Proposed Service

Name of Proposed Service:

DNS and WHOIS Query Data Publication

Technical description of Proposed Service:

Proposed Service Overview:

The registry operator for the .KIWI TLD, Dot Kiwi Limited ("Registry Operator"), seeks to publish both DNS and Whois query data so .KIWI registered name holders to can access additional information about their .KIWI domain names through a secure portal. The service will be opt-in, and specific domain data published will only be accessible by registered name holders for that specific domain.

Query Data Collection and Transmission:

Dot Kiwi Limited relies on the Canadian Internet Registration Authority ("CIRA") as its registry service provider. CIRA, using an out-of-band statistics collector captures the DNS traffic PCAP data at each DNS node site. This data is then securely transmitted to CIRA's internal servers for processing with industry standard toolkits such as AKKA and Apache Flume.

The organized data is then stored in an Apache Hadoop cluster for later analysis. Utilizing the Pentaho Business Intelligence software, the domain DNS statistics are extracted from Hadoop into the .KIWI BI Warehouse for reporting purposes.

Once in the .KIWI BI Warehouse, a regularly scheduled job provides a pre-defined CSV file with the Required Information to the .KIWI developers via a Secure FTP site.

Required Information includes the following for each active domain record:

- Required Information - Ownership Validation
  - .KIWI domain name
- Required Information - Query Data
  - Cumulative DNS and WHOIS queries for previous calendar month
  - Calendar year-to-date DNS and WHOIS queries

Registered Name Holder Access to Data:
The Required Information per above will be stored on a secure server, accessible only via a website operated by Registry Operator. The website will be secured using an Extended Validation EV SSL.

Upon visiting the website, registered name holders will be required to input the .KIWI domain name they are seeking query data for, along with the email address they would like the data sent to. The email address will then be validated against both the domain registrant and admin contact details per domain Whois details. If the email address is a match for either the registrant or admin emails, both domain contacts will be sent the DNS and WHOIS query data associated with that domain.

In summary, .KIWI registered domain holders will be encouraged to visit the website, enter their .KIWI domain name and email address, both of which will be validated against Whois details, and the DNS and WHOIS query data will then be emailed to the domain registrant and admin contacts. Data for each .KIWI domain will only be accessible by that domain's registrant and administrator.

Email Output:

Upon validating the email address submitted, the secure server will email the DNS and WHOIS query data for the previous calendar month and year-to-date for presentation to the registrant and admin contacts in both table and chart format.

For clarification, the statistics are uploaded on a monthly basis, and rather than triggering the production of the report upon the request being received from the .KIWI registered domain holder, the system will simply transmit the DNS and WHOIS query data for the previous calendar month, as well as YTD cumulative data, to the Registrant and Admin contact email addresses. The request itself does not prompt the generation of the report as there is not real-time access to the data being provided.

Consultation

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

Registry Operator has engaged in consultations with ICANN on 27 March 2017, as well as subsequently through the GDD portal, and CIRA on 22 March 2017 to discuss the proposed new service.

Discussions with ICANN focused on the conceptual nature of the proposed service, and whether there were any clear objections to an RSEP application being submitted. Questions raised by ICANN included:

ols the service opt-in or opt-out, and;
oHow will the proposed service be communicated / marketed to .KIWI registered name holders.

Discussions with CIRA focused on query data integrity, as well as the optimal method of transmission of query data to .KIWI registered name holders. Key considerations included:

- Confidence in underlying data to be presented to .KIWI registered name holders;
- Security and risk management with regards to the validation of domain ownership, and;
- Security and risk management with regards to the transmission of data between web browser and secure database.

The conclusions from the consultation with ICANN were that a RSEP request is necessary but no clear objections exist to suggest that RSEP submission is not appropriate. In addition, queries were raised by ICANN in response to an informal RSEP submission through the GDD portal. These queries included the following concerns, with Registry Operator responses to follow:

ICANN Query: The description appears to indicate that the report will be sent, when requested on the web form, regardless of a report already being sent for that email address. If the web form is abused, will the report be sent multiple times?

Registry Operator Response: Registry Operator does not anticipate the form being abused, particularly given the two data elements required (email address and .KIWI domain name) to prompt the system to send the data, as well as the perceived lack of value it would bring to the perpetrator. That being said, in response to the concern raised by ICANN, Registry Operator will rate limit the number of requests per .KIWI domain name to two queries per domain monthly.

ICANN Query: Did you implement CAPTCHA or any other mechanism to mitigate abuse in the web form used to request the report?

Registry Operator Response: In response to the concern raised by ICANN, Registry Operator will implement and require CAPTCHA be satisfied prior to a request submission being allowed as part of the proposed service.

ICANN Query: How will the proposed service be communicated / marketed to .KIWI registered name holders?

Registry Operator Response: The proposed service will be marketed first to .KIWI registrars as a value added service for their clients, and those registrars would then have the option to communicate it to their customers. Separately, Registry Operator would likely publicise the new service and potentially reach out through public channels (social media, digital banners, etc.) to communicate the new service to existing as well as potential customers of .KIWI. Registry Operator would then rely on customers to purchase through an ICANN registrar or registrar reseller.

Discussions with CIRA have resulted in the technical description of the proposed service provided above in section II.
a. If the registry is a sponsored TLD, what were the nature and content of these consultations with the sponsored TLD community?:

.KIWI is not a sponsored TLD and therefore consultations in this regard were necessary.

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

Consultations with gTLD registrars are not appropriate in this case as the proposed service does not impact their systems, nor is the service being proposed available for them to provide.

gTLD Registrars will have the opportunity to communicate the proposed service to their end customers, but that is the limit of gTLD registrar involvement.

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

No consultations with other constituency groups were considered necessary in regards to the introduction of the proposed service.

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

No consultations with end users were considered necessary as the service is being restricted to providing query data for .KIWI domains only to the respective .KIWI domain registered name holder on an opt-in basis.

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

The introduction of this service would be endorsed by .KIWI domain end users, as its introduction adds a new layer of transparency into the DNS and WHOIS traffic their domains are generating. This additional information is valuable for both individual and business users of .KIWI domains.

Informal consultations with end domain owners were conducted, leading to the conclusion posted above. Domain owners in general are happy to be provided additional information on traffic to their domains, but are not comfortable with that
information being available to the general public. The result is that the proposed service will only offer DNS and WHOIS query traffic data on .KIWI domain names to their respective registered name holders and administrative contacts.

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

There theoretically exists an objection to the proposed service to be offered by domain name investors. Investors seek to find good domain name investment opportunities, and if they are seeking to purchase a .KIWI domain registered by a third party, that third party will then have access to valuable DNS and WHOIS query traffic data which may (or may not) provide greater clarity of the domain name's value.

It should be noted, however, that the same constituency, however, may also endorse this service as it would provide additional insights into the portfolio of domains they have registered.

Timeline

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

Registry Operator intends to have the service operational by August 2017 at the latest. CIRA is already capturing the DNS and WHOIS query traffic data, implementation involves the development of the platform described in II. above allowing Registry Operator to communicate this data with .KIWI registered name holders.

Business Description

Describe how the Proposed Service will be offered:

As described above, the proposed service will be offered via a website to .KIWI registered name holders, whereby a .KIWI name holder enters their .KIWI domain name and email address, which will be validated against current domain Whois data, and is emailed the DNS and WHOIS query traffic for that domain. The proposed service will be opt-in, meaning if a customer is not interested in retrieving their DNS and WHOIS query data they have no obligation to procure it.

Describe quality assurance plan or testing of Proposed Service:

Quality assurance will focus on two aspects of the proposed service:
1) Accuracy of the DNS and WHOIS query data, and;
ICANN Registry Request Service
Ticket ID: A3Z5I-1H9J3
Registry Name: DOT KIWI LIMITED
gTLD: .kiwi
Status: ICANN Review
Status Date: 2017-05-12 14:11:19
Print Date: 2017-05-12 14:14:12

2) Security of .KIWI registered name holder information

Integrity of the DNS and WHOIS query data:

CIRA, registry service provider for the .KIWI TLD, is a world-class operator respected globally for their integrity and reliability. As registry service provider for .KIWI, the integrity of the data being captured is deemed reliable by Registry Operator given their position as well as being registry operator for the .CA ccTLD.

Upon receipt of the Required Information in the secure FTP site per section II. above, the data must be uploaded to a secure server. This action will be managed by the Managing Director of Registry Operator to ensure there are no opportunities for data mismanagement during the transition. Server access will be restricted to the Managing Director, as well as IT Services Manager of Registry Operator to ensure no subsequent data manipulation can occur.

Security of .KIWI registered name holder information:

In addition to ensuring the accuracy of the query data to be made available for .KIWI registered name holders, quality assurance will also focus on ensuring the risk of .KIWI DNS and WHOIS query data being released to unauthorised third parties is minimised.

Key risk areas in this regard include the following:
- Storage of DNS and WHOIS query data on secure server;
- Transmission of the DNS and WHOIS query data via email

The DNS and WHOIS query data will be secured on a secure server hosted by a global leader in hosting services such as Amazon Web Services or Go Daddy. Registry Operator will ensure best practice in access controls to the data are followed, and that 2-factor authentication is enabled to avoid unauthorised access.

Given that the communication of DNS and WHOIS query data will only be from Registry Operator's server to the email addresses published in public WHOIS, the risk of the data sent to unauthorised third parties is minimum.

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

It was determined that there are no relevant White Papers or RFCs to consult which apply to the introduction of the proposed service.
Contractual Provisions

List the relevant contractual provisions impacted by the Proposed Service:

The additional service does not impact existing contractual provisions other than 2.1 Approved Services; Additional Services.

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

5. DNS and WHOIS Query Data
Registry Operator may offer a DNS and WHOIS Query Data Publishing Service, which is a registry service that allows Registry Operator to provide access to DNS and WHOIS query data for each registered domain name to the Registered Name Holder and administrative contact for each domain.

Benefits of Service

Describe the benefits of the Proposed Service:

The core benefit is the availability of additional information relating to DNS and WHOIS query traffic to .KIWI registered name holders. Such data can be used to assist in determining the value of a domain name by a domain name investor, but also by a business with a digital presence, or an individual curious about the traffic their domain is generating when deciding whether to build a business around that domain.
The data has not previously been made available, and provides an additional value-added benefit of being a registrant in the .KIWI TLD.

**Competition**

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

*The introduction of the proposed service does not impact competition, as explained by discussing the following factors:*

1. **Price issues**
   1.1. The proposed service will not affect or cause the setting or changing of a price of a registry service, as the proposed service seeks to provide data already captured by Registry Operator to registered name holders in the TLD.

2. **Market definition**
   2.1. The introduction of the proposed service may impact the domain name aftermarket, given that both domain name investors and registered name holders will have access to additional traffic data for their relevant .KIWI domain names
   2.2. The effect on the market from the introduction of the proposed service is not material, however, given that platforms already exist to capture various types of domain name traffic data and this will be supplementary to that data being captured

3. **Allocation issues**
   3.1. The proposed service will be offered to all .KIWI registered name holders equally, and will not favour certain customers or registrars
   3.2. All .KIWI accredited registrars will be informed of the service being made available, upon approval being received, so they may refer their customers as a value-added service
   3.3. The proposed service is not designed to favour any gTLD registrar over another, but to provide a value added service for .KIWI registered name holders

4. **Other registries**
   4.1. The introduction of this service does not impact the operation of other registries

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

The proposed service may be viewed as competing with web analytics platform that capture website traffic. DNS queries resulting from Address Lookups will be included in the DNS query data being provided to .KIWI registered name holders in the proposed service. Given, however, that the Address Lookup data will be incorporated into the overall DNS query data
being reported, the lack of granularity will not facilitate the proposed service to truly compete with such platforms, but merely supplement the data they provide for domain name owners.

The proposed service is intended to provide an added value for .KIWI registered name holders. Therefore, it will enhance the ability for the .KIWI TLD to compete in the global domain name marketplace.

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

As mentioned above, DNS query data will incorporate Address Lookup queries which could result in the web traffic data provided by various web traffic analytic platforms. Given, however, that the DNS query data to be provided as part of the proposed service is not segmented into the type of DNS query traffic, it is not truly competitive. Instead, it should be seen as being supplementary to the web traffic analytics data and interpreted in conjunction with it, if available to the end .KIWI registered name holder.

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, as mentioned previously the introduction of the proposed service does not impair the ability of other companies / entities with similar services to compete.

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.: 

Registry Operator will rely on three vendors and contractors to supply the proposed Registry Service:

- Canadian Internet Registration Authority ("CIRA")
  - CIRA, registry services provider for the .KIWI TLD, captures the DNS and WHOIS traffic and will supply it to Registry Operator via SFTP.

- Method Studios Limited
  - Agency contracted to develop the web interface which .KIWI Registered Name Holders will use to gain access to the DNS and WHOIS query data for their respective domains

- Amazon Web Services or Go Daddy Limited
  - Provider of hosting services which registry operator will utilise to host the proposed registry service.
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, there have been no communications with any of the entities whose products or services might be affected by the introduction of the proposed registry service. Given that the proposed registry service will not affect products or services other than those supplied by Registry Operator, no such communications have been considered necessary._

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 documents available._

**Security and Stability**

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

_No, the proposed service does not alter the 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 proposed services will not impact the 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 technical concerns have been raised about the proposed service._

**Other Issues**

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

_None noted._
Does the proposed service contain intellectual property exclusive to your gTLD registry?:

No, the proposed service delivers traffic data on domain names to registered name holders and administrative contacts for those domains. That data is not considered intellectual property for the gTLD registry.

List Disclaimers provided to potential customers regarding the Proposed Service:

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None noted.