



ICANN Registry Request Service

Ticket ID: M6G1E-1G9Y2
Registry Name: XYZ.COM LLC
gTLD: .XYZ .COLLEGE
Status: ICANN Review
Status Date: 2015-12-03 00:52:41
Print Date: 2015-12-03 00:52:52

Proposed Service

Name of Proposed Service:

Gateway

Technical description of Proposed Service:

Preliminary note: This Proposed Service (the "Proposed Service") covers all of XYZ's top-level domains -- .xyz, .college, .rent, .theatre, .protection and .security.

The gateway systems include:

- 1. EPP service. An EPP gateway would be established which would be used by ICANN-accredited registrars located in China. The gateway would act as a proxy to the "primary" EPP system located on CentralNic's registry infrastructure in the UK. The gateway would be responsible for implementing MIIT regulations and verification of registrant contact information. It would also implement an object cache, which would improve round-trip times for Chinese registrars. In all other respects it would function as a proxy, passing EPP commands and responses between the registrar and primary registry system, which would remain the authoritative source of registry data.*
- 2. Supplementary Registration Information Lookup Service. A port-43 supplementary registration information lookup service would be established. This service acts as a caching proxy to the whois service. This Supplementary Information Lookup Service would be queried only by registrars in China. End users performing whois queries would not query this service and whois.nic.[TLD] would continue to point to the primary whois service. The format of responses produced by the supplementary registration information lookup service would be identical to those produced by the whois service and would comply with ICANN specifications. XYZ and the gateway provider will put the supplementary registration information lookup service hostname on their websites.*
- 3. Supplemental Data escrow. In addition to the existing provision, Registry data pertaining to Chinese registrants would be uploaded to ZDNS, XYZ's technical partner in China. These data would be held in a secure manner compliant with ICANN specifications for data escrow and applicable national legislation. It is important to note that information about non-Chinese registrants would not be included in deposits uploaded to ZDNS.*
- 4. DNS. CentralNic will expand its Anycast DNS network into Mainland China (it already has nodes in Hong Kong) so that DNS queries from Chinese internet users are answered by DNS servers inside China. No filtering will be done on the Anycast servers, which will function identically to all other nodes in the network.*



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NOTE: It is important to note here that there will be complete consistency and coherency across the registry and the gateway. The same domain names will be available for registration for all registrants and results from the traditional Whois and the Supplementary Registration Information Lookup Service will be identical in every case.

Consultation

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

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?:

XYZ has consulted with various Chinese registrars for approximately one full year. Chinese registrars have been strong encouraging XYZ to launch this gateway ever since XYZ became popular in China soon after our launch. Until this gateway is set up, registrants in China are unable to use their .xyz domain names and so registrars receive many complaints from registrants. These consultations have been, without exception, strongly in favor of XYZ setting up this Chinese gateway. In fact, XYZ receives regular complaints from registrars that the Proposed Service is not already set up.

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

Consultation with any constituency group other than ICANN, our registrars and our registrants is not appropriate as no other constituency group is affected by this proposes arrangement.

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

Yes, consultations with end users are appropriate -- specifically end uses in China. We have, directly and through our



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registrar partners, communicated with many registrants in China about these registrants desire to be able to use their domains. Without exception they desire for us to establish this gateway so that they can use their domain names.

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

Based on the above described consultations, we are confident that the entire Internet user base of China would endorse this service and that Chinese registrars would strongly endorse this service.

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

We believe that no parties have any legitimate reason to object to the introduction of this service.

Timeline

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

Once ICANN approves this RSEP and subsequently approves XYZ's request for a material subcontractor change, XYZ is prepared to launch this new service within approximately one month.

Business Description

Describe how the Proposed Service will be offered:

The service will be offered by making use of ZDNS's existing solution. The technical work required to integrate the XYZ registry with ZDNS's gateway system has already been completed. Once approved, the deployment process consists of assisting Chinese registrars with on-boarding with ZDNS's registry gateway.

Describe quality assurance plan or testing of Proposed Service:

Prior to deployment, XYZ and CentralNic will perform a thorough functional test of ZDNS's registry gateway. The test plan created by IIS for Pre-Delegation Testing of new gTLDs will form the basis of this testing.

Additionally, once this internal test has been completed, ICANN accredited registrars in China will be invited to perform



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functional and regression tests of the EPP gateway prior to going live.

XYZ will deploy ongoing monitoring of the gateway to ensure that its performance equals or exceeds that mandated by the Service Level Agreement

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

The gateway system will implement a number of specifications, namely: ICANN specifications:

-----New gTLD Registry Agreement:

-----Specifications 1, 2, 3, 4, 5, 6, 7

-----Additional Whois Information Policy

DNS-related IETF RFC specifications:

-----RFC1034 (Domain Names - Concepts And Facilities)

-----RFC1035 (Domain Names - Implementation And Specification)

-----RFC1101 (DNS Encoding of Network Names and Other Types)

-----RFC1996 (A Mechanism for Prompt Notification of Zone Changes (DNS NOTIFY))

-----RFC2136 (Dynamic Updates in the Domain Name System)

-----RFC2181 (Clarifications to the DNS Specification)

-----RFC2182 (Selection and Operation of Secondary DNS Servers)

-----RFC2308 (Negative Caching of DNS Queries (DNS NCACHE))

-----RFC3596 (DNS Extensions to Support IP Version 6)

-----RFC3597 (Handling of Unknown DNS Resource Record (RR) Types)

-----RFC3761 (The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM))

-----RFC4033 (DNS Security Introduction and Requirements)

-----RFC4034 (Resource Records for the DNS Security Extensions)

-----RFC4035 (Protocol Modifications for the DNS Security Extensions)

-----RFC5155 (DNS Security (DNSSEC) Hashed Authenticated Denial of Existence)

-----RFC4641 (DNSSEC Operational Practices)

EPP-related RFCs:

-----RFC 5730 (EPP Base Specification)

-----RFC 5731 (Domain Mapping)

-----RFC 5732 (Host Mapping)

-----RFC 5733 (Contact Mapping)

-----RFC 5734 (Transport Over TCP)



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- RFC 3735 (Guidelines for Extending EPP)
- RFC 3915 (Domain Registry Grace Period Mapping)
- RFC 5910 (Domain Name System (DNS) Security Extensions Mapping)
- EPP-related Internet-Draft specifications:
- draft-ietf-eppext-launchphase-01 (Launch Phase Mapping)
- draft-ietf-eppext-idnmap-01 (IDN Mapping)
- draft-brown-epp-fees-01 (Registry Fee Mapping, version 0.4)
- draft-brown-epp-fees-02 (Registry Fee Mapping, version 0.5)
- RFC 3915 (Whois Protocol)
- draft-lozano-tmch-func-spec-09 (Trademark Clearinghouse Functional Specifications)
- Registry Data Escrow Specifications:
- draft-arias-noguchi-registry-data-escrow-06 (Registry Data Escrow Specification)
- draft-arias-noguchi-dnrd-objects-mapping-05 (Domain Name Registration Data (DNRD) Objects Mapping)

Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

Section 2.1
Exhibit A

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:

XYZ believes that no contractual amendments are necessary for the implementation of the Proposed Service. However, If ICANN disagrees with this conclusion, we propose an amendment to Exhibit A of each RA to add the Proposed Services as



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an Approved Service. Below is a proposed new Sections 4, 5 and 6 to Exhibit A of the each RA:

4. Chinese Gateway. Subject to all of the terms of this Agreement, Registry Operator may offer to Chinese registrars an EPP gateway to be used by ICANN-accredited registrars located in China so that Registry Operator and the Chinese registrars may comply with applicable local Chinese laws.

5. Secondary Data Escrow. Subject to all of the terms of this Agreement, Registry Operator may offer data escrow for registrations from Chinese registrars in addition to its normal data escrow, which shall continue to operate as otherwise specified under this Agreement.

6. Supplementary Registration Information Lookup Service. Subject to all of the terms of this Agreement, and separate from its existing WHOIS service, Registry Operator may offer a port-43 supplementary registration information lookup Service in compliance with applicable local Chinese laws.

Benefits of Service

Describe the benefits of the Proposed Service:

This service will allow registrants in China of XYZ's TLDs to continue to register and renew domain names and to legally use their domain names once they are registered.

Competition

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

The Proposed Service will have a positive effect on competition, as it will help bring more competition into the Chinese domain name market. Currently, only around ten TLDs may be legally registered and used in China. We want to do our part to open up more competition for Chinese Internet users.

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

The Chinese domain name market.

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



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To our knowledge, there are no other companies/entities that currently offer this service or one similar. TLDs operating in China have no need for the Proposed Service, and no TLD outside of China has a gateway such as this set up yet.

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.

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.:

The vendor we use to operate the gateway in China is ZDNS Co., Ltd. ("ZDNS"). ZDNS will operate the gateway in China between Chinese registrars and our technical backend, CentralNic. Real name verification pursuant to Chinese law will be provided by KNET Co., Ltd.. Chinese law will also require us to use a redundant second data escrow provider in China, Beilong Zedata (Beijing) Data Technology Co., Ltd, that will be providing data escrow services for Chinese registrants in addition to our normal data escrow. Our normal data escrow will not be affected whatsoever.

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.:

The only entities that would be affected by this are our backend registry services provider, CentralNic, and the various Chinese registrars we work with. We have been working closely with CentralNic to design and arrange the Proposed Service and all communications are positive. They strongly desire for these services to be implemented because it vastly expands their market.

Our Chinese registrars would also be affected by the Proposed Service. They strongly wish for the Proposed Service to be implemented so that their customer can continue to buy domain names and can use their domain names.

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).:

None.

Security and Stability



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

The Proposed Service alters the storage and input of Registry Data as follows:

- 1) WHOIS data for registrations coming from Chinese registrars will be mirrored on servers in China. The storage of WHOIS data for registrations coming from registrars not in China will not be mirrored. This is necessary to comply with Chinese law.*
- 2) For registrations coming from Chinese registrars, there will be a second data escrow in addition to the existing data escrow system provided by NCC Group. This second data escrow will be stored on servers in China. The existing data escrow service provided by NCC Group will be unaffected. Registrations coming from Chinese registrars will be escrowed in both data escrow systems. Registrations coming from non-Chinese registrars will be escrowed only in the current data escrow system provided by NCC Group. This is necessary to comply with Chinese law.*

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

The proposed gateway service will improve the round-trip times for EPP query commands performed by registrars in China, as responses to these commands will be satisfied using locally-cached data.

The round-trip times for EPP query commands for data not held in cache, and EPP transform commands performed by registrars in China will not be significantly affected as the primary source of latency is the geographic distance between China and the primary operations centre in the United Kingdom.

A similar impact on queries to the Supplementary Registration Information Lookup Service is expected.

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

None.

Other Issues

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

None.



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

None.

List Disclaimers provided to potential customers regarding the Proposed Service:

None.

Any other relevant information to include with this request:

Additional information:

Proxied-registrars will be accredited in CentralNic's epp server. The gateway will pass on the credentials it received in the frame used to to connect to it. Registrars using the gateway EPP system must have signed the RRA and CentralNic's master agreement and have an active account in CentralNic's EPP server.

Once gateway is put into operation, Chinese registrars will have access to the Supplementary Registration Information Lookup Service. The Supplementary Registration Information Lookup Service will be accessible for all Chinese registrars. The Supplementary Registration Information Lookup Service will not be generally accessible to the public at large and will only be available to Chinese Registrars. We will ensure only Chinese registrars have access to the Supplementary Registration Information Lookup Service by firewalling it off from the general internet, and only whitelisting accredited Chinese registrars who have provided their IP addresses. Alternatively, the hostname and/or IP address(es) of the supplementary service will only be disclosed to accredited Chinese registrars, and the registrars will be obligated under the confidentiality provisions of the RRA not to disclose them to third parties.

Standard Searchable Whois will not be affected by the Proposed Services. Searchable Whois will continue to be available through CentralNic's Searchable Whois service.

Results from the existing searchable Whois and the new Supplementary Registration Information Lookup Service will never produce differing results.

The ZDNS gateway will only contain a subset of the data held by CentralNic. Any data held by ZDNS will be synchronised with CentralNic's data, with CentralNic's data being the authoritative data source. Changes to data held by ZDNS will be passed through to CentralNic via the EPP gateway when received from the registrar, so CentralNic's data will always be accurate at any given instant. The escrow deposits generated by CentralNic from its own database will be full and complete, so in an EBERO context, the registry could be fully restored on an emergency backend registry operator without recourse to ZDNS.



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Both the ZDNS Gateway and CentralNic's normal system will be reachable within China. Which service a registrar chooses when performing a query will be beyond the control of the Registry Operator or CentralNic.

No filtering will be done on the Anycast servers which will function identically to all other nodes in the network.

In the initial setup of this service, ZDNS will use the partial escrow deposits to populate their database. After the initial setup, ZDNS will have ongoing access to the partial escrow deposits that we upload to them. The escrow deposits received by ZDNS will contain all domain and host objects in the SRS. However, they will only contain contact objects which have a value of "CN" in the <rdeContact:cc> element.

The normal web-based Whois is not provided by the proxy and will continue to operate normally. There is no impediment for the Registrars covered in the region served by the gateway to connect to Centralnic's SRS. Registrars in China will be able to access CentralNic's SRS. A Chinese user will still have normal access to the normal web-Whois just as they currently do. There is no change in the manner or ability of a Chinese registrant to access the normal web-whois.

Registration Data Access Protocol (RDAP): in the event that ICANN authorises the deployment of RDAP by gTLD registries, then ZDNS will implement a supplementary RDAP service in parallel to the legacy port 43 service. As with the port 43 service, the supplementary RDAP service will only be used by registrars and not by general internet users, as the registration in the "bootstrap" registry published by IANA will point to the RDAP service operated by CentralNic.

ZDNS will only cache the objects registered through the gateway. The gateway will cache all the objects registered by Chinese registrars, include domain/contact/host. ZDNS will update the objects when registrars operate them through the gateway or the data is synchronized with the registry. ZDNS will never cache the objects outside of the gateway system. From the Chinese registrar's perspective, the gateway will look like a registry.