



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Proposed Service

Name of Proposed Service:

Second Level IDN Support for Hindi TLD (xn--i1b6b1a6a2e)

Technical description of Proposed Service:

Public Interest Registry intends to offer support for second level domain name registrations for the Hindi Language (ISO-639-1), based on the Devanagari script (ISO-15924).

Hindi IDN Table

The following is the IDN table for the Hindi language in a machine-readable format. The format of the table complies with RFC 3743.

Language Tag: hin-deva

Language Description: Hindi

Script Description: Devanagari

Version: 2.0

Effective Date: 19 Dec 2011

U+0901;U+0945 U+0902;

U+0902;;

U+0903;;

U+0905;;

U+0906;;

U+0907;;

U+0908;;

U+0909;;

U+090A;;

U+090B;;

U+090D;;

U+090F;;

U+0910;;

U+0911;;

U+0913;;

U+0914;;

U+0915;;



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

U+0916;;

U+0917;;

U+0918;;

U+0919;;

U+091A;;

U+091B;;

U+091C;;

U+091D;;

U+091E;;

U+091F;;

U+0920;;

U+0921;;

U+0922;;

U+0923;;

U+0924;U+0924 U+094D U+0924;

U+0925;;

U+0926;;

U+0927;;

U+0928;;

U+092A;;

U+092B;;

U+092C;;

U+092D;;

U+092E;;

U+092F;;

U+0930;;

U+0932;;

U+0935;;

U+0936;;

U+0937;;

U+0938;;

U+0939;;

U+093C;;

U+093D;;

U+093E;;

U+093F;;

U+0940;;



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

U+0941;;

U+0942;;

U+0943;;

U+0945;;

U+0947;;

U+0948;;

U+0949;;

U+094B;;

U+094C;;

U+094D;;

U+0926 U+094D U+0917;U+0926 U+094D U+0930, U+0926 U+094D U+0928;

U+0926 U+094D U+0927;U+0926 U+094D U+0918;

U+0937 U+094D U+091F;U+0937 U+094D U+0920;

U+0936 U+094D U+0935;U+0936 U+094D U+0930 U+094D U+0935;

U+0936 U+094D U+0928;U+0936 U+094D U+0930 U+094D U+0928;

U+0936 U+094D U+091A;U+0936 U+094D U+0930 U+094D U+091A;

U+0936 U+094D U+0932;U+0936 U+094D U+0930 U+094D U+0932;

U+0926 U+094D U+0935;U+0926 U+094D U+092C;

Utilization of the IDN table and Language Policies

Columns in the language table are separated by semi-colons, with the second column containing one or more characters, which are separated by commas.

Allowed Characters for Registration:

Only characters found in the first column of the table are permitted by the registry for registration.

In the table, the first column represents the valid Unicode characters of the Hindi language, the second and third columns represent variant(s) associated with the character in the first column. In the case that the second or third column contains characters not separated by commas, that sequence of characters will be reserved as a variant of the character in the first column.

Variant Management

Variant IDNs may be activated by the sponsoring Registrar of the canonical name.



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Example 1:

primary: xn--j2bc4b2c8b (u+935 u+943 u+926 u+94d u+927)

variants: xn--41b1a6b0c8b (u+935 u+943 u+926 u+94d u+918)

Example 2:

primary: xn--p1b6ci4b4b3a (u+909 u+926 u+93e u+939 u+930 u+923)

variants: No variants.

Consultation

Please describe with specificity your consultations with the community, experts and or others. What were the quantity, nature and content of the consultations?:

The applicable IDN table is developed by the Centre for Development of Advanced Computing (CDAC); CDAC is a R&D organization of the Department of Information Technology (DIT) in India. CDAC oversees standardizing of regulations and policies on Indian IDN registrations, including standardization of the Devanagari script tables, linguistic and variant mapping policies, and registration policies.

a. If the registry is a sponsored TLD, what were the nature and content of these consultations with the sponsored TLD community?:

N/A

b. Were consultations with gTLD registrars or the registrar constituency appropriate? Which registrars were consulted? What were the nature and content of the consultation?:

No/None.

c. Were consultations with other constituency groups appropriate? Which groups were consulted? What were the



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

nature and content of these consultations?:

No/None.

d. Were consultations with end users appropriate? Which groups were consulted? What were the nature and content of these consultations?:

No/None.

e. Who would endorse the introduction of this service? What were the nature and content of these consultations?:

Hindi language users who want a fully IDN.IDN version of .ORG.

f. Who would object the introduction of this service? What were(or would be) the nature and content of these consultations?:

We are not aware of any such possible objection, and don't foresee any.

Timeline

Please describe the timeline for implementation of the proposed new registry service:

PIR plans to launch this TLD with second level Hindi IDN registration support in Q1 2014.

Business Description

Describe how the Proposed Service will be offered:

The registrations of IDNs are stored in the registry as the A-label. As such, all interactions between the registry and registrars concerning an IDN are done using the A-label representation of the domain name.



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

When a user makes an IDN registration through a registrar under this TLD the following steps will occur:

- o At the registrar site the user is requested to specify which script/language their desired IDN domain name is intended to be represented in. For this TLD the only available language will be the Hindi language. The user then enters the IDN they wish to register, as a U-label.*
- o The registrar passes the request for the IDN on to the Afilias registry system (PIR's backend services provider), after first converting any U-labels into their appropriate A-label forms.*
- o The Afilias system verifies that all characters requested in the IDN is included in the IDN Table representing the Hindi language.*
- o IDNA is applied verifying that the IDN requested is a valid IDN per the protocol requirements and that any contextual rules required are fulfilled.*
- o A check is performed to ensure that the requested IDN is available under this TLD, and the availability response is returned to the registrar.*
 - o The registrar presents the user whether the IDN they searched for is available for registration. The registrar takes the user through their standard registration and payment processes.*
- o The registrar sends the Afilias registry system a Domain Create request in the A-label (xn-- representation) form for the requested IDN domain name, including the appropriate language tag.*
- o The Afilias registry re-checks the above listed verification steps.*
- o If all IDN registration policies and technical requirements are met, the IDN is created in the registry. If the applied for IDN has variants, these variants will be reserved in order to block other users from registering them, and any other IDN specific registry variant policies will be applied.*

Describe quality assurance plan or testing of Proposed Service:

The following information describes the development and quality assurance process used to create and evaluate the Hindi IDN table.

Afilias evaluates IDN tables on 4 categories:

- 1. Conformance to IDNA: Afilias was actively involved in efforts to evolve the IDNA standards to ensure they are more responsive to technical and social needs, as reflected in RFCs 5890, 5891, 5892, and 5893. Each Unicode character, including variants, that are captured within the IDN table are analyzed against the IDNA protocol to ensure full compliance; examples of incompatibility includes characters that are prohibited in IDNA. Incompatible characters are excluded from the tables.*
- 2. Completeness of the Table: Afilias determines whether the IDN table is complete, ensuring that there are no corner cases that may lead to confusion to end-users. In this process, specifically if variants exist, Afilias analyzes each character and its*



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

associated variants to ensure that each character produces the same set of variants. If all variant mappings and reverse mappings correlate, the IDN table is considered complete. Any exceptions are raised to CDAC for further evaluation and recommendations.

3. *Registration and administration policies:* In the analysis of supporting Devanagari IDNs, Afilias references a policy document produced by CDAC: *Internationalized Domain Names in Devanagari script, which includes the Hindi language*. Upon completion of the analysis, Afilias determined that there were no outstanding issues regarding the Devanagari script IDN table, which includes the Hindi language.

4. *Registry policies:* Upon successful evaluation of the IDN tables and its registration policies, Afilias considered additional policies to ensure consistency of implementation, as well as to prevent potential abusive behavior to ensure a high quality of service.

These policies include:

- o Identifying the maximum allowable Unicode characters for a given domain registration. The maximum length may vary for different scripts and is enforced to ensure the A-label does not exceed the maximum label length. Afilias solicits feedback from CDAC to ensure the limitation does not impact the registrar, registrant or user experience.
- o Identifying the maximum allowable variants permitted per IDN registration. The maximum allowable variants prevent malicious use of IDN registrations that may impact the quality of the registry service.

Please list any relevant RFCs or White Papers on the proposed service and explain how those papers are relevant.:

In the implementation of the IDN registration and resolution services, Afilias will adhere to the relevant IETF standards, including RFCs 5890, 5891, 5892, and 5893, as well as the ICANN IDN Implementation Guidelines (including the 3.0 version announced for implementation on 22 November 2011: <http://www.icann.org/en/announcements/announcement-3-22nov11-en.htm>).

Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

The relevant contractual provision is Exhibit A to the November 14, 2013 Registry Agreement between Public Interest



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Registry and ICANN (the "Hindi Registry Agreement") (priority number 83).

What effect, if any, will the Proposed Service have on the reporting of data to ICANN:

None

What effect, if any, will the Proposed Service have on the Whois?:

None

Contract Amendments

Please describe or provide the necessary contractual amendments for the proposed service:

Exhibit A to the Hindi Registry Agreement, should be amended to add the following:

3. Internationalized Domain Names (IDNs)

Registry Operator may offer registration of IDNs at the second and lower levels provided that Registry Operator complies with the following requirements:

3.1 Registry Operator must offer Registrars support for handling IDN registrations in EPP.

3.2. Registry Operator must handle variant IDNs as follows:

3.2.1. By default variant IDNs (as defined in the Registry Operator's IDN tables and IDN Registration Rules) must be blocked from registration.

3.2.2. In the future, the variant IDNs that are reserved and blocked from domain registration, may be activated when requested by the sponsoring Registrar of the canonical name as described in the IDN Tables and IDN Registration Rules.

3.2.3. Active variant IDNs must be provisioned in the TLD's DNS zone file as zone cuts using the same NS resource records as the canonical name.

3.3. Registry Operator may offer registration of IDNs in the following languages/scripts (IDN Tables and IDN Registration Rules will be published by the Registry Operator as specified in the ICANN IDN Implementation Guidelines):

3.3.1 Hindi language



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Benefits of Service

Describe the benefits of the Proposed Service:

The most important reason for IDNs is the growing number of Internet users around the world for whom it is difficult to use ASCII characters. The fact is, the Internet is accessed by more people who do not use Latin languages and scripts than those who do. This means that it is difficult for them to recognize ASCII characters and reproduce them on keyboards or use software to enter website addresses in browsers.

IDN domain names will offer many new opportunities and benefits for Internet users around the world by allowing them to establish and use domains in their native languages and scripts. This TLD will be among the first TLDs to offer IDNs in the Hindi language.

Competition

Do you believe your proposed new Registry Service would have any positive or negative effects on competition? If so, please explain.:

No.

How would you define the markets in which your proposed Registry Service would compete?:

Hindi language Internet users, present and future.

What companies/entities provide services or products that are similar in substance or effect to your proposed Registry Service?:

A limited number of ccTLDs may offer or plan to offer this service. We do not believe any gTLD or sTLD currently offers this service.



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

In view of your status as a registry operator, would the introduction of your proposed Registry Service potentially impair the ability of other companies/entities that provide similar products or services to compete?:

No other company would be affected.

Do you propose to work with a vendor or contractor to provide the proposed Registry Service? If so, what is the name of the vendor/contractor, and describe the nature of the services the vendor/contractor would provide.:

PIR will work with its backend technical services provider, Afiliis Limited.

Have you communicated with any of the entities whose products or services might be affected by the introduction of your proposed Registry Service? If so, please describe the communications.:

No/None.

Do you have any documents that address the possible effects on competition of your proposed Registry Service? If so, please submit them with your application. (ICANN will keep the documents confidential).:

No.

Security and Stability

Does the proposed service alter the storage and input of Registry Data?:

No



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Please explain how the proposed service will affect the throughput, response time, consistency or coherence of responses to Internet servers or end systems:

Based on our quality assurance process, there is no evidence that the proposed service will not impact throughput, response time, consistency or coherence of responses.

Have technical concerns been raised about the proposed service, and if so, how do you intend to address those concerns?:

No

Other Issues

Are there any Intellectual Property considerations raised by the Proposed Service:

No.

Does the proposed service contain intellectual property exclusive to your gTLD registry?:

No.

List Disclaimers provided to potential customers regarding the Proposed Service:

N/A



ICANN Registry Request Service

Ticket ID: D6X6U-6Y0F1

Registry Name: Public Interest Registry

gTLD: .org .xn--i1b6b1a6a2e

Status: Approved, Pending Contract Amendment

Status Date: 2014-02-24 15:46:57

Print Date: 2014-04-18 22:41:14

Any other relevant information to include with this request:

None.