

# Preliminary Issue Report on gTLD registration data services

## STATUS OF THIS DOCUMENT

This is the Preliminary Issue Report on gTLD registration data services, which includes the purpose of collecting and maintaining gTLD registration data, and solutions to improve accuracy and access to gTLD registration data; as part of a Board-initiated GNSO Policy Development Process (PDP).

This report will be published for public comment for not less than thirty (30) days, and is to be followed by a Final Issue Report to be published after the closure of the public comment forum.

## SUMMARY

This report is posted for public comment and submitted to the GNSO Council in response to a request received from the ICANN Board pursuant to a Resolution during a Special Meeting of the ICANN Board on 8 November 2012.

## TABLE OF CONTENTS

<b>1. EXECUTIVE SUMMARY</b>	<b>3</b>
<b>2. OBJECTIVE</b>	<b>5</b>
<b>3. BACKGROUND</b>	<b>8</b>
<b>4. DISCUSSION OF PROPOSED ISSUE</b>	<b>23</b>
<b>5. STAFF RECOMMENDATION</b>	<b>35</b>
<b>ANNEX A – ICANN BOARD REQUEST</b>	<b>37</b>
<b>ANNEX B – LAUNCH OF EXPERT WORKING GROUP ON GTLD DIRECTORY SERVICES</b>	<b>40</b>
<b>ANNEX C - STUDY OF THE ACCURACY OF WHOIS REGISTRANT CONTACT INFORMATION</b>	<b>42</b>

## 1. Executive Summary

### 1.1. Background

- Created in the 1980s, the collection and publication of domain name registration data began as a service by Internet operators to identify and contact individuals or entities responsible for the operation of a network resource on the Internet – then (and still today) referred to as Whois.
- ICANN's requirements for domain name registration data collection, access and accuracy for gTLD registries have undergone some important changes; yet after more than 12 years of GNSO task forces, working groups, workshops, surveys and studies the policy and underlying protocol is still in need of comprehensive reforms to address the significant number of issues related to gTLD registration data services.
- Comprehensive Whois policy reform remains the source of long-running discussion and debate related to issues such as purpose, accuracy, privacy, anonymity, cost, policing, intellectual property protection, security, etc.
- Following the submission of the Whois Policy Review Team Final Report (2012), the ICANN Board passed a resolution on [date] that led to the creation of an Expert Working Group (EWG) and, in parallel, also launched a Board-initiated Generic Names Supporting Organization (GNSO) Policy Development Process (PDP) that is to take into account any proposals made by the EWG.
- In accordance with the PDP Rules, this Preliminary Issue Report is hereby published for public comment. Following review of the public comments received, the Staff Manager will update the Issue Report as appropriate and submit a summary of the comments received together with the Final Issue Report.

### 1.2. Discussion of the Issue

- The Board requested explicitly that the PDP Working Group deal with both the issues the purpose of published gTLD registration data as well its accuracy.
- The most basic purpose, which is commonly accepted, is that gTLD registration data allows domain name registrants to be contacted. However, who would be granted

the right to access the data and contact the registrant by which means? Section 4.1. provides a list of concrete questions with regard to ‘purpose’.

- Recent studies have shown that less than 50 per cent of gTLD registration data entries produce no or only limited failures (see Annex C to this Report). The question is what steps can be taken to improve accuracy of the data and how such improvements can be measured. There is strong belief that that improved accuracy of gTLD registration data may impacted positively on reducing malicious conduct.
- There are also additional issues, such as technical aspects, potential issues for relevant Stakeholder Groups, Constituencies and other relevant parties, as well as the work of the preceding EWG, that are discussed in Section 4 below.

### **1.3. Staff Recommendation**

- ICANN staff has confirmed that the proposed issues are within the scope of the GNSO’s Policy Development Process. If the EWG provides specific recommendations to the various questions that are the focus of this PDP, and provides a proposal for a new model for gTLD Data Directory Services, the PDP should focus on analyzing the recommendations from the EWG, as directed by the ICANN Board.
- In ICANN’s view a successful outcome of this PDP is of utmost importance as it may provide a solution to the multitudes of issues surrounding gTLD registration data. This PDP constitutes a crucial if not defining moment in ICANN’s multi-stakeholder policy development process. ICANN staff, therefore, recommends that the PDP proceed by considering carefully the recommendations of the Expert Working Group and work constructively towards a universal solution, as this would allow for an informed decision by the GNSO Council on the matter of purpose and maintenance of gTLD registration data. Additional suggestions in relation to a proposed approach for the PDP WG are expected to be included as part of the Final Issue Report following community input as well as the conclusions of the Expert Working Group.

## 2. Objective

2.1. This report is submitted in accordance with Section 4 of the Policy Development Process, as described in [Annex A of the ICANN Bylaws](#).

2.2. In this context, and in compliance with ICANN Bylaw requirements:

a. The proposed issue raised for consideration:

Analysis of gTLD registration services, including, the purpose of collecting and maintaining gTLD registration data, and evaluation of solutions to improve accuracy and access to gTLD registration data (previously referred to as gTLD Whois data).

b. The identity of the party submitting the issue:

ICANN Board.

c. How that party is affected by the issue:

The Affirmation of Commitments (AoC) between ICANN and the U.S. Department of Commerce commits ICANN to enforcing its existing policy relating to Whois (subject to applicable laws), which "requires that ICANN implement measures to maintain timely, unrestricted and public access to accurate and complete Whois information, including registrant, technical, billing, and administrative contact information." Therefore, collection and maintenance of gTLD registration data, as well as potential solutions to improve the accuracy and accessibility of that data are issues that affect many if not all of ICANN's stakeholders and in particular GNSO Stakeholder Groups and Constituencies. A summary of the various positions on this topic can be found in Section 4 below.

d. Support for the issue to initiate the PDP:

The ICANN Board on 8 November 2012 passed a resolution in favor of initiating a PDP (<https://www.icann.org/en/groups/board/documents/resolutions-08nov12-en.htm>).

#### e. Staff Recommendations

##### i. Whether the issue is within the scope of ICANN's mission statement:

ICANN's mission statement includes the coordination of the allocation of certain types of unique identifiers, including domain names, and the coordination of policy development reasonably and appropriately related to these technical functions, which includes gTLD registration data related activities.

##### ii. Whether the issue is broadly applicable to multiple situations or organizations:

As gTLD registration data affects all gTLD registrants, registrars and registries, as well as other parties using that data, the issue is broadly applicable to multiple situations or organizations. Any changes to the policy or the rules that may result from this PDP would also be broadly applicable to multiple situations or organizations.

##### iii. Whether the issue is likely to have lasting value or applicability, albeit with the need for occasional updates:

Changes to the method of collection, maintenance, accessibility and accuracy of gTLD registration data is expected to have lasting applicability.

##### iv. Whether the issue will establish a guide or framework for future decision-making:

Changes to the method of collection, maintenance, accessibility and accuracy of gTLD registration data is expected to set an important framework for future decision-making in relation to this issue.

##### v. Whether the issue implicates or affects an existing ICANN policy.

Whois has been an important policy issue for the GNSO and the wider ICANN community. Changes to the method of collection, maintenance, accessibility and accuracy of gTLD registration data is expected to impact existing Whois policies.

2.3. Based on the above, the launch of a dedicated policy development process limited to consideration of this issue has been confirmed by the General Counsel to be properly within the scope of the ICANN policy process and within the scope of the GNSO.

2.4. In accordance with the proposed revised GNSO Policy Development Process, the Staff Manager shall publish the Preliminary Issue Report for public comment in order to allow for community input on additional information that may be missing from the Preliminary Issue

Report, or the correction or updating of any information in the Preliminary Issue Report. Following review of the public comments received as well as the input from the Expert Working Group on gTLD Directory Services (EWG), the Staff Manager will update the Issue Report as appropriate and submit a summary of the comments received together with the Final Issue Report to the GNSO Council.

## 3. Background

### 3.1. Introduction

Created in the 1980s, Whois began as a service used by Internet operators to identify and contact individuals or entities responsible for the operation of a network resource on the Internet. The Whois service has since evolved into a tool used for many purposes, such as determining whether a domain name is available for registration, identifying the registrant of a domain name that has been associated with malicious activities, contacting domain name registrants on matters related to trademark protection, and verifying online merchants. As usage of Whois evolved, few changes have been made to the protocol or the services that make use of the protocol. There are increasing community concerns that the current Whois service is deficient in a number of ways, ranging from data accuracy and reliability, to other technical areas, such as accessibility and readability of Whois contact information by users whose local languages cannot be represented in US-ASCII<sup>7</sup>. These are noted in recent reports from ICANN's Security and Stability Advisory Committee (SSAC),<sup>1</sup> in reports of other ICANN supporting organizations and advisory committees and by external sources.

ICANN's requirements for domain name registration data collection, access and accuracy for gTLD registries have undergone some important changes; yet after more than 12 years of GNSO task forces, working groups, workshops, surveys and studies the policy and underlying protocol is still in need of comprehensive reforms to address the significant number of issues related to gTLD registration data services. In addition, this topic is of great interest, inter alia, to law enforcement, privacy advocates, data protection agencies, trademark interest groups, and others. Issues in the Whois debate are varied. Any discussion of gTLD registration data typically includes topics such as purpose, accuracy, availability, privacy, anonymity, cost, policing, intellectual property protection, security and malicious use and abuse. Each of these issues is important in its own right and there are different views amongst the various ICANN stakeholders on how these issues should be addressed.

---

<sup>1</sup> See, e.g., <http://www.icann.org/en/groups/ssac/documents/sac-055-en.pdf> and <http://www.icann.org/en/groups/ssac/documents/sac-051-en.pdf>

### 3.2. History of 'Whois' Policy Development

The Whois protocol and the domain name registration data itself have both been a constant topic of ICANN policy discussion and ICANN's formal Policy Development Process (PDP) over the last 12 years or so. The most noteworthy of these policy efforts are described briefly below.

#### 3.2.1. Whois Task Force 2001- 03

The Task Force was created by the Domain Name Supporting Organization (DNSO - the predecessor of the GNSO) "*[t]o consult with the community with regard to establishing whether a review of any questions related to ICANN's Whois policy is due and if so to recommend a mechanism for such a review.*"

The Task Force conducted a survey to determine the key questions to be considered by the Task Force. The key questions identified were improving data accuracy and avoiding data abuse. These two issues were addressed in the Task Force Final Report that was published on 6 February 2003.<sup>2</sup>

In March 2003 the Board adopted the two consensus policies recommended by the Task Force that became the [Whois Data Reminder Policy](#)<sup>3</sup> and the [Whois Marketing Restriction Policy](#).<sup>4</sup>

- With regard to the accuracy of Whois data:
  - At least annually, a registrar must present to the Registrant the current Whois information, and remind the registrant that provision of false Whois information can be grounds for cancellation of their domain name registration.
  - Registrants must review their Whois data, and make any corrections.
- With regard to restrictions on bulk access to Whois Data:

---

<sup>2</sup> <http://www.dnso.org/dnso/notes/20030219.WhoisTF-accuracy-and-bulkaccess.html>

<sup>3</sup> <http://www.icann.org/en/resources/registrars/consensus-policies/wdrp>

<sup>4</sup> <http://www.icann.org/en/resources/registrars/consensus-policies/wmrp>

- Use of bulk access Whois data for marketing should not be permitted... that the obligations contained in the relevant provisions of the RAA be modified to eliminate the use of bulk access Whois data for marketing purposes.
- Section 3.3.6.5 of the Registrar Accreditation Agreement<sup>5</sup> currently describes an optional clause of registrars' bulk access agreements, which disallows further resale or redistribution of bulk Whois data by data users. The use of this clause shall be made mandatory.

### 3.2.2. Whois Task Force 2005-07

This Task Force was created by the GNSO to combine the work of three preparatory task forces<sup>6</sup> to:

1. Define the purpose of Whois in the context of ICANN's mission and core values, international and national privacy laws, and other specified factors; and
2. Define the purpose of the Registered Name Holder, technical, and administrative contacts, in the context of the purpose of Whois, and the purpose for which the data was collected.
3. Determine what data collected should be available for public access in the context of the purpose of Whois. Determine how to access data that is not available for public access.
4. Determine how to improve the process for notifying a registrar of inaccurate Whois data, and the process for investigating and correcting inaccurate data.
5. Determine how to resolve differences between a Registered Name Holder's, gTLD Registrar's, or gTLD Registry's obligation to abide by all applicable laws and governmental regulations that relate to the Whois service, as well as the obligation to abide by the terms of the agreements with ICANN that relate to the Whois service.

In its final report<sup>7</sup> the Task Force made majority and minority recommendations. The majority recommendation, supported by the Registry, Registrar, and Non-Commercial Users Constituencies as well as the Nominating Committee appointee, proposed an Operational Point of Contact (OPoC) that would require registrants to use an OPoC in place of the current administrative and technical contact details in the published Whois. The OPoC proposal also

---

<sup>5</sup> <http://www.icann.org/registrars/ra-agreement-17may01.htm> - 3.3.6.5

<sup>6</sup> See 1.2. Genesis of the Task Force in <http://gnso.icann.org/en/issues/whois-privacy/Whois-tf2-preliminary.html>.

<sup>7</sup> <http://gnso.icann.org/en/issues/whois-privacy/whois-services-final-tf-report-12mar07.htm> - [Toc161480294](#)

included a mechanism for notifying and correcting inaccurate Whois data. It did not include any new mechanism that would alter the status quo with regard to access to data – either through imposing restrictions or through recommending the collection or display of additional data.

A minority proposal called for a procedure to accommodate the needs of certain individual, non-commercial registrants with regard to restricting public access to some of their contact data.<sup>8</sup> Similarly, the Statement by the Commercial and Business Users Community that is included in the Report already noted then that a new technical protocol (see also below in this Report) might be required; referencing explicitly IRIS/CRISP (see Section 11.2).<sup>9</sup>

The final report of this Task Force<sup>10</sup> provides an excellent source of information for learning the types of data collected and the purposes of data collection. However, the GNSO did *not* adopt the Task Force proposals. Instead, the GNSO recommended pursuing formal, targeted studies to inform future policy discussions.<sup>11</sup>

The Task Force specifically addressed work on question 5 above concerning contractual conflicts with national laws, recommending in its report that:

‘ICANN should develop and implement a procedure for dealing with the situation where a registrar (or registry, in thick registry settings) can credibly demonstrate that it is legally prevented by local mandatory privacy law or regulations from fully complying with applicable provisions of its ICANN contract regarding the collection, display and distribution of personal data via Whois. The goal of the procedure should be to resolve the conflict in a manner conducive to stability and uniformity of the Whois system.’<sup>12</sup>

---

<sup>8</sup> <http://gns0.icann.org/en/issues/whois-privacy/whois-services-final-tf-report-12mar07.htm - Toc161480261>

<sup>9</sup> <http://gns0.icann.org/en/issues/whois-privacy/whois-services-final-tf-report-12mar07.htm - Toc161480294>

<sup>10</sup> See Staff Report from October 2007 <http://gns0.icann.org/drafts/icann-staff-overview-of-whois11oct07.pdf>

<sup>11</sup> Ibid.

<sup>12</sup> <http://gns0.icann.org/en/issues/whois-privacy/Whois-tf2-preliminary.html>

### 3.2.3. Conflicts with National Laws 2003-08

This effort began in 2003, when “Whois Task Force 2”,<sup>13</sup> which was part of the three preparatory task forces of the amalgamating 2005-7 Task Force,<sup>14</sup> recommended developing a procedure that would allow gTLD registries and registrars to demonstrate when they are legally prevented by local laws from complying with ICANN contract terms regarding the display of personal data in Whois. In November 2005, the GNSO concluded a PDP recommending such a procedure. On 10 May 2006, the recommendation was approved by the ICANN Board, which directed development and publication of this procedure.

The procedure (“ICANN Procedure For Handling Whois Conflicts with Privacy Law”)<sup>15</sup> describes a methodology by which ICANN will respond to a situation where a registrar or registry indicates that it is legally prevented by local or national privacy laws or regulations from complying with the provisions of its ICANN contract regarding the collection, display and distribution of personal data via Whois.

### 3.2.4. Whois Studies

Following the 2005-07 Whois Task Force, lengthy discussion and gathering of public comments, including statements provided by the Governmental Advisory Committee (GAC), took place to determine the way forward. The GNSO Council eventually decided to undertake further studies of Whois in order to inform policy discussions with information necessary to make future policy decisions – see also these ‘Recommendation on Further Studies of Whois’ that summarize the GSNO Board discussion and vote on this issue. The topics are:

[Whois Misuse Study](#). This study examines the extent to which public Whois contact information for gTLD domain names is misused to address harmful communications such a phishing or identity theft. The [Carnegie Mellon University Cylab](#) in Pittsburgh, PA, USA is performing this

---

<sup>13</sup> <http://gns0.icann.org/en/issues/whois-privacy/tor2.html>

<sup>14</sup> See 1.2. Genesis of Task Force at <http://gns0.icann.org/en/issues/whois-privacy/Whois-tf2-preliminary.html>

<sup>15</sup> <http://archive.icann.org/en/processes/icann-procedure-17jan08.htm>

study and expects to have initial results in mid-2013.

[Whois Registrant Identification Study](#). This study uses Whois to classify entities that register gTLD domain names, including natural persons, legal persons, and Privacy/Proxy service providers. Using associated Internet content, it then classifies entities using those domains and potentially commercial activities. NORC at the University of Chicago has been selected to conduct this study. The preliminary results of this study have been published for public comment on 15 February 2013.<sup>16</sup>

[Whois Privacy and Proxy Services Abuse Study](#). This study will attempt to prove or disprove the following hypothesis: A significant percentage of the domain names used to conduct illegal or harmful Internet activities are registered via Privacy or Proxy services to obscure the perpetrator's identity. The National Physical Laboratory of the United Kingdom has been selected to conduct this study, with results expected in early 2013.

[Whois Privacy and Proxy Relay/Reveal Survey](#). This survey examines the feasibility of conducting a future in-depth study into communication Relay and identity Reveal requests sent for gTLD domain names registered using Proxy and Privacy services. The Interisle Consulting Group in Boston, MA, USA is performing this survey and initial results have been posted for public comment. See: <http://www.icann.org/en/news/public-comment/whois-pp-survey-04jun12-en.htm>

### 3.2.5. RAA Negotiations as an Alternate Path

The Registrar Accreditation Agreement (RAA) is a bilateral agreement between two parties: ICANN and each of the ICANN accredited registrars. ICANN and the Registrars have been engaged in negotiations to reach a new form of the RAA, which could result in new obligations for registrars that are not created through the PDP process.

The current RAA negotiations include discussion of changes to registrar Whois obligations. Some modifications under discussion are:

---

<sup>16</sup> See Public Comment Forum Announcement at <http://www.icann.org/en/news/public-comment/whois-regid-15feb13-en.htm>

- Verification of certain data fields (e.g., registrant phone number, email).
- Validation that certain data fields are at least not blank and are of the correct format for that field. (e.g., the postal code in an Australian address is 4 digits.)
- Web-based and Port 43 Whois services:
  - Service Level Agreement for web-based and Port 43 services
  - Possible elimination of port 43 Whois service requirements for domain names in thick registries

Note that these changes are incremental in nature and do not fully consider the purposes of the Whois database and how to achieve those purposes.

### 3.3. Recent Policy Work

#### 3.3.1. The Whois Policy Review Team (2010-12)

The Whois Policy Review Team's scope, as established in the Affirmation of Commitments,<sup>17</sup> was to review the extent to which ICANN's Whois policy and its implementation are: effective, meet the legitimate needs of law enforcement and promote consumer trust. The team, which was comprised of community representatives, was formed in October 2010 and posted its final report on 11 May 2012.<sup>18</sup>

The Whois Policy Review Team made 16 recommendations:

1. Whois should be a strategic priority for ICANN.
2. In one place, ICANN should clearly document the current gTLD Whois policy as set out in the gTLD Registry and Registrar contracts and GNSO Consensus Policies and Procedure.
3. ICANN should ensure that Whois policy issues are accompanied by cross-community outreach.
4. ICANN should act to ensure that its compliance function is managed in accordance with best practice principles.

With regard to data accuracy (5-11):

5. ICANN should ensure that the requirements for accurate Whois data are widely and proactively communicated.
6. ICANN should take appropriate measures to reduce the number of Whois registrations

---

<sup>17</sup> <http://www.icann.org/en/about/agreements/aoc>

<sup>18</sup> Complete report and recommendations at: <http://www.icann.org/en/about/aoc-review/whois/final-report-11may12-en.pdf>

- that fall into the accuracy groups Substantial Failure and Full Failure (as defined by the NORC Data Accuracy Study, 2009/10) by 50% within 12 months and by 50% again over the following 12 months.
7. ICANN shall produce and publish an accuracy report focused on measured reduction in Whois registrations that fall into the accuracy groups Substantial Failure and Full Failure, on an annual basis.
  8. ICANN should ensure that there is a clear, unambiguous and enforceable chain of contractual agreements with registries, registrars, and registrants to require the provision and maintenance of accurate Whois data.
  9. ICANN should develop metrics to track the impact of the annual Whois Data Reminder Policy (WDRP) notices to registrants, or alternatively, an effective policy that achieves the objective of improving data quality in a measurable way.
  10. ICANN should initiate processes to regulate and oversee privacy and proxy service providers.
  11. Data access: Overhaul the Internic Service to provide enhanced usability for consumers, including the display of full registrant data for all gTLD domain names

With regard to Internationalized Domain Names (IDNs) (12-14):

12. ICANN should determine appropriate internationalized domain name registration data requirements and evaluate available solutions
13. The final data model should be incorporated into registrar and registry agreements.
14. Metrics should be developed to maintain and measure the accuracy of the internationalized registration data.
15. ICANN should provide a detailed and comprehensive plan that outlines how to move forward in implementing these recommendations.
16. ICANN should provide at least annual written status reports on its progress.

The recommendations in the report were supported broadly, inter alia, by ICANN's At Large Advisory Committee, the GNSO's Business (BC) as well as its Internet Service Provider and Connectivity Providers Communities (ISPCP),<sup>19</sup> but received mixed reviews from other GNSO's stakeholder groups,<sup>20</sup> where the recommendations were strongly supported by some and opposed by others.<sup>21</sup>

---

<sup>19</sup> <http://forum.icann.org/lists/whois-rt-final-report/>

<sup>20</sup> <http://gns0.icann.org/en/correspondence/robinson-to-icann-board-07nov12-en.pdf>

<sup>21</sup> see also <http://forum.icann.org/lists/whois-rt-final-report/>

### 3.3.2. SAC055 (September 2012)

As requested by the ICANN Board, ICANN's Security and Stability Advisory Committee (SSAC) reviewed the Whois Policy Review Team recommendations. SSAC concluded that certain work should be undertaken prior to implementation of those recommendations. The SSAC recommended that:<sup>22</sup>

1. It is critical that ICANN should develop a policy defining the purpose of domain name registration data;
2. ICANN should create a committee to develop a registration data policy that defines the purpose of domain name registration data; and
3. ICANN should defer other activity directed at finding a "solution" to "the Whois problem" until the registration data policy identified in (1) and (2) has been developed and accepted.

#### *Recent Study on Registrant Identification*

As outlined above, ICANN is in the process of conducting several Whois related studies,<sup>23</sup> to inform future policy making efforts. The initial findings of one of these studies, conducted by NORC, was recently published its initial findings for public comment.<sup>24</sup> This study attempted to classify the types of entities that register domains, including natural persons, legal persons, and privacy and proxy service providers.

The NORC Study findings include the following:

Concerning the nature of registrants, the NORC analysis of the Whois records (retrieved from a random sample of 1,600 domains from the top five gTLDs) found that:

- 39 per cent ( $\pm$  2.4 percent) appear to be registered by legal persons (who are not also natural)
- 33 per cent ( $\pm$  2.3 percent) appear to be registered by natural persons

---

<sup>22</sup> <http://www.icann.org/en/groups/ssac/documents/sac-055-en.pdf>

<sup>23</sup> For more details, see <http://gnso.icann.org/en/group-activities/other/whois/studies>

<sup>24</sup> See <http://www.icann.org/en/news/public-comment/whois-regid-15feb13-en.htm>

- 20 per cent ( $\pm 2.0$  percent) were registered using a privacy or proxy service.
- NORC was unable to classify the remaining 8 per cent ( $\pm 1.4$  percent) using data available from Whois.

Percentage of domain name uses that are commercial versus non-commercial:

- When pay-per-click ads are included in the monetary activities that make up potentially commercial activity, 57 per cent ( $\pm 2.4$  percent) of all sampled domains were perceived to have potentially commercial activity.
- When pay-per-click ads are not included in the monetary activities that make up potentially commercial activity, approximately 45 per cent ( $\pm 2.4$  percent) of all sampled domains were perceived to have potentially commercial activity.

Relative percentage of Privacy/Proxy use among legal persons: ( $\pm 2.9$  percent) of domains apparently used by legal persons were registered using a privacy or proxy service.

Relative percentage of Privacy/Proxy use among domains with commercial use: 22.9 per cent ( $\pm 2.7$  percent) of domains with potentially commercial activity were registered using a privacy or proxy service.

Please refer to the Draft NORC Study for the full findings, which include a detailed statistical snapshot of additional information for each type of registrant studies: natural persons, legal persons, privacy/proxy services, and whether they are engaged in commercial activity. These findings may prove useful to the PDP Working Group as it attempts to evaluate the nature and extent of protections for personal information, and whether enhanced verification or validation requirements for accurate information from natural persons is appropriate. For example, some may hold the view that those who engage in commercial activity (regardless of whether they are natural persons) should have their full contact details publicly available for consumer protection purposes.

### **3.4. Background concerning Accuracy of gTLD Registration Data**

gTLD registration data, if its purpose is to be able to contact registrants, needs to be accurate. However, contact information that appears correct – i.e. that represents a valid and viable name

and address (electronic and/or physical) – is not necessarily accurate, i.e. it does not correspond to the person registering, managing or owning the domain name.

There have been two official Whois accuracy studies. Neither has provided sufficient information for ICANN to implement an accuracy program or measure the effects of existing policies on Whois accuracy (see also Section 3.2 above).

Testing the accuracy of individual data elements is problematic and could require a level of intrusion (such as physical visits) that no study to date has been able to undertake:

- In order to verify an email address is accurate, one would generally have to send an email and receive an appropriate response. Inquiry emails, however, are often treated as spam. If no reply is received, the accuracy statistician must move onto the next level of investigation.
- In order to test whether a telephone number is accurate, one might generally need to call the number, and receive a responsive answer. If no reply is received, the accuracy statistician must move onto the next level of investigation.
- In order to test whether a physical address is accurate, one must sometimes knock on the door. During the in-person interview, if it occurs, the accuracy technician can verify email, address and phone number.

### 3.5.1. U.S. General Accounting Office (GAO) Study<sup>25</sup>

The U.S. Government Accountability Office (GAO) is an independent, nonpartisan agency that investigates how the federal government spends taxpayer dollars. The GAO provided this study in response to a congressional request.

In a report entitled “Prevalence of False Contact Information for Registered Domain Names,” the GAO responded to a request, among other things, to determine the prevalence of patently false or incomplete contact data in the Whois service for the .com, .org, and .net domains. The GAO study then, was not really targeting Whois accuracy but rather was focused on identifying those

---

<sup>25</sup> <http://www.gao.gov/products/GAO-06-165>

registrations with patently false data. The patently false Whois records (as identified) were then used to measure other mechanisms such as the effectiveness of registrars in correcting the data.

The GAO selected random samples of 300 domain names from each of the three zone files: .com, .net, and .org.

Based on test results, the GAO estimated that (when the study was conducted in 2005) 2.31 million domain names (5.14 percent) were registered with patently false data – data that appeared obviously and intentionally false without verification against any reference data – in one or more of the required contact information fields. GAO also found that 1.64 million (3.65 percent) were registered with incomplete data in one or more of the required fields. In total, GAO estimated that 3.89 million domain names (8.65 percent) had at least one instance of patently false or incomplete data in the required Whois contact information fields.

The GAO reported that these percentages were correct with a margin of error of  $\pm 5$  per cent or less at the 95 per cent confidence level.

### 3.5.2. 2010 NORC Study of the Accuracy of Whois Registrant Contact Information<sup>26</sup>

In 2010 a NORC study commissioned by ICANN found that only 23 per cent of records were ‘fully accurate.’ In contrast 28.7 per cent of records produced either are full or substantial failures. The study thus concluded that ‘there is no question that there are people who register domains without disclosing their full or real identity’. In this context the study found that the key barriers to accuracy in domain name registration are:

- concerns about privacy
- confusion about information needed
- lack of clarity in the standard to which information would be entered
- no requirement for proof of identity of address
- the structure of Whois itself

The executive Summary of the Study can be found in Annex C to this Report

---

<sup>26</sup> <http://www.icann.org/en/resources/compliance/reports/whois-accuracy-study-17jan10-en.pdf>

### 3.5.3. Accuracy requirements for Registrars as part of the current RAA Whois requirements

The RAA requires registrars to, upon notification of an inaccuracy in the Whois information, take reasonable steps to investigate the claimed inaccuracy and take reasonable steps to correct that inaccuracy. Reasonable steps are generally expected to include contacting the registrant and requiring a reply within 15 days. The registrar has the right to terminate the name if there is no reply or the data remains inaccurate.

Information leading to the discovery of possible inaccuracies comes from Whois Data Problem Reports filed in the <http://www.internic.org> site at <http://reports.internic.net/cgi/registrars/problem-report.cgi>. ICANN publishes data on these reports in their regular Contractual Compliance newsletters and in its latest version it shows that out of 2489 complaints that ICANN compliance received in January, 1242 were about Whois accuracy and two about Whois access.<sup>27</sup>

### 3.5.4. Accuracy requirements for Registrants as part of the current RAA Whois requirements

The registrant, as the party that enters the Whois data, plays a key role in ensuring its accuracy. The registrant is required to provide accurate Whois data, and to correct data when there is a change or when an inaccuracy is reported. This requirement is to be passed down to registrants in a written agreement between the registrar and registrants. The RAA includes a requirement that all registration agreements between the registrar and registrant include the following provisions:

3.7.7.1 The Registered Name Holder shall provide to Registrar accurate and reliable contact details and promptly correct and update them during the term of the Registered Name registration, including: the full name, postal address, e-mail address, voice telephone number, and fax number if available of the Registered Name Holder; name of authorized person for contact purposes in the case of an Registered Name Holder that is an organization, association, or corporation; and the data elements listed in Subsections 3.3.1.2, 3.3.1.7 and 3.3.1.8.

---

<sup>27</sup> <http://www.icann.org/en/resources/compliance/newsletter/newsletter-jan13-en.htm> - 3

3.7.7.2 A Registered Name Holder's willful provision of inaccurate or unreliable information, its willful failure promptly to update information provided to Registrar, or its failure to respond for over fifteen (15) calendar days to inquiries by Registrar concerning the accuracy of contact details associated with the Registered Name Holder's registration shall constitute a material breach of the Registered Name Holder-registrar contract and be a basis for cancellation of the Registered Name registration.

The sum of the contractual requirements listed in this paper, when put into practice, means that: once a Whois data inaccuracy is reported to a registrar, the registrar has a duty to investigate. If the data turns out to be inaccurate (and not corrected) the registrar must take further action to ensure the correction occurs, which could include suspension or deletion of the name.

### **3.5. ICANN Board Resolution Relevant to the launch of this Policy Development Process**

On 11 May 2012 the Whois Policy Review Team submitted its Report to the ICANN Board. This was then followed by an extensive public comment and community discussion.<sup>28</sup> In its rationale on 8 November 2012 the Board pointed out that 'the Affirmation of Commitments (AoC) between ICANN and the U.S. Department of Commerce commits ICANN to enforcing its existing policy relating to Whois (subject to applicable laws), which "requires that ICANN implement measures to maintain timely, unrestricted and public access to accurate and complete Whois information, including registrant, technical, billing, and administrative contact information."' Both, the Whois Policy Review Team Report as well as the related submission by the SSAC<sup>29</sup> highlighted the limits of the current framework for gTLD directory services and the need to move beyond the present contractual provisions. The Board then went on to pass a resolution that led to the creation of the Experts Working Group and, in parallel, requested this Issue Report as the starting point of a Board-initiated GNSO PDP. Both these processes are explicitly tasked to assess the purpose of collecting and maintaining gTLD registration data, and to work on solutions to improve accuracy and access to gTLD registration data. The Board referred to this as a 'two-pronged approach' that is based on 'broad and responsive action' in relation to

---

<sup>28</sup> For all see <http://www.icann.org/en/news/public-comment/whois-rt-final-report-11may12-en.htm>

<sup>29</sup> <http://www.icann.org/en/groups/ssac/documents/sac-055-en.pdf>

the reform of Whois.

The Board Resolution can be found just below. The entire resolution and its rationale including the announcement to launch the Expert Working Group and the Board initiated PDP can be found in Annexes A and B to this Report respectively.

#### Extract of Board Resolution<sup>30</sup>

Resolved (2012.11.08.01), the Board directs the CEO to launch a new effort to redefine the purpose of collecting, maintaining and providing access to gTLD registration data, and consider safeguards for protecting data, as a foundation for new gTLD policy and contractual negotiations, as appropriate (as detailed in the 1 November 2012 Board paper entitled, "Action Plan to Address WHOIS Policy Review Team Report Recommendations"—ICANN Board Submission Number 2012-11-08-01 [PDF, 266 KB]), and hereby directs preparation of an Issue Report on the purpose of collecting and maintaining gTLD registration data, and on solutions to improve accuracy and access to gTLD registration data, as part of a Board-initiated GNSO policy development process;

Resolved (2012.11.08.02), the Board directs the CEO to continue to fully enforce existing consensus policy and contractual conditions relating to the collection, access and accuracy of gTLD registration data (referred to as gTLD WHOIS data), and increase efforts to communicate, conduct outreach on, and ensure compliance with existing policy and conditions relating to WHOIS (as detailed in the 1 November 2012 Summary of the Board Action entitled, "WHOIS Policy Review Team Report Recommendations").

---

<sup>30</sup> <https://www.icann.org/en/groups/board/documents/resolutions-08nov12-en.htm>

## 4. Discussion of Proposed Issue

### 4.1. The importance of ‘purpose’

It is important to bear in mind that the issue of ‘purpose’ in relation to the collection and maintenance of gTLD registration data is not new. It was a central part of the 2005-07 GNSO Whois Task Force (see also Section 3. Background). In fact, the [GSNO voted](#) on a motion of defining the purpose of Whois for the work of that Task Force. The wording that was adopted by the GNSO Council, though not unanimously, was ‘The purpose of the gTLD Whois service is to provide information sufficient to contact a responsible party for a particular gTLD domain name who can resolve, or reliably pass on data to a party who can resolve, issues related to the configuration of the records associated with the domain name within a DNS nameserver’ (formulation 1). The GNSO Council rejected a prior version of the statement of purpose which allowed for a broader understanding of purpose of gTLD registration data by increasing contact requirements.<sup>31</sup>

The Task Force subsequently noted in its [Final Report](#) that ‘registrants do not understand the meaning or purpose of the different Whois contacts.’ Although the Final Report contained substantial discussions on the purpose of collecting and maintaining gTLD registration data, the GNSO Council could not find a majority to adopt those recommendations. This past experience illustrates the challenges that this issue poses, but may also provide guidance on the differences that will need to be overcome in order to reach a common position.

The PDP Working Group is expected to focus its discussion around the issues of the underlying purpose(s) of collecting gTLD registration data. At a minimum, the most basic purpose, which is commonly accepted, is that it allows domain name holders to be contacted. However, *who*

---

<sup>31</sup> The wording of the formation 2 was: ‘The purpose of the gTLD Whois service is to provide information sufficient to contact a responsible party or parties for a particular gTLD domain name who can resolve, or reliably pass on data to a party who can resolve, technical, legal or other issues related to the registration or use of a domain name.’

would be granted the right to access the data and contact the registrant and by which means is a different question that would also need to be evaluated.

In addition to previous GNSO considerations of this topic, the broader ICANN community has also highlighted the need to define the purpose of collecting gTLD registration data as a means to addressing some of the other issues associated with Whois. In its reaction to the latest [Whois Review Team Final Report](#) (see also Section 3. Background) the SSAC paper [Whois: Blind Men and an Elephant' SAC 055](#), notes explicitly that 'the foundational problem facing all 'Whois' discussions is *understanding the purpose of domain name registration data*' (italics in original). In this context the SSAC puts forward the following questions that it considers ought to be answered before a satisfying and sustainable solution to the issue of gTLD registration data can be found (sic):

- Why are data collected?
- What purpose will the data serve?
- Who collects the data?
- Where is the data stored and how long is it stored?
- Where is the data escrowed and how long is it escrowed?
- Who needs the data and why?
- Who needs access to logs of access to the data and why?

These are also likely to be some of the questions that the PDP WG is expected to address as part of its deliberations.

#### **4.2 Privacy Considerations**

In addition to the SSAC the issue of purpose is also paramount from a data protection and privacy perspective. The Article 29 Data Protection Working Party, an Independent EU Advisory Body on Data Protection and Privacy, stated in its [2/2003 Opinion](#) that 'the Whois directories raise several issues from the data protection perspective' and insists that 'from the data protection viewpoint it is essential to determine in very clear terms what is the purpose of the Whois and which purpose(s) can be considered as legitimate and compatible to each original

purpose' [i.e. identification between a very small and limited number of internet users several decades ago]. The fact that this document was published 10 years ago illustrates how long the issue has been a matter of concern and adds to the great urge to find a sustainable solution to the purpose, maintenance and accuracy of gTLD registration data.

#### 4.2. Technical Aspects

The collection, maintenance and access to gTLD registration data has significant technical implications. In fact, the current 'Whois' service is viewed by some to be antiquated because it does not have the capability to address changes requested by many – notably supporting different scripts and the collection and display of non-US formatted information. Many advocate that any change to Whois should be effectuated by creating a completely new protocol or specification. Ideally, that specification should be approved by the technical community (including the Internet Engineering Task Force - IETF). The specification also needs to be implemented by the creation of a client or software to run the new service that replaces the existing Whois service.

The technical deficiencies of the current protocol are well documented and related to the following three areas:

**1. Lack of standardization:** The Whois protocol (RFC 3912 [2]) is very basic. It describes exchanges of queries and messages between a client and a server over TCP in a specific port. It does not define query or response formats or encoding, nor does it have a schema for replies and error messages. Such decisions are left to the implementers, e.g., registrars and registries. This often results in different query syntaxes, output formats, output encodings, and error messages. The resulting variability across clients and servers detracts from the quality and usability of Whois. It means that you get different answers and formats from different registrars so it doesn't look like one system.

The current obligations for Whois service do not specify any formatting requirement that the registrant fills in. For example, postal codes need not be numbers; phone numbers do not have to follow the ENUM standard. There are no checks to determine that the data entered is at least

in the correct format or that the information will be displayed consistently.

**2. Lack of support for internationalized registration data and domains:** The Internet Engineering Task Force (IETF) states in its Whois protocol specification:<sup>32</sup> *“The Whois protocol has not been internationalized. The Whois protocol has no mechanism for indicating the character set in use. ... This inability to predict or express text encoding has adversely impacted the interoperability (and, therefore, usefulness) of the Whois protocol.”*

A registrant can type characters into the Whois fields in any script that his or her computer supports but if the Whois software or the information requestor’s computer does not support that script, it will likely be indecipherable.

**3. Lack of authentication and access control mechanisms:** Users or applications access Whois services anonymously, requiring no identity assertion, credentialing or authentication. The lack of authentication mechanisms inhibits adoption of effective user or group-level access controls, auditing, or privacy measures, features that a typical directory system would have. Few methods are used to restrict access to Whois servers “listening” at port 43 other than IP address- level control.

Some proposed Whois models include “tiered access” where groups of credentialed users (say, law enforcement or pre-approved users) would get access to more data. This model, if agreed upon in a policy discussion, would be impossible to implement using the existing Whois protocol and service.

### **Alternative Models**

Quite a bit of work over the years has been done to potentially alleviate these problems. The two solutions discussed most are known as IRIS and RESTful.

#### IRIS

In 2005, the IETF “CRISP” working group earned IETF approval of a new protocol (standard): the Internet Registry Information Service (IRIS) as a replacement for the Whois protocol. IRIS is a

---

<sup>32</sup> <http://www.ietf.org/rfc/rfc3912.txt>

directory service that provides additional functionality that the current Whois lacks:

1. **Standardization:** The IRIS protocol specifies a well-defined structure for query and result sets.
2. **Support for internationalized registration data and domains:** IRIS explicitly supports internationalization and localization, supporting multiple languages.
3. **Authentication and access control mechanisms:** IRIS supports authentication services through its application-transport layer protocols that define the mechanisms for authentication, message passing, connection and session management.

Implementation of the IRIS Protocol: Although IRIS addresses many of the technical deficiencies of Whois identified above, there has been little interest in the ICANN Community to support the adoption of IRIS in the five years since its standardization, for largely the following reasons:

1. IRIS is a complex protocol; it has been asserted to be expensive for registrars, registries and others to implement. It has three layers, and each layer may consist of one or more protocols.
2. IRIS requires an application transfer protocol to be written, an additional barrier for implementation.
3. There are no available client (application) implementations of the full IRIS protocol, significant work has to be done.
4. There is a lack of full IRIS server implementations available for use, from either open-source or commercial developers, only IRIS-DCHK from DENIC.
5. Each user must have the (to be developed) client on her/his computer for you to use it.

#### RESTful Whois Service (RWS):

Representational State Transfer based Whois service (RWS) is offered over the HTTP protocol, i.e., it is web-based. The choice of HTTP as a transport is intentional, so that the services can leverage popular web server infrastructures and administrative experience involved in web applications.

RWS supports several features the ICANN community considers necessary:

1. **Standardized output and error format:** XML output format allows for automated processing of data in a standard way.
2. **Support for internationalization:** RWS has complete support for internationalized registration data, as well as IDNs with U-labels, by using the XML data format, which contains inherent capability to support multiple character encodings to support internationalization.

3. **Authentication and access control:** HTTP, the transport for RWS already supports authentication, and by use of these capabilities, RWS makes it technically possible to implement granular permissions over registration data if required.

#### 4.3. Problems with Accuracy

As with many topics of discussion on Whois, reaching a commonly agreed-to definition of Whois “accuracy” has been problematic and controversial. As described elsewhere, there are many data elements in the Whois database required under the Registry Agreements and the RAA. There are also many instances where one or more elements might be incorrect. Does that mean the Whois information for that registration should be characterized as inaccurate? Consider the following examples:

- If two letters on the technical contacts name are transposed, does that mean the Whois data as a whole for that registration is inaccurate?
- If an address is complete except the postal code is missing, does that mean the Whois data is inaccurate?

Why are such nuances important? There is a strong belief held by many that improving Whois accuracy will lead to a reduction in malicious conduct because accurate Whois data means that registrants (or those responsible for domain names) can be easily located. As a result, some in the community believe that any improvement in accuracy is thought to be a move toward reducing malicious conduct.

One of the questions for consideration within this PDP to consider is what steps can be taken to improve accuracy, and how can any such improvements in accuracy be measured. For example, some suggest that a Whois accuracy improvement program should eliminate all blanks in the Whois data fields and eliminate all names and addresses (e.g., Mickey Mouse) that are patently false.

It may be useful for the PDP working group to consider whether the proposed improvements will reduce malicious conduct or otherwise improve reachability of the registrant. In addition, should there be any specific recommendations by the PDP WG, it will be important for this PDP to also couple these with concrete metrics so that the impact of any changes or new

requirements can be measured and assessed.

#### **4.4. Potential impacts and issues for relevant Stakeholder Groups, Constituencies, and other relevant parties**

Lack of progress in improving published gTLD registration data ('Whois') accuracy is due in part to the fact that the ICANN multi-stakeholder model comprises different, and on this issue often diverging, interests and viewpoints. The ICANN model relies on consensus-based solutions and in case of this debate, thus far, there has been no consensus on how to solve comprehensively all relevant issues, including purpose, privacy, accuracy, security, intellectual property protection and costs.

The continued lack of agreement by the ICANN community as to a sustainable solution of the issues related to gTLD registration data might be regarded by some as a failure of the multi-stakeholder model itself. The history of work on this topic could be interpreted by some that the ICANN community is either unable or unwilling to make the changes that, inter alia, protect IP owners and the Internet-using public. Others state that lack of change in this area is the correct outcome given the lack of consensus on the issues. The argument that additional protections are needed for IP owners and law enforcement agents is countered by concerns about privacy and the chilling effect on speech and Internet participation that may result from public access to personal information.

The following summary of the various perspectives of the stakeholders affected by Whois is intended to highlight the complexities of the issues, and explain why there have been difficulties in reaching consensus on this important issue in the past. Please note that as with any overview of this kind, this summary might in some cases overly simplify very complex positions, as hundreds of pages have been written and published on this subject by the various parties.

##### 4.4.1 gTLD Registrars/Registries

Registrars and Registries have expressed concerns that changing Whois obligations would increase their costs but not across all registrars/registries uniformly. As a result changes to Whois obligations may, in their view, upset the current competitive balance in the market.

Registrars and Registries would seek to balance the costs associated with changes in Whois

obligations against the expected benefits of increased accuracy.

Notably, Registrars have agreed (in recent discussions between registrars and law enforcement representatives and in negotiating amendments to the RAA) to validate or verify certain Whois data elements when a domain name is registered. With regard to Whois obligations in the RAA, the registrars have asked for two changes in the requirement to operate registrar-provided Whois services in the current round of RAA negotiations:

- The Registrars requested removal of the port 43 Whois requirement for domains in thick registries because few, if any, Whois users query registrars' Whois services for data that is held by thick registries. As a result, the registrars have asked that the requirement to operate registrar-provided Whois servers be limited to "thin" registries (i.e., .com, .net, .jobs and .name ) only.
- Registrars have also requested the removal of the requirement in their RAAs to provide "bulk access" to Whois data to the public. From the Registrar's point of view, the competitive circumstances underlying the bulk access mandate (the existence of a single registrar serving non-gTLD registrants) no longer exist to justify the continuation of these provisions.

#### 4.4.2. Law Enforcement

Law enforcement agents are fighting a constant battle against cyber-crime and DNS abuse. As wrongdoers' misuse of the DNS becomes more sophisticated, law enforcement techniques must also improve. The rise of malware, phishing, illegal pharmaceuticals, counterfeits and child pornography online occurring in multiple jurisdictions worldwide has led to an increased call within ICANN to adopt policies and procedures to fight cybercrime. This is why law enforcement representatives have been advocating for RAA amendments that provide for more data, retention of data, access to data and data accuracy. This includes requests for validation and verification of data within Whois.

#### *Data Availability*

Law enforcement generally desires that data be in principle publicly available. Access requiring production of court order or warrant retards investigations that must happen quickly if they are to be effective and protect the Internet-using public. Some parties have recommended 'tiered

access' plans that require production of credentials or development of systems to provide access to credentialed parties. Law enforcement agencies appear willing to accept these programs so long as access to data and information is not slowed in any way, and is available to others.

#### 4.4.3. Intellectual Property Owners

IP owners (and their legal representative) can be harmed by cybersquatting and malicious conduct accomplished through the abuse of domain name registration. They assert that this illegal behavior is often abetted by inaccurate Whois information. IP owners claim that they devote significant time and resources to combatting this conduct. Examples include pirating brands and bilking consumers. IP owners state that they often lead the charge against malicious conduct, expending money in defensive registrations, seeking and contacting malicious registrants and litigation. Millions of dollars are lost (and eventually paid by consumers) in this battle to protect brand names and intellectual property. IP owners would therefore like to see fast and cheap remedies that include contacting malicious registrants directly – in addition to formal UDRP procedures) – such as the option to send “cease-and-desist” letters or contacting law enforcement. These options would be greatly facilitated by improved access to accurate domain name registration data.

#### 4.4.4. Governments (ICANN’s Governmental Advisory Committee)

The GAC in its 2007 communiqué ‘Principles Regarding gTLD Whois Services’<sup>33</sup> supports the positions of law enforcement and IP owners that the purpose of the Whois database is in “assisting law enforcement authorities in investigations, in enforcing national and international laws, including, for example, countering terrorism-related criminal offences and in supporting international cooperation procedures ... to help counter intellectual property infringement, misuse and theft in accordance with applicable national laws and international treaties, ...[and] in combating fraud, complying with relevant laws, and safeguarding the interests of the public.”

The GAC, in the same statement, asserts that “Whois services should provide sufficient and accurate data about domain name registrations and registrants in a manner that: ... facilitates

---

<sup>33</sup> [https://gacweb.icann.org/download/attachments/1540132/WHOIS\\_principles.pdf](https://gacweb.icann.org/download/attachments/1540132/WHOIS_principles.pdf)

continuous, timely and world-wide access... [S]takeholders should work to improve the accuracy of Whois data, and in particular, to reduce the incidence of deliberately false Whois data. The GAC also recognizes also in that communiqué that there are legitimate concerns about the misuse of Whois data, and conflicts with national laws and regulations, in particular applicable privacy and data protection laws: “Whois services must comply with applicable national laws and regulations, subject to national safeguards for individuals' privacy.” The PDP working group may wish to consult with the GAC to evaluate the privacy implications of gTLD Data Directory Services.

#### 4.4.5. Registrants and Internet Users

Registrants and Internet users generally agree in principle that they should be contactable in case issues arise in connection with their registered domain name. However, many question the need for unrestricted public posting of their contact data as is required under the current Whois policy. As a result, ICANN’s At-Large Advisory Committee (ALAC) supported the Whois RT’s recommendations and encouraged the ICANN Board to adopt them with expediency. The [ALAC’s statement](#) on the Whois RT Final Report “applauds the Whois Review Team for a masterful Final Report and gives its full endorsement. The report manages to avoid the distraction of the most divisive Whois issues and focuses on those where progress can and must be made quickly. Our position remains consistent. Whois accuracy is mandatory, such information must be reasonably accessible to end-users and there must be a viable means of contacting those responsible for a gTLD domain.”

#### 4.4.6. Free Speech Advocates

Some in the ICANN community representing civil society perspectives are vocal (largely through ICANN’s Non-Commercial Users Constituency (NCUC)) in raising privacy concerns. They are concerned that access to data might be misused to censor content, or deter the open communication that the Internet promises. Governments or other official organizations in oppressive governments might exhibit this behavior, and attempt to use Whois data to persecute those who are opposed to their regime.

Privacy advocates are also concerned that IP owners might abuse access to information by

intimidating registrants into giving up domain name registration, in which the registrant has legitimate interests. There is also a concern that public access to contact information would lead criminals and others to the door of those who oppose the interests of those criminals.

For these reasons some assert that there need not be an obligation for registrants to provide the data requested. Alternatively, if registration data is required, access should be restricted to those with appropriate credentials and no history of abuse.

#### **4.5. Issues the PDP WG is expected to consider**

In addition to reviewing and evaluating the recommendations from the EWG, the PDP WG is also expected to assess the impact on policies that either refer to Whois or rely on registration data and, if applicable, propose changes accordingly. Also, the PDP Working Group will have to consider whether any potentially still on-going 'Whois'-related policy activities may be impacted and how to proceed in these cases. Additional guidance will be added to this section as part of the Final Issue Report to take into account the recommendations of the EWG as well as community input.

#### **4.6. The Parallel Work of the Expert Working Group (EWG)**

The outcome of the [Whois Expert Working Group is expected to feed into this PDP and form the basis for the development of the PDP recommendations](#). As such, it is important to point to the work that this group will focus on. The ICANN Board formed this group to provide recommendations on fundamental question regarding Whois:

- Why should the DNS include a publicly accessible registration data source?
- How should accuracy be required and enforced?

In order to answer these questions, certain threshold determinations must be made a priori:

- What are the legitimate purposes for maintaining a registration data source?
- Can the data that is available satisfy those purposes?
- Do the benefits associated with these purposes outweigh the costs / detriments?

In addition, certain other questions could be addressed:

- Which data elements are to be maintained?
- How should proxy and privacy services be managed?
- How should the laws governing the transfer of personal data (privacy laws) be taken into account?

It is expected that the [Whois Expert Group](#) will provide specific recommendations on all these questions. These recommendations will then be incorporated in the Final Issue Report on this topic so that the PDP Working Group is in a position to evaluate the recommendations provided by the EWG and to use them as a basis for its discussions.

## 5. Staff recommendation

### 5.1. Scope considerations

In determining whether the issue is within the scope of the ICANN policy process and the scope of the GNSO, Staff and the General Counsel's office have considered the following factors:

#### **Whether the issue is within the scope of ICANN's mission statement**

ICANN's mission statement includes the coordination of the allocation of certain types of unique identifiers, including domain names, and the coordination of policy development reasonably and appropriately related to these technical functions, which includes gTLD registration data related activities.

#### **Whether the issue is broadly applicable to multiple situations or organizations.**

As gTLD registration data affects all registrants of gTLDs, registrars and registries, the issue is broadly applicable to multiple situations or organizations. Any changes to the policy, its rules or technical protocol that may result from a PDP would also be broadly applicable to multiple situations or organizations.

#### **Whether the issue is likely to have lasting value or applicability, albeit with the need for occasional updates.**

A reform of the gTLD registration data policy is expected to have lasting applicability.

#### **Whether the issue will establish a guide or framework for future decision-making.**

A reform of the gTLD registration data policy is expected to function as a sustainable policy framework for future decision-making in relation to this issue.

#### **Whether the issue implicates or affects an existing ICANN policy.**

The goal of this PDP would be to review (and potentially overhaul) the entire existing gTLD registration data policy, including its underlying protocol. Such an overhaul would therefore replace the policy currently in place and might affect other policies, as well as future registry and

registrar agreements for gTLDs in so far as they deal with the collection, maintenance and access to gTLD registration data.

## **5.2 Staff recommendation**

ICANN staff has confirmed that the proposed issues are within the scope of the GNSO's Policy Development Process and the GNSO. If the Expert Working Group provides specific recommendations as expected to the various questions that are the focus of this PDP, and provides a proposal for a new model for gTLD Data Directory Services, the PDP should be focused on analyzing the recommendations from the EWG, as directed by the ICANN Board.

In ICANN's view a successful outcome of this PDP is of utmost importance as it may provide a solution to the multitudes of issues surrounding gTLD registration data. This PDP therefore constitutes a crucial if not defining moment in ICANN's multi-stakeholder policy development process. ICANN staff, therefore, recommends that the PDP proceed by considering carefully the recommendation of the Expert Working Group and work constructively towards a universal solution, as this would allow for an informed decision by the GNSO Council on the matter of purpose and maintenance of gTLD registration data. Additional suggestions in relation to a proposed approach for the PDP WG are expected to be included as part of the Final Issue Report following community input as well as the conclusions of the Expert Working Group.

## Annex A – ICANN Board Request

For Whois Expert Working Group and Board-initiated PDP

<http://www.icann.org/en/groups/board/documents/prelim-report-08nov12-en.htm>

### Special Meeting of the ICANN Board – 8 November 2012

The Board then took the following action, and agreed that further work was necessary to refine the rationale before releasing the resolution:

**Whois Policy Review Team Report:** Whereas, the Whois Policy Review Team Report was submitted to the Board on 11 May 2012 and was the subject of extensive public comment and community discussion; Whereas, the Review Team's work has encouraged the Board and community to re-examine the fundamental purpose and objectives of collecting, maintaining and providing access to gTLD registration data, has inspired renewed and new efforts to enforce current Whois policy and contractual conditions, and has served as a catalyst for launching a new approach to long-standing directory services challenges; **Resolved** (2012.11.08.01), the Board directs the CEO to launch a new effort to redefine the purpose of collecting, maintaining and providing access to gTLD registration data, and consider safeguards for protecting data, as a foundation for new gTLD policy and contractual negotiations, as appropriate (as detailed in the 1 November 2012 Board paper entitled, [Action Plan to Address Whois Policy Review Team Report Recommendations](#) — ICANN Board Submission Number 2012-11-08-01, and hereby directs preparation of an Issue Report on the purpose of collecting and maintaining gTLD registration data, and on solutions to improve accuracy and access to gTLD registration data, as part of a Board-initiated GNSO policy development process; **Resolved** (2012.11.08.02), the Board directs the CEO to continue to fully enforce existing consensus policy and contractual conditions relating to the collection, access and accuracy of gTLD registration data (referred to as gTLD Whois data), and increase efforts to communicate, conduct outreach on, and ensure compliance with existing policy and conditions relating to Whois (as detailed in the 1 November 2012 Summary of the Board Action entitled, "Whois Policy Review Team Report Recommendations"). **Resolved** (2012.11.08.03), pursuant to Article III, Section 5.4 of the Bylaws, the Board directs that the contents of this resolution and rationale shall not be made publicly available until 19 November 2012. **All Board members in attendance approved of Resolutions 2012.11.08.01, 2012.11.08.02 and 2012.11.08.03. Two Board members were unavailable to vote on the Resolutions. The resolutions carried. Rationale for Resolutions 2012.11.08.01 - 2012.11.08.02** The Affirmation of Commitments (AoC) between ICANN and the U.S. Department of Commerce commits ICANN to enforcing its existing policy relating to Whois (subject to applicable laws), which "requires that ICANN implement measures to maintain timely,

unrestricted and public access to accurate and complete Whois information, including registrant, technical, billing, and administrative contact information." The AoC obligates ICANN to organize no less frequently than every three years a community review of Whois policy and its implementation to assess the extent to which Whois policy is effective and its implementation meets the legitimate needs of law enforcement and promotes consumer trust. The AoC further commits ICANN's Board to publish for public comment the report submitted by the Review Team, and to take action on the report within six months of its submission. The Team's volunteer members were appointed by ICANN's CEO and the GAC Chair, per the AoC requirements, and reflected the broad Internet community's interests in Whois policy. For 18 months, the Team conducted fact-finding, including meetings with ICANN's relevant Supporting Organizations and Advisory Committees, members of the broader Internet community, and other interested parties, and issued a draft report for public comment before submitting its Final Report to the Board on 11 May 2012. The Report was posted for two months of public comment and the Board requested input from ICANN's Supporting Organizations and Advisory Committees. Community discussion and input on the Report continued through the ICANN Toronto meeting in October 2012. The GAC and ALAC endorsed the Whois review report, SSAC provided a response in SAC055 (<http://www.icann.org/en/groups/ssac/documents/sac-055-en.pdf> [PDF, 347 KB]), and the GNSO provided a response by constituency (<http://gns0.icann.org/en/correspondence/robinson-to-icann-board-07nov12-en.pdf> [PDF, 377 KB]). There is general agreement on the objective of strengthening the enforcement of existing consensus policies and contracts and the Whois Review Team Report provides many relevant recommendations to that effect. However, both the Whois Review Team Report and the SSAC comments highlighted the limits of the current framework for gTLD directory services and the need to move beyond the present contractual provisions. The Whois Review Team for instance clearly stated that "the current system is broken and needs to be repaired." Likewise, the SSAC report stated that "the foundational problem facing all 'Whois' discussions is understanding the purpose of domain name registration data", that "there is a critical need for a policy defining the purpose of collecting and maintaining registration data" and suggested that "the formation of a properly authorized committee to drive solutions to these questions first, and to then derive a universal policy from the answers, is the appropriate sequence of steps to address the Whois Review Team's report." Indeed, the Whois protocol is over 25 years old (the current version is documented in RFC3912 dated September 2004, and the original version is documented in RFC812 dated March 1982). Furthermore, ICANN's requirements for domain name registration data collection, access and accuracy for gTLD registries and registrars are largely unchanged after more than 12 years of GNSO task forces, working groups, workshops, surveys and studies. Concerns of access, accuracy, privacy, obsolescence of protocols in an evolving name space, and costs to change remain unresolved. In this context, taking into account these inputs and community concerns, the Board has determined that a broad and responsive action is required and has decided to implement a two-pronged approach. Accordingly, the Board is simultaneously:

Directing the President and CEO to continue to fully enforce existing consensus policy and contractual conditions as well as to increase efforts to communicate, conduct outreach on, and ensure compliance with such existing policy and conditions.

Directing the President and CEO to launch a new effort focused on the purpose and provision of gTLD directory services, to serve as the foundation of an upcoming Board-initiated gNSO PDP. The outcomes of this work should act as guidance to the Issue Report that will be presented as part of the GNSO's policy development work; as a result, the Issues Report is not expected to be produced until such time as the President and CEO determines that his work has progressed to a point that it can serve as a basis of work within the PDP.

On both aspects, additional information is contained in the document, "Action Plan to Address Whois Policy Review Team Report Recommendations"—ICANN Board Submission Number 2012-11-08-01" (<http://www.icann.org/en/groups/board/documents/briefing-materials-1-08nov12-en.pdf> [PDF, 265 KB]). As part of the work of the President and CEO to ensure continued compliance with existing policy and conditions, the President and CEO has moved the Compliance Department to report directly to the President and CEO (<http://www.icann.org/en/news/announcements/announcement-14sep12-en.htm>), and the Board granted financial authorization to establish a Contractual Compliance Audit Program through an independent Service Provider (<http://www.icann.org/en/groups/board/documents/resolutions-03oct12-en.htm#1.d>) Furthermore, appropriate liaison will be established with the ongoing work undertaken in the IETF WG on the Web Extensible Internet Registration Data Service (WEIRDS) Protocol to ensure coherence. The Board strongly feels that taking this two-pronged approach is essential to fulfill ICANN's responsibility to act in the global public interest. The initiation of a focused work on Whois is expected to have an impact on financial resources as the research and work progresses. If the resource needs are greater than the amounts currently budgeted to perform work on Whois-related issues, the President and CEO will bring any additional resource needs to the Board Finance Committee for consideration, in line with existing contingency fund request practices. This action is not expected to have an immediate impact on the security, stability or resiliency of the DNS, though the outcomes of this work may result in positive impacts. This is an Organizational Administrative Function of the Board for which the Board received public comment, at <http://www.icann.org/en/news/public-comment/whois-rt-final-report-11may12-en.htm>.

## Annex B – Launch of Expert Working Group on gTLD Directory Services

**13 December 2012...** Fadi Chehadé, ICANN's President and CEO, is announcing the creation of an Expert Working Group on gTLD Directory Services. This first step in fulfilling the ICANN Board's HYPERLINK [directive](#) to help redefine the purpose and provision of gTLD registration data will provide a foundation to help the ICANN community (through the Generic Names Supporting Organization, GNSO) create a new global policy for gTLD directory services. The working group will be chaired by [Jean-Francois Baril](#), as the group's Lead Facilitator, and interested individuals with the requisite experience are invited to indicate their interest in serving as volunteer working group members (more information below). Board Chair, Steve Crocker, and Director, Chris Disspain, will serve as Board liaisons to the working group.

The objectives of the working group are to 1) define the purpose of collecting and maintaining gTLD registration data, and consider how to safeguard the data, and 2) provide a proposed model for managing gTLD directory services that addresses related data accuracy and access issues, while taking into account safeguards for protecting data. This output will feed into a Board-initiated GNSO policy development process to serve as a foundation for the GNSO's creation of new consensus policy, and requisite contract changes, as appropriate. The working group will be informed by the Whois Policy Working Group's [Report](#) [PDF, 1.44 MB] and previous community input and GNSO work over the last decade, will address key questions set forth by the Security and Stability Advisory Committee (SSAC) in their report, [SAC055 1](#) [PDF, 348 KB], and will take into consideration current and future Internet operations and services. The working group also will address concerns of the parties who provide, collect, maintain, publish or use this data as it relates to ICANN's remit.

ICANN staff will publish an issues report that incorporates the working group's output, which will form the basis of a Board-initiated GNSO PDP. ICANN and its leadership will be focused on facilitation of the expedited policy work to enable the GNSO to recommend a consensus policy that, at a minimum, addresses the purpose of collecting, maintaining and making available gTLD registration data, and related data accuracy and access issues. Such a policy would be contractually binding on ICANN accredited gTLD registrars and gTLD registries upon adoption by the ICANN Board.

### *Working Group Schedule and Operations*

The working group will conduct its activities from January through April 2013 and may be extended, if needed. Work will be conducted primarily online and through conference calls, and two face-to-face meetings are expected. The working group will periodically provide public updates on its progress, and output from the working group is expected to be presented for community discussion online and at the ICANN Beijing meeting in April 2013. ICANN Staff will

support the working group.

#### *Working Group Volunteers*

Qualified individuals are being identified to participate in the working group. Individuals with the following characteristics are invited to indicate their interest in serving as volunteer working group members by sending an expression of interest and their resume/CV by email to [expertworkinggroup@icann.org](mailto:expertworkinggroup@icann.org) by 31 December 2012.

Volunteer working group members should: have significant operational knowledge and experience with Whois, registrant data, or directory services; be open to new ideas and willing to forge consensus; be able to think strategically and navigate conflicting views; have a record of fostering improvements and delivering results; have a desire to create a new model for gTLD directory services; and be able to volunteer approximately 12-20 hours a month during January – April 2013 to the working group. Individuals who have worked extensively in the areas of registration data collection, access, accuracy, use, privacy, security, law enforcement, and standards and protocols are also encouraged to consider working group membership. As the working group will be a collection of experts, it is not expected to be comprised solely of representatives of current ICANN community interests. Although members may not come directly from ICANN structures, the working group will have a deep understanding of, and concern for, the ICANN communities' interests. The working group's results will feed into the GNSO's bottom-up, policy development process where all community interests will be encouraged to participate in the decision-making efforts.

ICANN will reimburse working group members for travel and other expenses associated with working group activities, per ICANN reimbursement rules.

## Annex C - Study of the Accuracy of Whois Registrant Contact Information

Developed by NORC at the University of Chicago for ICANN, published on 17 January 2010

### Executive Summary

Whois services are intended to provide free public access to information about the registrants of domain names. The information displayed is that obtained from the registrant at the time they registered the site, or the latest update of that information that they have provided to the registrar of their domain name.

There have been concerns about the accuracy of the information in Whois for some time, although the actual extent of the problems is not known. In 2005, GAO conducted a study which looked at the prevalence of missing or patently false information, and found that nearly 5% of Whois records in the top three gTLDs (.com.org. .net) had missing or patently false information in the registrant name and address fields. The extent to which information which *appeared* complete but was in fact inaccurate was not addressed.

This study was commissioned by ICANN in order to get a baseline measurement of what proportion of Whois records are accurate. The scope was limited to the quality of the information provided about the registrant (as opposed to the administrative or technical contact), since it is the registrant who has entered into a legal arrangement with the registrar for the domain name.

Under Registrar Accreditation Agreement Section 3.3.1.6, an accurate name and postal address of the registered name holder means there is reasonable evidence that the registrant data consists of the correct name and a valid postal mailing address for the current registered name holder. Adapting this for the study, there were three criteria to be met for any Whois record to be considered accurate:

1. Was the address of the registrant a valid mailing address?
2. Was the registrant named associated in some way with the given address?
3. When contacted, would the named registrant acknowledge that they were indeed the registrant of the domain name, and confirm all details given as correct and current?

An internationally representative sample of 1419 records was drawn from the top five generic top level domains (gTLDs, covering .com, .org, .net, .info and .biz). The address for each selected case was checked against postal records and mapping data for deliverability, searches were

conducted in phone listings and other records unrelated to Whois for a linkage between name and address, and contact was attempted with the named registrant using phone numbers obtained during the association process.

Using strict application of the criteria, only 23% of records were fully accurate, but twice that number meet a slightly relaxed version of the criteria (allowing successful contact with the registrant to imply association, and requiring only that ownership of the site be confirmed, as opposed to confirmation of both ownership and the currency/correctness of all detail). Eight per cent of records failed outright with obvious errors. The table on the following page gives more detail, the findings on the remainder, and limitations.

There is no question that there are people who register domains without disclosing their full or real identity. While we didn't find any cases where an identity had been stolen (that is, among the persons we contacted who had domains registered in their name, none denied having registered the domain), it would seem that, given the latitude that people have in choosing what information to provide when registering a domain name, identity theft may not be necessary; it is all too easy for registrants to enter any or no name, along with an unreliable or undeliverable address.

Most of the barriers to accuracy found (concerns about privacy, confusion about information needed, lack of clarity in the standard to which information should be entered, no requirement for proof of identity or address, the structure of Whois itself) can be addressed by the internet community. However the cost of ensuring accuracy will escalate with the level of accuracy sought, and ultimately the cost of increased accuracy would be passed through to the registrants in the fees they pay to register a domain. Cooperation among all registrants and other ICANN constituents will be needed to eliminate any commercial disadvantage accruing from enforcing greater accuracy.

Accuracy Group	Description of accuracy (1), (2)	Unweighted frequency counts (3)	Population estimates	Estimated percentages	Margin of error (4)
No failure	Met all three criteria fully - deliverable address, name linked to address, and registrant confirmed ownership and correctness of all details during interview	353	23,117,442	22.8%	1.4%
Minimal failure	All criteria met but minor fault noted by registrant during interview	17	1,101,176	1.1%	0.2%
	Name unable to be linked to address, but able to locate registrant and confirm ownership	312	23,024,007	22.7%	2.2%
Limited failure	Deliverable address, name linked and/or located, but unable to interview registrant to obtain confirmation.	365	24,893,476	24.6%	1.7%
Substantive failure	Undeliverable address and/or unlinkable name, however registrant located. Unable to interview registrant to obtain confirmation.	109	7,202,472	7.1%	0.9%
	Deliverable address, but unable to link or even locate the registrant, removing any chance of interview.	177	13,949,721	13.8%	2.2%
Full Failure	Failed on all criteria - undeliverable address and unlinkable, missing, or patently false name, unable to locate to interview	86	7,937,694	7.8%	1.8%
<b>All domain names in top five gTLDs</b>	1,419	101,225,988	100%		

*(1) Definitions:*

*Unable to link: means unable to find any independent association between name and address, or name and/or address missing*

*Unable to locate: means unable to get confirmed current phone contact information for named registrant (2)*

*(2) Limitations:*

*Failure on the linkage criteria could be caused by a concern with privacy (e.g. by having an unlisted phone number and not having name and address listed together in any readily accessible sources other than Whois)*

*Failure on the confirmation criteria could be caused by refusal or inability to cooperate with the survey for reasons unrelated to the accuracy of their Whois record.*

*(3) Each record is listed only once, against the most severe failing for that record.*

*(4) Margin of error is calculated on the basis of a 95% confidence interval, which is approximately the estimated percentage plus or minus the margin of error.*