WHOIS Review Team

Final Report
(Draft)

5 December 2011

Table of Contents

Chapter 1: Executive Summary **3**

PART I – Scope of Work and Definitions **14**

Chapter 2: The WHOIS Review Team, Scope of Work & Key Definitions **14**

PART II – ICANN WHOIS Policy and its Implementation **21**

Chapter 3: The Complex History of WHOIS Policy **21**

Chapter 4: Implementation of WHOIS policy – ICANN's Compliance Efforts **36**

Chapter 5: Implementation of WHOIS Policy in Relation to Internationalized Domain Names **41**

PART III – The Extent to which ICANN's Existing Policy and its Implementation Are Effective in Meeting Stakeholder Needs **45**

Chapter 6: Understanding the Needs of Stakeholders **45**

Chapter 7: Gap Analysis **80**

Chapter 8: Recommendations **88**

Chapter 1: Executive Summary

The Internet Corporation for Assigned Names and Numbers (ICANN) is one of a small but important set of organizations responsible for administering certain functions critical to the operation of the Internet. ICANN's primary responsibility is to facilitate the policy maintenance and enhancement of the Domain Name System (DNS), an integral part of the Internet.

ICANN is a California, public benefit corporation that undertakes periodic reviews to assess its efficacy in serving its various constituencies and the global public at large. In 2009, ICANN and the US Department of Commerce approved, signed, and published an Affirmation of Commitments (AoC) in which ICANN commits to undertake a number of high level reviews, including on Accountability and Transparency (completed December 2010), and WHOIS.

This report is the formal output of the Review Team responsible for assessing WHOIS and represents the culmination of a yearlong effort by a diverse group, representative of ICANN's makeup.

A. History

ICANN was formed in 1998 to fulfill the requirement that operation of the DNS move from the government to private sector control.

WHOIS (not an acronym) was first defined as a *protocol* of the Internet Engineering Task Force (IETF) in 1982. WHOIS is one of the simplest in the suite of protocols that the IETF maintains. Any machine connected to the Internet can operate a WHOIS *service* by implementing the protocol and responding to requests as described in the *specification*.

Initially, the WHOIS *specification* described a set of information that was requested of anyone capable of transmitting information across the network. This information consisted of name and contact information that was to be stored on specific servers and would be returned upon receipt of an appropriate WHOIS request.

As the Internet grew and it became impractical to maintain a single WHOIS server, updated versions of the *specification* were developed and approved. These specifications dropped the references to specific servers and required information, thereby enabling broader use of the specifications. It was then incumbent on any community desiring to use WHOIS to define

required information and where that information could be found. ICANN is responsible for those definitions for the Domain Name System.

B. Discussion

Domain names are the familiar sequence of characters we see in our web browsers after the "http://www." and before the next "/"; e.g. "google.com", "redcross.org", and "europa.eu". They are an integral part of the Internet, serving us as mnemonics for places we have been to or wish to be, and as keys for machines to perform the necessary translation from the abstract to the real.

Domain names sit on the human side of the man-machine interface and through the DNS are translated to machine-compatible Internet Protocol (IP) addresses. Internet-connected machines use IP addresses to send and receive messages transmitted over the Internet. They are fundamental to the Internet itself, as is uniform translation from name to number, and back again.

While the DNS presents a single, complete view of the Internet, no single machine holds all of the Internet's addressing and mapping information. Rather, that information is distributed across a series of name servers that cooperate to seamlessly provide that one comprehensive view.

Domain names and the DNS are used in virtually every aspect of the Internet, not just those parts most visible to most consumers, web browsers. Every email message, song or movie download, instant message, tweet, Facebook "like", or online transaction involves the DNS in some way. Without the DNS, the Internet would not exist, as we know it.

As important as machine-to-machine communication is, there are times when human-to-human interaction related to the Internet is required. The reasons for this interaction are varied and include notice, abuse, and security amongst others. For these reasons, contact information (as specified by ICANN) related to a domain name must be provided in order to register a domain name, much like when registering a vehicle.

This information is stored and is available to the public through a system known colloquially as WHOIS. WHOIS predates the "commercial" Internet and remains largely unchanged since its earliest days, ca 1982. It is likely that it was selected for use in this context because it existed and was well understood. In all probability, it was selected by default.

C. Debate

WHOIS is the source of long-running discussion and debate at ICANN, other Internet Governance institutions, and elsewhere. This team and its successors hopefully will inform future debate and consensus-based decision making.

Issues in the WHOIS debate are varied. Any discussion of WHOIS will likely contain all of the words accuracy, privacy, anonymity, cost, policing, and SPAM. Each of the issues is important. This is sometimes lost in the heat of the debate and it is important to remind ourselves of this on a regular basis.

In order to inform the debate, and perhaps make the decision-making process easier, ICANN has adopted the age-old tradition of "the study" in lieu of or a precursor to action. Significant sums have been spent studying WHOIS, more is being spent, and yet more is planned with the span of time now stretching into decades.

Each study addresses some different aspect of WHOIS; accuracy, proxy/privacy reveal/request, availability, ... They take time to be approved, conducted, reported, and of course debated. This time is measured in years and could be called ICANN time as compared to Internet time. The one constant throughout has been WHOIS itself; protocol, service, data.

D. Conclusion

This summary discussion is not a condemnation of the debate, the studies, or the people that invested their time, emotion, and personal capital over the years. Rather, it is an attempt to concisely present in a balanced and fair manner the very real truth that the current system is broken and needs to be repaired.

This Review Team reflects the diversity of ICANN's multi-stakeholder model. We have been given time to conduct our review, receiving invaluable feedback from the community. We agree to disagree yet we have found consensus, for each and every one of the recommendations we make. We look forward to participating in the debates that follow, and monitoring their implementation if adopted by the Board.

E. Work of this RT

The WHOIS Review Team's scope, guided by the Affirmation of Commitments, 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.

Formed in October 2010, the WHOIS Review Team comprised representatives from across the ICANN constituencies, a representative of law enforcement and two independent experts. The Review Team held two dedicated face-to-face meetings during its term, as well as working and outreach sessions at each of the ICANN meetings in 2011. Fortnightly calls were held. Apart from rare occasions where Chatham House rules were invoked, all the Review Team's calls, meetings and e-mail list were open to observers, and the public wiki https://community.icann.org/display/whoisreview/WHOIS+Policy+Review+Team provides an archive of our activities.

F. Findings

One of our earliest "findings" was our inability to find a clear, concise, well-communicated WHOIS Policy. The Team was assured that one existed and that it had been in force for some time. Several versions of Registrar and Registry contracts were reviewed as were compliance activities related to the policy. Throughout, we were unable to locate a document labeled WHOIS Policy as referenced by the ICANN-approved Affirmation of Commitments.

Unfortunately, we find that in this case policy is divined from its implementation. As a consequence, it is not clear, concise, or well communicated – hallmarks of good policies. What once might have been simple has been allowed to become complex, difficult to understand or to identify the parties responsible for changing it.

While there is no specific policy, there has been no lack of WHOIS related effort. Rather, we find that considerable effort has been expended over the years, discussing, debating, arguing, proposing, developing, and implementing WHOIS "policy". Meaningful attempts at change have been made but it is unclear that these changes have in fact resulted in improvements.

A gross understatement is that tensions exist between the various ICANN constituencies regarding WHOIS. Issues abound including right to privacy, anonymity, intellectual property protection, security and abuse, among others. Each is important. None more so than the other.

We find little consensus within the ICANN community on the issues. More concerning, there appears to be no coordinated effort to achieve consensus on these important, and admittedly difficult issues. Neither ICANN the corporation nor ICANN the community have seen the need to charge an individual or group as responsible for WHOIS. We find this a significant oversight and surmise that without such a coordinating effort, the small steps required for consensus may never be taken. It is hoped that the establishment of regular WHOIS Reviews will assist in this regard.

Perhaps it should be no surprise that in this environment, policy and implementation have not kept pace with the real world. International Domain Names (IDNs) were introduced to great fanfare by ICANN in 2000, and in 2010 at the root level, without a corresponding change to its policies related to WHOIS.

What this means, is that while domain names can now be written in Arabic for example, the contact information for these domains must still be transliterated into a format ill-suited to the purpose. The issues are well understood and mechanisms exist to address them. Admittedly, change in this space will take time, and ICANN (and others) are taking steps to improve the situation but we find it is a case of too little too late.

Privacy and proxy services have arisen to fill an ICANN policy vacuum. These services are clearly meeting a market demand and it is equally clear that these services are complicating the WHOIS landscape.

In the time since the formation of ICANN, Internet usage for ill gain or harm has increased dramatically. Combatting it has become, and remains ever more complex both for Law Enforcement Agencies (LEAs) and those responsible for any Internet-connected service.

Governments have recognized the changing landscape and have individually enacted cyber security laws and cooperatively entered into international cyber security treaties. Certainly more needs to be done here, but steps have been taken and more are on the way.

Cyber security and cybercrime experts make extensive use of WHOIS to thwart and respond to a varied set of threats. Information contained within WHOIS is invaluable in these efforts and practitioners have conveyed to us their frustration at the continuing high levels of inaccuracy of WHOIS data. We find that ICANN has neglected to respond to the needs of this community both in the accuracy of WHOIS data and in response times for access and action.

Where does this leave the issue of “promotes consumer trust”? Having struggled with what “consumer” means in the context of WHOIS, and aware of the Affirmation of Commitments’ observation that there are key stakeholders who do not engage in the ICANN environment, the WHOIS Review Team commissioned consumer research. This found that drivers of consumer trust include knowing the entity with whom they are dealing, and being able to find reliable contact information. The vast majority of consumers were unaware of the existence of the WHOIS service, and many struggled to understand the format of WHOIS outputs. This led us to conclude that the current implementation of WHOIS services does not help to build consumer trust, and more could be done to raise awareness of the service, and to improve its user-friendliness.

For something so simple as WHOIS the protocol, it is unfortunate that WHOIS the policy has become so complex and unmanageable.

G. Recommendations

Single WHOIS Policy

1. ICANN's WHOIS policy is poorly defined and decentralized The ICANN Board should oversee the creation of a single WHOIS policy document, and reference it in subsequent versions of agreements with Contracted Parties. In doing so, 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.

Policy review – WHOIS Data Reminder Policy

2. The ICANN Board should ensure that the Compliance Team develop, in consultation with relevant contracted parties, metrics to track the impact of the annual WHOIS Data Reminder Policy (WDRP) notices to registrants. Such metrics should be used to develop and publish performance targets, to improve data accuracy over time. If this is unfeasible with the current system, the Board should ensure that an alternative, effective policy is developed and implemented in consultation with registrars that achieves the objective of improving data quality, in a measurable way.

Strategic Priority

3. ICANN should make WHOIS a strategic priority. This should involve allocating sufficient resources, through the budget process, to ensure that ICANN compliance staff is fully resourced to take a proactive regulatory role and encourage a culture of compliance. The Board should ensure that a senior member of the executive team is responsible for overseeing WHOIS compliance.

Outreach

4. ICANN should ensure that WHOIS policy issues are accompanied by cross-community outreach, including outreach to the communities outside of ICANN with a specific interest in the issues and an ongoing program for consumer awareness.

Data Accuracy

5. ICANN should take appropriate measures to reduce the number of unreachable WHOIS registrations (as defined by the NORC Data Accuracy Study, 2009/10) by 50% within 12 months and by 50% again over the following 12 months.

6. ICANN shall produce and publish an accuracy report focused on measured reduction in "unreachable WHOIS registrations", on an annual basis.

7. ICANN should provide at least annual status reports on its progress towards achieving the goals set out by this WHOIS Review Team, published by the time the next WHOIS Review Team starts. This report should include tangible, reliable figures needed.

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. As part of these agreements, ICANN should ensure that clear, enforceable and graduated sanctions apply to registries, registrars and registrants that do not comply with its WHOIS policies. These sanctions should include de-registration and/or de-accreditation as appropriate in cases of serious or serial non-compliance.

9. ICANN should ensure that the requirements for accurate WHOIS data are widely and pro-actively communicated to current and prospective Registrants. As part of this

effort, ICANN should ensure that its Registrant Rights and Responsibilities document is pro-actively and prominently circulated to all new and renewing registrants.

Data Access – Privacy Services

10. ICANN should develop and manage a system of clear, consistent and enforceable requirements for all privacy services consistent with national laws. This should strike an appropriate balance between stakeholders with competing but legitimate interests. At a minimum this would include privacy, law enforcement and the industry around law enforcement.

- WHOIS entry must clearly label that this is a private registration
- Privacy services must provide full contact details as required by the WHOIS which are available and responsive as required by the framework mentioned above.
- Standardized relay and reveal processes and timeframes.
- Rules for the appropriate level of publicly available information on the registrant
- Maintenance of a dedicated abuse point of contact for the privacy service provider
- Privacy service provider shall conduct periodic due diligence checks on registrant contact information

11. ICANN should develop a graduated and enforceable series of penalties for privacy service providers who violate the requirements with a clear path to de-accreditation for repeat, serial or otherwise serious breaches.

Data Access- Proxy Service

12. ICANN should facilitate the review of existing practices by reaching out to proxy providers to create a discussion that sets out current processes followed by proxy service providers.

13. Registrars should be required to disclosure their relationship with any Affiliated Retail proxy service provider to ICANN.

14. ICANN should develop and manage a set of voluntary best practice guidelines for

appropriate proxy services[1] consistent with national laws. These voluntary guidelines should strike an appropriate balance between stakeholders with competing but legitimate interests. At a minimum this would include privacy, law enforcement and the industry around law enforcement.

Such voluntary guidelines may include:

- Proxy services provide full contact details as required by the Whois
- Publication by the proxy service of its process for revealing and relaying information
- Standardization of reveal and relay processes and timeframes, consistent with national laws
- Maintenance of a dedicated abuse point of contact for the proxy service provider
- Due diligence checks on licensee contact information.

15. ICANN should encourage and incentivize registrars to interact with the retail service providers that adopt the best practices.

16. For the avoidance of doubt, the WHOIS Policy, referred to in Recommendation 1 above, should include an affirmative statement that clarifies that a proxy means a relationship in which the Registrant is acting on behalf of another. The WHOIS data is that of the agent, and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

Data Access – Common Interface

[1] As guidance to the Community and as useful background for the Proxy Service Recommendations, the Review Team provides its working definitions of proxy service and different types of proxy service providers:

- **Proxy Service** – a relationship in which the registrant is acting on behalf of another. The WHOIS data is that of the agent and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

- **Affiliated Registrar** – another ICANN accredited registrar that operates under a common controlling interest (2009 Registrar Accreditation Agreement, Section 1.20)

- **Affiliate retail proxy service provider** – entity operating under a common controlling interest of a registrar.

- **Retail proxy service provider** - proxy service with little or no knowledge of the entity or individual requesting the service beyond their ability to pay and their agreement to the general terms and conditions.

- **Limited proxy service provider** - proxy service for an entity or individual in which there is an ongoing business relationship bound by a contract that is specific to the relationship.

17. To improve access to the Whois data of .COM and .NET gTLDs, the only remaining Thin Registries, ICANN should set up a dedicated, multilingual interface website to provide thick WHOIS data for them.

ALTERNATIVE for public comment:

To make WHOIS data more accessible for consumers, ICANN should set up a dedicated, multilingual interface website to allow "unrestricted and public access to accurate and complete WHOIS information". Such interface should provide thick WHOIS data for all gTLD domain names.

Internationalized Domain Names

18. ICANN Community should task a working group within 6 months of publication to finalize (i) encoding, (ii) modifications to data model, and (iii) internationalized services, to give global access to gather, store and make available internationalized registration data. Such working group should report no later than one year from formation, using existing IDN encoding. The working group should aim for consistency of approach across the gTLD and – on a voluntary basis – the ccTLD space.

19. The final data model and services should be incorporated and reflected in Registrar and Registry agreements within 6 months of adoption of the working group's recommendations by the ICANN board. If these recommendations are not finalized in time for the next revision of such agreements, explicit placeholders for this purpose should be put in place in the agreements for the new gTLD program at this time, and in the existing agreements when they come up for renewal (as is the case for adoption of consensus policies).

20. Requirements for registration data accuracy and availability in local languages should be finalized (following initial work by IRD-WG and other similar efforts, especially if translation or transliteration of data is stipulated) along with the efforts on internationalization of registration data. Metrics should be defined to measure accuracy and availability of data in local languages and (if needed) corresponding

data in ASCII, and compliance methods and targets should be explicitly defined accordingly.

PART I – Scope of Work and Definitions,

Chapter 2: The WHOIS Review Team, Scope of Work & Key Definitions

A. The WHOIS Review Team and its Affirmation of Commitments Work

The first WHOIS Policy Review Team, which was required by the Affirmation of Commitment, was selected in September 2010 by the President and CEO of ICANN, Rod Beckstrom, and the Chair of the Governmental Advisory Committee (GAC), Heather Dryden. Members of the Review Team were:

- Emily Taylor (UK), Chairman, Country Code Names Supporting Organization (ccNSO)
- Kathy Kleiman (US), Vice-Chairman, Registries Stakeholder Group, Generic Names Supporting Organization (GNSO)
- James Bladel (US), Registrar Stakeholder Group, Generic Names Supporting Organization (GNSO)
- Lutz Donnerhacke (DE), At-Large Advisory Committee (ALAC)
- Lynn Goodendorf (US), Independent Expert
- Sarmad Hussain (PK), Security & Stability Advisory Committee (SSAC)
- Olivier Iteanu (FR)(resigned in June 2011), At-Large Advisory Committee (ALAC)
- Omar Kaminski (BR), Governmental Advisory Committee (GAC)
- Susan Kawaguchi (US), Commercial and Business Users Constituency, Generic Names Supporting Organization (GNSO)
- Sharon Lemon (UK), Law Enforcement Representative
- Peter Nettlefold (AU), Designated Nominee of Selector Heather Dryden, Chair of the GAC
- Seth Reiss (US) (joined in September 2011), At-Large Advisory Committee (ALAC)
- Bill Smith (US), Independent Expert
- Kim von Arx (CA) (resigned in October 2011), Non-Commercial Users, Generic Names Supporting Organization (GNSO)
- Wilfried Woeber (AT), Address Supporting Organization (ASO)
- Michael Yakushev (RU) Designated Nominee of Selector Rod Beckstrom, ICANN President and CEO.

The Review Team thanks the ICANN staff who supported our work, including Denise Michel, Liz Gasster and Stacy Burnette. We extend our heartfelt thanks in particular to Olof Nordling and to Alice Jansen for their outstanding support, good humour and commitment, and to all members of the ICANN community who contributed comments during the consultations. Consistent with the requirements of the Affirmation of Commitments, we publish this report for public comment in December 2011. We will seek final consultation with the Community in Costa Rica at the ICANN meeting and thereafter issue the Final Report and Recommendations.

B. Scope of Work

In 2009, ICANN and the US Department of Commerce signed the Affirmation of Commitments (AoC), and ICANN committed itself to the following obligation regarding Whois information:

> "9.3.1 ICANN additionally commits to enforcing its existing policy relating to WHOIS, subject to applicable laws. Such existing policy 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."
> http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm (translations available on this page)

ICANN undertook a specific obligation to form a global Review Team to assess specific WHOIS issues, within a year of the AoC signing, and every three years:

> "One year from the effective date of this document and then no less frequently than every three years thereafter, ICANN will organize a 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."[2]

[2] http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm

The Affirmation of Commitments sets out who shall be represented on the WHOIS Review Team:

> "The review will be performed by volunteer community members and the review team will be constituted and published for public comment, and will include the following (or their designated nominees): the Chair of the GAC, the CEO of ICANN, representatives of the relevant Advisory Committees and Supporting Organizations, as well as experts, and representatives of the global law enforcement community, and global privacy experts. Composition of the review team will be agreed jointly by the Chair of the GAC (in consultation with GAC members) and the CEO of ICANN."[3]

The AoC also sets out how our recommendations are to be handled:

> "Resulting recommendations of the reviews will be provided to the Board and posted for public comment.[4]

The WHOIS Review Team met for its first formal face-to-face meeting in London (January 2011) to determine the scope and methodology of its work. At this meeting, the Team reviewed its mandate closely. The Affirmation calls on the WHOIS Policy Review Team to review the commitments of ICANN regarding its WHOIS Policy (see above).

Upon close review of the Affirmation, and discussions with its drafters and signatories, including, Lawrence E. Strickling, US Department of Commerce, Assistant Secretary for Communications and Information, the WRT set out its scope broadly:

To assess the extent to which its existing WHOIS policy and its implementation:

- Is effective;
- Meets the legitimate needs of law enforcement;
- Promotes consumer trust; and
- Is in accordance with the principles set out in the Affirmation, in particular paragraph 9.3.1

The WRT further committed to review two key requirements of the Affirmation:

---

[3] http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm

[4] http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm

- "Implementing measures to maintain timely, unrestricted and public access to accurate and complete WHOIS information, including registrant, technical, billing, and administrative contact information;" and
- "Enforcing its existing policy relating to WHOIS, subject to applicable laws."[5]

In setting out its scope, the WRT established principles to guide its work. The first principle affirmed that the Review Team exists *to evaluate policy, not create it*. Scope and methodology were set consistent with this principle.

Additional principles from the Affirmation further guided the Review Team work. While each Review Team member hails from a particular community within or outside of ICANN, the Team agreed to conduct its work pursuant to the broad public interest principles set out the Affirmation, including:

- "Decisions made related to the global technical coordination of the DNS are made in the public interest and are accountable and transparent" Section 3(a);
- Should "promote competition, consumer trust, and consumer choice in the DNS marketplace" Section 3(c); and
- Should "reflect the public interest...and not just the interests of a particular set of stakeholders" (paragraph 4).[6]

The Review Team adopted its Scope of Work plan together with an ambitious outreach and action plan, and published it for community review and public comment in March 2011. These plans became the roadmaps that guided the Review Team work throughout its work.

C. Key Definitions

Overview

Early in the WHOIS Review Team's work programme, the Team attempted to identify and define key terms in the Affirmation of Commitments and concerning other aspects of WHOIS most relevant to our review, and to the work of the groups the Team intended to reach out to.

[5] http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm

[6] http://www.icann.org/en/documents/affirmation-of-commitments-30sep09-en.htm

In conjunction with comments from the Community[7], the Team found it useful for purposes of facilitating its review to consider the following definitions as guides for its work:

WHOIS Components: WHOIS Data; WHOIS Protocol; WHOIS Services:

Finally the Review Team found it useful to define, the data, protocol and services that comprise the term WHOIS. In this regard, the WHOIS Review Team found the work of ICANN's Security and Stability Advisory Committee[8] invaluable, and extends its thanks for the explanations and engagement throughout the process:

WHOIS Data: The information that registrants provide when registering a domain name and that registrars or registries collect (registrant name, address, telephone; administrative and billing contacts; etc.). Some of this information is made available to the public. [...]

WHOIS Protocol: The elements of a (standard) communications exchange – queries and responses - that make access to WHOIS Data possible. For example, the WHOIS protocol (RFC 3912) and HTTP (RFC 2616 and its updates) are commonly used to provide public access to WHOIS Data.

WHOIS Service: The service(s) offered by registries and registrars to provide access to all or a subset of WHOIS Data […]

Key Terms in Affirmation of Commitments

The Affirmation of Commitments used key, but undefined terms. In conjunction with the Community, the Review Team used the following working definitions for to guide its work and analysis.

- **Law Enforcement**

The Review Team defines "Law Enforcement" as:

[7] A full discussion of the Team's work to define the selected AOC terms of reference, including comments received from the stakeholder communities and the Teams responses thereto, can be found in the Appendices.

[8] http://www.icann.org/en/committees/security/sac051.pdf

Any entity charged or otherwise mandated by governments with enforcing or ensuring observance of or obedience to the law; an organised body of people officially maintained or employed to keep order, prevent or detect crime and enforce the law.

The adopted definition intentionally does not include private individuals and organizations, such as anti-spam groups or those bringing civil enforcement actions, whose efforts may be viewed as within a larger concept of law enforcement. By adopting the narrower definition, the Team does not intend to discount the value of private sector efforts to curb abusive uses of the DNS.

With the adopted definition in mind, the Review Team consulted with law enforcement through a questionnaire seeking better understanding of the use and concerns regarding WHOIS data. The results of this survey are discussed in Chapter 6.

- **Consumers and Consumer Trust**

The Review Team found two potential classes of consumers:

- All Internet users, including natural persons, commercial and non-commercial entities, governments and academic entities, and registrants, registries and registrars.
- The individuals and organizations who purchase the domain name and provide data for inclusion in the WHOIS.

The Review Team found the definition of Consumer Trust, something the ICANN Community is also exploring in the context of its policy-making processes, to be particularly challenging. Consumer Trust can be narrowly construed to mean the level of trust Internet users have in available WHOIS data; or more broadly as the level of trust consumers have in Internet information and transactions in general. The Review Team focused its "consumer trust" research on the WHOIS issues, and reached outside the ICANN community to engage third party researchers for multi-country research. This research and its results are covered in chapter 6, with full research material in the appendices.

- **Applicable Laws**

The Affirmation commits ICANN to enforcing its existing policy relating to WHOIS, "subject to applicable laws." The Review Team, following public comment, found it reasonable to view Applicable Laws as:

Including any and all local and national laws that regulate and/or control the collection, display and distribution of personal data via WHOIS."

The Team understands the "applicable laws" reference as encompassing all laws, but mainly focused on privacy laws and regulations, and notes ICANN's existing consensus policy relating to conflicts with privacy laws. The Team considered, but determined not to include within the definition, international agreements and regional laws recognizing that such laws are enforceable only to the extent incorporated into the domestic laws of contracting states.

PART II – ICANN WHOIS Policy and its Implementation

Chapter 3: The Complex History of WHOIS Policy

A. The Complex History of WHOIS Policy

Thick and Thin Registries and their Different WHOIS Results

There is nothing simple or clean about ICANN's WHOIS Policy. It is a process that ICANN inherited and built upon and, like a rickety structure built without a clear plan, is difficult to navigate and understand.

In 1982 Ken Harrenstien of SRI International wrote and the Internet Engineering Task Force (IETF) published "RFC 812" titled NICNAME/WHOIS creating a protocol for a directory service of ARPANET users. In 1985 RFC 954 replaced RFC 812 and set out a new series of commands for the text-based, WHOIS protocol. In 2004 RFC 3912 modified RFC 954 to remove information no longer applicable to the modern Internet. The current WHOIS protocol, the set of rule for communication of WHOIS searches and commands between computers, is largely based on the 1985 standard, and the IETF has indicated it may be reviewing the protocol shortly.

When ICANN was created in 1998, it inherited the WHOIS protocol and a set of existing gTLDs – .COM, .ORG and .NET – with their WHOIS search service and WHOIS data. Network Solutions managed the three top-level domains, as the distinction between registry and registrar had not yet been created.

In early 1999, ICANN introduced competition into the gTLD market by creating registrars, organizations accredited by ICANN to register domain names to Registrant. There are now over 900 gTLD Registrars (as of the 27th of November, 2011) with GoDaddy being the largest. At the outset, there was deep concern that registrar competition could not flourish if Network Solutions, still in the registry and registrar businesses, held a full set of customer data of all gTLD registrants. ICANN agreed and .COM became a "Thin Registry," holding only limited data about a domain name, and providing a link to the Registrar's database when someone seeks WHOIS data. The number of domain name resellers is not known because

there is not a central record or tracking mechanism of Registrar sub-contracting arrangements.

Thus, the WHOIS search of the .COM Registry, now managed by VeriSign, shows limited data:

Thin Registries: .COM and .NET – Sample Thin Registry WHOIS Response

```
Domain Name: IBM.COM
   Registrar: MELBOURNE IT, LTD. D/B/A INTERNET NAMES WORLDWIDE
   Whois Server: whois.melbourneit.com
   Referral URL: http://www.melbourneit.com
   Name Server: INTERNET-SERVER.ZURICH.IBM.COM
   Name Server: NS.ALMADEN.IBM.COM
   Name Server: NS.AUSTIN.IBM.COM
   Name Server: NS.WATSON.IBM.COM
```

The ***Referral URL***, http://www.melbourneit.com, provides a link to Registrar Melbourne IT, which, in turn, provides the full, or "thick," WHOIS response with the full Registrant WHOIS contact data:

Thin Registries: .COM and .NET –

Sample Registrar WHOIS Response (Melbourne IT)

```
Domain Name..... ibm.com
   Creation Date..... 1986-03-19
   Registration Date.... 2011-08-31
   Expiry Date..... 2019-03-21
   Organisation Name.... International Business Machines Corporation
   Organisation Address. New Orchard Road
   Organisation Address.
   Organisation Address. Armonk
   Organisation Address. 10504
   Organisation Address. NY
   Organisation Address. UNITED STATES

Admin Name..... IBM DNS Admin
   Admin Address..... New Orchard Road
   Admin Address.....
   Admin Address..... Armonk
   Admin Address..... 10504
```

The .COM registry currently numbers over 100 million domain names, with over 900 Registrars.

.JOBS and .NET are also thin registries. The other gTLDs, including .ORG, .BIZ, and .INFO are "Thick Registries." Both Registries and Registrars hold the full WHOIS data, and both publish full contact data in response to WHOIS searches.

Thus, for ***amnesty.org***, of Amnesty International, both PIR (the Registry) and Network Solutions (the Registrar) respond with the full contact data listed in the "sample registrar WHOIS model" above.

Although the .COM and .NET WHOIS models have remained unchanged for 11 years, there are some recommendations underway within the GNSO asking the community to consider the value of moving thin registries to a "thick WHOIS" model. Published on November 22, 2011, the comments ask the Community what "positive and/or negative effects" may arise from such a change[9]. As this evaluation is now taking place, it is not an existing policy that the Review Team could evaluate. However, we note the proceeding could lead to significant changes in the area.

B. WHOIS Policy: Buried in the Contracts of Registry and Registrar Agreements

Modern WHOIS Policy is buried in the contracts of current Registry and Registrar Agreements. To the best of the Review Team's knowledge, there is no "one WHOIS policy" and no single place or one web page to find it. Rather, we pieced WHOIS policy together through multiple contracts, appendix sections, and web pages. Findings at the end of this chapter will show that we consider way of sharing policy unsatisfactory, and we hope to improve it.

It is in the Contracts

The WHOIS Policy for ICANNs current Registries is largely set out in their contracts with ICANN. Currently, each Registry negotiates its own contracts with ICANN, and ICANN sets out

[9] Preliminary Issue Report on 'Thick' WHOIS

requirements for the WHOIS service and WHOIS data. Generally, the "WHOIS Specification" can be found in the appendices of the Registry Agreements, all posted individually on the ICANN website. www.icann.org/en/registries/agreements.htm.

In contrast, contracts for ICANNs 900 Registrars are not individually negotiated. Currently, they are signed onto one of two contracts: the 2001 Registrar Accreditation Agreement (RAA) or the 2009 RAA. Both contracts contain numerous provisions regarding WHOIS service and data, and set out requirements for the ACCESS and ACCURACY of WHOIS data. 2001 RAA: http://www.icann.org/en/registrars/ra-agreement-17may01.htm and 2009 RAA: www.icann.org/en/registrars/ra-agreement-21may09-en.htm. The WHOIS provisions of the two contracts are very close in their language, intent and goals.

This Policy chapter attempts to place the WHOIS Policy in one place for the first time. It provides an overview of ICANN's WHOIS Policy as pieced together through the Registry and Registrar Agreements and contracts as well as "Consensus Procedures" passed by the Generic Names Supporting Organization and ICANN Board to supplement this policy.

- **ACCESS to the WHOIS Service – Registry Contracts**

Both Thick and Thin Registries commit themselves to providing access to the WHOIS Service, and WHOIS Data, in two ways:

- Via a free web page; and
- Through a free Port 43 service.

The web page allows real-time access to WHOIS data in individual searches; the Port 43 access allows automated queries by machine. There is a further obligation to provide third-party bulk access, provided the WHOIS data is not misused.

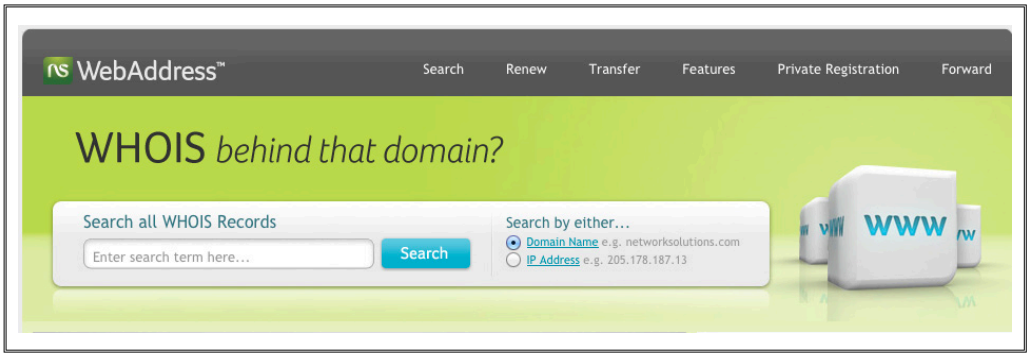
"Thick Registries" are those that agree to host the full WHOIS contact data, as provided to them by the Registrars (who register the domain names and receive the data directly from the Registrants). Afilias' .INFO Registry is an example of existing Registry contractual obligations:

WHOIS Specifications, .INFO Agreement, Appendix 5

"Registry Operator's Whois service is the authoritative Whois service for all second-level Internet domain names registered in the.INFO top-level domain and for all hosts registered using these names. This service shall be available to anyone. It shall be available via port 43 access and via links at the Registry Operator's web site.

The web page access is basically the same across websites:

WHOIS Website Access



The Port 43 Access is more complicated, and the contractual requirements set out some standards for this machine-based access:

Port 43 Access to WHOIS Data

A. Port 43 is a text-based, human-readable, query system accessed from the "run line" of your computer, or from bulk processes)

B. Based on an official port assigned by the Internet Assigned Numbers Authority (IANA) accessing a built-in set of commands for the processing and response.

As discussed above, the .COM and .ORG Registries, both run by VeriSign, operate on more streamlined rules, with VeriSign publishing only the data it collects from Registrars, including domain name, Registrar and name servers, with a "Referral URL" to the WHOIS search of the appropriate Registrar.

Occasionally, Registries serving more targeted communities have received slight modifications to their WHOIS requirements to reflect specific needs.

- **ACCESS to the WHOIS Service – Registrars**

GTLD Registrars sell domain names directly to the public. They hold the “registrant relationship,” and thus collect the personal information, including the WHOIS data, for their business purposes, e.g., renewal notices, for WHOIS service purposes and to provide to the Registry, if it is a thick top-level domain.

On the WHOIS topics of ACCESS to the WHOIS service and its data, the 2001 and 2009 RAAs reflect the same policy with almost identical language. Specifically, like the registries, Registrars must provide free access to a web service for individual searches, and Port 43 for automated ones:

Free web page and Port 43 WHOIS Service Access

Both Section 3.3.1

2001 and 2009 Registrar Accreditation Agreements

> At its expense, Registrar shall provide an interactive web page and a port 43 Whois service providing free public query-based access to up-to-date (i.e., updated at least daily) data concerning all active Registered Names sponsored by Registrar for each TLD in which it is accredited. The data accessible shall consist of elements that are designated from time to time according to an ICANN adopted specification or policy.

Further, the agreements state the data to be published,

WHOIS Data

Both Section 3.3.1.1-3.3.1.8

2001 and 2009 Registrar Accreditation Agreements

> 3.3.1.1 The name of the Registered Name
>
> 3.3.1.2 The names of the primary nameserver and secondary nameserver(s) for the Registered Name;
>
> 3.3.1.3 The identity of Registrar (which may be provided through Registrar's website);
>
> 3.3.1.4 The original creation date of the registration;
>
> 3.3.1.5 The expiration date of the registration;

Additional contract sections provide additional requirements of Registrars, including escrow and prompt updates:

Additional RAA ACCESS Provisions

2001 and 2009 Registrar Accreditation Agreements

Registrars must: "Promptly update" any changes to Whois data [3.3.2] Provide third-party bulk access to the [Whois] data under certain conditions [3.3.6] Maintain records of all Registered Name Holders for three years [3.4.2 2001 RAA, 3.4.4 2009 RAA] Escrow Registered Name Holder data with a reputable Escrow Agent [3.6] Abide by any future ICANN Consensus Policies as they may impact Whois service or data [3.3.4 2001 RAA, 3.7.1 2009 RAA]

Both RAAs feature a major ACCESS limitation that the Registrars must allow WHOIS searches for lawful purposes, but limit those supporting "mass, unsolicited commercial advertising" and similar abuses:

One ACCESS Limitation

2001 and 2009 Registrar Accreditation Agreements

Both Section 3.3.5

Registrar shall permit use of data it provides in response to queries for any lawful purposes except to: (a) allow, enable, or otherwise support the transmission by e-mail, telephone, or facsimile of mass, unsolicited, commercial advertising or solicitations to entities other than the data recipient's own existing customers; or (b) enable high volume, automated, electronic processes that send queries or data to the systems of any Registry Operator or ICANN-Accredited registrar, except as reasonably necessary to register domain names or modify existing registrations.

Both Registrar contracts require Registrars to agree to accept future Consensus policies that may be passed by the GNSO and ICANN Board. Four such Consensus Policies for WHOIS have been passed and are discussed in Section E below.

C. ACCURACY of the WHOIS Data – a Registrant and Registrar Responsibility

Among the most important of the Registrar's WHOIS requirements is the obligation to work closely with the Registrant, its customer, to collect accurate and reliable WHOIS contact details.

Specifically, ICANN policy makes the Registrant, called “the Registered Name Holder” in the contracts, responsible for providing accurate WHOIS information.

ACCURATE WHOIS Data Requirement

Both Section 3.3.7.1

2001 and 2009 Registrar Accreditation Agreements

> 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.

Failure by the Registrant to provide such data can result in cancellation of the domain name:

Failure to Provide ACCURATE Data

Section 3.7.7.2

2001 and 2009 Registrar Accreditation Agreements

> 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 Registrar, in turn, is required to share with the Registrant a clear idea of the purposes of how the data will be used, which largely consists of open and public access to the WHOIS data:

Sec. 3.7.7.4 – 2001 and 2009 RAAs

- The **purposes** for which any Personal Data collected from the applicant are

intended to be used for;

- The **intended recipients or categories of recipients of the data** (including the Registry Operator and others who will receive the data from Registry Operator);"
- **Which data are obligatory** and which data, if any, are voluntary; and
- How the Registered Name Holder or **data subject can access and, if necessary, rectify the data** held about them. Sec. 3.7.7.4, 2001 and 2009 RAA.

The Registrar further commits to processing the data appropriated and taking reasonable steps to protect it from misuse:

Sec. 3.7.7.7 and 3.7.7.8, 2001 and 2009 RAA

- **Not process the Personal Data** collected from the Registered Name Holder **in a way incompatible with the purposes and other limitations about which it has provided notice to the Registered Name Holder;**
- **Take reasonable precautions to protect Personal Data from loss, misuse, unauthorized access or disclosure, alteration, or destruction**.

Under more recent ICANN Consensus Policies, Registrars send annual notices to Registrants asking them to review and update contact information that may have changed over time, e.g., a new cell phone number or an updated business address (**Annual Data Reminder Policy** discussed under "Consensus Policies" in Section C below).

Further, Registrars agree to take reasonable steps to investigate claimed inaccuracies, and seek correction from Registrant as appropriate.

As you will see in the RAA language a registrar is required to verify information at the time of registration but in practicality this does not happen. In our discussions with ICANN compliance they only expect the registrar to notify the registrant of an inaccuracy report.

> 3.7.8 Registrar shall abide by any specifications or policies established according to Section 4 requiring reasonable and commercially practicable (a) verification, at the time of registration, of contact information associated with a Registered Name sponsored by Registrar or (b) periodic re-verification of such information. Registrar

shall, upon notification by any person of an inaccuracy in the contact information associated with a Registered Name sponsored by Registrar, take reasonable steps to investigate that claimed inaccuracy. In the event Registrar learns of inaccurate contact information associated with a Registered Name it sponsors, it shall take reasonable steps to correct that inaccuracy.

The registrant has a responsibility to respond to the yearly notice to update registration information.

The Review Team created an overview of the responsibilities of the WHOIS Data and its Accuracy below:

Summary Analysis by Review Team

WHOIS Data Responsibilities Under Existing Policies

The Producer of Whois Data is the ***Registrant***
The Maintainer of Whois Data is the ***Registrar***
The Controller of Whois Data is ***ICANN*** (as the body which sets the rules and policies for Whois data collection and release)

D. PROXY and PRIVACY Registrations

A special set of cases exists in which the Registrant seeks additional protections for its personal data so that it will *not* be easily found in globally available WHOIS databases. The Review Team heard from all members of the ICANN gTLD communities with regard to this type of service.

Specifically, companies, organizations and individuals shared their need, use and value of proxy and privacy services, including:

- For companies where an upcoming merger, new product or service name, new movie name, or other new product launch, involves a domain name which should not yet be directly associated with the business (to avoid market speculation and other negative business consequences). Companies use proxy services or individuals such as attorneys who act as proxies.

- Organizations noted the danger of operating in a country or region in which they are a religious, political or ethnic minority, or share information about moral or sexual issues that may be controversial in some areas, such as gay rights.

- Some private individuals prefer not to have their personal data published on the Internet as part of a WHOIS record.

- Webmasters and Webhosts regularly register domain names for an array of clients as a first step in beginning the development of their websites.

Two types of services have emerged as a market response to the need for special services. Called proxy and privacy services, the terms are used interchangeably, but the Review Team found their meanings have some key differences:

- **Privacy Service** a service that provides the Registrant Name and a subset of other information (possibly null set) but consistent across ICANN.

- **Proxy Service** a relationship in which the registrant is acting on behalf of another. The WHOIS data is that of the agent and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

Law enforcement shared its concern over the abuse of proxy services by criminals seeking to hide, companies defrauding customers, and parties attacking the security of the Internet including by botnets and malware.

The Registrar Accreditation Agreements speak specifically to the issue of registering a domain name through a third party, but do not use the terms "proxy and privacy." Rather they talk about the "Registered Name Holder" (ie the proxy) and the Licensee (ie the underlying party on whose behalf the domain name is registered) and require "timely resolution" of problems that may arise:

Ownership and Responsibility of the Domain Name by the Proxy

Section 3.7.7.3, Part 1

2001 and 2009 RAA

> Any Registered Name Holder that intends to license use of a domain name to a third party is nonetheless the Registered Name Holder of record and is responsible for providing its own full contact information and for providing and updating accurate technical and administrative contact information adequate to facilitate timely resolution of any problems that arise in connection with the Registered Name.

The RAAs also call on Registered Name Holder to be responsible for the "wrongful use" of the domain name unless it "promptly discloses" the current contact information of the licensee on "reasonable evidence of actionable harm."

Disclosure of the Underlying Licensee

Section 3.7.7.3, Part 2

2001 and 2009 RAA

> A Registered Name Holder licensing use of a Registered Name according to this provision shall accept liability for harm caused by wrongful use of the Registered Name, unless it promptly discloses the current contact information provided by the licensee and the identity of the licensee to a party providing the Registered Name Holder reasonable evidence of actionable harm.

Proxy and privacy services are among the least developed of the WHOIS policy areas. As discussed in Chapter 6, the Review Team heard many complaints about these services from Law Enforcement and others, suggesting that additional policies may be appropriate in this area.

E. Three ICANN Consensus Policies and One Consensus Procedure

In addition to the "static contracts" of the RAA's and Registry Agreements, both sets of Contracted Parties (Registries and Registrars) agree to comply with ICANN "Consensus Policies." Developed through ICANN's bottom-up, policy-making process, these Consensus Policies go through the "policy development process" with:

- Working group research and development;
- Community notice and comment;
- Final recommendations to the GNSO Council; and
- If appropriate, review and approval by the GNSO Council, and then the ICANN Board.

Since ICANN's creation in 1999, eight Consensus Policies have been created by the Generic Names Supporting Organization, and three of those have been WHOIS consensus policies. The Consensus Policies, posted at http://www.icann.org/en/general/consensus-policies.htm are:

- WHOIS Data Reminder Policy (2003)
- The Restored Name Accuracy Policy (2004)
- WHOIS Marketing Restriction Policy (2004), which contains the results of two separate recommendations to try to bar use of the WHOIS data for marketing and re-use.

In greater detail, each Consensus Policy creates a new requirement for Registrars, and seeks an improvement to the Accuracy of the WHOIS Data, or a Limitation to the Abuse of the WHOIS Data:

- **WHOIS Data Reminder Policy:** at least once a year, Registrars must email all Registrants and remind them to review and update their WHOIS data. www.icann.org/en/registrars/wdrp.htm
- **The Restored Name Accuracy Policy:** If the Registrar has deleted a domain name because it had incorrect contact data, or there was no response to the Registrar's requests for information, the name must remain on Hold until the Registrant provides updated and accurate WHOIS data. http://www.icann.org/en/registrars/rnap.htm
- **WHOIS Marketing Restriction Policy:** This policy, a combination of two distinct GNSO policy recommendations, creates two policy changes to the Registrar Accreditation Agreement:
  a. Registrars must require third parties "to agree not to use the [Whois] data to allow, enable, or otherwise support any marketing activities."
  b. Registrars must "agree not to sell or redistribute the [Whois] data" (with some exceptions). http://www.icann.org/en/registrars/wmrp.htm

While some feel that the path towards progress on the WHOIS has been too slow, others see the fairly large number of Consensus Policies devoted to WHOIS as an indication of attention spent on important issues.

And a Consensus WHOIS Procedure

ICANN has another process in the gTLD WHOIS policy. Called a "Consensus Procedure" it was adopted in 2008 and lays out "how ICANN will respond to a situation where a registrar/registry indicates that it is legally prevented by local/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." **ICANN Procedure For Handling WHOIS Conflicts with Privacy Law,** http://www.icann.org/en/processes/icann-procedure-17jan08.htm

The Procedure allows a Registrar or Registry to come to ICANN to discuss how it will respond to an active investigation of illegality taking place by government and/or law enforcement officials. Specifically, there must be an active investigation underway:

> 1.1 At the earliest appropriate juncture on receiving notification of an investigation, litigation, regulatory proceeding or other government or civil action that might affect its compliance with the provisions of the Registrar Accreditation Agreement ("RAA") or other contractual agreement with ICANN dealing with the collection, display or distribution of personally identifiable data via WHOIS ("WHOIS Proceeding"), a registrar/registry should provide ICANN staff with the following […]

The procedure was criticized at the time of its creation for requiring Registries and Registrars to be the target of an investigation or litigation *before* they can seek to change their WHOIS practices to reflect their understanding of local and national laws. It was noted that most businesses seek to proactively comply with laws, prior to being challenged.

F. Government Advisory Committee Calls for Additional Policy Review

Numerous parties outside the GNSO have exhibited a great interest in the WHOIS proceedings, including the Government Advisory Committee (GAC), which has issued four key Communiques with guidance on WHOIS. The GAC recommended studies on the use and misuse of public WHOIS data, among other recommendations.

In response, the GNSO has put together four WHOIS studies, now in progress[10], at the cost of $530,000 to:

The 4 GNSO WHOIS Studies Now in Progress

WHOIS "Misuse" Study – This study will assess whether public significantly increases harmful acts and the impact of anti-harvesting measures.	**WHOIS Registrant Identification** – This study will examine information about how domain name registrants are identified and classify the various types of entities that register domains, including natural persons, various types of legal persons and Privacy and Proxy service providers.
WHOIS Proxy and Privacy "Abuse"-- This study will compare a broad sample of Privacy and Proxy-registered domains associated with alleged harmful acts to assess: 1) how often bad actors try to obscure identity in WHOIS; 2) how this rate of abuse compares to overall use of proxy and privacy services; and 3) how this rate compares to alternatives like falsified Whois data, compromised machines, and free web hosting.	**WHOIS Proxy and Privacy Relay and Reveal Study-** The original study would analyze communication relay and identity reveal requests sent for privacy- and proxy-registered domains to explore and document how they are processed, and to identify factors that may promote or impede timely communication and resolution.

It is expected that the results of these WHOIS studies, due in 2012, will provide important information for future WHOIS policy discussions, and future WHOIS Review Teams.

[10] See Letter from ICANN Chair Peter Dengate Thrush to GAC Chair Heather Dryden, on the WHOIS Studies funded and underway, June 11, 2011, http://www.icann.org/en/correspondence/dengate-thrush-beckstrom-to-dryden-22jun11-en.pdf

Chapter 4: Implementation of WHOIS policy – ICANN's Compliance Efforts

A. Implementation

Introduction

In order for a policy to be effective, it must not only be implemented, but also communicated effectively. Communication of policy is important because it feeds a public awareness of the norms and standards expected. Without effective communication, the legitimate expectations of the distinct stakeholder groups who rely on WHOIS will remain unmanaged, leading to sometimes unnecessary conflict, or complaints.

The WHOIS Review Team's analysis of the Compliance pages on ICANN's website, and the effectiveness of its Compliance programme endorsed what the Compliance team and other stakeholder told us – ICANN's compliance effort has historically been overstretched, and under resourced. It has struggled to obtain priority (in terms of strategy, budget or visibility) within the organisation, and to fill vacant positions.

As the ICANN community is poised for the launch of new gTLDs, bringing a larger landscape, and new actors, this is a matter of deep concern to the WHOIS Review Team, which the entire community should share. For industry self-regulation to continue, it should be effective, impartial and seen to be so.

ICANN's Compliance Effort

The WHOIS Review Team has had extensive contact with ICANN's Compliance Team throughout 2011. Having conducted an in-depth review of the Compliance Team's webpages and their WHOIS related work, the WHOIS Review Team wrote a letter to the Compliance Team (posted in the Appendix), which sets out the Review Team's detailed observations, and some suggested improvements, which do not have the status of recommendations to this report, but are offered in a spirit of collaboration.

In general, the WHOIS Review Team's observations of ICANN's WHOIS Compliance efforts can be summarized as follows:

- Conducting audits (eg compliance with requirements to make WHOIS available, and with the annual WHOIS Data Reminder Policy (WDRP))
- Investigating complaints of non-compliance (eg responses to WHOIS Data Problem Service (WDPRS) notifications)
- Escalating cases where informal efforts to bring parties into compliance have failed.

These have had mixed results (see appendices for further detail). Key observations for the future include:

- The Compliance Team has developed a set of operating principles, which, in the WHOIS Review Team's opinion, provide a useful framework for organizing, and communicating the Compliance Team's actions.
- The Compliance Team has to date been inadequately resourced. Open positions have remained vacant for long periods. Recent strengthening of the Team is welcome. This needs to be followed by the publication of plans for measurable, targeted improvements and reporting of progress against those targets.
- Given that demand will always exceed available resources, the compliance effort must be strategically focused on achieving measurable, stated objectives, and should be proactive rather than reactive.

A major challenge facing the Compliance Team is the lack of clarity as to who "owns" WHOIS as an issue, where responsibility lies within the organisation. The fact that policy is made by the GNSO is a feature of the ICANN environment. The practical impact of this process is that a disconnect occurs, for example, in determining how or whether to follow-up on the numerous studies which have been commissioned (e.g. Data Accuracy, WHOIS abuse and others) and how to respond when consensus the implementation of consensus policies are failing to achieve their purpose (eg the Whois Data Reminder Policy).

B. ICANN's WHOIS Compliance Gaps

Communication

- The Compliance Team's operating principles are generally good, but need to be more widely communicated.
- Locating information on the website is extremely difficult, compliance pages are hidden away, laden with jargon, and assume a level of knowledge by users which may not exist in practice. Documents referred to in the Compliance Team's answers to the WHOIS Review Team as plain English guides should be front and centre to the user experience. Poor or ineffective communication generates costs, inefficiency and support load. It also creates frustration for everyone.
- Reporting of contractual compliance activities is far from timely (operating principle 8), e.g. "monthly" newsletters and "semi-annual" reports have not been published at all in 2011. If these have been replaced by other forms of communication, this is not clear.
- Key documents (e.g. the Privacy/Proxy study 2009) are missing, or only possible to locate with specific URLs.

Audits

- The 2010-11 Registrar WHOIS Data Access Audit is an example of a successful compliance intervention (see appendices for more detail). Areas for improvement include communication, sustaining the momentum and delivering performance measures/goals over time. A summary of the detailed report would be helpful to the newcomer. This should also be linked to the operating principles, as a successful example of working in partnership with registrars to foster a culture of compliance.
- The acronyms relating to two of the most significant ongoing compliance efforts, the WHOIS Data Reminder Policy and WHOIS Data Problem Reporting Service - WDRP and WDPRS respectively - are confusingly similar. The use of the acronyms without explanation gives ICANN an unnecessary communications challenge.

C. Investigating complaints of non-compliance

- Given the prevalence of inaccurate WHOIS data, both the number of Whois Data Problem Reports, and the number of individual reporters (in 2007, 10 people were responsible for 87% of all WHOIS inaccuracy reports) are unacceptably low, indicating a low awareness level of this service amongst the target users of the system – consumers. It was striking that some members of the WHOIS Review Team, whose daily job involves conducting hundreds of WHOIS queries, were unaware of the service or how to report inaccurate data to ICANN.
- The system for WHOIS Data Problem Reporting generates a high level of duplicates. ICANN's compliance staff have inadequate workflow systems or automation to enable them to keep on top of their existing workload – this provides an internal disincentive to ensuring that the system is better known and more widely used, because it may increase backlogs in an already overloaded department.
- Both the Compliance team and other stakeholders expressed frustration at the "all or nothing" response instances of non-compliance, ie termination of accreditation or nothing. Sanctions need to be clarified and a system of incremental escalation established to address systemic issues of non-compliance and instances of continued resistance to compliance with WHOIS policies.

D. Other WHOIS Related Work and Efforts – Data Accuracy

- Data accuracy – In 2009-10, ICANN commissioned a study on data accuracy, which was undertaken by the National Opinion Research Council of the University of Chicago (NORC) (the "NORC WHOIS Data Accuracy Study 2009/10"). The study found that only 23% of WHOIS records were fully accurate and over 20% were completely inaccurate. The low level of accurate WHOIS data is unacceptable, and decreases consumer trust in the WHOIS, in the industry of which ICANN is a quasi-regulator, and therefore in ICANN itself. The organisation's priority in relation to WHOIS should be to improve WHOIS data accuracy and sustain improvement over time. It should develop a methodology to measure overall accuracy, publish performance targets, and actively collaborate with registrars and registrants to improve data accuracy.

- Just as there is no shared understanding, or statement of the purpose of WHOIS, key concepts, such as “data accuracy” mean different things to different stakeholders. Further work is required, involving all interested stakeholders, to develop a common understanding and statements of the purpose of WHOIS and key concepts within it.
- The WHOIS Data Reminder Policy is ineffective in achieving its goal of improving accuracy of data. Despite the dedication of considerable resources both by Registrars in sending out annual WHOIS Data Reminder Policy notices, and ICANN’s Compliance Team in auditing compliance, the lack of follow-up renders the entire action ineffective. Simply put, no one knows what impact the policy has in improving the accuracy of WHOIS data.
- The NORC WHOIS Data Accuracy Study 2009/10 identified that a key cause of inaccuracy was confusion amongst registrants when completing WHOIS data. If the industry wants to improve accuracy of data, it is necessary to think through the core WHOIS data set from the perspective of a commonly understood WHOIS Purpose, and creating a streamlined, understandable data set for registrants to complete. A number of stakeholder groups, notably SSAC, have been thinking deeply about these issues for a number of years.
- It is unclear what the response of ICANN the Corporation has been to the NORC WHOIS Data Accuracy Study 2009/10. It is noted that the study was undertaken on the initiative of the GNSO, but it is clearly relevant to the work of Compliance (as demonstrated by the Compliance Team’s inclusion of the study in their introduction of their work). If no follow up is done, this leads to the impression that expensive, time consuming studies are being undertaken, and then left to languish. An action plan should already have been published by now, including measurable targets, and key performance indicators. If this has happened, the WHOIS Review Team is unaware of it.

Chapter 5:
Implementation of WHOIS Policy in relation to Internationalised Domain Names

Internationalized Registration Data and Associated Data Services

Looking into the past, at a first glance it would seem that the issue of non-Latin scripts would only exist since the creation of Internationalised Domain Names (IDNs). However, the basic problem has existed for much longer. As WHOIS data represents contact information of the domain registrant, the need of WHOIS data to support non-Latin scripts has been around as long as domain names have been registered by registrants globally, who need to represent their local names, postal addresses and other contact and technical information in the script(s) which they use. It is important to note that this requirement even exists for registrants who use Latin script, where additional annotations or special characters are needed beyond core ASCII to represent a language, e.g. Swedish, French, Vietnamese, Wolof, etc.

This lack of support for non-ASCII characters within the registration data has triggered two sources of inaccuracies in the data. For the languages using an extended set of letters in Latin script, limitations of use have forced registrants to "simplify" their information, e.g. document it without the use of accents and/or marks used by their language and community. For languages and communities, which use non-Latin scripts, registrants have been forced arbitrarily to transliterate and/or translate their contact information into an ASCII based writing system. Communities which use syllable-based or an ideographic writing systems, e.g. Chinese, are even more disadvantaged in this respect, compared to other languages which use a sound based writing system.

Where the lack of local script support has been too much of a barrier, some ccTLD registries and registrars have implemented ad hoc solutions, using arbitrary mappings of local script onto ASCII code points and interpreting the data in their script instead of ASCII as a result. This has included using alternate international 8-bit standards for such mapping, e.g. ISO 8859-x or even local national standards. However, as this encoding information is not part of the WHOIS data, it is not possible for a user to know or predict this. As a result, the data can appear as a nonsense sequence of ASCII characters. This is also a major source of inaccuracy

of data (highlighted by NORC WHOIS Data Accuracy Study 2009/10), not due to its content, but due the lack of mechanisms available for its interpretation.
Thus, lack of support of non-ASCII characters introduces an additional barrier for non-ASCII users to provide accurate and consistent domain name registration data. This has implications for their tractability for law enforcement and associated organizations. Further, many people attach some pride and fondness to the correct representation of their name and other data. While this is not a purely technical or administrative requirement, it is relevant in the context of Consumer Trust.

Assessing the current situation, domain names have been (partially) available in local languages since 2000. Since 2010, complete domain names in local languages have been more extensively deployed through the IDN ccTLDs approved through ICANN's Fast Track process – a process in part enabled through the adoption of a new technical standard, IDNA2008. However, even though millions of IDNs have already been registered within the domain space, including in IDN ccTLDs and ASCII gTLDs such as .COM and .NET, there still does not seem to be a mechanism in place for domain name registration data to be gathered and made available in local languages. This provides further motivation to ad hoc implementations of collecting and making the data available in local languages, or possibly introducing non-standard translation or transliteration inaccuracies, where registrant information from different language is being made available in a ASCII based existing WHOIS system, as already discussed.

Looking forward, the new gTLD process may result in a number of new IDN gTLDs, which will be introduced, from 2012, targeting registrants who are not familiar with Latin script. The latest version of Draft Applicant Guidebook[11] makes a couple of references to domain name registration data in local languages. It stipulates a need for the registrant information to be available in local languages in the scoring chart given in the Attachment to Module 2: Evaluation Questions and Criteria. Point # 44 in this chart asks:

> State whether the proposed registry will support the registration of IDN labels in the TLD, and if so, how. For example, explain which characters will be supported, and provide the associated IDN Tables with variant characters identified, along with a

[11] Available at http://www.icann.org/en/topics/new-gtlds/rfp-clean-19sep11-en.pdf

corresponding registration policy. This includes public interfaces to the databases such as Whois and EPP.

In Section 5.2.3: Test Elements: Registry Systems, in "IDN Support" sub-section (pg. 5-7), it elaborates on the mechanism stating:

> Requirements related to IDN for Whois are being developed. After these requirements are developed, prospective registries will be expected to comply with published IDN-related Whois requirements as part of pre-delegation testing.

Anticipating this need, work has been going on for some time to decide how such data should be collected, maintained and distributed. Internationalization Registration Data Working Group (IRD-WG), a joint GNSO and SSAC effort, was formed as a result of a Resolution of the ICANN Board in 2009[12]. IRD-WG aims to build consensus on how this registration data will be made available in local languages (including determining which fields can be internationalized)[13]. The need for internationalized registration data has also been highlighted in the recent SSAC report SAC 051[14]. Work is also underway (but in early stages) to look into how internationalized data will be associated with variants of internationalized domain names through the IDN Variant Issues Project (IDN VIP)[15] and more recently the discussion list related to internationalization of Domain Name Registration Data at WHOIS-based Extensible Internet Registration Data Service (WEIRDS) through IETF[16].

The situation highlights a general unpreparedness and lack of urgency in the community to support registration data in non-ASCII letters. This is highlighted by not taking up measures to store data and making it accessible for global registrants for ASCII domain names, not addressing this issue for the Fast Track program, and still having no agreement on how to resolve this for the upcoming gTLD program. Interestingly, scoring of internationalized registration data is in place for new IDN gTLD application without stipulating the mechanism

---

[12] See http://www.icann.org/en/minutes/resolutions-26jun09.htm#6.

[13] Current version (at time of writing) available at www.gnso.icann.org/issues/ird/ird-draft-final-report-03oct11-en.pdf

[14] Available at http://www.icann.org/en/committees/security/sac051.pdf.

[15] See http://www.icann.org/en/topics/idn/ for more details.

[16] See http://www.ietf.org/mail-archive/web/weirds/current/maillist.html for archive of the discussion.

to implement it in this program, which will increase the likelihood of further ad hoc measures being instituted.

The community needs to urgently address the following issues:

1. What data is needed from the registrant,
2. How this data will be represented in the data model, and
3. How this data will be accessed through registration data services.

There are some (partial) technical solutions[17], but the community needs to evaluate the alternatives, choose between them, and/or adapt them and clearly define the data model and service to be supported. Best practices from ccTLDs should be studied in this context (as already highlighted by IRD-WG) and a consistent policy, through cooperation between ccNSO, gNSO and other relevant constituencies, e.g. ALAC and SSAC, needs to be defined, to limit ad hoc practices and resulting data inaccuracies or inconsistencies. Whilst the WHOIS Review Team understands and respects the independence of ccTLD policy making, nevertheless, a consistent policy across ccTLDs and gTLDs would make it much easier for consumers and law enforcement to use WHOIS data. Such policies need to be clearly articulated in current and future registry and registrar agreements (where applicable), with clear directions to the ICANN Compliance Team on how to measure accuracy of internationalized registration data (an aspect which remains undefined). Once the basics are in place, only then can work begin towards improving the accuracy and consistency. Thus, in many ways, the internationalized registration data issues are much deeper than the issues with ASCII based data available already, and need more urgent, if not equal, attention (especially in the context of the full roll out of the IDN program in 2012).

[17] See WHOIS++ (RFC 1834), RWhois (RFC 2167), and CRISP (RFC 3707).

PART III: The Extent to which ICANN's Existing WHOIS Policy and its Implementation Are Effective in Meeting Stakeholder Needs

Chapter 6: Understanding the Needs of Stakeholders

The WHOIS Review Team's scope includes evaluating the extent to which ICANN's current WHOIS policy and implementation are effective in meeting the needs of law enforcement and promoting consumer trust. The WHOIS Review Team wrestled with these terms and their communities, as the commitment appears to include communities that do not regularly participate in ICANN. This Chapter discusses the findings from our outreach and research.

Law Enforcement

Conscious of the Affirmation of Commitment's comment that those impacted by WHOIS include those who do not regularly participate in ICANN, early in its work, the Review Team resolved to reach out to global law enforcement representatives, to better understand their needs, and the extent to which the current WHOIS policy and implementation meets those needs. The Review Team formulated a questionnaire, which was distributed through the global networks of the Law Enforcement Representative to the Review Team, and also through the law enforcement networks of the GAC and ICANN staff. Eight responses were received, and these are summarised below. Note: the law enforcement agencies that responded to the survey (reproduced in full in the appendices) will not be individually identified consistent with the conditions of the questionnaire.

Additional Parties Who Use WHOIS Resources on a Daily Basis

At the same time, the Review Team was conscious that a narrow interpretation of the wording of the Affirmation of Commitments (and therefore our scope) would miss a consideration of the legitimate needs of many of those businesses that rely on WHOIS in their daily work. Examples of such stakeholders include the private industry around law enforcement, CERTs, and those enforcing private law rights online (including brand protection). The WHOIS Review Team received many representations from such stakeholders, and these are also summarized below.

In brief, the legitimate needs of law enforcement, and other stakeholders who rely on WHOIS data and the WHOIS service, can be categorized under the following broad headings:

- A need for accurate data
- A need for accessible data (including comments on privacy/proxy services)

A. A Need for Accurate Data

Concerns about the accuracy of WHOIS records were raised in a number of responses to the WHOIS review team's public Discussion Paper. Law enforcement agencies expressed a view that inaccurate or incomplete WHOIS data can potentially cause serious problems during the course of a criminal investigation. For example, one law enforcement agency stated that:

> Accurate WHOIS data is a very important tool for law enforcement but false, out-of-date and inaccurate records are a barrier towards successful criminal investigations. WHOIS data is often the only way law enforcement agencies can investigate criminal offences that occur via the Internet so it is therefore vital the data is accessible and accurate[18].

On the importance of accurate WHOIS data another law enforcement agency stated:

> The WHOIS database contains many inaccuracies. Presently there is insufficient due diligence conducted towards ensuring records are accurate and criminals are quick to take advantage of this. The value of any database is in its accuracy[19].

The concerns of businesses include issues relating to online counterfeiting and their ability to protect their intellectual property rights. For example, the International Anti-Counterfeiting Coalition stated that:

[18] To see responses to Law Enforcement questionnaire, please refer to appendices.

[19] ibid

> Years of experience with WHOIS since ICANN assumed custody over its management and operation has clearly demonstrated that the unscrupulous Internet users who are willing to infringe the intellectual property rights of others are also among the first to disregard their contractual obligations to provide true and accurate WHOIS contact data.[20]

Concerns about the accuracy WHOIS data have also been raised by the Government Advisory Committee (GAC). In March 2007, the GAC presented ICANN with a series of principles regarding gTLD WHOIS services. Among other things, the GAC recommended that:

> Stakeholders should work to improve the accuracy of WHOIS data, and in particular, to reduce the incidence of deliberately false WHOIS data.[21]

Few commentators expressly addressed what they understood the term "accurate" to mean. One member of the Intellectual Property Constituency told the Team that:

> If I can get the information, then I have something. Maybe not a full, accurate WHOIS record.[22]

The Review Team was clearly told in written and oral comments that inaccurate WHOIS data can also significantly impact consumer trust and confidence in the Internet. For example, Time Warner International argued that:

> Inaccurate data undermines the goals of the service, erodes public confidence in the online environment, complicates online enforcement of consumer protection, intellectual property, and other laws, and increases the costs of online transactions.[23]

---

[20] International Anti-Counterfeiting Coalition, IACC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00012.html on the WHOIS Policy Review Team Discussion Paper http://forum.icann.org/lists/whoisrt-discussion-paper/

[21] GAC Principles regarding gTLD WHOIS Services (28 March 2007), section 4.1

[22] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[23] Time Warner Inc., comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00013.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

Consumers could also benefit from accurate WHOIS data to establish the legitimacy of those engaged in e-commerce. For example, the InterContinental Hotels Group stated that:

> Complete and accurate WHOIS data also provides a level of consumer confidence when conducting business online. Having a failsafe avenue to contact administrators should all other extensions fail, could increase individual propensity to partake in online activities and transactions.[24]

Consumers engaged in online purchases, in our Consumer Research Study agreed: findings showed that factors which positively supported consumer trust included knowing the company with whom they were dealing with, and being able to verify their contact details online.

However, Non-Commercial Users Constituency noted:

> If registrants have other channels to keep this information private, they may be more willing to share accurate data with their registrar.[25]

A similar view was expressed in the NORC WHOIS Data Accuracy Study 2009/10.

Some Reasons for Inaccurate Data

Registrants

The NORC WHOIS Data Accuracy Study 2009/10 provides a baseline measurement of what proportion of WHOIS records are accurate[26]. The Study found that one reason why registrants do not provide accurate information may be due to a lack of understanding of the purpose and uses of the WHOIS service. During their study, NORC found that of the registrants that could be found, many admitted to error on their behalf and did not realise

---

[24] InterContinental Hotels Group, IHG, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00010.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[25] Non-Commercial Users Constituency, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[26] http://www.icann.org/en/compliance/reports/whois-accuracy-study-17jan10-en.pdf

that accurate WHOIS data was a valuable asset for the Internet community in general. The Study also found that many registrants were confused by the forms they were required to complete during the registration process, mainly due to terminology used or difficulties in transliterating text.

The NORC Study 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, including 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. The Study notes that:

> Currently, 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.[27]

One respondent to the WHOIS Review Team's outreach suggested that it should be easier for registrants to update their WHOIS data:

> Provide a service which lets domain owners update their data directly on an ICANN website. The intermediate step of having the domain registrar to update the WHOIS data often fails since some of them don't update the information.[28]

Despite clear contractual provisions, which make domains with inaccurate data subject to cancellation, there is a perception that this is not the case.

---

[27] In January 2009/10, ICANN published a study conducted by the National Opinion Research Council of the University of Chicago (NORC) that had been commissioned by ICANN in 2009 to obtain a baseline measurement of what proportion of WHOIS records are accurate.

[28] Valentin Höbel, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00002.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

Some respondents to the public Discussion Paper argued that registrants should have their accounts suspended for intentionally submitting false information. The InterContinental Hotels Group stated that:

> Additionally, registrants who intentionally submit false, faulty or no information should have all registrations associated with their account suspended until WHOIS data meets the full reporting requirements.[29]

ICANN's Compliance Effort on Accurate Data

In Chapter 4, the Review Team discusses the not insubstantial efforts that the ICANN Compliance Department has made to data accuracy, and its further commitment to increase staff and time on this issue.

However, the effectiveness of ICANN's current compliance activities to ensure access to accurate and complete WHOIS data was questioned in numerous submissions to the review team's public Discussion Paper, and in responses to the law enforcement questionnaire. For example, in response to the discussion paper, the China Internet Network Information Center stated that:

> ICANN to some extent has failed to regulate .com and .net in terms of maintaining accurate WHOIS information. Therefore, we suggest that ICANN has neither been effective at developing WHOIS policies nor well regulating registrars in terms of helping improve WHOIS accuracy.[30]

A number of law enforcement agencies also expressed concern with the performance of ICANN in ensuring the WHOIS service is accurate, with one agency stating that:

---

[29] InterContinental Hotels Group, IHG, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00010.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[30] China Internet Network Information Centre, CNNIC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00028.html on the WHOIS Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> Since WHOIS is regularly incomplete, inaccurate and non-public, ICANN is not fully performing its duties. In addition, the continued issue of not being able to quickly identify the true owner of a domain name, indicates a need for improvement in this area.

Another law enforcement agency stated that:

> ICANN should enforce its own contractual obligations with registrars, require that registrars, registries and resellers, collect and verify the appropriate WHOIS information. ICANN needs to increase staff levels if there is any hope that compliance can be enforced.

The Intellectual Property Constituency raised concerns about ICANN's current approach to WHOIS accuracy compliance, especially in light of the new unlimited Top Level Domains becoming available, and stated that:

> The 2009/10 NORC study demonstrated that the WHOIS data for only 23% of gTLD registrations is fully compliant with accuracy requirements. Thus, the facts support the conclusion that the current compliance related activities are woefully inadequate to fulfill ICANN's commitment in article 9.3.1 of the AOC to "implement measures to maintain timely unrestricted and public access to accurate and complete WHOIS information." Although some progress has been made in upgrading ICANN's contract compliance function, a radical change in approach is needed, especially in light of the impending proliferation of new unlimited Top Level Domains.[31]

At the 2011 Singapore meeting, a participant of the Commercial Stakeholder Group argued that:

> The reality is there are contractual obligations that clearly set out what registries and/or registrars have to apply or provide on a query and whether they're complying with that. In the situations where ICANN has enforced the contracts, and there have been some, not just on WHOIS issues, it seems to have worked very effectively. The

[31] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> question is: is ICANN actually taking actions? Concerned about resources (staff and funding) to continue and do the auditing needed to take action. This is an organization whose private regulatory ability is based completely and solely on contracts. Unless you enforce the contracts, you have absolutely no ability to self regulate.

Some stakeholders argued that there is an urgent need to address the issue of inaccuracy in WHOIS data. For example, the Canadian Internet Registration Authority argued that:

> Addressing the accuracy and completeness of WHOIS will require a large amount of work; however, the longer it is left and not addressed, the worse the problem will become and the harder it will be to implement solutions as during that time, the volume of inaccurate WHOIS information will become larger.[32]

The Need for Better Metrics

In order to measure the success of any new compliance activities, it has been suggested by the Business Constituency that:

> Huge compliance resources are needed to fix this situation and the matter of WHOIS accuracy only becomes more urgent with ICANN's planned rollout of hundreds of new gTLDs. ICANN's compliance organization has already been made aware from its own work of continuing frauds and abuses in the WHOIS space. As part of the AoC, ICANN's continued performance in the compliance area should be carefully measured to assess whether it is meeting its WHOIS commitments.[33]

The importance of metrics on accuracy levels was raised by the European Commission's representative to the Government Advisory Committee at the 2011 Singapore meeting:

---

[32] Canadian Internet Registration Authority, CIRA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00025.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[33] Business Constituency, BC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00027.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> We know that law enforcement is unhappy with the current compliance policies and we know there are problems with data accuracy. It would be interesting to have the number of complaints received, interventions, correction actions and de-accreditations for non-compliance. Then evaluate how effective the compliance policy is. The GAC has not been provided with this information yet.

B. A Need for Accessible Data

The Affirmation of Commitments provides that ICANN will implement "its existing policy" of timely, unrestricted and public access to accurate and complete WHOIS information.

Full Availability without Restriction?

In responses to the public Discussion Paper, several respondents supported the commitment to open access, and argued that it is consistent with practices and arrangements in comparable offline situations. For example, The International Trademark Association stated that:

> It supports open access to accurate ownership information for every domain name in every top-level domain registry via a publicly accessible WHOIS database...in most circumstances, publishing on the internet is a public act, and the public should be able to determine who they are dealing with.[34]

Similarly, the International Anti-Counterfeiting Coalition (IACC) argued that:

> WHOIS is only an address book: something that does not adversely affect free speech, and one that carries far more benefits than potential drawbacks ... most other parts of the world require accurate information for business licenses, trademark registration, and other services; domain name registration should be no different.[35]

---

[34] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[35] International Anti-Counterfeiting Coalition, IACC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00012.html on the WHOIS Policy Review Team Discussion Paper http://forum.icann.org/lists/whoisrt-discussion-paper/

In regards to the importance of accurate WHOIS data being available without restriction a law enforcement agency we surveyed argued that it:

> Allows Internet users to know who they are dealing with and create a level of trust online transacting and searching. It is a thin layer of protection for the average Internet user.

Conversely, this universal commitment to unrestricted public access to complete WHOIS data was questioned by some respondents to the Discussion Paper, who argued that it raises a range of privacy related concerns. These concerns primarily relate to:

- The potential for conflict with privacy or data protection laws;
- The potential for misuse of openly-available WHOIS data (e.g. for spamming, stalking and other forms of physical and online harassment); and
- Protecting the privacy of organizations individuals, including potentially vulnerable registrants (e.g. political dissidents, political dissident organizations, religious minorities and their institutions).

These concerns are significant for many stakeholders, including the Noncommercial Users Constituency, which argued that:

> The problem for many registrants is indiscriminate public access to the data. The lack of any restriction means that there is an unlimited potential for bad actors to access and use the data, as well as legitimate users and uses of these data.[36]

They were also the subject, in part, of an ICANN Consensus Policy passed in 2004, the WHOIS Marketing Restriction Policy, in which ICANN sought to require Registrars to provide WHOIS data to parties who "agree not to use the [WHOIS] data to allow, enable, or otherwise support any marketing activities." Such assurances are difficult in an entirely open system (See Chapter 3, WHOIS Policy).

[36] Noncommercial Users, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

These concerns for privacy and against misuse of data have affected registrant behaviour in a number of ways, and cause knock on effects in other areas of WHOIS policy and compliance. For example, the Non-Commercial Users Constituency observed that:

> Rather than putting sensitive information into public records, some registrants use "inaccurate" data as a means of protecting their privacy. If registrants have other channels to keep this information private, they may be more willing to share accurate data with their registrar.[37]

ICANN's Compliance Team summarized their sense of the complexity of the situation:

> 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.

Another issue identified by the review team relates to the ability of consumers to access WHOIS data. While much WHOIS data is arguably publicly accessible, research undertaken on behalf of the review team indicates a lack of understanding within the community on how to actually achieve this. For example, the consumer study indicated that over 80% of consumers are unaware of WHOIS, and those who were asked to perform WHOIS searches were often unable to understand the results, because of the positioning of advertising, and the format of the WHOIS response (see section E below and appendices for further details).

Under the current WHOIS arrangements, ICANN has established procedures and policies to try to address some of these issues, but comments received by the WHOIS Review Team indicate that many stakeholders consider the current approach inadequate and poorly coordinated.

Conflicts with Applicable Laws Including Privacy Laws?

[37] Noncommercial Users, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

Since its founding in 1998, ICANN has heard concerns voiced about conflicts between a completely open WHOIS and data protection laws and other privacy laws worldwide. The concerns were shared with the Review Team in many forms, including:

Comments to the Review Team by Noncommercial Users Constituency (NCUC) noted not only conflicts between current WHOIS policy with EU data protection laws, but with policies "advanced by the U.S. Federal Trade Commission and F.B.I." See, for example, the US Federal Trade Commission website, *Fighting Back Against Identity Theft).* Prior comments to ICANN, in the form of an Official Opinion of the EU Article 29 Working Party of the European Union (committee of all EU national data protection commissioners) directly warned ICANN of the data protection laws in which it sees conflicts:

> Article 6c of the Directive imposes clear limitations concerning the collection and processing of personal data meaning that data should be relevant and not excessive for the specific purpose. In that light it is essential to limit the amount of personal data to be collected and processed. This should be kept particularly in mind when discussing the wishes of some parties to increase the uniformity of the diverse WHOIS directories.
>
> The registration of domain names by individuals raises different legal considerations than that of companies or other legal persons registering domain names.[38]

Three years later, Article 29 Chairman Peter Schaar resent the Opinion to ICANN Chairman Vint Cerf with a reminder of its warnings, and a discussion of its resolution:

> The original purposes of the WHOIS directories can however equally be served by using a layered approach, as details of the person are known to the ISP that can, in case of problems related to the site, contact the individual or transmit the information to an enforcement authority entitled by law to access this information. This would allow the public to continue to access technical information as per the original purpose of WHOIS. At the same time access to more sensitive information would be restricted to law enforcement agencies with adequate authority. This

[38] Article 29 Data Protection Working Party Opinion 2/2003 on the application of the data protection principles to the WHOIS directories, http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2003/wp76_en.pdf

would allow ICANN to adhere to data protection law as well as maintain the spirit of cooperation that has allowed the Internet to flourish.[39]

In light of the concerns raised over the protections of national law and policy, the question arises: are the steps ICANN has taken to date to reconcile its Whois policies with privacy and data protection laws sufficient?

Is ICANN's Consensus Procedure "Handling WHOIS Conflicts with Privacy Law" Effective?

With regard to potential conflicts with privacy laws, ICANN has established a consensus procedure for "Handling WHOIS conflicts with Privacy Law" (this became effective in January 2008). This procedure details how ICANN will respond to a situation where a registrar or registry indicates it is legally prevented by local/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.

ICANN staff have advised that the consensus procedure has only been used on one occasion, by Telnic, to address concerns raised in relation to UK privacy law. In that case, it was agreed that some public WHOIS data could be limited for natural persons who had elected to withhold their personal information from disclosure by the WHOIS service. Another gTLD, .NAME, negotiated WHOIS changes upfront in its registry agreement on becoming a gTLD registry, as the nature of the private individuals within its scope was clear, and consistent with the data protection laws of its country of incorporation.

The consensus procedure also appears to be consistent with **t**he GAC Principles on gTLD WHOIS services, which state that:

---

[39] Letter from Article 29 Working Party Chairman Peter Schaar to ICANN Chaiman Vint Cerf, June 22, 2006, http://www.icann.org/en/correspondence/schaar-to-cerf-22jun06.pdf.

Additional letters from Article 29 WG Chairman Peter Schaar include:

- Letter to ICANN Chair Cerf, March 11, 2007,http://gnso.icann.org/correspondence/schaar-to-cerf-12mar07.pdf,
- Letter to GAC Chair Janis Karlins, October 24, 2007, http://gnso.icann.org/correspondence/cerf-to-schaar-24oct07.pdf - 2011-06-28

> gTLD WHOIS services should provide sufficient and accurate data about domain name registrations and registrants subject to national safeguards for individuals' privacy.[40]

Several respondents argued that this procedure is appropriate, and that ICANN had therefore taken sufficient measures to address potential conflicts with privacy law. For example, the Intellectual Property Constituency argued that:

> ICANN is subject to a commitment 'to having accurate and complete WHOIS' ... ICANN is not required to implement national safeguards for individuals' privacy. Given ICANN's commitment to having accurate and complete WHOIS data, the burden of restricting access to such data in a particular locality should fall on the locality, not ICANN.[41]

Similarly, the Coalition for Online Accountability (COA) argues that:

> The issue of balancing registrant privacy against the need for publicly accessible WHOIS data has two aspects. The first involves situations in which registrars (or registries) are authoritatively advised that their compliance with ICANN contractual obligations would bring them into conflict with applicable national privacy laws ... ICANN policy already provides a mechanism for resolving such conflicts. COA is unaware of any need for further policy development in this area.[42]

Yet the Noncommercial Users Constituency argued that waiting until an official action takes place may not be the appropriate course of action:

> Even with the provisions for resolving conflicts with national law, WHOIS poses problems for registrars in countries with differing data protection regimes.

---

[40] The GAC WHOIS Principles 2007, https://gacweb.icann.org/download/attachments/1540132/WHOIS_principles.pdf?version=1&modificationDate=1312460331000

[41] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[42] Coalition for Online Accountability, COA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> Registrars do not want to wait for an enforcement action before resolving conflicts, and many data protection authorities and courts will not give rulings or opinions without a live case or controversy. ICANN's response, that there's no problem, does not suit a multi-jurisdictional Internet.[43]

Comparisons with ccTLD Practices

Without being bound by the practices of country code top-level domains, which do *not* create their WHOIS policies through ICANN processes, throughout its work, the WHOIS Review Team was keen to compare gTLD WHOIS policy and its implementation with other examples of good practice in the domain name environment. A survey by CENTR (The Council of European National TLD Registries) of its membership, many of which operate under a data protection regime, indicates that 66% of the 21 registries surveyed allow the addresses of private individuals to be hidden from the public WHOIS service.

In a separate survey on release of "opted out" registrant data 14 out of 22 ccTLD's (64%) noted they would provide data to Law Enforcement and a further 8 stated they provide information to law enforcement only with a warrant or court order. Full details of the CENTR surveys and comments by individual ccTLDs are contained in appendices.

The perspective of WHOIS Review Team members who are familiar with the ccTLD environment is that the WHOIS has tended not to be such a controversial issue for ccTLDs as it has been in the gTLD environment. Each environment is unique, and therefore we only make this observation: that perhaps the ICANN community may be able to benefit from the sharing of good practices with regard to ccTLD WHOIS, particularly those registries who operate in a legislated data protection environment.

C. Privacy and Proxy Services

The most widespread way of addressing the privacy concerns of some stakeholders is the use of 'privacy' and 'proxy' services. These services are currently offered commercially by a

[43] Non-Commercial Users Constituency, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

wide range of service providers, including some registrars, and serve to limit publicly accessible information about domain registrants.

As noted earlier in this report, privacy and proxy services are referred to in provisions 3.4.1 and 3.7.7.3 of ICANN's RAA, however the terms are currently not well defined or understood. There appears to be some confusion in the community about how they should be used and the differences between them. The Review Team understands that the terms are commonly understood to mean:

- **Privacy Service**-- a service that provides the Registrant Name and a subset of other information (possibly null set) but consistent across ICANN.

- **Proxy Service** -- a relationship in which the registrant is acting on behalf of another. The WHOIS data is that of the agent and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

The Review Team notes that the use of these services is widespread, with a 2010 study[44] determining that privacy and proxy services are used in 15%-25% of WHOIS records.

There are diverging views from stakeholders about the use of privacy and proxy services. For example, the Noncommercial Users Constituency argued that:

> ICANN should recognize that privacy and proxy services fill a market need; the use of these services indicates that privacy is a real interest of many domain registrants. [45]

On the other hand, one law enforcement agency argued that 'if an entity is engaged in legitimate business activities, then a proxy service should not be necessary'. Another stated that 'privacy/proxy services can be abused', and that 'criminals do use proxy and privacy registrations to hide their identities'.

Do Privacy and Proxy Services Undermine WHOIS?

[44] http://www.icann.org/en/compliance/reports/privacy-proxy-registration-services-study-14sep10-en.pdf

[45] Non-Commercial Users Constituency, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

A significant number of public responses to the WHOIS discussion paper, and input from law enforcement agencies via the review team's targeted questionnaire, argued that privacy and proxy services undermine the effectiveness of the WHOIS service, both in terms of its ability to meet the legitimate needs of law enforcement and to promote consumer trust**.** One law enforcement agency argued that:

> Proxy services play right into the hands of organised crime, they hide all their business behind them and this is a huge issue, not only for law enforcement, but for the wider Internet community as a whole.

Another law enforcement agency argued that:

> "The time routinely invested by law enforcement to validate WHOIS data that may be false, unavailable, incomplete, or proxied impedes investigations".

Similarly, the InterContinental Hotels Group argued that:

> Privacy services have frequently frustrated our ability to protect our hotel brands online, which, unfortunately, often leads to confusion and other problems among consumers.[46]

Some respondents to the Discussion Paper also questioned whether the use of privacy and proxy services was consistent with ICANN's commitment to the provision of unrestricted public access to complete WHOIS data. For example, Time Warner urged the review team to:

> Identify the proliferation of proxy registration services, and the consequent inaccessibility and inaccuracy (for all practical purposes) of a huge swath of gTLD WHOIS data, as a major flaw in ICANN's implementation of its WHOIS policies.[47]

The Coalition for Online Accountability also stated that:

---

[46] InterContinental Hotels Group, IHG, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00010.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[47] Time Warner Inc., comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00013.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> Until ICANN is able to bring some semblance of order, predictability and accountability to the current 'Wild West' scenario of proxy registrations, it will be impossible to make significant progress toward improving the accuracy of WHOIS data, so that the service can better fulfill its critical function to internet users and society as a whole.[48]

Other stakeholders argued that some way protect registrant information is needed. For example, the Noncommercial Users Constituency wrote:

> Privacy and accuracy go hand-in-hand. Rather than putting sensitive information into public records, some registrants use "inaccurate" data as a means of protecting their privacy. If registrants have other channels to keep this information private, they may be more willing to share accurate data with their registrar.[49]

Other groups argued in oral comments that proxy/privacy services, as private entities, are outside the scope of ICANN to regulate, and in many cases, are not apparent to the registrars (as in a lawyer registering domain names for a client).

In a discussion of the WHOIS Review Team and the Intellectual Property Constituency, the use of proxy and privacy services arose and the beneficial use of the services to protect trade secret and confidential commercial information was noted (e.g., as in the name of an upcoming movie, a new product or service, or a potential acquisition target together with the proposed new name of the entity).

Thus, in spite the broad level of concern about privacy and proxy services, a significant number of concerned respondents to the public Discussion Paper and law enforcement questionnaire viewed them as serving legitimate needs and did not advocate for their abolition. For example, some law enforcement agencies noted that privacy and proxy

---

[48] Coalition for Online Accountability, COA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[49] Non-Commercial Users Constituency, NCUC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00014.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

services are a 'tool to remain anonymous, which may be useful and justified in certain limited cases', such as 'if someone has a Family Protection Order (or similar) and displaying their information may put them at risk of harm'.

Rather than arguing against the use of proxy and privacy services *per se*, many stakeholders identified the unregulated environment in which they operate as a major underlying problem. For example, Time Warner noted that while it did 'not oppose the concept of proxy registration in limited circumstances', it did see:

> The development of a vast universe of 20 million or more gTLD domain name registrations, for which the identity and contact data of the registrant is hidden and, all too often, completely inaccessible, [as] a direct attack on ICANN's chief policy goal for WHOIS.[50]

Similarly, the Coalition for Online Accountability (COA) acknowledged that some registrants may require specific privacy protection, but these only accounted for 'an infinitesimal fraction' of current privacy and proxy registrations, and that the:

> Creation of a vast unmanaged database of tens of millions of effectively anonymous domain names ... is an irrational and socially damaging 'solution', one that inflicts far greater costs than warranted upon legitimate e-commerce, consumer interests, law enforcement and the public at large.[51]

But the At-Large Advisory Committee (ALAC) suggests that valuable interests on both sides can be balanced:

> The Team may be able to acknowledge the instance of Privacy Proxy Services and the role they play in the WHOIS ecosystem and chart and recommend some workable

[50] Time Warner Inc., comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00013.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[51] Coalition for Online Accountability, COA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

solution that acknowledges and fully embraces privacy concerns of the community, including ways that these may be answered in a balanced way.[52]

Specific concerns with the current unregulated environment include that:

- It impedes investigations and makes determination of the competent jurisdiction difficult. In this context, one law enforcement agency argued that they are 'aware of an online company providing a domain privacy protection service that actively promotes that they are uncontactable by any other means except through their website. This service is regularly utilised by criminals to register criminal based domains';
- It increases risk for law enforcement agencies by exposing investigative activities to unknown and untrusted parties. The Business Constituency clearly illustrates this risk when it states that its members have 'experienced situations where the registrar's 'proxy service' is simply a shell behind which to shield the registrar's own cybersquatting and illegal activities'; and
- The responsiveness of proxy or privacy service providers varies widely, with no current recourse for failure to disclose data.

In terms of responsiveness, the Motion Picture Association of America (MPAA) stated that:

> To date, only one proxy service has complied with MPAA requests to reveal contact information that would enable the service of a cease and desist notice to suspect operators. Seven other have refused to do so or have simply not responded. Even the one more compliant service has recently changed its policies so that it takes up to ten days or more (after notifying its customer) before it will disclose the information. This gives the suspect ample time to transfer the domain name to another suspect entity or take other steps to evade detection.[53]

---

[52] At-Large Advisory Committee, ALAC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/msg00026.html

[53] Motion Picture Association of American, MPAA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/msg00016.html

Similarly, Time Warner argued that:

> Whether or not a member of the public would ever be able to learn the identity or be able to contact the party actually responsible for the registration ... depends entirely on whether this proxy registration provider chooses to make that information available. In Time Warner's experience, some proxy registration providers are responsible, and will divulge this information upon being presented with evidence that the registration is being used to carry out abusive activities. Many others, however, do not.[54]

Balancing Privacy and Public Access

To address these concerns about lack of regulation of privacy and proxy services, several respondents to the public Discussion Paper and the law enforcement questionnaire argued that:

> ICANN needs to regulate privacy service providers.

In most cases, respondents argued that:

> This should include the accreditation of service providers and the imposition of minimum conditions for their operation.

For example, the Intellectual Property Constituency argued that:

> ICANN should undertake to create an official set of guidelines for what constitutes a valid privacy/proxy service and best practices for such services.[55]

Several law enforcement agencies suggested that:

---

[54] Time Warner Inc., comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00013.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[55] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> This type of regulation could mitigate some of their concerns with privacy services, and assist in the investigation and shut down of criminal domains.

Suggestions for regulatory conditions put forward by respondents to the public Discussion Paper and the law enforcement questionnaire related to the development of clear, workable, enforceable, and standardized processes to regulate access to registrant data when requested. For example, the International Trademark Association recommended that:

> Where a domain has been registered using a privacy or proxy service, there should be clear, enforceable contract mechanisms and procedures for the relay of communications to the beneficial owner, and for revealing the identity and contact information of the beneficial owner ... privacy/proxy services should be governed by a uniform body of rules and procedures that is overseen by ICANN, including standardised relay and reveal processes.[56]

Several stakeholders also emphasised the need to limit their use of privacy services in various ways – for example, to private individuals not involved with selling products or otherwise collecting or soliciting money.

Another issue raised by respondents to the public Discussion Paper and the law enforcement questionnaire relates to which data fields should be able to be limited by a privacy service. This issue is central to reaching an appropriate balance between personal privacy and ICANN's commitment to publicly available information. In this context, one law enforcement agency argued that:

> It is really important to keep in mind the right of the Internet users to receive reliable data about the owners and registrants of the domain names providing services for them. Privacy protection should not infringe upon the right to receive accurate and complete WHOIS data.

---

[56] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

As noted above, several respondents argued that there may be a case to limit access to some registrant information, and some respondents focused on specific data fields (such as personal addresses, phone numbers and email addresses). For example, Nominet stated that within the .uk ccTLD:

> In line with UK data protection law, a registrant who is a non-trading individual can opt to have their address omitted from the WHOIS service.[57]

Similarly, another commenter argued that:

> Balancing privacy, security and the right to know is the question. Minimal data requirements that allow a quick identification would be ideal, like Registered Name Holder, State/City/Country, email and telephone.[58]

In terms of balance, some respondents argued that it was important to retain enough publicly available data to establish domain name ownership and registrant identity. For example, the International Trademark Association argued that:

> INTA supports open access to ownership information for every domain name in every top-level domain ... Available information should include the identity of and accurate, reliable contact details for the true owner of the domain name.[59]

The question of ownership and identity is central to the distinction between privacy and anonymity, and several stakeholders raised specific concerns about lack of public access to a registrant's name and identity. For example, one law enforcement agency argued that:

> The ability to hide ones identity in the global e-commerce marketplace creates and environment that allows illegal activities to flourish. It is imperative that law

---

[57] The Review Team notes that this is consistent with ICANN-approved arrangements in place in the UK based Telnic. Nominet, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00018.html the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[58] Fatima Cambronero, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00023.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[59] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> enforcement is able to identify the who, what, where of domain name operators immediately in order to effectively investigate.

While several law enforcement agencies argued that privacy services could be regulated to provide special access to underlying registrant data (including registrant name) for law enforcement agencies, this would not address the broader consumer trust concerns associated with anonymity. For example, International Trademark Association (INTA) argues that:

> In most circumstances, publishing on the Internet is a public act, and the public should be able to determine who they are dealing with.[60]

The GAC WHOIS Principles similarly note that WHOIS data can contribute:

> To user confidence in the Internet ... by helping users identify persons or entities responsible for content and services online.[61]

The clear feedback from a range of stakeholders was that they found it important that WHOIS data should be accurate. There were a number of suggestions about what factors may be contributing to the current high levels of data inaccuracy.

On availability, two conflicting, but legitimate expectations were expressed by stakeholders: first, that the data should be freely available; and secondly, there was a recognition that total availability causes conflicts with legitimate expectations of privacy.
Numerous comments were made about the industry of commercial proxy and privacy providers that has grown up over the past decade.

In its Singapore Communiqué, the GAC emphasised "the need for effective compliance activities, noting that legitimate users of WHOIS data are negatively affected by non-compliance."

---

[60] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[61] https://gacweb.icann.org/download/attachments/1540132/WHOIS_principles.pdf?version=1&modificationDate=1312460331000

D. Suggested Improvements

Increased Contractual Powers?

A number of respondents believe that the accuracy of the WHOIS service can be improved by amending the RAA to give ICANN greater and more enforceable powers. The International Anti-Counterfeiting Coalition (IACC) has argued that:

> ICANN must amend the RAA ... The amendments should clarify responsibilities of both ICANN and registrar with respect to the operation of a transparent and accurate WHOIS system accessible to the broader internet community and should provide clear tools available to ICANN which are both reasonable and meaningful in the event of non-compliance. ICANN should commit greater resources to compliance and ensure that those resources are deployed to increase accuracy and reliability of WHOIS data. [62]

Several respondents to the public Discussion Paper argued that ICANN's current contracts and policies do not require registries and registrars to actively ensure WHOIS data accuracy. For example, International Trademark Association (INTA) argued that:

> At present there are no mechanisms in place to ensure the accuracy of WHOIS information provided by registrants. Instead there is a presumption by registries and registrars that WHOIS information provided by registrants is accurate and a lack of incentives to encourage registrants to refrain from providing misleading or inaccurate information.[63]

At the meeting with the Commercial Stakeholder Group in Singapore, Mike Rodenbaugh argued that:

---

[62] International Anti-Counterfeiting Coalition, IACC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00012.html on the WHOIS Policy Review Team Discussion Paper http://forum.icann.org/lists/whoisrt-discussion-paper/

[63] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

> Overall the WHOIS general policy (requirement to have accurate WHOIS information) has proved to be unenforceable essentially. ICANN gets thousands of complaints a month, basically showing false WHOIS and those reports generally go into a black hole 99% of the time. It takes months and sometimes never to get a response from ICANN. And the reason is because there is no, there are no firm commitments on registrars or registries as to responding to those requests. So ICANN kind of does its best, it forwards off the complaint to the registrar and registry, but there's no obligation on the registrar or registry really to do anything.

Time Warner International stated that it is:

> Not surprising that this system produces unacceptably high levels of inaccurate data.[64]

Several respondents to the public Discussion Paper raised concerns about the lack of clear and enforceable provisions in the RAA. For example, the Business Constituency argued that:

> Registrar's obligation to provide accurate WHOIS data is ... subject to loose contractual language and vague promises to comply with future ICANN policies. The absence of clear contractual obligations regarding WHOIS accuracy stands in strong contrast to ICANN's clear obligations to provide accurate WHOIS in the AoC.[65]

Other commentators disagreed. For example, in a call with the Intellectual Property Constituency in May 2011, one participant said:

> Where is the breakdown? No one is enforcing the contracts. All the wording says everything it needs to…. If you read the contract in isolation, it ought to work. In practice it does not happen.

---

[64] Time Warner Inc., comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00013.html on the WHOIS Policy Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[65] Business Constituency, BC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00027.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

The Need for Incremental Sanctions

With regard to serious breaches of WHOIS obligations, the InterContinental Hotels Group stated that:

> Compliance with WHOIS data reporting should continue to be compulsory and included in the Registrar Accreditation Agreement. Noncompliance should be met with a stern enforcement mechanism, including severe monetary fines. ... The most severe repercussions should be reserved for those registrar organizations who intentionally disregard WHOIS policy, and profit as a result of illegal and unethical registrations of individuals registering with them.[66]

Data Verification at the Point of Registration. Is it a Good Idea, and Would it Justify the Increased Costs?

In order to ensure the WHOIS information collected from registrants is accurate, several respondents to the public discussion paper argued that registrars should be obliged to verify data provided to them during the registration process. A similar principle could also apply to registries. For example, the Coalition of Online Accountability argued that:

> The current intolerable levels of inaccurate WHOIS data flow directly from ICANN's decision to place virtually sole responsibility for WHOIS data quality on a party with whom it has no contractual relationship: the registrant. Registrars insist that their only contractual obligation is to respond to reports of false WHOIS data, rather than to verify data accuracy at the time of collection or even to cancel registrations based on false WHOIS data. The largest registries have even less role to play on WHOIS data quality currently. This problem will not be solved or even ameliorated until registries and registrars both share responsibility for WHOIS data quality.[67]

---

[66] InterContinental Hotels Group, IHG, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00010.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[67] Coalition for Online Accountability, COA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00020.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

Further, the Intercontinental Hotels Group argued that:

> ICANN should require that registrars actually confirm the WHOIS data provided by registrants and not merely allow registrars to blindly accept any data provided by registrants with a meaningless and unenforceable reminder to registrants that accuracy is required.[68]

Other commentators supported a proactive approach in general, without giving specific operational suggestions as to how this might be achieved, for example the Intellectual Property Constituency:

> There is a need to develop policies that provide for proactive registrar compliance and provide for consequences associated with inaccurate data.[69]

Additionally, at the 2011 Singapore meeting the UK GAC Representative from the Government Advisory Committee stated that:

> A lot of this problem would be solved by the validation of the registration information at the time of the registration and periodically audited throughout. That was a big issue that we spoke with the registrars about, stating that that's something that we need to look at that would be a difficult issue.

Some organisations have already improved accuracy levels through implementing a verification process. The China Internet Network Information Center reported that:

> Since the organisation began verifying data provided to them, accuracy levels of .cn have reached 97 per cent[70].

---

[68] InterContinental Hotels Group, IHG, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00010.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[69] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[70] China Internet Network Information Center, CNNIC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00028.html on the WHOIS Review Ream discussion paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

However, it is noted that this is one of a number of changes of policy that have led to a dramatic reduction in the number of .cn registered domain names.

Many of the proposals to improve accuracy put forward in responses to the public Discussion Paper would require the implementation of new procedures by registries or registrars, and could increase their costs. The NORC WHOIS Data Accuracy Study 2009/10 concluded that:

> 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.[71]

In relation to this, a former GAC member noted the following:

> Registrars have long asserted that full verification of the accuracy of all records, including what by now must be a considerable backlog, would be financially unsustainable.[72]

Several respondents to the public Discussion Paper argued that some increase in costs would be inevitable. For example, the Intellectual Property Constituency argued that:

> The costs incurred by registrars or registries to comply with reasonable WHOIS accuracy and accessibility requirements are simply the costs of doing business as responsible players in a way that enhances consumer trust and the global public interest.[73]

---

[71] In January 2009/10, ICANN published a study conducted by the National Opinion Research Council of the University of Chicago (NORC) that had been commissioned by ICANN in 2009 to obtain a baseline measurement of what proportion of WHOIS records are accurate.

[72] Christopher Wilkinson, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00015.html on the WHOIS Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[73] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

Cooperation among all registrants and other ICANN constituents will be needed to eliminate any commercial disadvantage accruing from enforcing greater accuracy.[74]

ICANN's Compliance Team told us in a written response to questions:

> 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.

Similarly, International Trademark Association (INTA) argued that:

> Consideration should be given to the implementation of a validation process funded by additional fees (validation fees) paid by registrants at the time of registration as well as penalties, such as loss of the registration if information is found to be inaccurate in the validation process.[75]

This view was supported by participants in the Commercial Stakeholder Group at the 2011 Singapore meeting:

> Registrars have tremendous market pressures: very low margin business, no upfront costs (consolidation is obviously an upfront cost). If, however, that cost is forced upon them, I think everyone in this room would be perfectly happy to pay more money for domain names and have that validation done. Nobody in here believes there's a God given right to a $10 domain name, yet everybody in the registrar and registry constituency believes there is and they can't sell them if they have to charge more than that. Well if they all have to charge more than that, then that seems to me, and I think to most folks in this room, it would go a long way towards solving the problem.

---

[74] Intellectual Property Constituency, IPC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00019.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[75] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

In response to the issue of the costs of data validation, one law enforcement commentator noted:

> As time has moved on, technology has become more mature where the cross matching of data is now more sophisticated and can now be carried out at a relatively low cost, giving some degree of confidence as to the accuracy of Whois data. This may not have been possible at the start up of Whois – the figure of 27 cents per domain has been mentioned to cross check domain accuracy – if that figure is right, it may be that advances in technology are driving the price of potential data accuracy solutions down. Many other industries are making regular use of this technology to verify accuracy of personal data during the normal course of online business.[76]

In a meeting with the At-Large Advisory Committee in June 2011, Cheryl Langdon-Orr argued that:

> Many of us at the consumer interest end and the user end of the spectrum know who's going to bear the costs under normal circumstances and that will be us because costs will be passed on. If they are not passed on there is probably a good market differentiation reason for them not to be passed on, and it will probably mean that we are buying other services at greater costs from our suppliers to compensate for that anyway. Many of us have no choice, and the difference between $7.50 or $11.00 is virtually nothing when we are simply wanting to get our name registered, licensed and safe for whatever period of time we're purchasing it for.

Some respondents to the public Discussion Paper argued that relevant precedents for this type of verification exist, and that ICANN could leverage or adapt these processes for WHOIS purposes. For example, the Business Constituency argued that:

> The RAA should be amended to require contracted parties to take reasonable steps to verify the accuracy of WHOIS information when a registration first occurs and when a registrant renews their domain name. ICANN can look to best practices from other industries, including the financial sector and e-Commerce industries, which have employed successful online data verification systems to ensure the accuracy of

[76] Gary Kibbey, SOCA UK

> information and to prevent fraud and abused. After all, processes to gather accurate information are already undertaken by Registrars in the collection of credit card and other form as of payment. Valid WHOIS data should not be an exception and should be a prerequisite to complete the registration of a domain name.[77]

Education and Awareness Raising

In addition to regulatory compliance activities, several respondents to the public Discussion Paper suggested that ICANN should play a greater role in education and awareness raising, and ensure that all parties are aware of their obligations and are required to comply with these policies. For example, the International Trademark Association-Internet Committee stated:

> ICANN should clarify its existing WHOIS policy by taking measures to inform and educate the public and its business partners, such as its registrars and registries, on the importance of the WHOIS policy and of complying with its terms.[78]

This view was also supported by participants in the Commercial Stakeholder Group at the 2011 Singapore meeting:

> ICANN needs to do a better job of educating everybody in a uniform way about what the WHOIS commitments are. It needs to be clear, easy to understand, easy to find, consistent material that is provided to registrants...The lack of clear communication is still a problem today. The registrant needs to be advised of their obligation and of the consequences. ICANN needs a lot more willingness to accept the fact it has that obligation.

Further, the NORC WHOIS Data Accuracy Study 2009/10 suggested that education is a key to effectiveness. The NORC study found that a significant proportion of registrants interviewed

---

[77] Business Constituency, BC, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00027.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

[78] International Trademark Association, INTA, comments http://forum.icann.org/lists/whoisrt-discussion-paper/msg00011.html on the WHOIS Policy Review Team Discussion Paper, http://forum.icann.org/lists/whoisrt-discussion-paper/

– over 20% - were completely unaware of WHOIS, and thus had a limited understanding of the value of the information they were entering. Many errors were strictly ones of respondent confusion at the point of data entry:

> Additionally, the pattern of responses for some cases indicated a confusion between the three roles of registrant, administrative contact, and technical contact. For example, with the Registrant writing "self" as registrant, or leaving the registrant field blank, while providing full and complete details about themselves in the administrative contact field. When asked to complete name and address information four times in the course of registering a site (one each for registrant, administrative contact, technical contact, and billing address), it is easy to see how these errors could arise.

E. Consumer Study

Introduction

The Review Team decided to undertake an independent research study to gain a better understanding of consumer trust as it relates to the use of WHOIS. The premise for this decision was based on the AOC, Paragraph 4 which states:

> "A private coordinating process, the outcomes of which reflect the public interest, is best able to flexibly meet the changing needs of the Internet and of Internet users. ICANN and DOC recognize that there is a group of participants that engage in ICANN's processes to a greater extent than Internet users generally."

Therefore, the WHOIS review team felt that we should solicit input beyond the ICANN constituencies. Specific questions related to consumer trust were:

- What factors influence consumer's perception of trustworthy websites?
- Are consumers aware of the WHOIS and WHOIS records for domain name registrations to evaluate trust in a website?
- Are consumers able to locate and find domain registrant information with a reasonable ease of use?

Following budget approval by the ICANN Board, the WHOIS Review Team commissioned a consumer study. This was in two parts (as described in more detail, together with the slides of the consultant): qualitative and quantitative. Both parts of the study involved subjects from 8-10 countries, with appropriate consideration for balance in age range, gender, and occupation. For additional details and full reference, please refer to appendices.

The findings of the study are summarized below:

- **Website Trust**

- Consumer trust in a website is enhanced with safe and secure images such as VeriSign and TRUSTe when visiting ecommerce sites (68%)
- Websites of companies or brand names already known to the users also engenders trust: (63%)
- Users in France also look for https for a lock icon in order to obtain confidence in the site (50%)
- When concerned that a website is fraudulent, the majority of users will look for contact information on the website content (67%) and then search for user reviews (60%)
- When asked to locate the domain owner of a specified domain name, most agreed that it was easy (72%)[79], and correctly identified the owner of the website (66%)
- Most users agreed that they were confident they had found the information they were looking for (76%) and that the information they found was trustworthy (85%)

- **WHOIS**

[79] Given the differential between this percentage, and that of consumers who are aware of WHOIS (24%), it is assumed that many were able to locate the "domain owner's" details from contact details published on the website associated with the domain name.

- Overall, awareness of WHOIS amongst consumers is low (24%).
- When asked to find the owner of a specified domain name, most users did not think to utilize the WHOIS look-up service (77%)
- If concerned that a website is fraudulent, 68% of International and 65% of National users would "Find Website Contact Information" first and "Search for User Reviews" as a second step users (59% of International and 61% of National).

Conclusions

Significant indications from the UserInsight study include:
The study reveals a low level of awareness and a lack of consistency in the source and presentation of WHOIS data or domain registrant information. Therefore it is not possible to conclude from the study what role the WHOIS policy or its implementation plays in promoting consumer trust. The Review Team found no evidence of any consumer awareness or education programs about WHOIS by ICANN, registries or registrars.

Those wanting to validate the integrity or authenticity of a website use a variety of methods which indirectly lead to multiple and different WHOIS data web pages published by registries and registrars. The WHOIS results pages were confusing and lacked credibility because of the visual presentation and distraction of domain ads for sale.

A significant percentage of those who have a registered domain name are unaware of WHOIS and, therefore, unaware that their name and contact information are publicly available through WHOIS. This indicates that more emphasis and attention is needed on the privacy principle of notice at the time an individual is obtaining a domain name and providing registration details.

Chapter 7: Gap Analysis

This chapter examines gaps between ICANN's policies and their implementation, and between ICANN and its contracted parties' respective commitments and the services they actually deliver. Consistent with the review team's scope, the chapter focuses on the extent to which existing WHOIS policy and its implementation is effective, meets the legitimate needs of law enforcement, and promotes consumer trust. In writing it, we are mindful of the extensive input received from many communities and documented in the earlier sections of this Report.

In acknowledgement of the special roles of governments in ICANN, we note specially the guidance given by governments, over time, to ICANN in the WHOIS discussions: Government Advisory Committee and Data Protection Commissioners.

The chapter covers five broad areas:

- WHOIS data accuracy needs to be stronger
- The Role of ICANN needs to be enhanced
- Registrars and Registries should be more responsible
- Registrants are ultimately responsible
- Need to fix the proxy registration system
- Conclusions

A. WHOIS Data Accuracy Needs to be Stronger

The Affirmation of Commitments provides that ICANN will implement measures to maintain timely, unrestricted and public access to accurate and complete WHOIS information, including registrant, technical, billing, and administrative contact information. ICANN has two consensus policies that address WHOIS accuracy. To varying degrees, the commitment to accuracy is also echoed in the contractual commitments of registries, registrars and registrants.

As discussed in Chapter 6, in January 2009/10, ICANN published a study conducted by the National Opinion Research Council of the University of Chicago (NORC) that had been commissioned in 2009 by ICANN to obtain a baseline measurement of what proportion of WHOIS records are accurate. Examining an internationally representative sample of 1419

records, the Study found that, based on a strict application of the criteria, only 23% of records were fully accurate, though roughly twice that number met a slightly relaxed version of the criteria. The study also found that 21.6% of data was not sufficient for the registrant to be located, with either missing or deliberately false information.

In their WHOIS Data Accuracy Study 2009/10, NORC found that there are various "barriers to accuracy" from the point of data entry onwards with the combined involvement of registrants, registrars, registries and ICANN itself. The following analysis focuses on the individual roles of these actors, and the chain of responsibilities between them.

B. The Role of ICANN Needs to be Enhanced

ICANN has sought to improve the accuracy of WHOIS data in several ways. At the registry level, ICANN has imposed contractual obligations that flow through registries to registrars in three of ICANN's registry agreements, namely .MOBI, .TEL and .ASIA[80].

ICANN also plans to implement a more comprehensive evaluation process for gTLD applicants, which includes an assessment of the applicant's ability to maintain a higher standard of WHOIS data accuracy. Improved accuracy in WHOIS data will be actively promoted by ICANN throughout the evaluation and selection process so that applicants will be motivated to improve accuracy standards in their bid for a new gTLD.[81]

ICANN's Compliance effort was the subject of numerous comments during our outreach. In the main (with the exception of registries and registrars who were positive), ICANN's WHOIS Compliance effort was perceived to be inadequately resourced, ineffective, and to need significant improvement.

On an operational level the WHOIS Review Team notes that ICANN has made a number of senior recruitments to the Compliance Team, and has assigned responsibility for WHOIS issues to an individual within the Team. We note that moves are underway to improve the user experience with regard to the Compliance pages on the website, and understand that

[80] http://www.icann.org/en/tlds/agreements/mobi/, http://www.icann.org/en/tlds/agreements/tel/

http://www.icann.org/en/tlds/agreements/asia/

[81] ICANN, gTLD Applicant Guidebook (30 May 2011)

the issues we have highlighted as areas for improvement for Compliance (refer to appendices) are acknowledged and shared by the Compliance Team.

C. Registrars and Registries Should be More Responsible

Registrars and registries play a key role in ensuring the accuracy of WHOIS data because they are the parties responsible for collecting WHOIS data from registrants and ensuring that the data is available.

As noted above, there are currently no requirements for registrars or registries to pro-actively monitor or verify registration data for accuracy. If a registrar is notified of an inaccuracy in data, RAA 3.7.8 provides that the registrar will take reasonable steps to investigate the claim of inaccuracy and correct the information if needed. If data is found to be intentionally false registrars are not obligated to cancel the registration.

This point is echoed by WHOIS compliance staff, who stated in response to the Review Team's questions that:

> 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.

The WHOIS Review Team notes that there are limited, if any, compliance activities directed at Registries, and acknowledges that this is a potentially difficult area, as registries do not have direct relationships with registrants (the producers of WHOIS data). There is an understandable concern on the part of all contracted parties to ICANN that the distinctions within the vertical supply chain may become blurred if registries take on responsibility for correcting registrant data. While we accept that concern, the WHOIS Review Team is also of the view that all parties should do what they can to improve accuracy of data. For those registries which operate a thick WHOIS, and become aware of inaccurate data, they should inform the relevant parties, including registrars with whom they have existing commercial relationships, so that appropriate steps can be taken to rectify the data, or delete the registration.

D. Registrants Are Ultimately Responsible

Sections 3.7.7.1 and 3.7.7.2 of the RAA outline the contractual responsibility of the registered name holder to provide accurate and up-to-date personal information to the registrar, and that they must notify the registrar if information needs updating. Despite these obligations, many registrants do not provide accurate personal information or keep this information up-to-date.

Ultimately, domain names are subject to cancellation for the registrant's failure to provide accurate data, or willful failure to correct it. However, there is little perception amongst the stakeholders from whom we received comments that domains *are* being cancelled for inaccurate data, or that sufficient steps are taken to close the compliance loop at the level of individual domain name registrations.

E. The Proxy Registration System

Review Team members are in unanimous agreement that the status quo regarding proxy registrations is not sustainable, is not fair to legitimate participants in the domain name marketplace, frustrates valuable social goals such as law enforcement and the protection of intellectual property, and reflects poorly on ICANN's commitment to serve the public interest.

We are also in agreement that the goal should be to give accredited registrars strong incentives not to foster this undesirable status quo, and that such incentives should arise both from the terms of the ICANN contracts with registrars, and from principles of legal responsibility under national law. ICANN can control the first source of these incentives; its contractual provisions may influence, but cannot control, the second, since neither of the parties most directly involved -- the proxy service customers, and the law enforcement or other party seeking to identify them and hold them accountable -- is under contract to ICANN.

We have not reached consensus on how best to advance this common goal. Some believe that the best approach is to start with the proxy services that are made available in connection with domain name registration, and require these services to follow best practices for promptly disclosing the identity of the party actually in control of the domain

name, with registrars facing consequences if they do business with services that do not fulfill best practices. Others prefer the approach of denying any recognition of proxy services in ICANN contracts, and treating all such services simply as registrants, regardless of their practices.

We have reached consensus on all the recommendations set out below. However, we include our recommendations on best practices (see recommendation 12 below), with the proviso that a significant body within the WHOIS Review Team has little confidence that such measures will prove a satisfactory solution over time. We request that the next WHOIS Review Team reviews the proxy industry's progress in this regard, and in the event that it finds the WHOIS policy and its implementation unsatisfactory at that point, we trust that it will make recommendations for more concrete measures.

With regard to recommendation 17, the Review Team agrees on the need to assist users, and a portal to do this, and puts forward alternatives for community comment on those issues we don't yet have consensus on (ie should such a portal be limited to thin registries only, or all gTLDs).

One other area of agreement is that neither approach will be successful without proactive ICANN compliance measures, either to police observance of best practices, in the first approach, or to press registrars to cancel registrations of proxy services that do not fulfill their contractual obligations as set forth in the RAA. A well-resourced and credible compliance program is essential to reforming the unacceptable status quo in this area.

F. Conclusions

WHOIS is a source of long-running discussion at ICANN, both formal and informal. This apparently simple look-up service raises issues of data accuracy, privacy, cost, policing, and consumer trust. Each of the issues is important, and this is sometimes lost in the heat of the debate and the desire to vigorously advance a well-intentioned, reasonable position.

We have found little consensus but more concerning, is the lack of coordinated effort to achieve consensus in this important space. Neither ICANN the corporation nor ICANN the community has seen the need to charge an individual or group as responsible for WHOIS.

This we find to be a significant oversight, because without such coordinating effort, the small steps required for consensus may never be taken.

To help inform the WHOIS debate, ICANN has adopted "the study" as a surrogate for action. Significant sums have been invested over a number of years providing considerable information that is then debated, questioned, and studied again. The Review Team would welcome a more joined up approach, where such studies would provide a resource for the benefit of the entire ICANN Community as it decides, in a timely manner, actions necessary to remedy policy or policy implementation failures. Whilst it is laudable to adopt an evidence-based approach, there must be tangible, measurable follow up in order to capitalize on the investment made in the reports.

Lack of Documented policy

One of our earliest findings has been our inability to find a clear, concise, well-communicated WHOIS Policy. In this case, the policy is divined from its implementation. As a result, what might have been simple has become complex, difficult to understand, and seemingly impossible to modify in any meaningful way.

Effectiveness of Consensus Policies

The WHOIS Data Reminder Policy and its implementation we find to be ineffective in achieving the objective of improving data accuracy. Considerable effort is expended reaching out to registered domain name holders on an annual basis. Anecdotal evidence suggests that name holders frequently ignore these messages, view them as SPAM or as unwanted marketing approaches by their Registrar. The policy, while well intentioned, has not measurably improved accuracy but has increased costs to Registrars and ICANN as it monitors compliance with the policy.

Internationalised Domain Names

Perhaps it should be no surprise that within this environment, policy and implementation have not kept pace with the real world. A significant example of this is Internationalised Domain Names (IDN), which have been available for registration at the second level for over

a decade, and at the Top Level for more than a year. During this time, WHOIS policies were not amended to accommodate the obvious need to support non-ASCII character sets even though there was a recognition that Internationalisation is essential for the Internet's development as a global resource.
The NORC Study on Data Accuracy highlighted IDN contact data as a major cause of apparent inaccuracy.

Data Accuracy

The NORC WHOIS Data Accuracy Study 2009/10 found that over 20% of gTLD WHOIS data was so inaccurate that it was impossible to reach the registrant in any way. In numbers, this translates to over 20,000,000 registrations in .com alone. Whilst the WHOIS Review Team in general would like to see a higher level of accuracy throughout the system, it is unacceptable to have such a high percentage with obviously inaccurate data, and particularly domain names where the registrant should not be contacted at all. We have suggested goals for the improvement of the data, and the contactibility of these registrants. We would very much like to see ICANN address the concern that nothing is being done.

Availability – Proxy and Privacy Services

The community has not handled the issue of privacy in a timely or effective manner.
As the community hesitated, a private industry arose offering proxy and privacy services to millions of registrants. The industry is unregulated and operates by no set of common policies. This Review Team noted disagreement on the definitions for privacy and proxy services and has seen fit to offer definitions for the benefit of the community.

Users of WHOIS, including law enforcement and the private industry around law enforcement and the security industry, have difficulty finding those responsible for websites. This was reported to the Review Team on numerous occasions; formally, informally, and through our consumer study. Privacy/proxy services tend to hinder rather than help these efforts to find those responsible for websites.

At the same time, it is recognized that privacy protection, for individuals and organizations must be addressed. ICANN's attention has been drawn to this situation, notably through EC Data Protection commissioner communiqués informing ICANN that non-trading, natural

persons need privacy protection under EU and other national data protection laws.

In addition, protections for freedom of expression need to be considered as well as security and operational needs. The current system does not address the proper balance.

Proxy and Privacy services are terms used in the 2009 RAA but are undefined and consequently a shared understanding is at best difficult. Clarity in this area is essential and starts with the concise definitions suggested by this Review Team elsewhere and copied here for convenience.

- **Privacy Service -** a service that provides the Registrant Name and a subset of other information (possibly null set) but consistent across ICANN.

- **Proxy Service -** a relationship in which the registrant is acting on behalf of another. The WHOIS data is that of the agent and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

Finally, ICANN policy with respect to privacy and proxy services must be clarified and codified for the benefit of the community, courts, service providers, and service recipients. A registrar that owns or manages a subsidiary that provides a proxy service or enters into a partnership or recommends a proxy service at the time of registration has knowledge of the contractual agreement between the proxy service provider and registrant. Both the proxy service provider and registrar should engage in developing best practices together with the Community.

Chapter 8: Recommendations

Single WHOIS Policy

1. ICANN's WHOIS policy is poorly defined and decentralized The ICANN Board should oversee the creation of a single WHOIS policy document, and reference it in subsequent versions of agreements with Contracted Parties. In doing so, 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.

Policy review – WHOIS Data Reminder Policy

2. The ICANN Board should ensure that the Compliance Team develop, in consultation with relevant contracted parties, metrics to track the impact of the annual WHOIS Data Reminder Policy (WDRP) notices to registrants. Such metrics should be used to develop and publish performance targets, to improve data accuracy over time. If this is unfeasible with the current system, the Board should ensure that an alternative, effective policy is developed and implemented in consultation with registrars that achieves the objective of improving data quality, in a measurable way.

Strategic Priority

3. ICANN should make WHOIS a strategic priority. This should involve allocating sufficient resources, through the budget process, to ensure that ICANN compliance staff is fully resourced to take a proactive regulatory role and encourage a culture of compliance. The Board should ensure that a senior member of the executive team is responsible for overseeing WHOIS compliance.

Outreach

4. ICANN should ensure that WHOIS policy issues are accompanied by cross-community outreach, including outreach to the communities outside of ICANN with a specific interest in the issues and an ongoing program for consumer awareness.

Data Accuracy

5. ICANN should take appropriate measures to reduce the number of unreachable WHOIS registrations (as defined by the NORC Data Accuracy Study, 2009/10) by 50% within 12 months and by 50% again over the following 12 months.

6. ICANN shall produce and publish an accuracy report focused on measured reduction in "unreachable WHOIS registrations", on an annual basis.

7. ICANN should provide at least annual status reports on its progress towards achieving the goals set out by this WHOIS Review Team, published by the time the next WHOIS Review Team starts. This report should include tangible, reliable figures needed.

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. As part of these agreements, ICANN should ensure that clear, enforceable and graduated sanctions apply to registries, registrars and registrants that do not comply with its WHOIS policies. These sanctions should include de-registration and/or de-accreditation as appropriate in cases of serious or serial non-compliance.

9. ICANN should ensure that the requirements for accurate WHOIS data are widely and pro-actively communicated to current and prospective Registrants. As part of this effort, ICANN should ensure that its Registrant Rights and Responsibilities document is pro-actively and prominently circulated to all new and renewing registrants.

Data Access – Privacy Services

10. ICANN should develop and manage a system of clear, consistent and enforceable requirements for all privacy services consistent with national laws. This should strike an appropriate balance between stakeholders with competing but legitimate interests. At a minimum this would include privacy, law enforcement and the industry around law enforcement.

    - WHOIS entry must clearly label that this is a private registration
    - Privacy services must provide full contact details as required by the WHOIS which are available and responsive as required by the framework mentioned

above.

- Standardized relay and reveal processes and timeframes.
- Rules for the appropriate level of publicly available information on the registrant
- Maintenance of a dedicated abuse point of contact for the privacy service provider
- Privacy service provider shall conduct periodic due diligence checks on registrant contact information

11. ICANN should develop a graduated and enforceable series of penalties for privacy service providers who violate the requirements with a clear path to de-accreditation for repeat, serial or otherwise serious breaches.

Data Access- Proxy Service

12. ICANN should facilitate the review of existing practices by reaching out to proxy providers to create a discussion that sets out current processes followed by proxy service providers.

13. Registrars should be required to disclosure their relationship with any Affiliated Retail proxy service provider to ICANN.

14. ICANN should develop and manage a set of voluntary best practice guidelines for appropriate proxy services[82] consistent with national laws. These voluntary guidelines should strike an appropriate balance between stakeholders with

---

[82] As guidance to the Community and as useful background for the Proxy Service Recommendations, the Review Team provides its working definitions of proxy service and different types of proxy service providers:

- **Proxy Service** – a relationship in which the registrant is acting on behalf of another. The WHOIS data is that of the agent and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

- **Affiliated Registrar** – another ICANN accredited registrar that operates under a common controlling interest (2009 Registrar Accreditation Agreement, Section 1.20)

- **Affiliate retail proxy service provider** – entity operating under a common controlling interest of a registrar.

- **Retail proxy service provider** - proxy service with little or no knowledge of the entity or individual requesting the service beyond their ability to pay and their agreement to the general terms and conditions.

- **Limited proxy service provider** - proxy service for an entity or individual in which there is an ongoing business relationship bound by a contract that is specific to the relationship.

competing but legitimate interests. At a minimum this would include privacy, law enforcement and the industry around law enforcement.

Such voluntary guidelines may include:

- Proxy services provide full contact details as required by the Whois
- Publication by the proxy service of its process for revealing and relaying information
- Standardization of reveal and relay processes and timeframes, consistent with national laws
- Maintenance of a dedicated abuse point of contact for the proxy service provider
- Due diligence checks on licensee contact information.

15. ICANN should encourage and incentivize registrars to interact with the retail service providers that adopt the best practices.

16. For the avoidance of doubt, the WHOIS Policy, referred to in Recommendation 1 above, should include an affirmative statement that clarifies that a proxy means a relationship in which the Registrant is acting on behalf of another. The WHOIS data is that of the agent, and the agent alone obtains all rights and assumes all responsibility for the domain name and its manner of use.

Data Access – Common Interface

17. To improve access to the Whois data of .COM and .NET gTLDs, the only remaining Thin Registries, ICANN should set up a dedicated, multilingual interface website to provide thick WHOIS data for them.

ALTERNATIVE for public comment:

To make WHOIS data more accessible for consumers, ICANN should set up a dedicated, multilingual interface website to allow "unrestricted and public access to accurate and complete WHOIS information". Such interface should provide thick WHOIS data for all gTLD domain names.

Internationalized Domain Names

18. ICANN Community should task a working group within 6 months of publication to finalize (i) encoding, (ii) modifications to data model, and (iii) internationalized services, to give global access to gather, store and make available internationalized registration data. Such working group should report no later than one year from formation, using existing IDN encoding. The working group should aim for consistency of approach across the gTLD and – on a voluntary basis – the ccTLD space.

19. The final data model and services should be incorporated and reflected in Registrar and Registry agreements within 6 months of adoption of the working group's recommendations by the ICANN board. If these recommendations are not finalized in time for the next revision of such agreements, explicit placeholders for this purpose should be put in place in the agreements for the new gTLD program at this time, and in the existing agreements when they come up for renewal (as is the case for adoption of consensus policies).

20. Requirements for registration data accuracy and availability in local languages should be finalized (following initial work by IRD-WG and other similar efforts, especially if translation or transliteration of data is stipulated) along with the efforts on internationalization of registration data. Metrics should be defined to measure accuracy and availability of data in local languages and (if needed) corresponding data in ASCII, and compliance methods and targets should be explicitly defined accordingly.