Proposed Service

Name of Proposed Service:

Technical description of Proposed Service:

.LINDE registry operator, Linde Aktiengesellschaft is applying to add IDN domain registration services. .LINDE IDN domain name registration services will be fully compliant with IDNA 2008, as well as ICANN's Guidelines for implementation of IDNs. The language tables are submitted separately via the GDD portal together with IDN policies. .LINDE is a brand TLD, as defined by the Specification 13, and as such only the registry and its affiliates are eligible to register ..LINDE domain names. The full list of languages/scripts is:
Azerbaijani language
Belarusian language
Bulgarian language
Chinese language
Croatian language
French language
Greek, Modern language
Japanese language
Korean language
Kurdish language
Macedonian language
Moldavian language
Polish language
Russian language
Serbian language
Spanish language
Swedish language
Ukrainian language
Arabic script
Armenian script
Avestan script
Balinese script
Bamum script
Batak script
Bengali script
ICANN Registry Request Service
Ticket ID: C5H6K-6A2J2
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Bopomofo script
Brahmi script
Buginese script
Buhid script
Canadian Aboriginal script
Carian script
Cham script
Cherokee script
Coptic script
Cuneiform script
Cyrillic script
Devanagari script
Egyptian Hieroglyphs script
Ethiopic script
Georgian script
Glagolitic script
Greek script
Gujarati script
Gurmukhi script
Han script
Hangul script
Hanunoo script
Hebrew script
Hiragana script
Imperial Aramaic script
Inscriptional Pahlavi script
Inscriptional Parthian script
Javanese script
Kaithi script
Kannada script
Katakana script
Kayah Li script
Kharoshthi script
Khmer script
Lao script
Latin script
Lepcha script
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Limbu script
Lisu script
Lycian script
Lydian script
Malayalam script
Mandaic script
Meetei Mayek script
Mongolian script
Myanmar script
New Tai Lue script
Nko script
Ogham script
Ol Chiki script
Old Persian script
Old South Arabian script
Old Turkic script
Oriya script
Phags Pa script
Phoenician script
Rejang script
Runic script
Samaritan script
Saurashtra script
Sinhala script
Sundanese script
Syloti Nagri script
Syriac script
Tagalog script
Tagbanwa script
Tai Le script
Tai Tham script
Tai Viet script
Tamil script
Telugu script
Thaana script
Thai script
Tibetan script
Consultation

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

After internal consultations were carried out to determine language needs, .LINDE consulted with its backend provider, VeriSign, on technical implementation. There was no consultation with the broader community as registration and usage of ..LINDE TLDs will be restricted to the Registry and its affiliates.

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

Not applicable.

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

As the " .com" registry, VeriSign has been offering IDNs for many years to a large number of registrars. In addition, as a .brand Registry we will chose up to a maximum of 3 registrars, and each of them will have to support IDNs, so further consultation was not required.

c. Were consultations with other constituency groups appropriate? Which groups were consulted? What were the nature and content of these consultations?:

Not applicable.

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

As the " .com" registry, VeriSign has been offering IDNs for many years to thousands of registrars. In addition, as a .brand
Registry we will chose up to 3 registrar maximum, and each of them will have to support IDNs, so further consultation was not required.

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

The Internet community in general would endorse this service, and in particular the Gas and Engineering industry, .LINDE customers, and the Registry and its Affiliates who are operating in the markets where we do business (or might be in the future), especially those whose native languages use non-ASCII characters.

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

There should be no objections to the introduction of this service since it is fully compliant with IDNA 2008 protocols, as well as ICANN's Guidelines for Implementation of IDNs.

**Timeline**

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

We plan to implement the service in as soon as possible. We indeed want the IDNs to be available for registration as early as possible once controlled interruption was completed and TM Claim started, which should be in December 21 2015.

**Business Description**

Describe how the Proposed Service will be offered:

Linde Aktiengesellschaft (the Registry) will allow registration of IDNs in ..LINDE at the second-level and above. The current contractual provision states only the below information:

4.3.1. Arabic script
4.3.2. Cyrillic script
4.3.3. Han script
4.3.4. Latin script

A full list of the IDNs ..LINDE intends to offer can be found in this request under the "Technical description of Proposed Service" portion of "Proposed Service" and "Contractual Amendments" sections. Only the Registry and its affiliates are
eligible to register and use ..LINDE domain names. Registration will be available via ..LINDE accredited registrars. The SRS supports the IDN extension for EPP and registrars may use this extension to signal which IDN table an IDN domain name corresponds to.

Describe quality assurance plan or testing of Proposed Service:

VeriSign has tested all operations including searching, registering, updating, and deleting of IDN registrations. This careful testing has also ensured that the existence of a canonical IDN label prohibits any registrations in the same set of variant labels, and that the variants become available again for registration once the IDN label is deleted. VeriSign will continue to analyze newly registered IDN labels to ensure that all registrations are in full compliance with ..LINDE IDN Policies.

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

..LINDE ‘s selected backend registry services provider’s (VeriSign?) SRS IDN implementation complies with IDN standards defined by IDNA BIS (i.e., IDNA2008). Moreover, along with this standard migration, the IDN code points are based on Unicode 5.2. As part of the software development lifecycle (SDLC) process, VeriSign incorporates design reviews, code reviews, and peer reviews to help ensure compliance with the relevant RFCs. In addition, a dedicated quality assurance (QA) team creates extensive test plans and issues internal certifications once it has confirmed the accuracy of the code in relation to requirements and RFCs. To help ensure adopted processes and procedures are followed and to further ensure the security and stability of the TLD is fully accounted for in all software releases, the QA team is an independent organization from the development team within engineering.

Specific RFCs with which VeriSign complies include 5890 - 5893, which define the IDN protocol, and 5894 - 5895, which are provided for information purposes, as detailed below:


- RFC 5892 (http://www.rfc-editor.org/rfc/rfc5892.txt): The Unicode Code Points and Internationalized Domain Names for Applications

Applications

- RFC 5894 (http://www.rfc-editor.org/rfc/rfc5894.txt): Internationalized Domain Names for Applications: Background, Explanation, and Rationale


Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

ICANN Registry Agreement, Exhibit A - Approved Services, Section 4: Internationalized Domain Names (IDNs)

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. Whois searches will be available for IDN names using IDN characters or a-label (punycode).

The public interface to .LINDE’s selected backend registry services provider’s (VeriSign’s) Whois service for IDN domain names is the same as for ASCII domain names. VeriSign uses punycode to encode IDN domain names in the DNS and Whois servers. In accordance with RFC 3492, VeriSign uses ASCII punycode. A client uses the ASCII punycode domain name to query the Whois server.

For the Extensible Provisioning Protocol (EPP) interface, IDN domain names are also passed using their punycode encoding. The client converts native character IDN domain names to punycode domain names on commands, and then converts punycode domain names to native character IDN domain names on responses. VeriSign supports all the same commands and responses for IDN domain names as it supports for ASCII domain names. The only IDN-specific EPP interface requirement is to pass the language tag on a domain create. The client handles the passing of the language tag by including the VeriSign IDN Language Tag EPP extension (i.e., http://www.Verisigninc.com/assets/idn-valid-language-tags.pdf ) with an EPP domain create command. The VeriSign IDN Language Tag EPP extension includes a single ?idnLang:tag? element for the language tag value. The following link defines the possible language tag values supported by the server: http://www.iana.net/domains/idn-tables/.
Contract Amendments

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

The new service would require the following amendment to paragraph 4.3 of Exhibit A -Approved Services. (All scripts and language are added to the list of approved IDN services)

4.3. 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):

4.3.1 Azerbaijani language
4.3.2 Belarusian language
4.3.3 Bulgarian language
4.3.4 Chinese language
4.3.5 Croatian language
4.3.6 French language
4.3.7 Greek, Modern language
4.3.8 Japanese language
4.3.9 Korean language
4.3.10 Kurdish language
4.3.11 Macedonian language
4.3.12 Moldavian language
4.3.13 Polish language
4.3.14 Russian language
4.3.15 Serbian language
4.3.16 Spanish language
4.3.17 Swedish language
4.3.18 Ukrainian language
4.3.19 Arabic script
4.3.20 Armenian script
4.3.21 Avestan script
4.3.22 Balinese script
4.3.23 Bamum script
4.3.24 Batak script
4.3.25 Bengali script
4.3.26 Bopomofo script
4.3.27 Brahmi script
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4.3.28 Buginese script
4.3.29 Buhid script
4.3.30 Canadian Aboriginal script
4.3.31 Carian script
4.3.32 Cham script
4.3.33 Cherokee script
4.3.34 Coptic script
4.3.35 Cuneiform script
4.3.36 Cyrillic script
4.3.37 Devanagari script
4.3.38 Egyptian Hieroglyphs script
4.3.39 Ethiopic script
4.3.40 Georgian script
4.3.41 Glagolitic script
4.3.42 Greek script
4.3.43 Gujarati script
4.3.44 Gurmukhi script
4.3.45 Han script
4.3.46 Hangul script
4.3.47 Hanunoo script
4.3.48 Hebrew script
4.3.49 Hiragana script
4.3.50 Imperial Aramaic script
4.3.51 Inscriptional Pahlavi script
4.3.52 Inscriptional Parthian script
4.3.53 Javanese script
4.3.54 Kaiti script
4.3.55 Kannada script
4.3.56 Katakana script
4.3.57 Kayah Li script
4.3.58 Kharoshthi script
4.3.59 Khmer script
4.3.60 Lao script
4.3.61 Latin script
4.3.62 Lepcha script
4.3.63 Limbu script
4.3.64 Lisu script
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4.3.65 Lycian script
4.3.66 Lydian script
4.3.67 Malayalam script
4.3.68 Mandaic script
4.3.69 Meetei Mayek script
4.3.70 Mongolian script
4.3.71 Myanmar script
4.3.72 New Tai Lue script
4.3.73 Nko script
4.3.74 Ogham script
4.3.75 OI Chiki script
4.3.76 Old Persian script
4.3.77 Old South Arabian script
4.3.78 Old Turkic script
4.3.79 Oriya script
4.3.80 Phags Pa script
4.3.81 Phoenician script
4.3.82 Rejang script
4.3.83 Runic script
4.3.84 Samaritan script
4.3.85 Saurashtra script
4.3.86 Sinhala script
4.3.87 Sundanese script
4.3.88 Syloti Nagri script
4.3.89 Syriac script
4.3.90 Tagalog script
4.3.91 Tagbanwa script
4.3.92 Tai Le script
4.3.93 Tai Tham script
4.3.94 Tai Viet script
4.3.95 Tamil script
4.3.96 Telugu script
4.3.97 Thaana script
4.3.98 Thai script
4.3.99 Tibetan script
4.3.100 Tifinagh script
4.3.101 Vai script
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4.3.102\(\text{Y}i\) script

Benefits of Service

Describe the benefits of the Proposed Service:

*IDNs will provide an improved user experience within the TLD for Internet users all around the world by offering more intuitive access and navigation. At the same time, IDNs will allow .LINDE to communicate more effectively with customers and stakeholders in all markets.*

Competition

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

*As a brand TLD, ..LINDE is not available to the general public. Under the terms of Specification 13 in the Registry Agreement, registration is restricted to the use of the Registry and its affiliates, and as such the new service will have no effect on competition.*

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

*IDNs will primarily be adopted for use in respective-speaking markets*

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

*Many registry operators provide IDN registration.*

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?:

*As stated above, ..LINDE is only open to registration by the Registry and its affiliates and therefore the service will not directly compete with other IDNs.*
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:.

*Technical implementation of this service will be carried out by our backend operator, VeriSign. VeriSign will also be responsible for language tables and IDN policy.*

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:.

*Not applicable.*

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):.

*Not applicable.*

**Security and Stability**

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

*No, the service does not alter storage and input of Registry Data*

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

*The service does not affect throughput, response time, consistency or coherence of responses to Internet servers or end systems.*

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

*No. .LINDE is working with VeriSign as a back end registry operator. VeriSign has successfully deployed IDN registration services in other TLDs, and the same IDN registration services are already available in gTLDs operated by VeriSign and other registries.*
Other Issues

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

No, there are no Intellectual property considerations raised by the proposed service.

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

No, the proposed service does not contain intellectual property exclusive to our gTLD registry

List Disclaimers provided to potential customers regarding the Proposed Service:

None

Any other relevant information to include with this request:

None