**Steven van Egmond**

**R-1: Provide a publicly accessible and machine parsable list of domain names or IP locations of WHOIS servers operated by ICANN accredited registrars and gTLD registry operators and ccTLDs operators.**

1. The inventory of WHOIS requirements identifies the need for a publicly-accessible and machine-parsable list of domain names or IP locations of WHPOIS servers operated by registrars, registry operators, and RIRs.

Describe your currently-known use cases for such a list, and their relative importance to your organization's activities.

[ ] We do not have a use case for such a feature.

[ ] We do have a use case.

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. The inventory of requirements suggests a number of possible approaches for whois service discovery:

a. a naming convention (such as whois.nic.TLD) b. the use of SRV records c. the use of CNAME records (the 'whois' command line tool looks up

TLD.whois-servers.net)

Describe your preferred approach and the rationale for it.

Menu: a,b,c, other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Michael Young**

**R-2: Define a standard query structure that clients can implement and that all gTLD registries and ICANN accredited registrars will support.**

**Cintra Sooknanan**

**R-3: Define a standard data structure for WHOIS responses. The data structure would contain and uniquely identify the data elements that must be returned in a manner that assures there is no ambiguity across elements, correct syntax, and correct semantics.**

1. Do you support a standard, formal, extensible data structure and schema for WHOIS responses?  [YES/NO]

1. Should the data structure allow for interpretation or output of WHOIS responses to non-english or non-latin languages? [YES/NO]

2.1   If Yes should this interpretation or output of WHOIS responses be based on localisation of the client software? [YES/NO]

2.1.1                      If No please recommend with reasons another more suitable mechanism for this interpretation or output of WHOIS responses

[OPEN ANSWER]

1. Should the data structure be flexible for humans to interpret?  [YES/NO]

1. Should the data structure be flexible for programs to parse?  [YES/NO]

1. Should the data structure be XML based?  [YES/NO]

5.1        If No please recommend with reasons another more suitable data structure [OPEN ANSWER]

**Cintra Sooknanan**

**R-4: Define a set of standardized error messages and standard handling of error conditions. Examples of useful error messages include queries exceeding the limit, no records found, unable to process query, etc.**

1. Do you support standardised error messages for the WHOIS System? [YES/NO]

1. Do you support standardised handling of error conditions within the WHOIS System? [YES/NO]
2. Please detail the most common error conditions within the WHOIS System [OPEN ANSWER]

**Susan Prosser**

**R-5: Allow users to submit not only domain names as arguments to search functions but other registration data elements as well.**

1. Which of the following terms best describes your status as a respondent to this survey?

(Please provide, where applicable, an indication of the size of your organization, either the number of employees or staff, or the number of members):

Size (Employees/Members)

[  ]   Commercial business user

[  ]   Non-commercial organization user

[  ]   Governmental organization user

[  ]   Individual or household user

[  ]   Domain name registrar and/or registry [  ]   Internet access provider or network operator [  ]   Other:

2. Have you registered any domain names?   yes   no

If "yes":

a. How many ccTLD (country-code Top Level Domains, i.e.: .de, .au,

.co.uk) domain names have you registered:  \_\_\_\_\_\_ b. How many gTLD (generic Top Level Domains, ie: .com, .info .biz) domain names have you registered:  \_\_\_\_\_\_

3. What was the general purpose of your registration:

[   ]  commercial

[   ] governmental

[   ]  personal

[   ]  noncommercial organization

[   ]  other

4. How often do you use the Whois service on average?

[   ]   never

[   ]   occasionally

[   ]   weekly

[   ]   once or twice a day

[   ]   many times a day

5. How do you access the Whois information?

[   ]   Website interfaces

[   ]   Direct server queries

6. Which of the following most accurately describes the use of Whois that is most important to you or your organization:

[   ] To determine if a specific domain name is unregistered/available?

[   ] To find out the identity of a person or organization who is

responsible for a domain name or web site I have encountered while using the Internet

[   ] To support technical operations of ISPs or network

administrators, including tracing sources of spam or denial of service attacks

[   ] To identify the owner of a domain name for consumer protection

or intellectual property protection purposes

[   ] To gather names and contact information for marketing purposes

[   ] To support government law enforcement activities (other than

intellectual property)

[   ] Other (please briefly describe):

**Avri Doria**

**R-6a: Adopt a structured data model for WHOIS data that provides extensibility and changeability properties. Employ a formal data schema language such as XML to describe the characteristics of the structured data.**

On a scale of 1 to 5 with (1) meaning disagree completely, and (5) meaning agree completely, please rate the following statements

i) In order to improve the WHOIS service capabilities, we need for data to be extensible

ii) In order to improve WHOIS capabilities, we need for the data that is required to be changeable over time.

iii) A formal definition of WHOIS Data is needed

iv) A formal modeling language such as XML should be used to create a data model for WHOIS

v) Work on such a model should be done by ICANN

vi) Work on such a model should include the IETF

vii) WHOIS data collection techniques should insure that data is entered in a defined format

viii) WHOIS data collection techniques should allow for some fields to made mandatory

ix) WHOIS data collection techniques should require that all fields to made mandatory

**Avri Doria**

**R-6b: Consider extending the currently defined set of registration data elements to include: alternative forms of contact than the contacts currently collected; information that discloses the history or “pedigree” of a domain; and additional registration service provider contact information.**

On a scale of 1 to 5 with (1) meaning disagree completely, and (5) meaning agree completely, please rate the following statements

i) The current "one size fits all" model for WHOIS data is sufficient for today's WHOIS needs

ii) The current "one size fits all" model for WHOIS data is sufficient for tomorrow's WHOIS needs

iii) It should be possible to include other forms of contact for WHOIS

iv) It is appropriate to include social media as one method of WHOIS contact

v)

**Steven Metalitz**

**R-7**

Observation 1.  The inventory document states that "staff will coordinate with the IRD WG to see that its recommendations are included in an updated inventory when those recommendations are made available."  (page 24)  I'd welcome input from staff on the status of such inclusion and how this should affect our survey.

Observation 2.  The IRD WG, in which I am a participant, issued an interim report in November 2010 and sought public comment on two preliminary recommendations and several optional models for internationalizing Whois registrant data.  See [http://gnso.icann.org/issues/ird/ird-wg-final-report-15nov10-en.pdf](http://gnso.icann.org/issues/ird/ird-wg-final-report-15nov10-en.pdf%20at%20pages%20ecomendationsseveral) , at pages 13-16 (models for internationalizing data), and 21-22 (preliminary recommendations). Almost all the comments (which are summarized at <http://forum.icann.org/lists/ird-wg-report/msg00008.html>) focused on the optional models, rather than on the preliminary recommendations.  The preliminary recommendations are as follows.  These might well be suitable for addressing in our survey, but I am unclear about their status.

Preliminary Recommendation (1): The IRD-WG discussed a preliminary recommendation for a  
Whois service in the IDN environment:  
1. WHOIS clients (both port 43 and web) must be able to accept a user query of domain  
name in either U-label or A-label format;  
2. WHOIS clients must be able display result of queries in both U- and A-label for the  
domain names; and  
3. Whois responses should include variants of an IDN label in the response as well.

Preliminary Recommendation (2): The IRD-WG discussed the idea that the domain registration  
data elements should be considered separately, with specific recommendations for how each data  
element should be internationalized. The IRD-WG offers preliminary recommendations for the  
following data elements:  
1. Whois services should return both A-label and U-label representation for the given IDN  
domains queried;  
2. Whois services should return both A-label and U-label representations for nameserver  
names (to the extent that such information is available);  
3. Whois services should always make sponsoring registrar information available in USASCII7;  
and  
4. Whois services should always return the exact EPP27 status code for Registration Status

Observation 3.  The IRDWG posted a draft final report last October and is now finalizing its final report.  The recommendations in this final report are entirely different from those in the interim report and (in my opinion ) not suitable for inclusion in this survey, as they are strictly procedural in nature.  In draft form (and this draft has not been finally approved by the IRDWG), they are:

***Recommendation 1:*** ICANN staff should develop, in consultation with the community, a data model for domain registration data. The data model should specify the elements of the registration data, the data flow, and a formal data schema that incorporates the standards that the working group has agreed on for internationalizing various registration data elements. This data model should also include tagging information for language/scripts.

***Recommendation 2:*** The GNSO council and the SSAC should request a common Issue Report on translation and transliteration of contact information. The Issue Report should consider whether it is desirable to translate contact information to a single common language or transliterate contact information to a single common script. It should also consider who should bear the burden and who is in the best position to address these issues. The Issue Report should consider policy questions raised in this document and should also recommend whether to start a policy development process (PDP).

***Recommendation 3:*** ICANN staff should work with the community to identify a DNRD Access Protocol that meets the needs of internationalization, including but not limited to the work products resulting from recommendations 1 and 2, and the requirements enumerated in this report.

**Steven van Egmond, Cintra Sooknanan**

**R-8.1. Define an authentication framework for WHOIS that is able to accommodate anonymous access as well as verification of identities using a range of authentication methods and credential services.**

The inventory of whois requirements identifies a need for authenticating whois users (whether a person or a computer system) in order to provide elevated access rights, and to rate-limit incoming connections to ensure the whois service isn't overloaded. Rate limiting becomes dramatically more complex in the ipv6 scenario.

1. If you have a use case for lawful, elevated access rights to whois data?

[ ] no

[ ] yes; describe it: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1a. If your access rights are circumscribed (e.g. only to particular TLDs) please describe the constraints you operate under.

[ ] no constraints for elevated access

[ ] elevated access is constrained to a certain TLD [ ] elevated access is constrained to a subset of TLDs

Comments on constraints: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Is this use case general (i.e. you have blanket access), or is the access right specific (i.e. particular domains only after some process such as a court order or business negotiation)?

[ ] blanket access

[ ] specific domains

Details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Is this elevated access right to be granted to automatic computer systems, or people carrying out a task?

[ ] computer systems

[ ] people

[ ] both

4. Describe your preferred approach for providing authenticated, elevated access rights, if you have one.

[ ] no preference

[ ] our preferred approach to granting elevated access rights is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Michael Young, Cintra Sooknanan**

**R-8.2: Implement an authorization framework that is capable of providing granular (per registration data object) permissions (access controls).**

**Wendy Seltzer**

**R-8.3: Define a framework and baseline set of metrics that can accommodate future policy development for auditing of WHOIS access.**

1. What elements of WHOIS access should be available for audit?

[rank on a 1-3 scale: should not collect, somewhat interesting, should collect)]

\* Requester IP address

\* Method of access (web, 3d party web service, port 43, bulk, other)

\* Requesting user-agent

\* Name of requester

\* Domain name requested

\* Date and time

\* Response

\* Other (please explain)

2. Does collection or use of any of these elements raise privacy or confidentiality concerns?

if so, which

To whom should access to audit data be available?

\* The registrant

\* The registrar

\* ICANN

\* 3d parties

\* The public

\* Other (please explain)

3. If you have use cases for audit of WHOIS access, please describe:

What metrics would be useful? (please describe) (possibly give examples, such as rate of access, number of requests/requester, number of requests/domain, most frequent requesters)

**Paul Brigner, Don Blumenthal**

**R-9: All new TLDs should operate a thick WHOIS. Consistent with these recommendations for future whois, new or legacy registries should consider evolving to a thick WHOIS.**

Adopt a thick WHOIS for all new gTLDs. Consistent with these recommendations for future

WHOIS services, new or legacy registries could consider evolving to a thick WHOIS.

This item largely has been overtaken by events because of the terms of the new gTLD Applicant Guidebook. However, room exists for some questions that might be beneficial to successful applicants, as well as the operator of the existing thick registries and legacy thick registries.

What is the generally accepted architecture of thick registries.

To what extent does this architecture meet the requirements of registries and their registrars.

What mechanisms would be required to move from a thin to a thick registry

What data provided by registrants could be made available through a thick registry, including items not currently provided.

What mechanisms could be implemented to allow queries on fields other than domain name.

What are the advantages and disadvantage of using domain names as search keys? Of tokens?

**R-10 -  Paul Brigner, Don Blumenthal**

A WhoWas service could be provided by all registries. This is another example of data that could

complement existing registration data as we described in section 4.6.

What kind of detail could be offered in a WhoWas. What would a system of codes involve.

What data elements could be incorporated in a WhoWas system that would be more expansive than a current Verisign model. For a thick registry. For a thick registry.

What mechanisms would be necessary to assemble and provide reasons for changes in domain ownership.

What data retention period is required to maintain a meaningful WhoWas

What mechanisms or systems might be available to restore data if it is not readily available.

**Steven Metalitz**

**R-11: Registrars and registries should provide and publish abuse point of contact information as an element of a domain registration record. There are several ways this could be supported; for example, registrars could populate the current sponsoring registrar contact information with an abuse point of contact rather than a general purpose business contact; alternatively, an abuse identifier that serves as an index into a publicly accessible table of abuse points of contact could be added to a registration record. These are further examples that demonstrate the utility of adopting an extensible data structure and formal schema.**

R-11. It has been proposed that registries and registrars publish abuse point of contact information as an element of a domain name registration record. This means that responses to Whois queries about domain names would contain some information about an abuse point of contact at the registry to which the domain name registration pertains, and at the registrar which sponsors the particular registration.

A. In general, how important do you think it is that registries be required to include an abuse point of contact in results returned to Whois queries to that registry?

3= very important

2= somewhat important

1= not important

B. In general, how important do you think it is that registrars be required to include an abuse point of contact in results returned to Whois queries to that registrar?

3= very important

2= somewhat important

1= not important

C. If an abuse point of contact is identified as part of Whois query results, please identify the ways in which you believe such a point of contact would be most valuable to you.

|  |  |  |  |
| --- | --- | --- | --- |
| Use of abuse point of contact | Very important | Somewhat important | Not important |
| Reporting false or inaccurate Whois data |  |  |  |
| Reporting suspected malicious activity associated with the domain name |  |  |  |
| Reporting violations of legal rights associated with the domain name |  |  |  |
| Reporting technical problems associated with the domain name |  |  |  |
| Other uses |  |  |  |

(If you checked “other uses” as very important or somewhat important, please state the use.)

D. Several different methods have been suggested for displaying the abuse point of contact. Please indicate which you prefer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Method of displaying abuse point of contact | Strongly prefer | Somewhat prefer | No preference/don’t care | Somewhat oppose this method | Strongly oppose this method |
| Abuse point of contact could be added to current registrar or registry contact information in Whois results |  |  |  |  |  |
| Abuse point of contact substituted for current registrar or registry contact information in Whois results |  |  |  |  |  |
| Whois results include a link to or index into a publicly accessible table of abuse points of contact |  |  |  |  |  |

**Michael Young**

**Regarding the compilation, RySG added the following requirements:**

* **Ensuring consistency of data between registries and registrars (for thin registries).**
* **Accommodating privacy services in a manner that effectively provides access to information**
* **Mitigating impacts to SLAs (Service Level Agreements) and EPP (Extensible Provisioning Protocol) commands in migrations from thin to thick WHOIS data.**