ICANN 47

IDN Variant TLD Program
18 July 2013

DURBAN

NO.47 · 14-18 JULY 2013
ICANN

Introduction by
Cyrus Namazi
- VP, DNS Industry Engagement

Session Agenda

+ Program Overview

+ Phase 4 Projects

+ Project 2.2 – Implementation of the "Procedure to Develop and Maintain the Label Generation Rules for the Root Zone in Respect of IDNA Labels"

+ Project 1 – Label Generation Ruleset Tool

+ Project 7 – Updating ICANN Processes and Systems

  + Input from the User Experience Study

  + Incorporating the IDN LGR – Identifying Impacted Processes and Systems

+ Next Steps

+ Discussion and Questions

About the IDN Variant TLD Program

+ ## Why this Program?

  + Long standing request from IDN user communities

  + Initiated by a decision of the ICANN Board of Directors in 2010
    http://www.icann.org/en/minutes/resolutions-25sep10-en.htm#2.5

  + As of today, Variant TLDs cannot be delegated until variant management solutions are developed and implemented
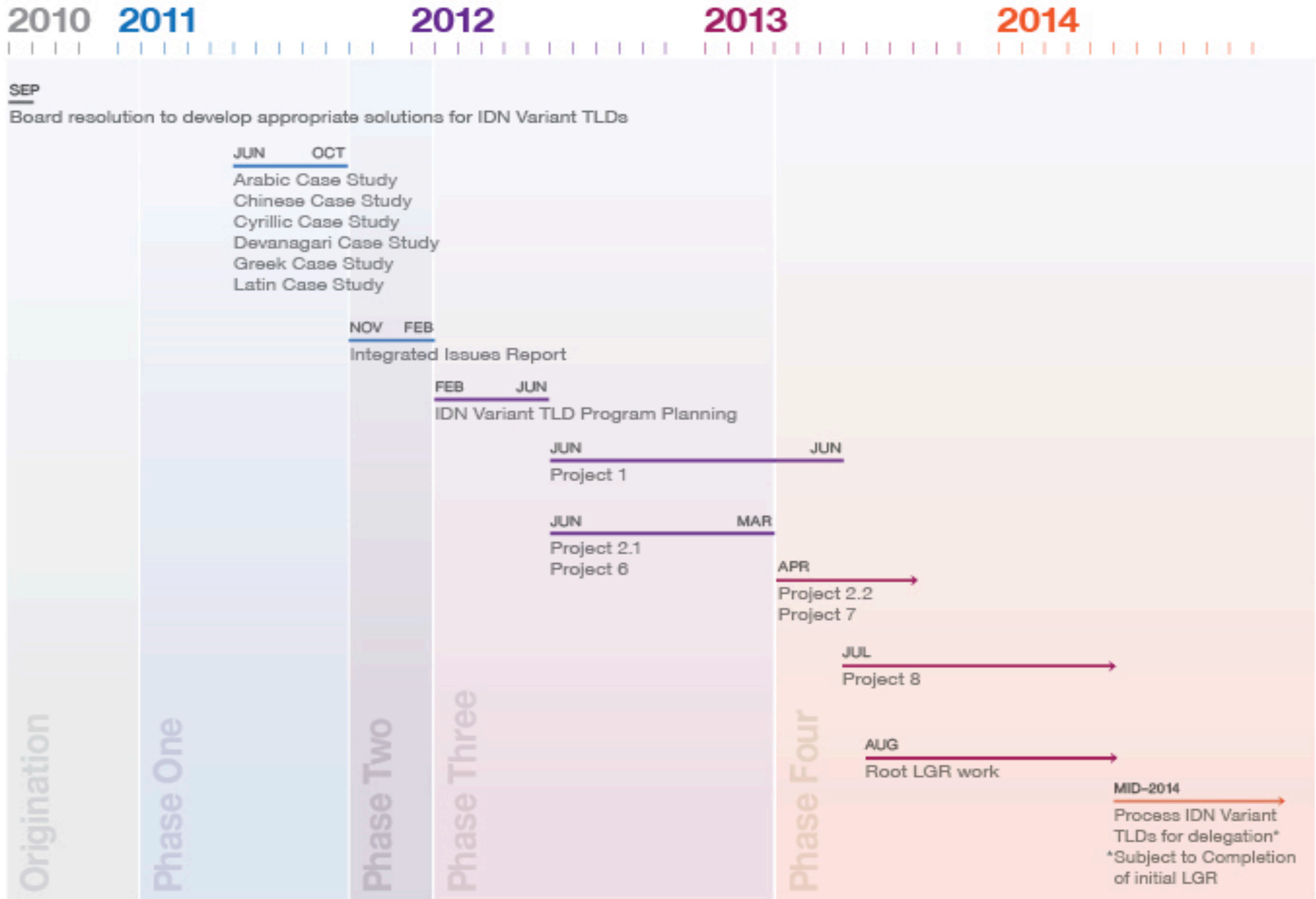
+ ## What is the Program's goal?

  + Define and implement rules and processes to enable allocation, delegation and management of IDN Variant TLDs in the Domain Name System Root Zone

+ ## Who is involved?

  + ICANN staff, expert consultants and community volunteers

Overview of IDN Variant TLD Program

Phase 4 Initiated

+ ICANN Board [resolution](#) on 11 April 2013 to:

➢ Direct staff to Implement the
    [Procedure to Develop and Maintain the Label Generation Rules for the DNS Root Zone in Respect of IDNA Labels](#)

➢ Incorporate the Label Generation Rules for the Root Zone in Respect of IDNA Labels in the impacted processes

➢ Invite interested Supporting Organizations and Advisory Committees to provide staff with any input and guidance they may have to be factored into implementation of the Recommendations from the
    [Report on User Experience Implications of Active Variant TLDs](#)
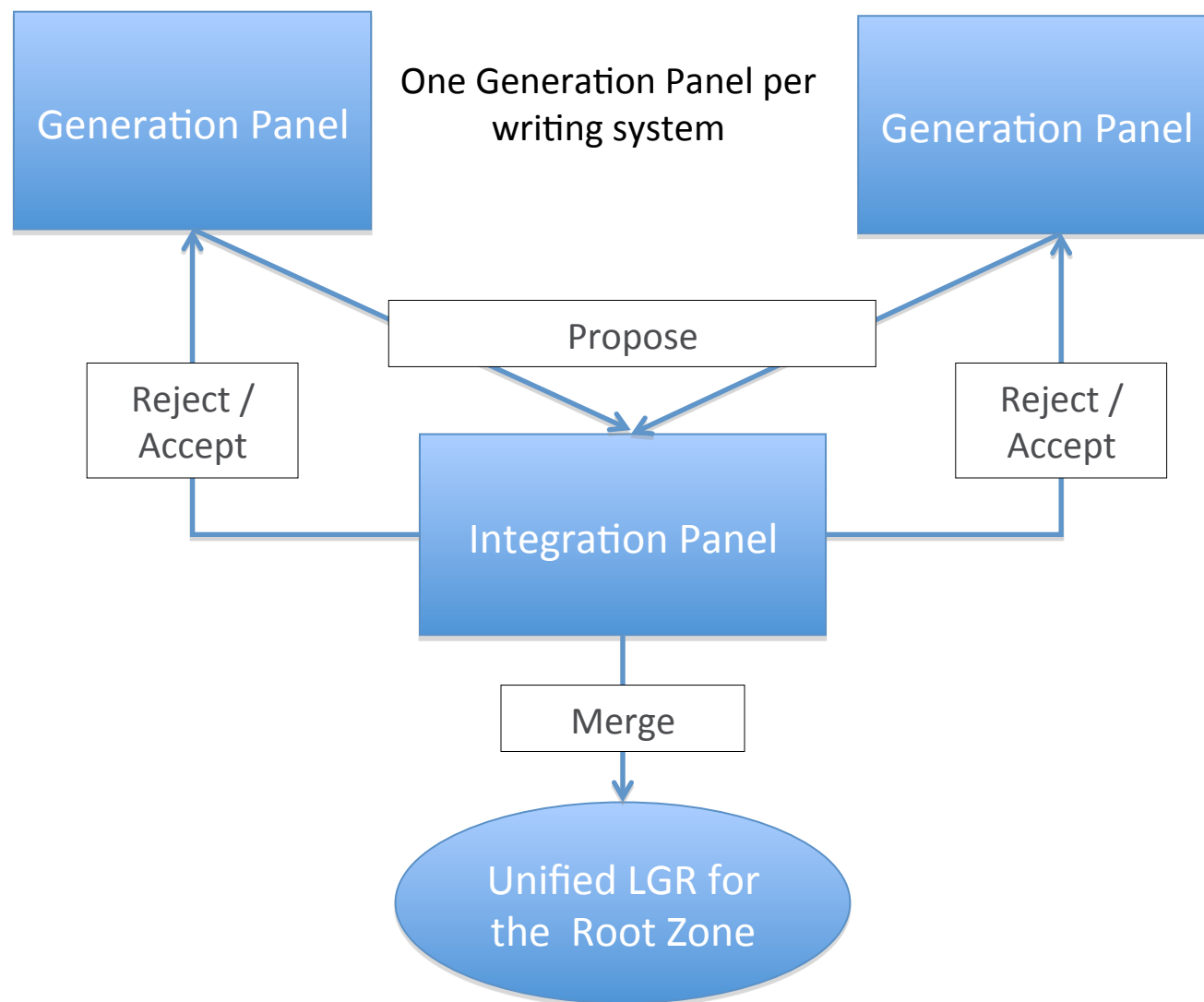
Phase 4 – Implementation Projects

+ **Project 2.2**: Implementation of the Label Generation Rules (LGR) for IDNA Labels for the Root Zone Procedure

+ **Project 7**: Identification of ICANN systems and processes that require updates to incorporate the Label Generation Rules in the respective impacted processes and inclusion of input from SO's and AC's on recommendations of the User study

+ **Project 8**: Update of ICANN processes and systems to support IDN variant TLDs at the conclusion of Project 7

+ **Project 1**: Finalize the LGR tool format specification

Project 2.2

Implementation of the "Procedure to Develop and Maintain the Label Generation Rules for the Root Zone in Respect of IDNA Labels"

What is the IDN Root Zone LGR Procedure?

- **+** Populate the code point repertoire and the Label Generation Rules for IDNA labels for the root zone

- **+** Provide Utility and Coverage for additional scripts and languages while minimizing the risk to root zone as shared resource

- **+** Automate the application of IDN Root LGR

Generation Panel

One Generation Panel per writing system

Generation Panel

Propose

Reject / Accept

Reject / Accept

Integration Panel

Merge

Unified LGR for the Root Zone

Steps to Implement the LGR

+ Community-based Generation Panels to generate proposals

+ Expert panel (Integration Panel) to assess and integrate proposals into the Root Zone LGR

+ Data formats and tools to manage LGR process and automate use

+ ICANN to incorporate LGR and variant TLDs into impacted processes

Generation Panels

+ Community volunteer-based panels

+ One panel per script

+ Where possible, to be formed based on existing working groups

+ May begin work after 3rd quarter of 2013

+ Call for Generation Panels published on 11 July 2013
  http://www.icann.org/en/news/announcements/announcement-11jul13-en.htm

+ Upon formation, panels will be seated and can initiate their work

DURBAN

Scripts

Arabic   Hebrew

Bengali   Japanese

Chinese   Korean

Cyrillic   Latin

Devanagari   Sinhala

Georgian   Tamil

Greek   Telugu

Gujarati   Thai

Gurmukhi

+ 9 scripts represented in New gTLD applications

+ 8 additional scripts represented in applied-for and delegated IDN ccTLDs

+ Generation Panels representing these scripts should form as soon as practicable

+ Call does not preclude generation panels for other scripts, provided availability of volunteers

Integration Panel

+ Assesses and integrates proposals into the Root Zone LGR

+ Call for Subject Matter Experts for the IDN Root Zone LGR Integration Panel and Advisors to All Panels published on 6 June 2013

  http://www.icann.org/en/news/announcements/announcement-3-06jun13-en.htm

+ Candidates are currently being reviewed

+ Work to begin 3rd quarter of 2013

+ Initial work will define starting point maximal repertoire

Integration Panel Applications

+ 25 applications received

+ Applicants represent 12 countries: Australia, Canada, China, Denmark, England, Greece, Ireland, Pakistan, Serbia, Sri Lanka, Sweden, United States of America

+ Applicants with diverse backgrounds, including: Academia, Research, Registries, Registrars, Governmental Affairs, Technical work, Internet Policy, etc.

+ Applicants cover following areas of expertise: IDNA, DNS, Linguistics, Unicode

Project 1
Label Generation Ruleset Tool

Project 1 Overview

+ Data format under development

+ Tools under development will:

    + Convert legacy tables from older formats

    + Validate labels against LGRs

    + Generate variant sets from LGRs

    + Interleave with initial work on LGR to prevent bottlenecks and incorporate early experiences

Format Specification

+ Latest draft posted on 9 July 2013,
  http://tools.ietf.org/html/draft-davies-idntables-03

+ Added whole-label evaluation grammar:

    + Regular-expression type language

    + Allows use of Unicode properties to define rules

    + Can express actions (e.g. block, allocate)

+ Aim to finalize format after panels are formed in order to integrate panels' requirements

+ Can't fully predict what they will be

Advantages of P1 tools

+ The data in the Root Zone LGR will be machine-readable

+ Can leverage existing tables for comparison and re-use

+ The tables will be mechanically evaluated during the application

+ Applicants and implementers will be able to perform the same tests prior to submission, using publicly available data

Project 7 - Updating ICANN Processes and Systems

- Input from the User Experience Study

Scope of User Experience Study

+ Focus on TLD label issues but also consider FQDN implications

+ Take into account existing variant implementations, such as ccTLD IDNs

+ Balance user expectations with **conservative, consistent, and secure implementations**

IDN Label

TLD Label

Variant Label

DURBAN
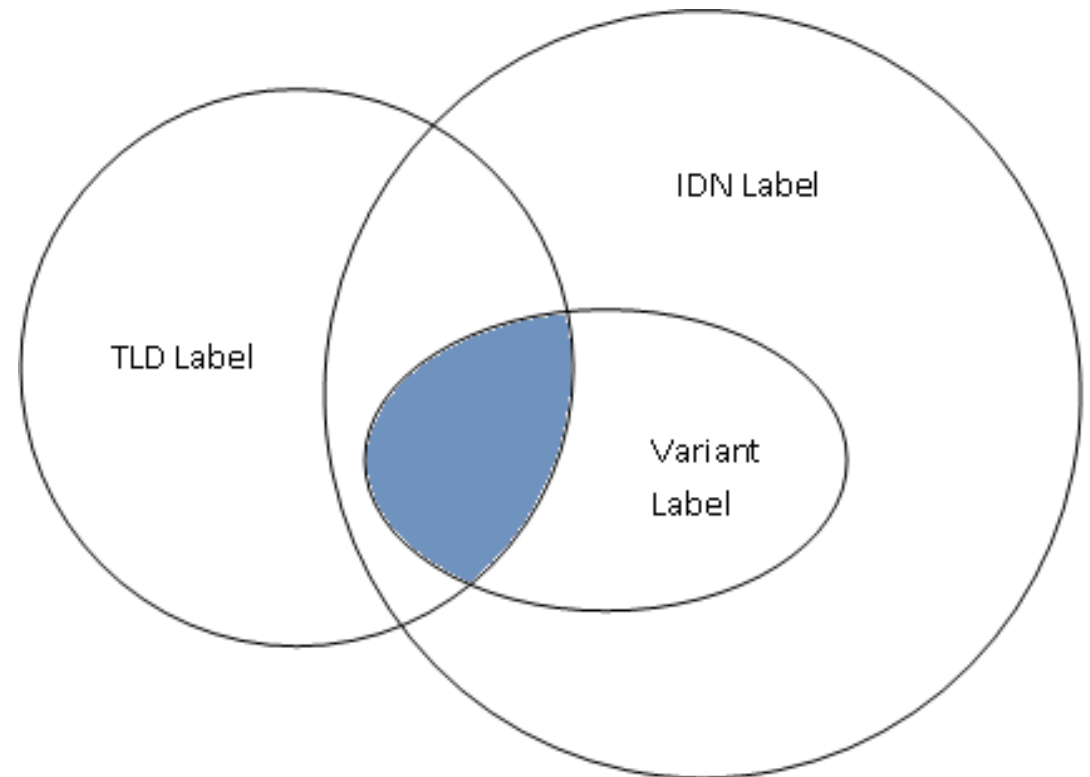
Project Steps

Final Usability Report Published	Board requests input from SOs and ACs	P7 incorporation of input into LGR processes

+ The User Experience Implications Report included 25 recommendations directed at four stakeholder groups:
  + ICANN
  + Registries
  + Registrars
  + Technical Community

+ Input received from ALAC, with input from other groups forthcoming

Selected Recommendations (1 of 2)

+ ICANN
    + Implement a conservative allocation process:
        + Approval of a variant TLD must not be automatic
        + Applicant should demonstrate "necessity"
    + Variant(s) must be allocated to same entity and bundled, administratively, with the primary label
    + Develop a simple and consistent life cycle for variant TLD sets (across languages and scripts)
    + Maintain LGR repository and make it available to users and programmatically processable
    + Create educational materials on the use and impact of variants for different user communities

Selected Recommendations (2 of 2)

+ Registries

  + Allocation of SLD primary label and all variant labels (though distinct DNS entries) must be bundled, administratively, and go to the same entity

  + To the extent possible, apply the LGR developed for the root across lower-level domains. Deviations from the LGR should be publicly documented and shared with ICANN and the technical community

  + Create educational materials on the use and impacts of variants for different user communities

    + For example, help registrants understand how to manage primary and variant labels to create an "equivalent" user experience

+ Registrars

  + Extend linguistic and technical support of IDN variants for registrants

DURBAN

NO. 47 14-18 JULY 2013

Summary of Input from ALAC (1 of 3)

+ Introduce IDN Variant TLDs carefully and implement complementary IDN policies concurrently

  ➢ Projects 2.2 and 7 will implement the LGR Procedure and update relevant ICANN processes.

+ Bundle the delegation of TLDs and variant TLDs appropriately to ensure consumer trust

  ➢ Report Recommendation 6.1.1: *TLD variant(s) must be applied for by and allocated to the same entity or registry that has applied for the corresponding primary TLD label.* This recommendation is intended to apply not only to the TLD but all levels of the tree. In other words, the label and all variants are treated as an atomic unit.

Summary of Input from ALAC (2 of 3)

+ Prepare user communities (both IDN users and non-IDN users) via dedicated outreach well in advance of IDN Variant TLD delegation

  ➤ The P6 Report includes recommendations to ICANN, Registries and Registrars to provide educational materials in the appropriate languages. Registries/registrars are encouraged to work with ICANN in developing outreach materials.

+ Find common ground between the technical and linguistic communities to help ensure that IDN Variants do not undermine the security and stability of the DNS

  ➤ The two-pass LGR procedure is designed to accomplish this goal, balancing the linguistic community's goals (i.e. Generation Panel) with the technical community's focus on security and stability (i.e. Integration Panel).

Summary of Input from ALAC (3 of 3)

+ Expedite the implementation of the Root Zone Label Generation Rules (LGR) process in general and accelerate the delivery of the Han script rule-set

  ➢ ICANN is working with the linguistic communities to facilitate development of generation panels and, ultimately, a unified LGR.

+ Strengthen the Root Zone Label Generation Rules (LGR) process by involving the ICANN community in oversight

  ➢ All LGR proposals are created by community members and will receive public comment periods. The cyclical and open nature of the LGR process will balance community needs with the secure and stable management of the root zone.

Project 7- Updating ICANN Processes and Systems

- Incorporating the IDN LGR

- Identifying Impacted Processes and Systems

Affected Systems and Processes

+ Program Team is determining impact on all internal processes due to LGR, IDNs and Variants

+ Project team is currently reaching out to the impacted departments to define system and process changes accordingly

+ Initial effort to identify ground rules or "assumptions"

Assumptions

+ Assumptions represent settled policy, design goals or technical boundary conditions

+ Foundation on which to implement the process updates for IDN Variant TLDs

+ 18 assumptions identified so far

+ Staff is currently working with members of the Board Variant Working Group to refine and finalize these ground rules

DURBAN

NO.47 14-18 JULY 2013 ICANN

Next Steps

Looking Ahead…

+ Project 2.2 - Implement the IDN LGR Procedure

  + Constitute the Integration Panel

  + Receive proposals from Generation Panels

+ Project 7 – Update ICANN's systems and processes

  + Focus on identifying the updates needed to be implemented in ICANN processes and systems

  + Incorporate input from the community on the User Experience Study

+ The project may also identify issues not discussed in the IDN variant program to date. This information will be synthesized and communicated before taking further action

IDN Variant TLD Program
Thank you

Discussion and Questions

DURBAN