

IDN Variant Issues Project (VIP)

Project Update and Next Steps
14 March 2012



COSTA RICA

11-16 March 2012

Agenda

- 1) Project Overview and Goals (10)
- 2) Case Studies and Integrated Issues Report (25)
- 3) Next Steps: Project Plan (25)
- 4) Discussion and Questions (30)



Project Overview and Goals

One World
One Internet



11-16 March 2012

Why this project

- Long-standing request from a number of IDN user communities.
- Board direction to develop an issues report on the subject.

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

One World
One Internet

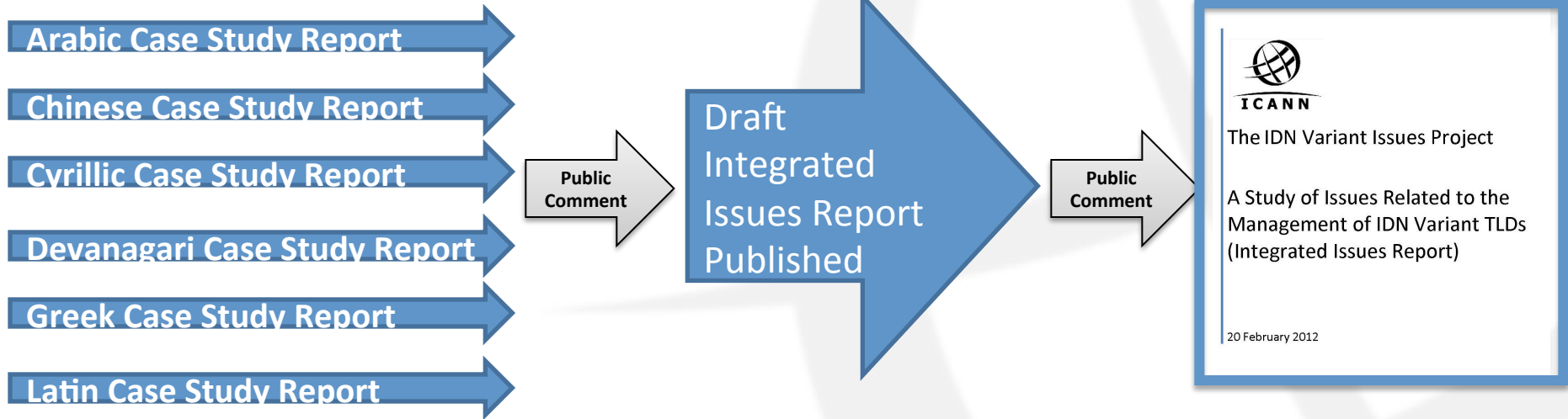


*Case Studies and Integrated Issues
Report
Naela Sarras*



IDN Variant Issues Project Phases 1 & 2

Completed in 2011



Phase I: Script case studies



- 6 teams: Arabic, Chinese, Cyrillic, Devanagari, Greek, Latin
- Comprised of community experts in DNS, Registry/Registrar operations, Linguistics, Security, Policy, and IDNA.
- Case Study Teams completed reports in October 2011.



Phase II: Integrated Issues Report

- Developed with support from a Coordination Team comprised of representatives from the case study teams.
- Summarizes and synthesizes the issues identified by the case study teams.



Working practices

- ICANN project team:
 - Synthesis of issues
 - Writing and editing the report
- Coordination team:
 - Advisory and reviewing role
 - Liaison with the 6 case study teams
- Weekly teleconference meetings

<https://community.icann.org/display/VIP/Home>



Integrated Issues Report: Objectives

- Identify the sets of issues relevant to all the studied scripts.
- Identify any sets of issues that are script specific.
- Provide a brief analysis of the issues, including the benefits and risks of possible approaches identified.
- Identify areas where further study or work could be pursued.



Integrated Issues Report

Karen Lentz



Report outline

Executive Summary

1 - Overview

2 - Project background

3 - Range of variant cases identified

4 - Establishing variant labels

5 - Treatment of variant labels

6 - Other related issues

7 - Discussion of potential additional work



What is a “variant”?

- No commonly-agreed definition.
- Used to refer to a number of different concepts.
- Report continues to use the term in a loose sense.
- More specific terms are recommended, e.g., “variant” with a qualifier to give more information.

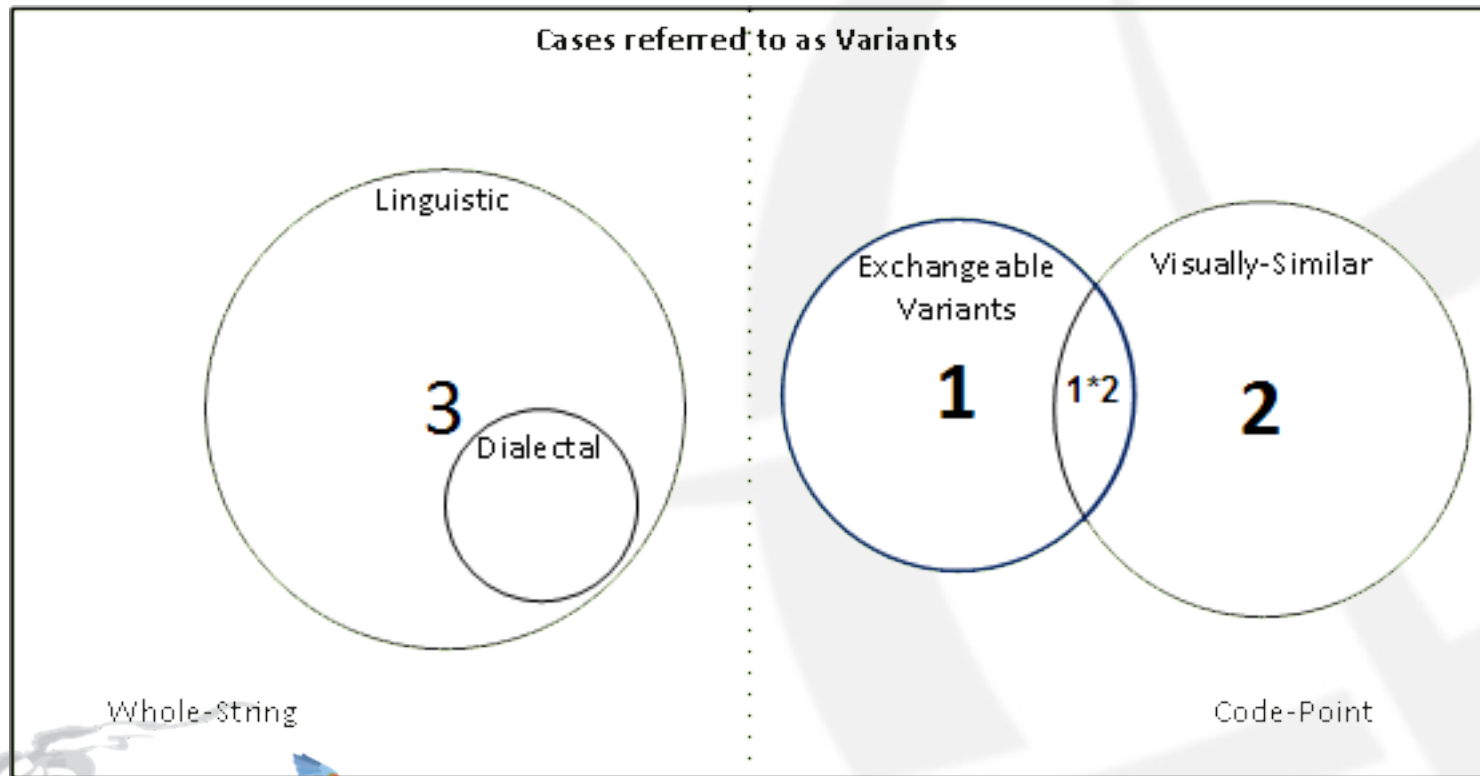


Scope of the report

- Issues discussed concern IDN variants **at the top level** (i.e., IDN variant TLDs).
- Other related issues are discussed as relevant.



Classification of identified variant cases



Whole string variants vs. code point variants

Code point variants: based on a relationship between code points

- E.g., a single code point is a variant of another code point or sequence of code points.

Whole-string variants: based on a relationship between whole strings.

- E.g., their meaning to a language community.



Establishing variant labels

Two Elements:

- The Code Point Repertoire for the Root Zone
- The Label Generation Rules



Establishing variant labels

Establishing the Code Point Repertoire for the Zone (Root) includes:

- Establishing which code points are to be permitted for the zone.
- Excluding code points not to be permitted for the zone.



Establishing the Code Point Repertoire

Issues:

- Which code points selected for inclusion?
- What expertise required for selection?
- How future changes in the valid and/or permitted code points are to be handled?



Establishing variant labels

Label Generation Rules (LGR) for the Code Point Repertoire include:

- Identifying code points that are variants of one another, and the code point substitution rules.
- Establishing the status rules applicable to labels containing permitted code points.



Creating Label Generation Rules

Issues:

- What expertise required to determine code point variant rules?
- Which label states are permitted?
- What flexibility should be provided regarding use of code points with different script properties?



Treatment of variant labels

Possible states identified:

- Activated, Allocated, Blocked, Delegated, Mirrored, Withheld

Resulting user experience and ICANN/registry/registrar operations dependent on which states are employed.



User experience considerations

Many types of users considered:

- Capabilities w/r/t the script: full competence, limited competence, or no familiarity.
- User roles: system administrator, other network operator, domain name registrant, software developer, law enforcement/security, end user.



Themes in the report

Tension between:

- Interest in creating greater functionality to address a range of potential variant cases
- Difficulties of meeting those objectives.

Risks and costs are significant

- Need for cost-benefit analysis for each potential mechanism to balance risks, costs, and benefits.



Next Steps: Project Plan
Francisco Arias



Potential next steps

Several potential projects identified in the Integrated Issues Report.

Open for public comment:

<http://www.icann.org/en/public-comment/idn-vip-proposed-project-plan-20feb12-en.htm>

Comment period through 18 March 2012, with reply period through 8 April 2012



Project 1: Label Generation Ruleset Tool

Estimated Costs:

\$41,880 FY12

\$80,520 FY13

Already ongoing;
Not dependent on
having variants in
the root

Description:

Develop the specification for a standard tool for listing the allowed code points and the label generation rules, and for the generation of the corresponding variant labels, if any.

(Specifies a standard format for an IDN table)



Project 3: Examining the Feasibility of Whole-String Variants

Estimated Costs:

\$122,512 FY12

\$130,550 FY13

Description:

Study the feasibility of unambiguously identifying and implementing whole-string variant TLDs.



Project 5: Examining the Technical Feasibility of Mirroring

Description:

Estimated Costs:

\$88,890 FY12
\$177,080 FY13

Study the technical feasibility of mirroring variants in the root. Particularly the feasibility of ensuring that mirroring works beyond DNS, in applications like Web, email, FTP, etc.

(“Mirroring” means a mapping of 2 or more namespaces)



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

Estimated Costs:

\$53,930 FY12
\$426,512 FY13

Description:

Study the implications on user experience of variant TLDs in both mirrored and non-mirrored implementations.



Project 2: Label Generation Ruleset Process for the Root Zone

Project 2.1:

Estimated Costs:

Project 2.1

\$627,420 FY13

Determining the approach to developing the code point repertoire and the label generation process for the root zone.

Project 2.2

Not estimated.

Project 2.2:

Depending on the outcome of project 2.1, work is to develop the code point repertoire and the label generation process for the root zone.



Project 4: Enhancing Visual Similarity Processes

Project 4.1:

Estimated Costs:

Project 4.1

\$661,230 FY13

Develop an enhanced visual similarity process for the root that is predictable and repeatable.

Project 4.2

Not estimated.

Project 4.2:

Depending on the outcome of project 4.1, work ranges from keeping status quo to using tools like the LGR tool to identify visual similarity using a deterministic approach.



Project 7: Updates to ICANN's gTLD and ccTLD Programs

Description:

Scope of work depends on the outcome of projects 2.1 and 4.1.

This project would implement the changes that may be needed as a result of the Label Generation Ruleset and the enhanced Visual Similarity processes in the new gTLD and ccTLD processes.



Project 8: Updates to ICANN and IANA Operations

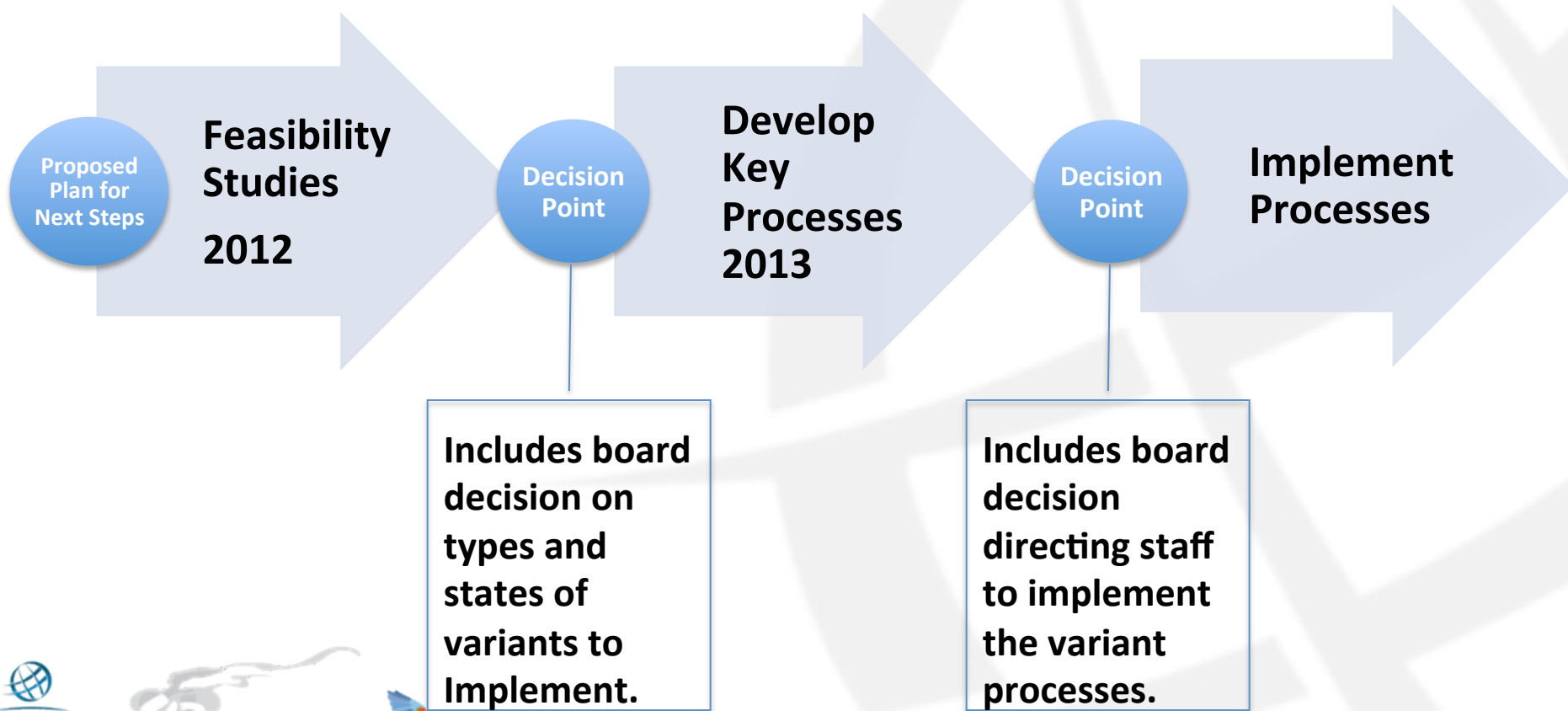
Description:

Scope of work depends on the outcome of projects 2.1 and 4.1.

This project would implement the changes that may be needed in ICANN and IANA processes and operation as a result of the Label Generation Ruleset and the enhanced Visual Similarity processes.



IDN VIP Next Steps



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Timeline

ICANN FY	FY12												FY13												FY14											
Calendar Year	CY12						CY12						CY13						CY13						CY14											
Month	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7						
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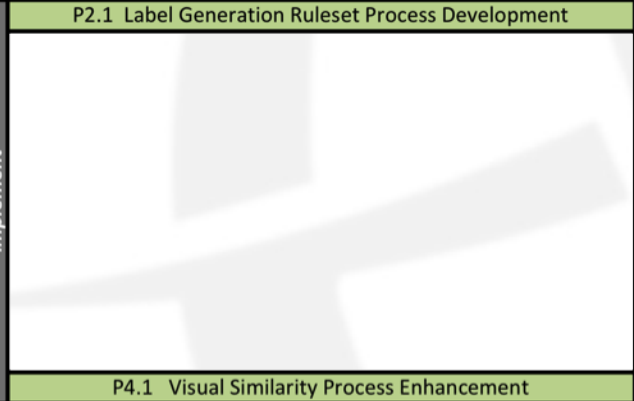
P1 Label Generation Ruleset Tool

P3 Whole-String Variants Feasibility Study

P5 Mirroring Variants Feasibility Study

P6 Variants with and without Mirroring, User Experience Study

Decision on Types of IDN Variant TLDs to implement



P4.1 Visual Similarity Process Enhancement

Decision to implement the IDN Variant TLDs processes

P2.2 Implement Label Generation Process for the Root

P4.2 Improved Visual Similarity Process Implementation

P7 Updates to ICANN's gTLD and ccTLD Programs

P8 Updates to ICANN and IANA Operations



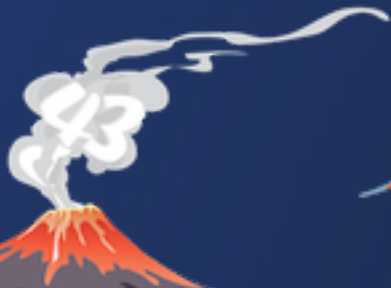
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Discussion and Questions



Thank You



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