



ICANN Registry Request Service

Ticket ID: P5A8X-5F5S5

Registry Name: VeriSign, Inc,

gTLD: .COM, .NET, .NAME

Status: ICANN Review

Status Date: 2016-05-27 00:25:49

Print Date: 2016-05-27 00:43:58

Proposed Service

Name of Proposed Service:

Verification Code Extension for the Extensible Provisioning Protocol

Technical description of Proposed Service:

As more fully described in the Internet-Draft draft-gould-epext-verificationcode, the proposed extension to the Extensible Provisioning Protocol ("EPP") will enable a registrar to submit XML codes (the "Codes") in connection with a registration of a domain name to reflect that a verification service provider (a "VSP"), has performed certain verifications (hereinafter, the "Verification Code Extension for EPP"). The VSP must digitally sign the Code using "base64" encoded XML Signature that includes the VSP signer certificate to enable Verisign's server to verify that the Code originated from the VSP.

As noted in paragraph 6 of the Internet Draft draft-gould-epext-verificationcode "[u]se of XML canonicalization should be used when generating the signed code. SHA256/RSA-SHA256 should be used for digesting and signing. The size of the RSA key should be at least 2048 bits."

Additional security requirements are detailed in Section 3 of the Verification Service Agreement executed by and between Verisign and a qualified VSP.

Verisign intends to implement the Verification Code Extension for EPP. Verisign (including its subsidiaries and affiliates) will not provide, and is not proposing to provide, the verification services. A VSP will perform all verification services.

Background:

Verisign initiated this Process for Consideration of Proposed Registry Services (hereinafter "RSEP") to facilitate ICANN's review and approval of the Verification Code Extension for EPP. Verisign intends to use the Verification Code Extension for EPP for the .com and .net at this time.

EPP is a standard, yet flexible, protocol designed to support communication between registry operators and registrars. As set forth in Section 1.1 of Appendix 7 to the .com and .net Registry Agreements (the "Registry Agreements"), EPP is the standard domain name provisioning protocol for generic top-level domain name registries that operate under Registry Agreements with ICANN. Because domain name registries implement a variety of business models, EPP was designed with an extension framework that allows additional features and functionality to be added at the protocol, object and command-response levels on an "as needed" basis by a registry operator in the form of extensions. Section 5 of Appendix 7 to the Registry Agreements provides that Verisign "may issue periodic patches, updates or upgrades to the software, EPP or APIs ("Licensed Product") licensed under the Registry-Registrar Agreement (the "Agreement") that will enhance functionality



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or otherwise improve the Shared Registration System under the Agreement."

The governments of certain jurisdictions are or could in the future be in the process of promulgating regulations to require certain registrars subject to such regulations to perform verifications for domain name registrations. Through coordination with registrars, Verisign will identify in its system those registrars and/or domain name registrations subject to such regulations. The criteria, however, for identifying the registrars and domain names subject to the regulations and/or verification requirements will vary based on the jurisdiction. By way of example only, with respect to regulations being promulgated in the People's Republic of China ("PRC") Verisign will identify in its system those registrars with an ICANN accreditation address within the PRC and registrars that are registered or incorporated in the PRC as "Chinese Registrars" subject to such regulations.

Verisign's implementation of the Verification Code Extension for EPP is merely a communication mechanism for registrars to comply with such regulations. Registrar compliance with such applicable regulations is mandated by the Registry-Registrar Agreements with Verisign. The Verification Code Extension for EPP will enable a registrar to submit the Code to reflect such compliance by demonstrating that a VSP has performed the specified verification.

Consultation

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

Please see Verisign's detailed response to this question in the subparagraphs below.

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?:

Verisign consulted with registrars operating in jurisdiction(s) whose governments are in the process of promulgating regulations that will require registrars subject to these regulations to perform verifications for domain name registrations. Verisign also consulted with registrars operating outside of these jurisdictions. The nature of the consultations focused on developing viable solutions that would enable registrars to demonstrate compliance with such regulations while ensuring Verisign's ability to provide non-discriminatory access to registrars in accordance with Verisign's obligations in Registry



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Agreements.

The Verification Code Extension for EPP was also a topic of discussion during Verisign's annual Registrar Days in 2015, an event which is open to all ICANN-accredited registrars.

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

Verisign discussed the Verification Code Extension for EPP with members of the ICANN staff throughout the development process. During ICANN 54 in Dublin, Verisign discussed the Internet Draft submitted to the IETF in September 2015. Verisign also provided ICANN with the relevant documentation for the Verification Code Extension for EPP by letter dated January 21, 2016 in accordance with Section 1.1 of Appendix 7 to the Registry Agreements. Since then, Verisign and ICANN have discussed the Verification Code Extension for EPP on several additional occasions.

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

Consultations with end users were not appropriate since the proposed optional Verification Code Extension for EPP does not and will not impact a potential registrant's user experience or change "the receipt of data from registrars concerning registrations of domain names and name servers." Upon receipt of the data from a registrar concerning a registration of a domain name and name server, Verisign will register a domain name and such domain name registration will be in Verisign's registry database, even if the particular registrar has not implemented the Verification Code Extension for EPP and/or submitted the Codes to Verisign.

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

Registrars in the subject jurisdictions have supported the Verification Code Extension for EPP. Also, Verisign has received and expects to continue to receive support from the IETF community throughout the Standards Track process for the Verification Code Extension for EPP. To date, Verisign has incorporated feedback from the IETF community which is reflected in the current version of the Internet-Draft draft-gould-epext-verificationcode.

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

To date, Verisign is unaware of an objection to the Verification Code Extension for EPP; Verisign will continue to work with



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subject registrars as needed for implementation.

Registry operators have implemented many EPP extensions including, but not limited to, the Launch Phase Mapping for EPP, EPP Client Object Attribute Extension and Change Poll Extension for EPP. Extensions to EPP continually enhance communication between registry operators and registrars by adding functionality appropriate to registry or registrar operations and, in the case of the Verification Code Extension for EPP, to comply with local law, as required by Section 3.2 of the RRA.

Note that the Change Poll Extension for the Extensible Provisioning Protocol (EPP) available at <https://tools.ietf.org/html/draft-gould-change-poll> is outside of the scope of Verisign's request. The Change Poll Extension for EPP is a general purpose extension used to notify registrars of server-initiated operations through EPP (i.e., those operations not initiated by the registrar and for which the registrar has no knowledge or involvement). Operations may include contractual or policy requirements including but not limited to regular batch processes, customer support actions, Uniform Domain-Name Dispute-Resolution Policy (UDRP) or Uniform Rapid Suspension (URS) actions, court directed actions, and bulk updates.

Timeline

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

Verisign posted the Verification Code Extension for the EPP as an Internet-Draft within the Standards Track process on September 29, 2015 (<https://tools.ietf.org/id/draft-gould-epnext-verificationcode-00.txt>). The current version of the Internet-Draft is available at <https://tools.ietf.org/html/draft-gould-epnext-verificationcode-03>.

Verisign updated the Verisign Bundle EPP Software Development Kit on November 10, 2015 and published an Operational Policy Pertaining to Registrar Compliance with Applicable Law (the "Operational Policy") on December 2, 2015. Verisign intends to notify registrars that the effective date for the Operational Policy will be July 1, 2016.

Verisign provided support for the Verification Code Extension for EPP as an optional feature in the Operational Test and Evaluation ("OT&E") environment on December 15, 2015. Verisign made the Verification Code Extension for EPP available in its production environment as an optional feature on February 21, 2016.

Business Description

Describe how the Proposed Service will be offered:



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Verisign will support the Verification Code Extension for EPP as described in <https://tools.ietf.org/html/draft-gould-eppext-verificationcode-03> and subsequent versions. The Verification Code Extension for EPP supports multiple VSPs. Verisign's Operational Policy currently lists two (2) qualified VSPs for performing verification services and generating Codes. A registrar may (a) select any qualified VSP; (b) request Verisign to qualify another entity as a VSP; or (c) request Verisign to qualify such registrar as a VSP if it elects to perform the verification services for itself or for other registrars.

Registrars may submit Codes to Verisign in connection with the registration of a domain name in accordance with the Verification Code Extension for EPP specifications. Verisign will register the domain name, which may include Codes at the time of registration or at any time subsequent to the registration. Verisign will prepare and make available to registrars reports on a daily basis identifying the .com and/or .net domain names that are not in compliance with the Operational Policy.

The Codes, however, are not critical to, nor will they change, "the receipt of data from registrars concerning registrations of domain names and name servers." The Verification Code Extension for EPP is an optional extension that will enable registrars to demonstrate compliance with applicable regulations. Specifically, Verisign will not require a registrar to submit the Codes in order to register a domain name. Upon receipt of the data from a registrar concerning a registration of a domain name and name server, Verisign will register a domain name and such domain name registration will be in Verisign's registry database, even if the particular registrar has not implemented the Verification Code Extension for EPP and/or submitted the Codes to Verisign. If a registrar does not submit the Codes to Verisign, based upon application regulations Verisign's Operational Policy permits Verisign to place the domain name in "serverHold" status, which means the domain name will not be published in the zone.

Verisign will not apply another status or transition that would initiate or prohibit transfer, renew, modification or deletion where the registrar has not submitted a verification code.

Describe quality assurance plan or testing of Proposed Service:

Verisign has demonstrated the ability to deliver scalable and reliable registry services. The rigorous processes and extensive suite of quality assurance tests and performance testing will be applied to maintain the functionality, data integrity and data accuracy of the proposed Verification Code Extension.

Verisign completed development and testing of the Verification Code Extension for EPP and deployed the Verification Code Extension for EPP in Verisign's OT&E environment. Verisign made the OT&E environment available for registrars to test their systems and submit Codes on December 15, 2015.

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



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relevant.:

The current Internet-Draft specification for the proposed Verification Code Extension may be found at <https://tools.ietf.org/html/draft-gould-epext-verificationcode-03>. The "Abstract" of the Internet-Draft describes an EPP extension "for including a verification code for marking the data for a transform command as being verified by a 3rd party VSP."

Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

None.

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:

None.

Benefits of Service

Describe the benefits of the Proposed Service:

The Verification Code Extension allows a registrar to demonstrate compliance with applicable regulations by leveraging the extensibility feature of EPP as envisioned in Section 1.1 of Appendix 7 to the Registry Agreements as opposed to using alternative protocols that could impact non-discriminatory access for registrars and/or foster registrar-registry



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communications outside of the existing EPP framework.

Competition

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

The implementation of the Verification Code Extension for EPP will have a positive impact on competition because the design of the extension supports a multiple VSP- model. Verisign's Operational Policy currently lists two (2) qualified VSPs for performing verification services and generating Codes. A registrar may (a) select any qualified VSP; (b) request Verisign to qualify another entity as a VSP; or (c) request Verisign to qualify such registrar as a VSP if it elects to perform the verification services.

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

Registrars in any location may use the proposed Verification Code Extension for EPP to demonstrate compliance with applicable regulations promulgated by the government of a particular jurisdiction that require registrars to perform verifications such as verifying prospective and current registrants and/or second-level domain name labels.

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

XYZ.COM LLC proposed a solution that specified that the Registry Operator may offer a Supplementary Registration Proxy (SRP) requiring registrar EPP transactions to the SRS to be processed through a secondary gateway. ICANN approved XYZ.COM LLC's Registry Request Service. Verisign is aware through discussions with representatives from other registry operators that certain registries are implementing, or are planning to implement, substantially similar implementations except that such implementations or planned implementations may be outside of EPP.

Note, however, the Verification Code Extension for EPP will not impact registrars' direct access to the Verisign SRS and therefore registrars subject to applicable laws requiring verifications will not suffer a disadvantage in accessing the SRS or in registering domain names.

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?:



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No. See Verisign's licensing declaration related to its submission of the Internet-Draft to the IETF at <https://datatracker.ietf.org/ipr/2703/>. Note that the Internet-Draft for the Extensible Provisioning Protocol (EPP) China Name Verification Mapping found at <https://tools.ietf.org/html/draft-xie-eppext-nv-mapping> is a reference implementation for the verification service offered by a VSP. The Extensible Provisioning Protocol (EPP) China Name Verification Mapping is not part of Verisign's request.

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.:

Verisign will not work with any vendors or contractors in connection with implementing the Verification Code Extension for EPP. As part of the qualification process, Verisign enters into agreements with VSPs to define the verification services and the onboarding process. As previously stated, Verisign will implement the Verification Code Extension for EPP but will not provide verification services. The VSP will perform all verification services.

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.:

Verisign has and will continue to work within the IETF community regarding the Verification Code Extension for EPP. The IETF community includes entities whose products or services may be affected by the Verification Code Extension for EPP.

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. Verisign does not have any documents to submit.

Security and Stability

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

No.

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



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Implementation of the Verification Code Extension for EPP will not impact throughput, response time, consistency or coherence of the 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, however, Verisign has incorporated comments and feedback from the IETF community into the Internet-Draft.

Other Issues

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

Yes. Please see below.

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

Verisign disclosed patent information and made a licensing declaration related to its submission of the Internet-Draft to the IETF. See <https://datatracker.ietf.org/ipr/2703/>

In addition, (1) trademark or similar rights may exist or arise with respect to trade names or terminology used in connection with the proposed Verification Code Extension for EPP. (2) Copyright protection may exist or arise in connection with code written or materials created in connection with the proposed Verification Code Extension for EPP. (3) Certain information or processes related to the proposed Verification Code Extension for EPP may be confidential to Verisign and/or subject to trade secret protection. (4) Verisign is not aware of the issuance of any patents with respect to the proposed Verification Code Extension for EPP.

List Disclaimers provided to potential customers regarding the Proposed Service:

None.

Any other relevant information to include with this request:

None.