Registration Directory Service (RDS)-WHOIS2 Review

Draft Report: Executive Summary

RDS-WHOIS2 Review Team
31 August 2018

ICANN

1   Executive Summary

1.1   Overview

1.1.1   Introduction

This Draft Report is being issued to inform the community of the status of the RDS-WHOIS2 Review, to publish the review team's work and draft recommendations, and to solicit feedback through an ICANN Public Comment Proceeding.

1.1.2   Background

The Internet Corporation for Assigned Names and Numbers (ICANN) is responsible for, among other things, the establishment of policies related to the creation and use of Generic Top Level Domains (gTLDs). Within each Top Level Domain (TLD) individuals and organizations may register domain names. For each registration a record is maintained of information about that registration including who the registrant is and information to facilitate contact with the registrant.

This registration record is traditionally referred to as a "WHOIS" record and more recently is referred to as a Registration Directory Service (RDS) record. When ICANN was created, the requirement that information in the RDS (WHOIS) database be public was established, but privacy demands soon gave rise to informal privacy/proxy mechanisms to comply with privacy wishes. Policy associated with gTLD RDS (WHOIS) is established by the ICANN Board on the recommendation of the Generic Names Supporting Organization (GNSO). Current RDS (WHOIS) "Policy" is a combination of enacted policy, contractual obligations placed on Registrars and Registries, and much de facto policy left over from the Internet's early days.

As part of its prior agreement with the United States Department of Commerce, and more recently under its own Bylaws, ICANN is required to periodically review the RDS (WHOIS) system. The first such review was carried out in 2010-2012, and the present review is the second such effort.

RDS (WHOIS) is a rather hot topic in ICANN. It has been controversial for over 15 years. The recommendations of the first WHOIS Review Team (hereafter referred to as the WHOIS1 Review Team) resulted in an Expert Working Group studying WHOIS and the creation of a GNSO Policy Development Process (PDP) to establish a new RDS Policy Framework to replace WHOIS. Additionally, in mid-2017, ICANN began efforts to address European Union privacy regulations (the General Data Protection Regulation – GDPR) which impacts ICANN and its Registrars' and Registries' current RDS (WHOIS) regime and the ability to continue to publish RDS (WHOIS) information - at least for personal data from the European Union and neighboring countries that are part of the European Economic Area.

1.1.3   Review Scope

There were a number of community proposals to both limit the scope of this RDS-WHOIS2 Review to only assessment of the WHOIS1 Review Team's recommendations, and also to include a range of other issues over and above those mandated in the Bylaws.

Formally, the scope of a Review is the responsibility of the review team. After much discussion the RDS-WHOIS2 Review Team decided that it would review all of the Bylaw mandated areas,

except the OECD Guidelines, as they were under consideration by the Next-Generation gTLD RDS PDP and were judged to be less relevant, particularly in relation to the GDPR. In addition, the RDS-WHOIS2 Review Team included in its scope a review of new policy adopted by ICANN since the WHOIS1 Review Team published its report, and decided to perform a substantive review of Contractual Compliance with the intent of (a) assessing the effectiveness and transparency of ICANN enforcement of existing policy relating to RDS (WHOIS) through ICANN Contractual Compliance actions, structure and processes, including consistency of enforcement actions and availability of related data, (b) identifying high-priority procedural or data gaps (if any), and (c) recommending specific measurable steps (if any) the team believes are important to fill gaps.

The RDS-WHOIS2 Review Team explicitly did not focus on ICANN's actions in response to the relatively new European Union GDPR. Those actions are ongoing and the outcomes are not sufficiently firm as to allow them to be reviewed here. However, the review team recognized the issue is of significant importance and that it would probably impact several policies related to registrant data. To the extent GDPR and its effects on the RDS (WHOIS) could be factored in, the RDS-WHOIS2 Review Team did so.

1.1.4   Methodology

Mandated by ICANN's Bylaws, Specific Review Teams may include up to twenty-one Members representing the seven Supporting Organizations and Advisory Committees. The RDS-WHOIS2 Review Team has ten Members representing the At-Large Advisory Committee (ALAC), the Governmental Advisory Committee (GAC) and the Generic Names Supporting Organization (GNSO), plus one Member representing the ICANN Board. All meetings (both teleconferences and face-to-face) may have observers and all review team documents and mailing lists are publicly viewable.

The sixteen recommendations from the WHOIS1 Review Team were grouped into nine subject areas (Strategic Priority, Single WHOIS Policy, Outreach, Contractual Compliance, Data Accuracy, Privacy/Proxy, Common RDS (WHOIS) Interface, Internationalized Registration Data[1] and Implementation Planning/Reports) and a subgroup of the RDS-WHOIS2 Review Team was formed to address each topic. Subgroups were also created to address topics beyond recommendations produced by the WHOIS1 Review Team (Law Enforcement, Consumer Trust, Safeguards and Post-WHOIS1 Policies and Procedures, referred to as "Anything New"). The new topic on Contractual Compliance Actions, Structure, and Processes was handled by the subgroup reviewing the original WHOIS1 Compliance recommendations.

Each subgroup performed an analysis of its subject matter, and drafted its report including, if applicable, any new recommendations. Many subgroups held teleconferences to carry out their work, in addition to e-mail discussions. The subgroup's documents and its conclusions were then reviewed in depth by the entire review team. To the extent possible, decisions were made by consensus and the vast majority of those were unanimous.

The RDS-WHOIS2 Review Team conducted 40 teleconferences (typically 90 minutes) and met face-to-face three times (for a total of 7 days) prior to issuing this Draft Report.

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[1] The WHOIS1-Final Report incorrectly titles the section on Internationalized Registration Data as "Internationalized Domain Names". As the report itself makes clear, the problem is not with the domain names which are handled by the DNS and WHOIS by translating them into ASCII (Punycode), but in the registration data such as the registrant name or mailing address. WHOIS only allows 7-bit ASCII for those, and the need to be able to enter such data in local scripts exists for non-IDN domains as well.

1.1.5   Summary Findings

For each of the subgroups, a brief description of the issues and findings is below. Full text of all resultant recommendations appears in the section that follows.

Strategic Priority: WHOIS1 Recommendation #1 required ICANN to treat RDS (WHOIS) in all its aspects as a strategic priority. This recommendation was deemed to have been partially implemented as it failed to achieve the original aim of instilling a culture of proactive monitoring and planned improvement in RDS (WHOIS).

Single WHOIS Policy: WHOIS1 Recommendation #2 required ICANN to create a single RDS (WHOIS) policy document. This was done by creating a web-based document, linking to the various documents that, in total, comprise ICANN RDS (WHOIS) policy. Although this was not a single policy that was envisioned by some on the WHOIS1 Review Team, it did address the recommendation and was deemed to be fully implemented.

Outreach: WHOIS1 Recommendation #3 required ICANN to perform outreach, including to communities outside of ICANN, with the intent of improving understanding of RDS (WHOIS) and promoting consumer awareness. Significant web-based documentation was created, but it was not well integrated with other registration and RDS (WHOIS)-related parts of the ICANN web site. Abundant outreach was done, but little to communities not normally involved with ICANN. The recommendation was therefore deemed to be partially implemented.

Contractual Compliance: WHOIS1 Recommendation #4 required that the ICANN Contractual Compliance function be managed in accordance with best practice principles and overseen by a dedicated senior executive. There has been significant improvement since the recommendation was made, but it was found to be only partially implemented.

In addition to reviewing the implementation of WHOIS1 Recommendation #4, this subgroup was also responsible for the additional study of Contractual Compliance Actions, Structure, and Processes as described under Scope. A number of issues were identified, resulting in several new recommendations.

Data Accuracy: WHOIS1 Recommendations #5-9 dealt with several issues related to RDS (WHOIS) accuracy. The implementation of these recommendations resulted in a significant effort on behalf of ICANN Org and there is now a better understanding. However, there are still many gaps in our understanding of accuracy issues. Although the syntactic accuracy of data has improved, it is less clear what the impact has been on whether the data allows identification of and contact with registrants. GDPR may ultimately obscure accuracy even more by making it more difficult to assess whether the data within the RDS (WHOIS) repository is accurate or not. Two of the recommendations were deemed to be fully implemented and three were partially or not implemented.

Privacy/Proxy: The GNSO Policy Development Process (PDP) on Privacy and Proxy service providers was triggered by WHOIS1 Recommendation #10. The PDP has completed and the implementation review team is in the process of finalizing implementation. Since the ICANN Board acted fully on the recommendation, it is deemed to have been fully implemented. However, since the RDS-WHOIS2 Review Team could not assess implementation effectiveness, the review team has asked that the ICANN Board recommend that the next RDS (WHOIS) Review Team address that. There is also a fallback recommendation in the case that the Privacy/Proxy policy implementation is unduly delayed.

Common RDS (WHOIS) Interface: WHOIS1 Recommendation #11 required that a single RDS (WHOIS) portal be created and operated by ICANN to provide the community with a "one-stop shop" for all RDS (WHOIS) queries. That was done and the recommendation is deemed to be fully implemented. However, there is a follow-on recommendation suggesting metrics and/or a service level agreement for the portal to ensure full effectiveness. Compliance efforts with respect to GDPR have also broken some aspects of the portal (since the registry is no longer the definitive source for thick RDS (WHOIS) information) and a follow-on recommendation addresses this new issue.

Internationalized Registration Data: WHOIS1 Recommendations #12-14 relate to the use of internationalized character sets for registration data (name, address, etc.)[2] A number of studies and a PDP were carried out in response to these WHOIS1 recommendations. The resultant policy and practices are not yet in place because they depend on a new RDS (WHOIS) system which is not yet implemented (using the Registration Data Access Protocol – RDAP). Because all of the work requested was carried out, the recommendations are deemed to have been fully implemented. As with Recommendation #10 Privacy/Proxy, the ICANN Board is requested to recommend that the next RDS-WHOIS Review Team review the effectiveness of the actual implementation.

Planning/Reports: WHOIS1 Recommendations #15-16 addressed the need for planning and reporting to carry out and track implementation of WHOIS1 recommendations. These plans and reports were done, but were not found to be as complete or useful as intended. The recommendations were therefore found to be partially implemented.

Law Enforcement: The ICANN Bylaws call for each RDS-WHOIS Review to assess whether the RDS (WHOIS) effectively meets the needs of Law Enforcement. A survey was carried out to assess this, and was also used to try to understand, in a preliminary way, whether GDPR was likely to have an impact on meeting those needs. This report details the results of this survey in Section 5.

Consumer Trust: The assessment of whether RDS (WHOIS) enhances consumer trust is also a requirement mandated by the ICANN Bylaws for each RDS-WHOIS Review. This was carried out by examining available documentation, along with a gap analysis on the impact that implementation of WHOIS1 recommendations had on consumer trust. Two issues were identified as described in Section 6, with no recommended actions.

Safeguarding Registrant Data: The assessment of RDS (WHOIS) safeguards for registrant data looked at privacy, whether registrant data was adequately protected from access or change, and whether appropriate breach notices are contractually required. In the original WHOIS, there was no attempt to address registrant data privacy, and changes made to RDS (WHOIS) requirements to enable GDPR compliance will obviously improve registrant data privacy. The ICANN contracts with registries, registrars and escrow agents include varying requirements for how data is to be protected from inappropriate access or change. One of the contracts requires that ICANN be notified in the case of breach, and the others were silent on this topic. A recommendation is made to address these issues.

Anything New: All new RDS (WHOIS)-related policies and procedures enacted since the WHOIS1 Review Team published its recommendations were inventoried and inspected by the RDS-WHOIS2 Review Team. Most were not deemed to be problematic, but two were found to require further recommendations, which were included in the comparable sections related to the WHOIS1 Recommendations.

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[2] The WHOIS1 Report incorrectly classed these recommendations under the title Internationalized Domain Names (IDNs). In fact, the need for internationalized registration date applies to both IDNs as well as traditional names.

ICANN Bylaws: The Bylaw governing the RDS-WHOIS2 Review allowed a review team to make recommendations on revision of the Bylaw. The RDS-WHOIS2 Review Team noted that the requirement to review safeguarding of registrant data and the section referring to OECD Guidelines were somewhat redundant. Moreover, the current focus on privacy and the GDPR has made the reference to the OECD guidelines less relevant. The review team is recommending that these two references be removed and replaced with a more generic requirement to review to what extent RDS (WHOIS) policy and practice addresses applicable data protection and cross border data transfer requirements.

1.1.6   Review Conclusions

ICANN Org implementation reports for the sixteen recommendations from the WHOIS1 Review Team state that all sixteen have been fully implemented.

The RDS-WHOIS2 Review Team's conclusions are that, of the sixteen recommendations, eight were fully implemented, seven were partially implemented and one was not implemented.[3]

As a result of the analysis of the past WHOIS1 Review Team recommendations, as well as this review team's new findings and recommendations, the RDS-WHOIS2 Review Team is making 23 new draft recommendations which are summarized in the next section of this Executive Summary. With the issuance of this Draft Report, a Public Comment is being opened that will run until Friday, 02 November 2018, a week after the conclusion of the ICANN63 meeting. An engagement session will be held during the ICANN63 in Barcelona, Spain. Following the close of the Public Comment Procedure, the review team will consider all input prior to completing its Final Report. It is expected that the RDS-WHOIS2 Review Team's Final Report will be issued in December 2018 or January 2019.

1.2   Review Team Recommendations

The RDS-WHOIS2 Review Team's recommendations are summarized in this table. The full recommendation, with related findings and rationale, may be found in the corresponding sections (e.g., R1.1 is detailed in the Section on WHOIS1 Rec #1, LE.1 in the Section on Law Enforcement Needs).

#	Recommendation	Priority	Consensus
R1.1	To ensure that RDS (WHOIS) is treated as a strategic priority, the ICANN Board should put into place a forward-looking mechanism to monitor possible impacts on the RDS (WHOIS) from legislative and policy developments around the world.	High	No objections
R1.2	To support this mechanism, the ICANN Board should instruct the ICANN Organization to assign responsibility for monitoring legislative and policy development around the world and to provide regular updates to the Board.	High	No objections

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[3] Although the intent of the recommendation was partially addressed in a number of ways, the actual recommendation was deemed to be not feasible in the original ICANN Org evaluation and that did not change.

#	Recommendation	Priority	Consensus
R1.3	The ICANN Board should update the Charter of its Board Working Group on RDS to ensure the necessary transparency of the group's work, such as by providing for records of meetings and meeting minutes, to enable future review of its activities.	Medium	No objections
R3.1	The ICANN Board should direct ICANN Organization to update all of the information related to RDS (WHOIS) and by implication other information related to the registration of second-level gTLD domains. The content should be revised with the intent of making the information readily accessible and understandable, and it should provide details of when and how to interact with ICANN or contracted parties. Although not the sole focus of this recommendation, interactions with ICANN Contractual Compliance, such as when filing WHOIS inaccuracy reports, should be a particular focus. The revision of this web documentation and instructional material should not be undertaken as a purely internal operation but should include users and potentially focus groups to ensure that the final result fully meets the requirements. The resultant outward facing documentation of registrant and RDS (WHOIS) issues should be kept up to date as changes are made to associated policy or processes.	Medium	No objections
R3.2	With community input, the ICANN Board should instruct ICANN Organization to identify which groups outside of those that routinely engage with ICANN should be targeted effectively through RDS (WHOIS) outreach. An RDS (WHOIS) outreach plan should then be developed, executed, and documented. There should be an ongoing commitment to ensure that as RDS (WHOIS) policy and processes change, the wider community is made aware of such changes. WHOIS inaccuracy reporting was identified as an issue requiring additional education and outreach and may require a particular focus. The need for and details of the outreach may vary depending on the ultimate General Data Protection Regulation (GDPR) implementation and cannot be detailed at this point.	High	No objections
R4.1	The ICANN Board should direct ICANN Contractual Compliance to proactively monitor and enforce RDS (WHOIS) data accuracy requirements to look for and address systemic issues. A risk-based approach should be executed to assess and understand inaccuracy issues and then take the appropriate actions to mitigate them.	High	No objections

#	Recommendation	Priority	Consensus
R4.2	The ICANN Board should direct ICANN Contractual Compliance to look for patterns of failure to validate and verify RDS (WHOIS) data as required by the RAA. When such a pattern is detected, an audit should be initiated to check if the Registrar follows RDS (WHOIS) contractual obligations and consensus policies. Sanctions should be applied if significant deficiencies in RDS (WHOIS) data validation or verification are identified.	High	No objections
R5.1	The ICANN Board should direct the ICANN Organization to look for potentially-anomalous ARS results (e.g., 40% of ARS-generated tickets closed with no action because the RDS (WHOIS) record changed between the time the ARS report was generated and the time the registration was reviewed by ICANN Contractual Compliance) to determine the underlying cause and take appropriate action to reduce anomalies.[4]	TBD	No objections to place holder, pending further investigation
R10.1	The Board should monitor the implementation of the PPSAI. In the event that the PPSAI policy does not become operational by 31 December 2019, the ICANN Board should propose an amendment to the RAA that Privacy/Proxy providers affiliated with registrars shall verify and validate underlying customer information provided to them in the same way as registrars are required to verify and validate other registration data.	Low	No objections
R10.2	Reviewing the effectiveness of the implementation of WHOIS1 Recommendation #10 should be deferred. The ICANN Board should recommend that review be carried out by the next RDS (WHOIS) review team after PPSAI Policy is implemented.	Low	No objections
R11.1	The ICANN Board should direct the ICANN Organization to define metrics or SLAs to be tracked and evaluated to determine consistency of results of queries and use of any common interface (existing or future) used to provide one-stop access to registration data across all gTLDs and registrars/resellers. Specific metrics that should be tracked for any such common interface include: ⊙ How often are RDS (WHOIS) fields returned blank? ⊙ How often is data displayed inconsistently (for the same domain name), overall and per gTLD? ⊙ How often does the tool not return any results, overall and per gTLD? ⊙ What are the causes for the above results?	Low	No objections

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[4] This is a place holder recommendation that will likely change because, in parallel with this Draft Report being published for Public Comment, the RDS-WHOIS2 Review Team is further investigating this issue with the ICANN Org ARS team and ICANN Contractual Compliance. The review team wishes to better understand why the ARS reports indicate such an unexpectedly high ratio of RDS (WHOIS) updates, while there is little evidence that the overall data accuracy rate improved to a comparable extent.

#	Recommendation	Priority	Consensus
R11.2	The ICANN Board should direct the ICANN Organization to continue to maintain the common interface to keep up to date with new policy developments or contractual changes for contracted parties to ensure that the common interface will display all publicly-available RDS (WHOIS) output for each gTLD domain name registration available from contracted parties, i.e., when they differ, both the registry and registrar RDS (WHOIS) output could be shown in parallel.	High	No objections
R12.1	Reviewing the effectiveness of the implementation of Recs #12-14 should be deferred. The ICANN Board should recommend that review be carried out by the next RDS review team after RDAP is implemented, and the translation and transliteration of the registration data launches.	Low	No objections
R15.1	The ICANN Board should ensure that implementation of RDS-WHOIS2 Review Team recommendations is based on best practice project management methodology, ensuring that plans and implementation reports clearly address progress, and applicable metrics and tracking tools are used for effectiveness and impact evaluation.	Medium	No objections
LE.1	The ICANN Board should resolve that regular data gathering through surveys and studies are to be conducted by ICANN to inform a future assessment of the effectiveness of RDS (WHOIS) in meeting the needs of law enforcement, as well as future policy development (including the current Temporary Specification for gTLD Registration Data Expedited Policy Development Process and related efforts).	High	No objections
LE.2	The ICANN Board should consider extending and conducting such surveys and/or studies (as described in LE.1) to other RDS (WHOIS) users working with law enforcement on a regular basis.	High	No objections

#	Recommendation	Priority	Consensus
SG.1	The ICANN Board should require that the ICANN Organization, in consultation with data security and privacy expert(s), ensure that all contracts with contracted parties (to include Privacy/Proxy services when such contracts exist) include uniform and strong requirements for the protection of registrant data and for ICANN to be notified in the event of any data breach. The data security expert(s) should also consider and advise on what level or magnitude of breach warrants such notification. In carrying out this review, the data security and privacy expert(s) should consider to what extent GDPR regulations, which many but not all ICANN contracted parties are subject to, could or should be used as a basis for ICANN requirements. The ICANN Board must either negotiate appropriate contractual changes or initiate a GNSO PDP to consider effecting such changes.	Medium	No objections
CM.1	The ICANN Board should negotiate contractual terms or initiate a GNSO PDP to require that gTLD domain names suspended due to RDS (WHOIS) contact data which the registrar knows to be incorrect, and that remains incorrect until the registration is due for deletion, should be treated as follows. (1) The RDS (WHOIS) record should include a notation that the domain name is suspended due to incorrect data; and (2) Domain names with this notation should not be unsuspended without correcting the data.	High	No objections
CM.2	The ICANN Board should direct ICANN Organization to assess grandfathered domain names to determine if information is missing from the RDS (WHOIS) Registrant field. If 10-15% of domain names are found to lack data in the Registrant field, then the ICANN Board should initiate action intended to ensure that all gTLD domain names adhere to the same registration data collection requirements within 12 months.[5]	Medium	No objections
CM.3	The ICANN Board should direct ICANN Organization to review the RDS (WHOIS) records of gTLD domain names sampled by ARS for each region to determine whether lack of knowledge of RDS (WHOIS) inaccuracy reporting tools or other critical factors are responsible for low RDS (WHOIS) inaccuracy report submission rates in some regions.	Low	No objections

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[5] The RDS-WHOIS2 Review Team is seeking community feedback on this percentage, as well as on impacts this recommendation might have on the rights of registrants in the use of their domain names.

#	Recommendation	Priority	Consensus
CM.4	The ICANN Board should direct ICANN Organization to publicize and encourage use of the Bulk WHOIS inaccuracy reporting tool (or any successor tool).[6]	Low	No objections
CM.5	The ICANN Board should recommend the GNSO adopt a risk-based approach to incorporating requirements for measurement, auditing, tracking, reporting and enforcement in all new RDS policies.	Low	No objections
BY.1	The ICANN Board should take action to eliminate the reference to "safeguarding registrant data" in ICANN Bylaws section 4.6(e)(ii) and replace section 4.6(e)(iii) of the ICANN Bylaws with a more generic requirement for RDS (WHOIS) review teams to assess how well RDS (WHOIS) policy and practice addresses applicable data protection and cross border data transfer regulations, laws and best practices.	Medium	No objections

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[6] The RDS-WHOIS2 Review Team is considering expanding this to include a recommendation that ICANN Contractual Compliance consider a different, more efficient methodology in analyzing bulk data submissions where such data identifies patterns of problems.

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