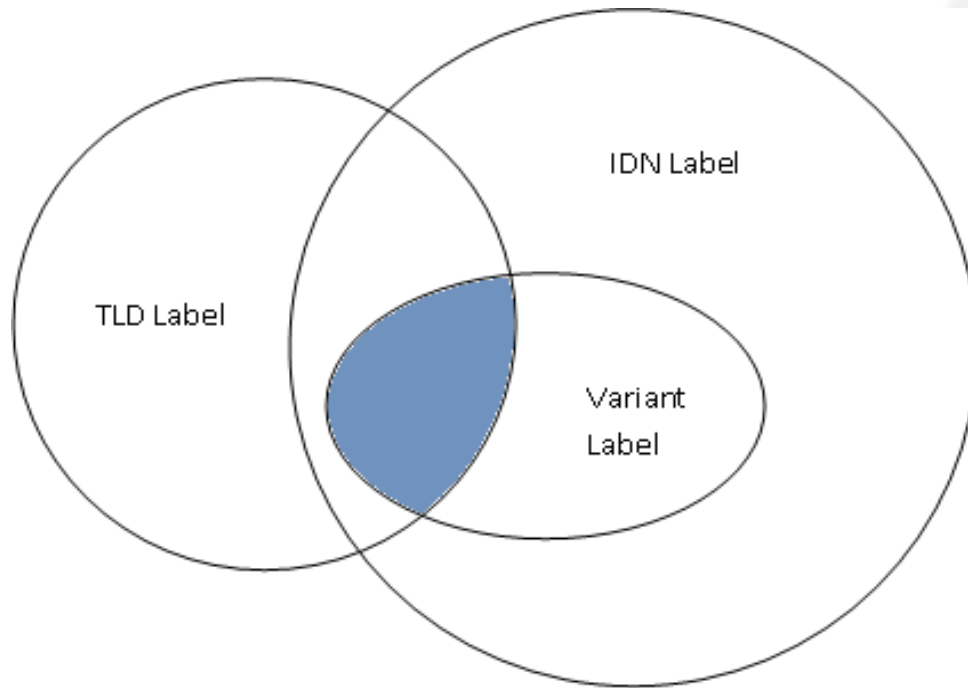
- Finalize plan for 4th and last phase
- Request Board to consider output from 3rd phase (e.g., User Experience study recommendations)
- Execute last phase of the program
  - Populate root LGR
  - Update new gTLD and IDN ccTLD processes
  - Update ICANN/IANA processes and systems

# Staff Recommendation

- Request the ccNSO and gNSO to provide policy advice/guidance, should they wish to do so, on:
  - the recommendations of the User Experience study report
  - the adoption of the root LGR Procedure
- Staff Recommendation to be submitted in time for the Beijing meeting
- Continue implementation until policy advice indicates otherwise

# IDN Variant TLDs Program Project 6: Examining the User Experience Implications of Active Variant TLDs

# Scope of P6 study



- Focus on TLD label issues but consider FQDN implications
- Take into account current variant implementations at the TLD *and* SLD
- Balance user expectations with consistent and secure implementations

# Project 6 Timeline

May '12:  
Start of  
Project

Oct. '12:  
Interim  
Report @  
ICANN  
Toronto

Jan. '13:  
Public  
Comment  
on Draft  
Final  
Report

March '13:  
Final  
Report to  
be  
published

June '12:  
Feedback  
on use  
cases @  
ICANN  
Prague

Oct. '12:  
Public  
Comment  
on  
Interim  
Report

Feb. '13:  
Public  
Webinar  
on Draft  
Final  
Report

# Overview of Draft Final Report

1. Background and introduction
2. Existing SLD and TLD practices
3. Usability principles for IDN variants
4. User roles
5. Challenges related to active variant TLDs
6. Recommendations

# Existing Variant Experience at SLD level

	Chinese IDN ccTLDs (3)	Arabic IDN ccTLDs (5)	Latin ccTLD (1)
<b>Status of a variant set</b>	Treated as an <i>atomic</i> unit for operation & registration data		Allocated to same registrant but treated independently
<b>Limits of active variants</b>	Consistent: 3	Different, upper limit varies from 3-6	No limit
<b>Choice of active variants</b>	All-simplified + all-traditional + one user-choice	User choice	
<b>Members of variant set</b>	Consistent across all	Different within and across Arabic language ccTLDs	N/A
<b>Registration software</b>	Custom-built		
<b>Registrant support</b>	Hosting by Registrar to manage variants	Registry support for configuration	No extra support

# Principles for Active IDN Variants TLDs



**Minimality:** Variants must be implemented with the least changes necessary in the DNS

**Security:** Variants must minimize the risk introduced by IDNs

**Equivalency:** Variants must direct users to related content and managed by the same entity

**Predictability:** Variants should behave and function as users expect in their language and script environments

**Consistency:** Variants should behave similarly within and across TLDs and supporting technology

**Manageability:** Variants should be straightforward to visualize and administer with supporting technology

**Ease of Use:** Variants should be easy to understand and use for new and existing Internet users



# User Roles

- **End Users**
  - Those who use the variants
- **Registration Users/Managers**
  - Those who manage registration of the variants
  - Registrants, Registrars and Registries
- **Technical Community**
  - Those who deal with usability, configuration and diagnostics of the variants
  - System Administrators, Network Managers, Security Managers, Application Developers

# Issues Related to Active Variant TLDs



- The issues grouped into the three categories
  - Use of variants (14)
  - Registration management (8)
  - Configuration and diagnostics (9)

# Issues Related to Use

1. User cannot find the complete set of variants
2. Variants not intuitive
3. Variants delegated independently
4. Variants defined inconsistently
5. Variants displayed inconsistently
6. User cannot input variants
7. Unable to distinguish specific variants
8. Identifier not bound to all variants
9. Accessibility and privacy impacted
10. Variants not searchable
11. Search rankings unpredictable
12. Search optimization affected by variants
13. Variants not part of URL/URI/IRI
14. Variants cause session re-establishment

# Issues Related to Registration

1. Management across IDN TLDs inconsistent
2. Registration for Second-level Domains across TLDs inconsistent
3. Inconsistent association of ASCII and IDN TLDs
4. Technological support inadequate
5. Registration system not straightforward to localize
6. Registration information inconsistent
7. Trademark protection tracking complex
8. Trademark protection dispute process complex

# Issues Related to Software Configuration and Diagnostics

1. Software configuration not supported
2. Cannot associate variants to primary labels
3. Compounded certificate management
4. DNSSEC validation inconsistent
5. Log and history searching does not match primary and variant labels
6. Network traffic statistics incomplete
7. Caching infrastructure inefficient
8. Diagnostic and troubleshooting tools incompatible
9. Forensics significantly more complicated

# Recommendations

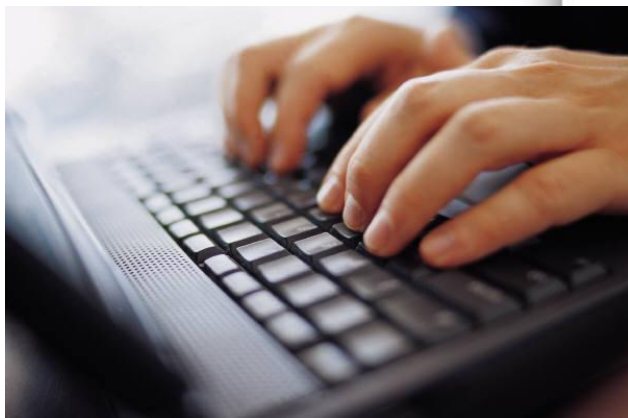


Recommendations  
to ICANN...

- Based on user experience principles and informed by current IDN variant practices; recommendations are directed at four audiences:
  - *ICANN (11)*
  - *Registries (6)*
  - *Registrars (5)*
  - *Technical Community (3)*
- The following slides highlight *selected* recommendations

# Recommendation to ICANN

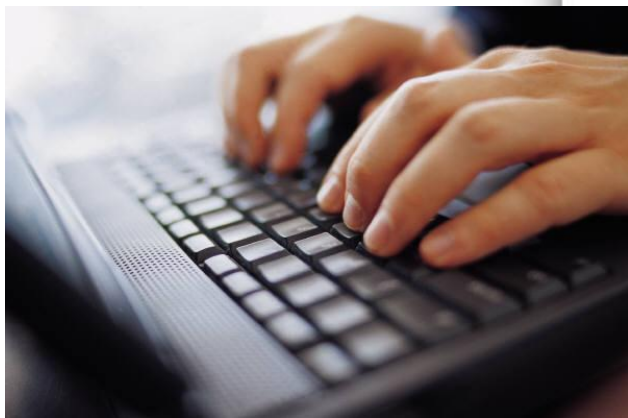
- Implement a conservative variant TLD allocation process
  - Approval of variant TLD must not be automatic
  - Variant TLD application must clearly demonstrate necessity
  - TLD variant(s) must be allocated to same entity
  - All requirements for a TLD application also apply to the variant TLD application





# Recommendation to ICANN

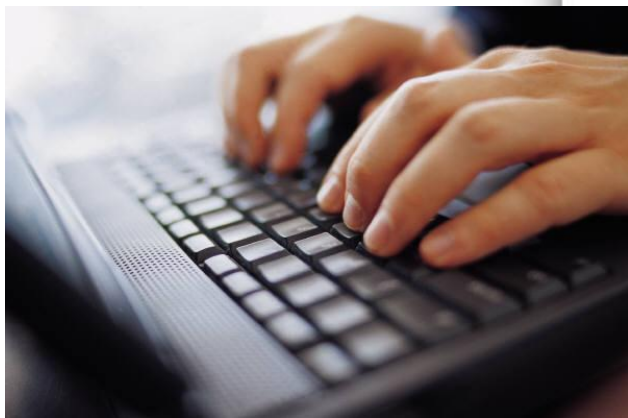
- Maintain LGR repository and make it available to users and programmatically processable
  - Root zone LGR
  - State of each variant (activated, withheld, blocked, etc.) of each allocated TLD
  - Second-level LGR submitted for each TLD





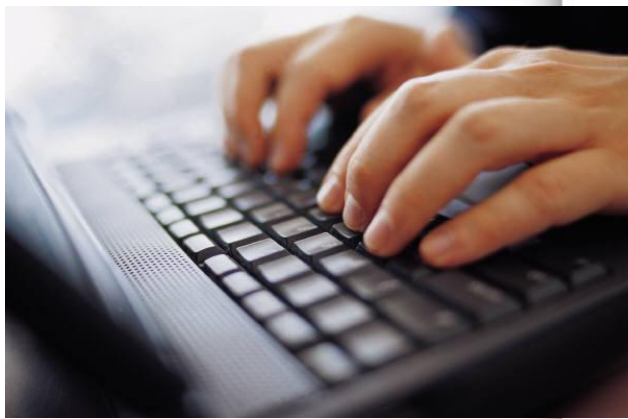
# Recommendation to ICANN

- Develop minimal, simple and consistent life cycle
  - Reserved labels and variants announced for root zone
  - For each TLD all variants be withheld by default
  - Variant allocated after an appropriate evaluation
  - Procedure for change in state of TLD variant



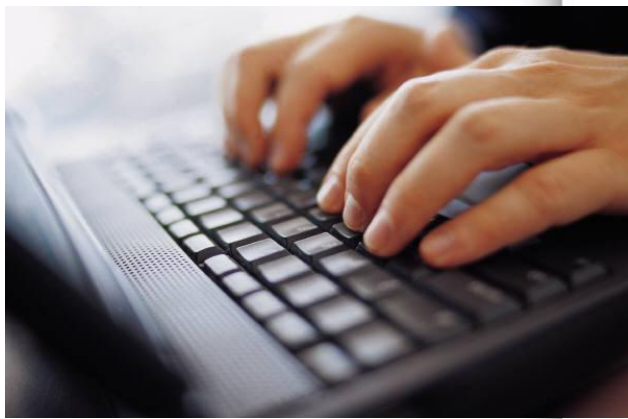
# Recommendation to ICANN

- Require registries to apply subset of TLD LGR and state life cycle for SLD variants. Justify any deviation.
  - Second-level LGR conforms with root LGR to avoid contradiction
  - Variant state life cycle for second level in line with root zone life cycle
  - Second-level variants to same registrant
  - Registry to advise the registrants to point SLD.TLD variants to the same or similar content



# Recommendation to ICANN

- Require relevant accredited registrar to support variants across its registration platform
  - Adequate interfaces for registrants to view and register variant sets
  - Adequate interfaces for registrants to request change in active variant set



# Recommendations to Registries\*

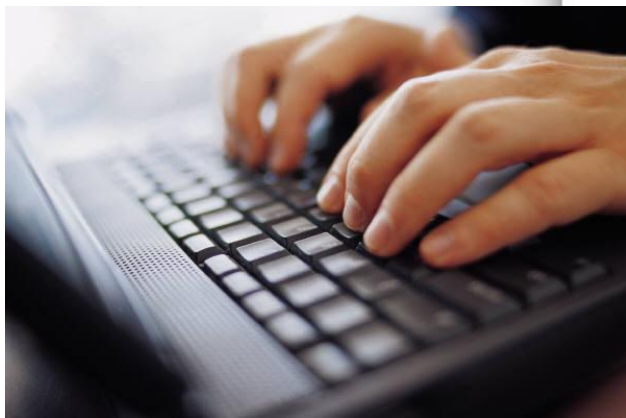
- Register any second-level variant labels on approval requirements
  - Registration of variant not automatic; initiated by registrant; variants withheld by default
  - Variant registered to the same registrant
  - All requirements for label apply to variant
  - Registration of variants be connected with primary, e.g., if the latter expires, the former also expires

\* Applies only to Registries that offer IDNs for scripts that have variants



# Recommendations to Registrars\*

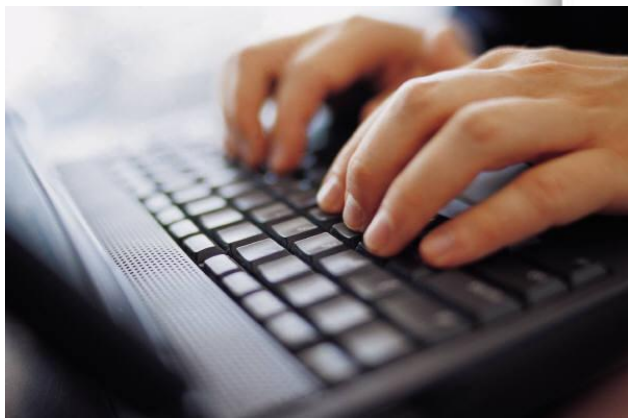
- Extend linguistic and technical support of IDN variants for registrants
  - Support registrants to understand, prioritize, and select/update variants for registration
  - Support registrants to understand pricing and service level implications of variants



\* Applies only to Registrars that support the Registration of variants

# Recommendation to Registrars

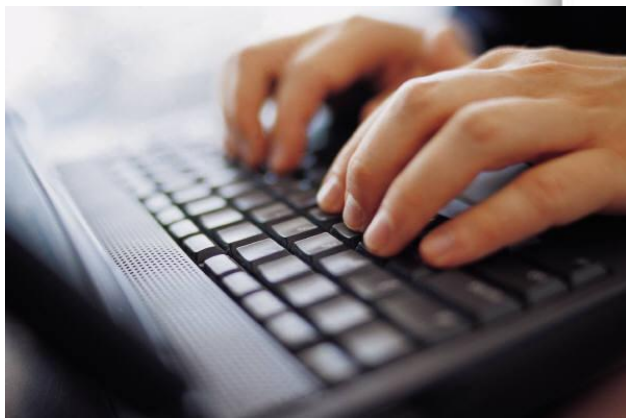
- Update related services that are impacted by variants
  - Hosting services, certificates, privacy services, and proxy services, etc.





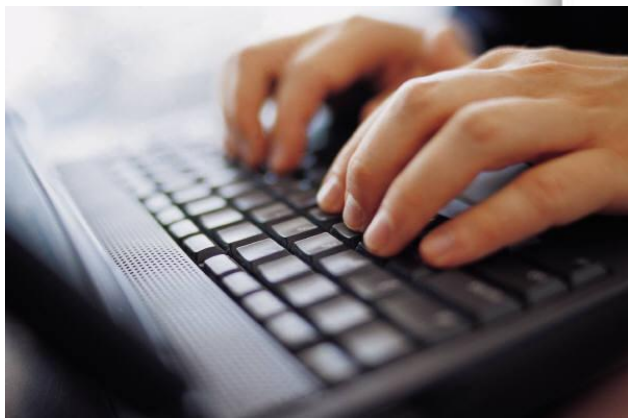
# Recommendation to the Technical Community

- Based on requirements, consider enhancing software for administration and management of variants
  - Display current status of IDN variant labels (delegated, blocked, active, etc.)
  - Display both A-labels and U-labels
  - Update pattern-matching and searching tools for identifying and managing variants
  - Make client/server software “variant aware” for enhanced monitoring and management of data traffic



# Recommendation to the Technical Community

- Software intended for Internet end users (such as web browsers, email clients, and operating systems) should support variants to the extent necessary to ensure a positive user experience
  - Search engines not treating variants equivalent
  - Variants for user IDs, email addresses, etc.
  - Keyboards not supporting variants
  - History logs not deleting variants for privacy settings
  - Auto-complete functionality not variant sensitive
  - Sessions not consistent with variants





# Next Steps for P6

- Continue with Public Comment forum till 1 March 2013
  - <http://www.icann.org/en/news/public-comment/variant-ux-18jan13-en.htm>
  - Access the draft report, submit your comments, and view comments already submitted
- Publication of the final report in March 2013
- IDN Variant Public Session at the next ICANN Meeting in Beijing, China in April 2013



# Questions

Phone questions given priority.

US Toll-free : 1-800-550-6865

US Toll: 1-213-233-3193

Access Code: 46389

Press \*3 to Queue up for questions

Press \*3 to Queue out

Access to International #s is available at

<http://newgtlds.icann.org/webinars>

Questions submitted in the Questions & Comments pod  
answered as time permits.

# Backup Slides

# Recommendations to ICANN - 1



1. ICANN must implement a well defined and conservative variant TLD allocation process.
2. ICANN must maintain a repository for Label Generation Ruleset (LGR) for the root zone and IDN TLDs and make it available to users and programmatically processable.
3. ICANN must develop, to the extent possible, minimal, simple and consistent LGR for the root zone.
4. ICANN must develop, to the extent possible, a minimal, simple and consistent life cycle for the variant TLD sets (across languages and scripts).
5. ICANN must define guidelines to evaluate the competence and readiness of the registry to manage variants, to ensure a stable and secure end user experience.

# Recommendations to ICANN - 2



6. ICANN should require IDN TLD registries with variants to apply the relevant (script) subset of the root zone LGR and state life cycle for variants across second-level domain labels. Deviations should be justified.
7. ICANN must create educational materials on the use and impact of variants for different user communities.
8. ICANN must require accredited registrar who supports IDNs with TLD and/or SLD variants to support variants across its registration platform.
9. ICANN must develop consistent registration data requirements for variants at root and other levels.
10. ICANN must convene relevant experts involved in domain name disputes to determine any new issues introduced by variants and update existing dispute resolution processes accordingly
11. ICANN must define technical requirements and engage with standards organizations, such as the IETF, to determine how the IDN variants should be consistently implemented.

# Recommendations to Registries



1. Registry must not register any second-level variant labels unless the label registration request has met all approval requirements.
2. Registry that supports variants must make its updated LGR available to ICANN.
3. Registry that supports variants should apply the LGR developed for the root across lower-level domains. Deviations from the LGR should be publicly documented and justified.
4. Registry that supports variants must implement, to the extent possible, state life cycle for the second-level variant recommended by ICANN.
5. Registry should create educational materials on the use and impacts of variants for different user communities, such as end users, system administrators, etc.
6. Registry that supports variants must require relevant registrars to support IDN variants across their registration platforms.

# Recommendations to Registrars



1. Registrar must update its practice to address requirements specific to the registration of IDN variants.
2. Registrar should extend linguistic and technical support of IDN variants for registrants.
3. Registrar must support IDN variants across its registration platforms.
4. Registrar must support registry policies and associated services for collecting and managing registration data of IDN variants.
5. Registrar that supports the registration of variants may also update any related services that are impacted by variants.



# Recommendations to the Technical Community

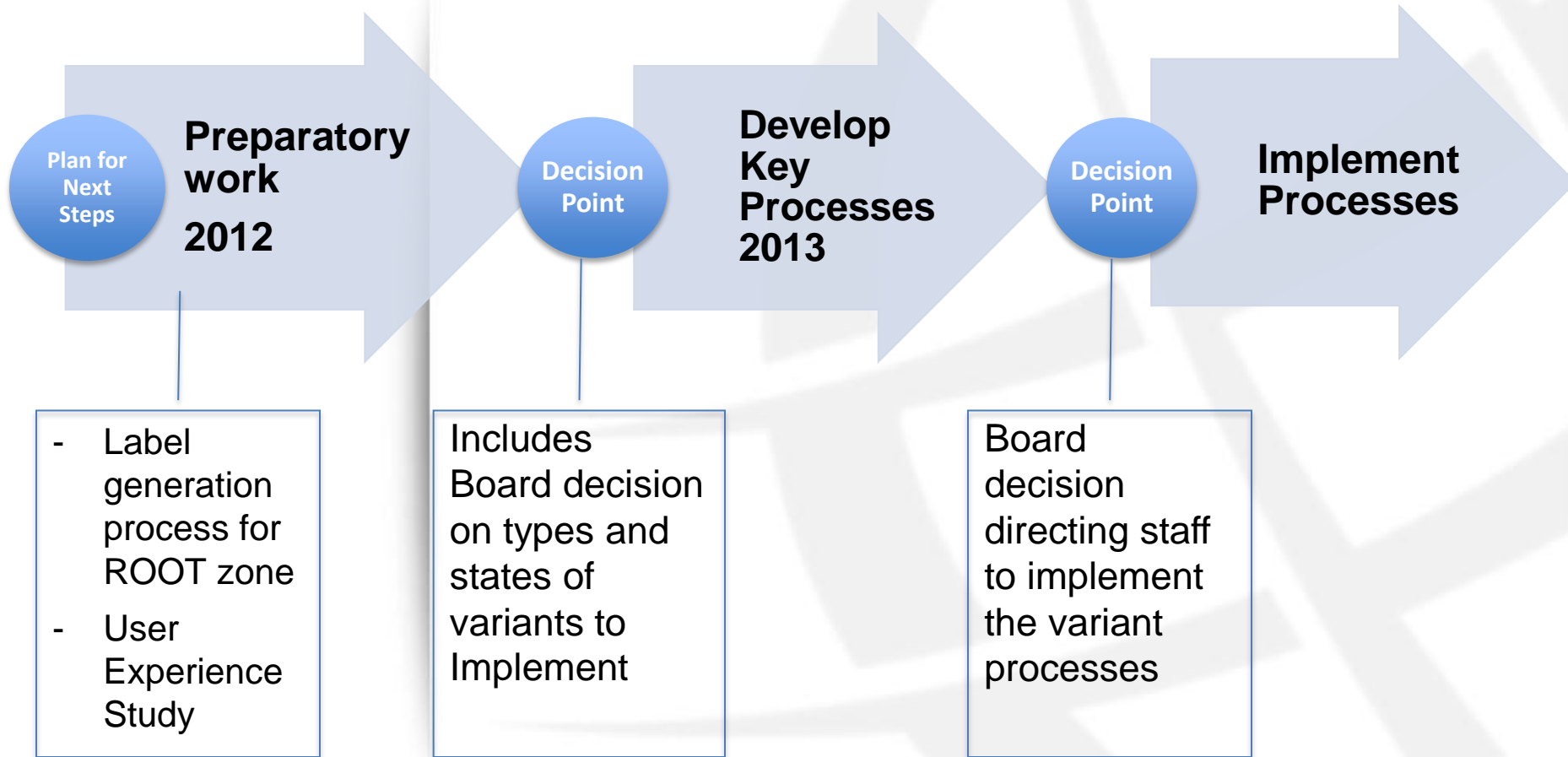


1. Developers of software tools for the technical community should consider, based on user requirements, enhancing their software to support the administration and management of variants.
2. Software intended for Internet end users—such as web browsers, email clients, and operating systems—should support variants to the extent necessary to ensure a positive user experience.
3. To provide end users with a consistent and predictable experience with variants across software applications, developers should, to the extent possible, publicly share best practices and emerging standards in terminology and functionality.



# IDN Variant Issues Program

## Phases 3 & 4



# IDN Variant Issues Program

## Current Projects

Plan for  
Next  
Steps

**Preparatory  
work  
2012**

- Label Generation Rules tool format to represent registration policy for IDNs (P1)
- Procedure to Develop and Maintain the Label Generation Rules for the Root Zone (P2.1)  
<http://www.icann.org/en/news/public-comment/lgr-procedure-07dec12-en.htm>
- Examining the User Experience Implications of Active Variant TLDs (P6)