

WHOIS POLICY REVIEW TEAM QUESTIONS FOR ICANN STAFF ABOUT WHOIS COMPLIANCE AUGUST 2011

Note: Staff assumed these questions relate to gTLD Whois and provided answers with that focus.

Question # 1. What are your views on the utility of the WHOIS service?

Over the years, as the Internet itself has grown, the utility of Whois registration information has grown as well. The WHOIS system originated in the early 1980's when the Internet was only used by the government and research and education organizations (prior to its commercialization) as a method for system administrators to obtain contact information for IP address assignments or [domain name](#) administrators. ICANN Staff recognizes that today many people use Whois data for various purposes.

The GNSO and the SSAC have documented the various uses of Whois information in close detail over the years. [SAC 023](#) (published 23 October 2007), and [SAC 033](#) (published 20 June 2008,) enumerate many ways in which Whois information is used today, including use by law enforcement personnel, cybercrime investigators, intellectual property interests, consumer protection advocates, ecommerce customers, and others. These reports also note ways in which public Whois information has been abused.

Earlier, in 2002, a DNSO¹ Whois Task Force issued a [Final Report on Survey Findings to the DNSO Names Council](#) which included results of a survey of registrants and users of Whois about how and why they use it, and the utility of data, including key concerns about accuracy, uniformity, searchability, use of public data for marketing, and privacy concerns. These documents and others provide extensive documentation with regard to the utility of Whois information by various parties for a variety of purposes.

Question # 2. What work does ICANN do to ensure WHOIS accuracy?

Question # 5. ICANN appears to take three kinds of compliance action on WHOIS: direct contractual compliance; audits; and consumer awareness raising.

- a. Are there any other types of compliance activities that ICANN engages in?
- b. Can you outline ICANN's activities in each of these areas (for example, the number and timing of these activities)?
- c. In your view, have each of these activities been successful in terms of improving WHOIS accuracy?
- d. Are there any statistics or analyses of ICANN's compliance activities?
- e. What are the main challenges in achieving WHOIS compliance – with particular regard to registrants and registrars?
- f. What are the three best ways to improve ICANN's compliance activities?
- g. Do you have any suggestions for other compliance activities that may be effective?

¹ The DNSO (Domain Name Supporting Organization) was the precursor to the GNSO.

Question # 9. Are there any records on how many WHOIS Data Problem Report System (WDPRS) complaints are lodged on average per year?

- a. Are WDPRS complaints going up?
- b. Has ICANN advertised WDPRS? If so, do you think this has affected the number of WDPRS complaints lodged?

Question # 10. ICANN's data reminder policy audit found that 98% of respondents did seek updated information from registrants. Given the results of the draft accuracy survey, do you have any suggestions on how the reminder policy could be enhanced to improve WHOIS accuracy?

Question # 11. What consumer awareness does ICANN conduct in terms of WHOIS compliance for both registrants and registrars?

a. Has a specific amount of money allocated to raising consumer awareness in ICANN's budget?

The overall goal of ICANN's compliance plan is to ensure that both ICANN and its contracted parties fulfill the requirements set forth in the agreements between the parties.

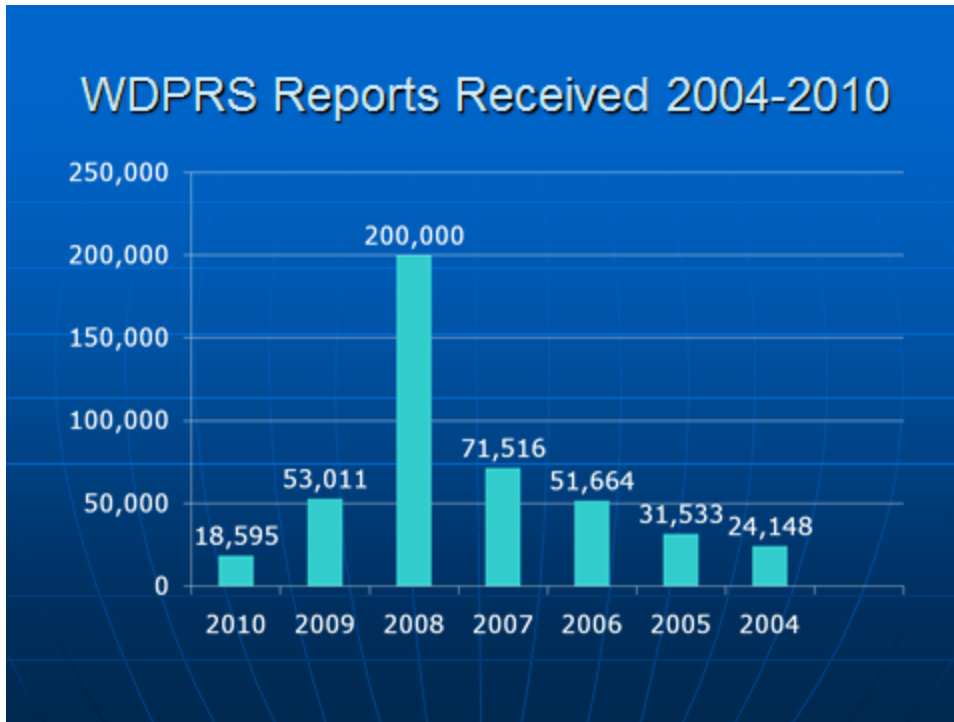
ICANN's contractual compliance Whois program includes three main elements: direct compliance work; audits; and community awareness activities. They are briefly summarized below, and additional details are available in the "[WHOIS Background Information](#)" previously provided to the Review Team, and on [ICANN's website](#).

- Investigating complaints of non-compliance with provisions of the Registrar Accreditation Agreement (RAA) and taking enforcement action where appropriate. ICANN conducts investigations based on information obtained from various sources including audits, complaints from community members, and other indicators. Statistics, data and reports on ICANN compliance activities are available on [ICANN's website](#).
- Operating the Whois Data Problem Reporting System (WDPRS). ICANN automated its approach to addressing complaints by creating an intake mechanism for the thousands of alleged Whois inaccuracy complaints annually, forwarding the claims to registrars for investigation, following-up with registrars, and tracking these claims. This activity occurs daily, and the forwarding of Whois inaccuracy claims to registrars for investigation and following-up with registrars is ongoing. In the last seven years, excepting 2008², there has been a decrease in the number of complaints filed through the WDPRS. The chart below details the number of WDPRS complaints filed between 2004 and 2010. The decrease in the number of reports filed may mean that there has been a corresponding increase in Whois accuracy, which may indicate

² In 2008, ICANN received an inordinate number (thousands) of inaccuracy reports from one reporter. Since 2008, the number of reports filed by that reporter continues to decrease.

the effectiveness of the WDPRS. ICANN publishes information about how to file inaccurate reports on the ICANN website, and has also referenced the WDPRS in numerous reports and publications. ICANN has not paid for, nor has it investigated the potential effects of, additional WDPRS advertising.

- Port 43 Monitoring Tool – This is a mechanism that monitors – on a daily and ongoing basis – trending in registrar compliance with the obligation to provide access to Whois data and take escalated compliance action when appropriate.
- Registrar Data Escrow Program – ICANN requires that registrars send data deposits to a recognized, trustworthy, third party data storage company on a regular basis. These deposits must contain Whois and other data concerning the registration of domain names. ICANN audits the data periodically for completeness.
- Surveys and audits – ICANN conducts surveys and audits to assess compliance with the Whois-related RAA provisions, including the Whois Data Reminder Policy audit, which is an annual assessment of registrar obligations to provide Whois update notifications to customers.
- Studies – ICANN periodically conducts studies (and analyzes third party studies) to advance our understanding of Whois accuracy issues and assist with our operational strategies (see summaries of studies, below).
- Community awareness efforts – ICANN raises awareness by participating in ICANN International Meetings, ICANN regional events and industry events, as well as providing information on ICANN’s website. For example, to help ensure registrars’ awareness of Whois compliance, ICANN Staff provides periodic training and advisories, such as [Registrar Advisory Concerning Whois Data Accuracy](#), and [Registrar Advisory Concerning the "15-day Period" in Whois Accuracy Requirements](#).



The activities outlined above support improved Whois accuracy by encouraging registrars to comply with the Whois-related RAA provisions. However, these activities are reactive and may not effectively address the sources and causes of inaccuracy. While ICANN alone cannot “ensure” Whois accuracy, the comprehensive program outlined above has been augmented over time with enhancements designed to better address this complex challenge.

ICANN is continuously assessing and enhancing its Whois compliance program. Key improvements undertaken and under consideration by ICANN include:

- Providing a mechanism for greater transparency and communication with registrars concerning how they investigate each alleged Whois inaccuracy report.
- Considering potential amendments to the RAA, including trying to achieve more clarity around the RAA contractual provisions 3.3 and 3.7.8 to help provide certainty and predictability for compliance enforcement purposes.
- Continuously improving all aspects of ICANN’s Whois compliance program including audits and investigation processes and well as enhancing systems and tools.
- Considering additional registrar training and enhanced registrant awareness through registrant targeted initiatives and how-to documents to improve Whois accuracy.
- Considering having registrant Whois changes tracked for a certain period of time after registrants receive Whois data reminder policy (WDRP) notices; this might give ICANN and the community data regarding whether an appreciable number of Whois changes are made as a result of registrants receiving WDRP notices and whether the WDRP is serving its intended purpose.

The [Draft Report for the Study of the Accuracy of WHOIS Registrant Contact Information](#) substantiates the challenges for registrars and registrants in achieving Whois compliance.

Time and resources are the two most often cited challenges for registrars in complying with Whois. Some registrars have indicated that the cost and time of initial and ongoing verification of Whois data is burdensome.

Challenges inherent in achieving Whois compliance with regard to registrants seem to generally revolve around privacy concerns or a lack of due diligence. Some registrants have expressed concerns about making their contact information publicly available and fail to provide complete, accurate information. Some registrants inadvertently provide incorrect contact data in the Whois fields, or fail to maintain correct data, due to carelessness.

Registrant awareness is advanced through updates to various stakeholder groups (including the ICANN At-Large community) at ICANN International Meetings, ICANN regional events and industry events, as well information provided on ICANN's website.

Further, to ensure that registrants understand their obligations concerning Whois accuracy, ICANN requires that all registration agreements include Whois accuracy provisions that: 1) require registrants to provide accurate and reliable Whois data and promptly correct and update that data during the term of the registration; and 2) advise registrants that wilful provision of inaccurate or unreliable Whois data is grounds for cancellation of the domain name.

These registrant-related obligations are reflected in the "[Registrant Rights and Responsibilities](#)" document that has been posted on ICANN's website since 27 June 2011 is provided in eleven languages. As required under the 2009 RAA, all ICANN-accredited registrars and their resellers now must "provide a link to this webpage on any website it may operate for domain name registration or renewal clearly displayed to its Registered Name Holders at least as clearly as its links to policies or notifications required to be displayed under ICANN Consensus Policies." The text of the Registrant Rights and Responsibilities document was based in part on the "[Non-Lawyers Guide to the May 2009 RAA](#)", which was developed by Staff originally at the request of the ALAC to make it easier for non-experts to understand the language of the RAA. The [Registrant Rights and Responsibilities](#) document provides some "plain language" summarization of terms related to Registrant Rights and Responsibilities as set out in the RAA, including RAA terms related to Whois, for posting on registrar websites. While some of the terms included in the RAA do not specifically refer to registrants, those terms are included because of the potential import to understanding registrar/registrant relations.

ICANN has numerous efforts that contribute to raising consumer awareness of Whois, even though ICANN's budget does not have a specific line item for this activity. These activities include:

- ICANN website revamp – Although the site currently provides a vast amount of consumer related information, it is being redesigned for easier navigation and will have a mobile phone view that is expected to benefit consumer users.
- Staff outreach and meetings – Staff participation and reporting at ICANN meetings, regional events and industry events helps educate and inform consumers.
- Travel support – Providing travel resources for community representatives to attend ICANN meetings, including support for 15 At-Large Council members and an allowance for 10 regional At-Large community representatives, contribute to awareness.
- Whois Studies – Several Whois related studies that will enhance our understanding of consumers are planned or have been completed (see details above).
- Personnel – The cost of Staff directly or indirectly involved in Whois-related work also contributes to consumer awareness.

Additional details are available in ICANN's [FY12 Operating Plan and Budget](#).

[Question # 3. If you had control of WHOIS, what would you do to improve WHOIS accuracy and the utility of the WHOIS service more generally?](#)

[Question # 4. What things would improve your ability to do your jobs with regard to WHOIS compliance – for example, are there any constraints or impediments that hamper your efforts to undertake WHOIS compliance?](#)

Whois is not “controlled” by any single party. Improving Whois accuracy and the utility of the Whois service is contingent on the cooperation of many in the ICANN community – including registrants, registrars, ICANN Staff, and others, as highlighted by the At-Large Advisory Committee in its [recent submission](#) to the WHOIS Review Discussion Paper.³

³ “With regard to compliance, the ALAC now believes that maybe the time has come for a change in the philosophical approach to WHOIS compliance. Over the years, it has become almost an article of faith that ICANN Compliance is responsible for WHOIS data accuracy. There is also widespread acceptance that the registry/registrar community is responsible and must bear the cost and burden of both data accuracy as well as availability. The lowered expectations of registrants in this area are often remarked. We now acknowledge the complexity of these issues and on record, reject these views as too unilateral and simplistic in definition and, thusly, undermine the opportunity to be effectively addressed. Compliance in particular has a great need for a balanced approach, given the three sets of actors – registrants, registrars and ICANN Compliance.”

In general, improvements to the Whois service can be achieved through changes to the Whois policy (passed by the GNSO and approved by the Board), changes to the RAA, registrar adoption of best practices, and/or changes to ICANN Compliance processes. In October 2009, ICANN Staff provided [detailed input](#) to the community considering potential amendments to the RAA. Staff addressed aspects of the RAA that are hard to enforce, or for which there are significant mismatches between community expectations and actual enforcement provisions and tools. For example, to improve Whois Accuracy, [Staff recommended](#): “Extend requirements for problem investigation to some definition of validation or verification of accurate data.”⁴

In October 2010, a joint GNSO and ALAC Working Group published a Report of possible amendments to the RAA many of which focused on potential changes to Whois policy. As part of this working group, proposals were submitted by many parties, including representatives of law enforcement, intellectual property owners and others. ICANN’s Compliance Staff participated in this Working Group and the [Working Group’s Final Report](#) includes a report of Staff suggestions specifically focused on compliance concerns (beginning on page 107) and suggestions related to Whois accuracy (beginning on page 118). When submitting its comments, ICANN Staff noted that as a party to the RAA, ICANN is responsible for enforcing its terms, and the recommendations included in the Staff report are intended as guidance to assist the ICANN community in understanding issues that have been the subject of RAA-related complaints to ICANN, and suggestions for amendments that could improve agreement clarity and enhance compliance activities. The Staff report is divided into two categories and within the categories, Staff describes each possible RAA Amendment by first describing the issue or concern, providing a concise proposal or recommendation, and offering several potential implementation options available to the GNSO.

The first category describes recommended RAA amendments to address Internet community DNS concerns that have been forwarded to ICANN. These include: adding specific terms to the RAA that explicitly prohibit registrar cybersquatting, establishing a duty of registrars to investigate and report back to ICANN on what actions the registrar has taken in response to reports received from a credible third-party demonstrating illegal malicious conduct involving the DNS, new requirements for privacy/proxy services and resellers, and requirements for registrars and their affiliates to provide additional information about whether they offer privacy services, to help identify any actors that might be actively complicit in allowing malicious conduct to occur.

Category Two describes possible RAA amendments to improve the clarity of the RAA and promote

⁴ [October 2009 Letter from ICANN COO to WG](#) and related [October 2009 Staff Notes on New RAA Obligations to Address Internet Community Concerns about the DNS](#)

registrar compliance with existing RAA obligations, including the subjects of: handling WHOIS inaccuracy claims, facilitation of examination registrar records by ICANN, conditions for termination of the RAA by ICANN, defining the time in which a registered name holder must disclose the licensee identity to avoid liability, insurance requirements, arbitration details, and streamlining registrar accreditation.

For example, currently the RAA requires registrars to investigate alleged Whois inaccuracies but there is no requirement in the RAA for registrars to ensure that Whois data is accurate. While it may not be realistic for any single party to be expected to “ensure” Whois accuracy, current policies could be changed to strengthen gTLD Whois accuracy requirements if that is the consensus view of the GNSO community. The ICANN Staff report referenced above elaborates on some suggested proposals to incorporate additional terms in the RAA requiring registrars to take reasonable steps to “verify” “Registered Name Holder WHOIS data” when inaccuracies are detected. Another key recommendation focuses on the current language in the RAA which stipulates that a Registered Name Holder licensing use of a Registered Name accepts liability for harm caused by wrongful use of the Registered Name, unless it promptly discloses the current identity and contact information of the licensee to a party providing the Registered Name Holder reasonable evidence of actionable harm. The term “promptly” has been interpreted inconsistently over time, and the ICANN Staff recommendation suggests that the period of time in which a Registered Name Holder has to disclose identity and contact information of the licensee should be clearly established in the RAA and accordingly in the registration agreement.

Additional improvements are noted above (see “Key improvements undertaken and under consideration by ICANN include:”).

Question # 6. Overall, how important do you think ICANN’s compliance work is to WHOIS accuracy?

ICANN’s compliance efforts are very important to achieving Whois accuracy. ICANN enforces the Whois-related provisions in the RAA, and uses its contractual authority to facilitate an environment for Whois accuracy. Some of the most important features of ICANN’s Whois compliance work are its operation of the WDPRS and Port 43 Monitoring Tools, which are discussed above. Despite ICANN’s authority and efforts, however, there are other important actors in the Whois accuracy ecosystem as discussed above (see reference to the At-Large Advisory Committee’s [recent submission](#) to the WHOIS Review Discussion Paper in the answer to Question # 3).

Question # 7. Has a specific amount of money been allocated to WHOIS compliance in ICANN’s budget?

c. How does this compare to the budget for other compliance activities?

ICANN’s budget does not include a line item allocation for Whois compliance, and the Compliance Department’s budget is organized by personnel, travel and professional

services, rather than by responsibilities. However, ICANN has committed significant resources in its budget to its contractual compliance program. ICANN's 2012 operating plan and budget reflects a 25% increase to the previous year's budget for contractual compliance, with US\$ 4.25 million committed for contractual compliance activities overall. This increase is essential to enhance contractual compliance efforts relative to Whois.

In addition, ICANN's budget includes resources for Whois studies and system improvements that will contribute to Whois compliance efforts.

Question # 8. ICANN published a draft survey of WHOIS accuracy in 2009.

- a. **Are you aware of any longitudinal studies of WHOIS accuracy for particular domains or gTLDs over time?**

- b. **Is there any data on WHOIS accuracy historically?**

The contractual compliance team is not aware of any studies that observe the Whois accuracy of domain names or gTLDs over a specified timeframe. However, in January 2010 ICANN published a study conducted by the National Opinion Research Council of the University of Chicago (NORC) that had been commissioned by ICANN to obtain a baseline measurement of what proportion of WHOIS records are accurate. Examining an internationally representative sample of 1419 records, NORC found that, based on a strict application of the criteria, only 23% of records were fully accurate, though twice that number met 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).

The [NORC report](#) found that because no proof of identity or address is required when registering a domain name, this removes many barriers to entering inaccurate information. The report also notes barriers to maintaining accurate data, noting that even if information can be made accurate at the point of data entry, the maintenance of accuracy requires the registrant to keep the information current. NORC notes that, "[c]urrently, the only penalty for a registrant for letting information get out of date is a communication from their registrar that they need to update it or their domain name will be suspended and possibly their ownership revoked. Even this is not a significant concern for many registrants when only a small proportion of domain names lead to web sites that the registrant has a vested interest in maintaining uninterrupted access to...." The NORC report also notes the potential costs associated with various proposals to improve Whois accuracy. The NORC report concluded that:

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.

A complete summary and analysis of the comments for the NORC report, are available on [ICANN website](#).

In September 2010, ICANN published the [results of an exploratory study](#) that assessed the approximate percentage of domain names (through a statistical sampling plan) contained in the top 5 gTLD registries that used privacy or proxy registration services. The study indicated that at least 18% (and probably not much more than 20%) of the domain names contained in the top five gTLD registries used privacy or proxy registration services.

A complete summary and analysis of the comments for the exploratory study are posted on [ICANN's website](#).

In addition, the GNSO Council recently commissioned four extensive studies of gTLD Whois, each designed to inform certain aspects of the Whois policy debate. While none deal exclusively with Whois accuracy, the second study listed below contains elements that may yield insights with regard to the accuracy of the data that is found by the research team. Following is a short description of all four studies:

1. [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 study and expects to have initial results in late 2012.
2. [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. Contract negotiations are underway to perform this study, with results expected mid 2012.

The prevalence of certain types of inaccurate information may be uncovered in the course of conducting this study.

3. [Whois Privacy and Proxy Services Abuse Study](#). This study examines the extent to which gTLD domain names used to conduct illegal or harmful Internet activities are registered via Privacy or Proxy services to obscure the perpetrator's identity. Contract negotiations are underway to perform this study, with results expected late 2012.
4. [Whois Privacy and Proxy Relay/Reveal Survey](#). This survey will determine 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 expects to have initial results late 2011.

Regarding historical data on Whois accuracy, the only relevant ICANN-funded study is the 2009 Draft Report for the Study of the Accuracy of WHOIS Registrant Contact. However, ICANN is aware of the following two studies that address Whois accuracy:

1. The "Prevalence of False Contact Information for Registered Domain Names" conducted by the United States Government Accountability Office in November 2005, GAO 06-165, a report to the Subcommittee on Courts, the Internet and Intellectual Property, Committee on the Judiciary, U.S. House Of Representatives.
2. Large-Scale Intentional Invalid WHOIS Data: A Case Study of "NicGod Productions" / "Domains For Sale" conducted by Ben Edelman in 2002

In the Government Accountability Office study the GAO was asked to: determine the prevalence of false or incomplete contact data in Whois for.com, .org, and .net domains; determine the extent to which false data are corrected within 1month of being reported to ICANN; and describe steps the Department of Commerce and ICANN have taken to ensure the accuracy of contact data in the Whois database. Based on a survey of 900 domain names (300 each in .com, .net and .org), GAO concluded that 2.31 million domain names (5.14%) were registered with patently false data (data that appeared obviously and intentionally false) in one of more of the required contact information fields.

The GAO also found that 1.64 million (3.65%) were registered with incomplete data in one or more of the required fields. In total, GAO estimates that 3.89 million domain names (8.65%) had at least one instance of false or incomplete data in required Whois fields.

In the Ben Edelman study entitled, Large-Scale Intentional Invalid WHOIS Data: A Case Study of "NicGod Productions" / "Domains For Sale"

<http://cyber.law.harvard.edu/people/edelman/invalid-whois/>, Edelman conducted a case study of 2754 registrations of a single firm all of which included intentionally invalid Whois contact information, and drew several possible conclusions. He noted that of registrants providing intentionally-invalid Whois contact information, at least some register and hold a large number of domains.