

ICANN
COMMUNITY FORUM

64

KOBE

9–14 March 2019



Registration Directory Services (RDS)-WHOIS2 Review

Final Report and Recommendations



Engagement Session
12 March 2019

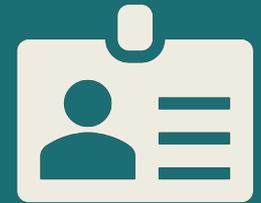
Domain Name Registration

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.

RDS Record

This registration record is traditionally referred to as a “WHOIS” record and more recently is referred to as a Registration Directory Service (RDS) record.



RDS Review

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 effort.

RDS-WHOIS2 Review Team Objectives

Assess **implementation** of WHOIS1 recommendations

Evaluate the extent to which ICANN Org has implemented each prior Directory Service Review (WHOIS1) recommendation (16 in total) and **whether implementation of each recommendation was effective**

Review **changes since WHOIS1** to assess impact on **RDS(WHOIS) effectiveness**

Assess the extent to which the implementation of today's WHOIS:

- Meets legitimate **need of law enforcement** for swiftly accessible, accurate and complete data
- Promotes **consumer trust**
- **Safeguards registrant data**

Assess **effectiveness and transparency** of ICANN enforcement of existing policy relating to WHOIS through Contractual Compliance actions, structure and processes

Identify any portions of Bylaws Section 4.6(e), Registration Directory Service Review, which the team believes should be **changed, added or removed**

Findings

Strategic Priority

- **WHOIS1 Recommendation #1** required ICANN to treat RDS (WHOIS) in all its aspects as a strategic priority.
 - **Partially implemented** - 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 -
 - **Fully implemented** – Creation of a web-based document, linking to the various documents that, in total, comprise ICANN RDS (WHOIS) policy, although not a single policy that was envisioned by some on the WHOIS1 Review Team.

Findings

Outreach:

- **WHOIS1 Recommendation #3:** ICANN to perform outreach, including to communities outside of ICANN, with the intent of improving understanding of RDS (WHOIS) and promoting consumer awareness.
 - **Partially implemented**
 - 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.

Contractual Compliance:

- **WHOIS1 Recommendation #4:** ICANN Contractual Compliance function to be managed in accordance with best practice principles and overseen by a dedicated senior executive.
 - **Partially implemented** - Significant improvement since the recommendation was made

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.

Findings

Data Accuracy

WHOIS1 Recs #5-9 dealt with several issues related to RDS (WHOIS) accuracy.

- **Fully Implemented:** 1 rec.
 - Registrant education on the requirements for accurate RDS (WHOIS) data has been duly conducted through the RDS (WHOIS) Informational Website, 2009/2013 RAA, and Registrar's website.
- **Partially:** 3 recs.
 - An enforceable chain of contractual agreements with registries, registrars, and registrants to require the provision and maintenance of accurate RDS (WHOIS) data has been enacted.
 - The Accuracy Reporting System (ARS) project has been launched to proactively identify inaccurate RDS (WHOIS) data, and forward to registrars for action, but only on a sample basis. Syntax and operability accuracy have been improved.
 - RDS (WHOIS) identity accuracy checks have not yet been implemented within ARS project, not clear whether the data allows identification of and contact with registrants.
 - Considerable ARS-generated tickets closed with no action because the RDS (WHOIS) record changed in a relatively short period of time (4-5 months).
 - Registrar's contractual obligations for RDS (WHOIS) accuracy have only been passively enforced.
 - RDS (WHOIS) accuracy for domain names that utilize Privacy and Proxy Services is unknown.
 - GDPR may ultimately obscure data accuracy within the RDS (WHOIS)

Findings

Data Accuracy *(continued)*

WHOIS1 Recs #5-9 dealt with several issues related to RDS (WHOIS) accuracy.

- **Not implemented:** 1 rec.
 - No metrics-based assessment of RDS (WHOIS) data quality improvements.

Privacy/Proxy

- **WHOIS1 Recommendation #10:** triggered the GNSO Policy Development Process (PDP) on Privacy and Proxy service providers, and has now completed?
 - **Fully implemented (?)**
 - Review team could not assess implementation effectiveness and asked that the ICANN Board recommend that the next RDS (WHOIS) Review address that.

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.
 - **Fully implemented:** portal was created.
 - 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 broken some aspects of the portal, follow-on recommendation addresses this new issue.

Findings

Internationalized Registration Data

- **WHOIS1 Recommendations #12-14:** relate to the use of internationalized character sets for registration data (name, address, etc.)
 - **Fully implemented:** all of the work (studies, PDP) requested in recommendations was carried out.
 - 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)
 - Recommendation 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.
 - **Partially implemented:** Plans and reports were done.
 - Not as complete/useful as intended, the reports were more activity-based than outcome-based, without sufficient underlying facts, figures and analyses.

Findings

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

Law Enforcement

- 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 (see Section 5).

Consumer Trust

- Assess whether the RDS (WHOIS) enhances consumer trust.
 - Examined available documentation, along with a gap analysis on the impact that implementation of WHOIS1 recommendations had on consumer trust.
 - Lack of Reseller transparency in RDS (WHOIS) is a potential gap.
 - Web pages from ICANN, registries, registrars, resellers offer often little easily readable information for consumers in relation to the use or the non-use of RDS (WHOIS) data.

Findings

Safeguarding Registrant Data

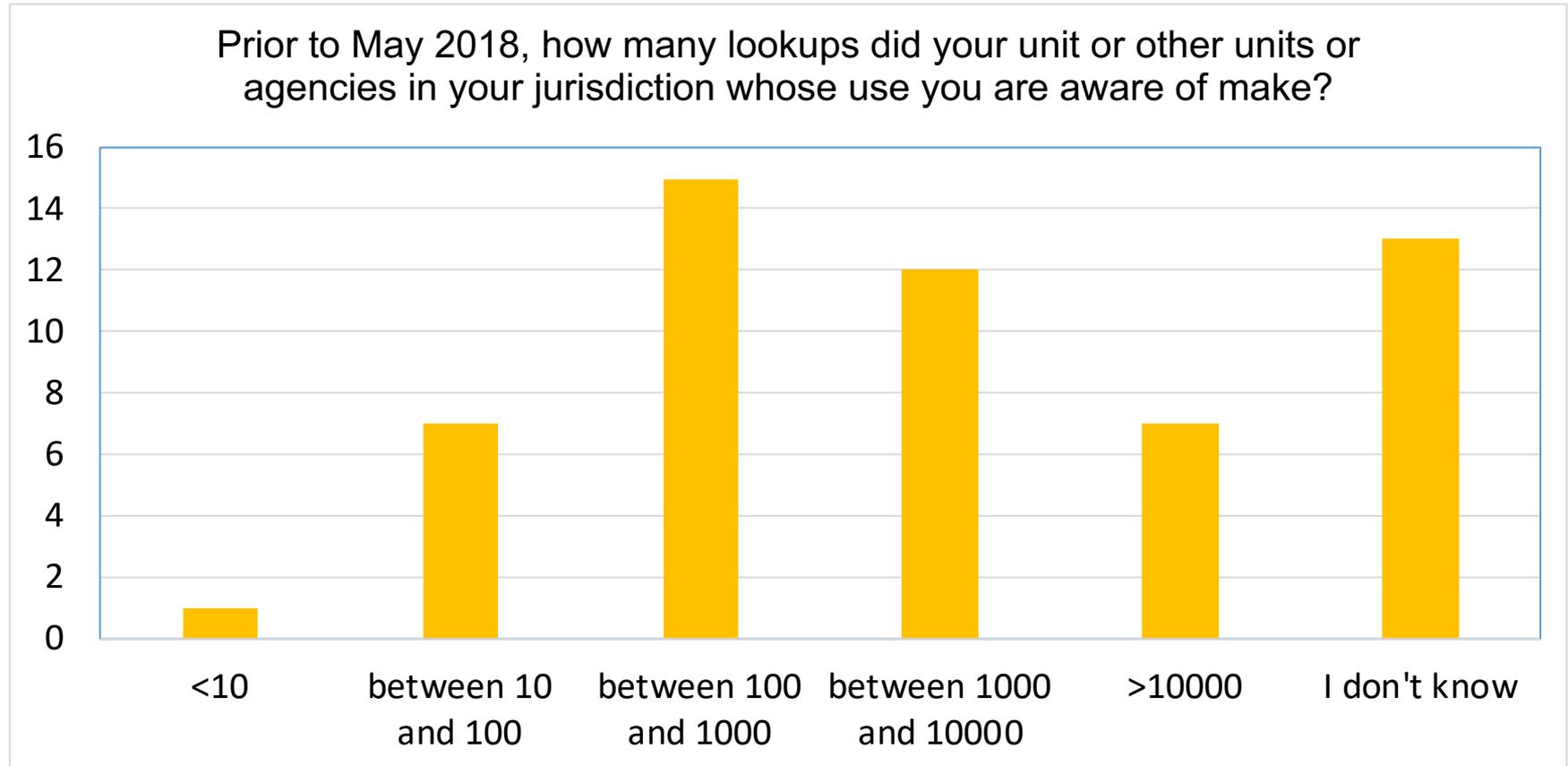
- Assessment of RDS (WHOIS) safeguards for registrant data looked at privacy, whether registrant data was adequately protected from access or change, and whether appropriate breach notices are contractually required.
 - Pre-GDPR WHOIS offered no privacy related to address registrant data privacy, and changes made to RDS (WHOIS) requirements to enable GDPR compliance will obviously improve registrant data privacy.
 - 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.

ICANN Bylaws

- Review Team noted that the requirement to review safeguarding of registrant data and the section referring to OECD Guidelines were somewhat redundant.
- Current focus on privacy and the GDPR has made the reference to the OECD guidelines less relevant.
 - Recommendation that these two references are 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.

Law Enforcement Survey Findings

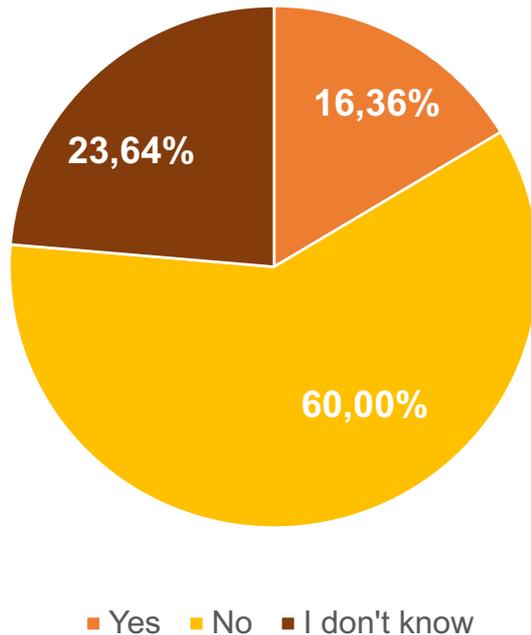
Frequency of Use



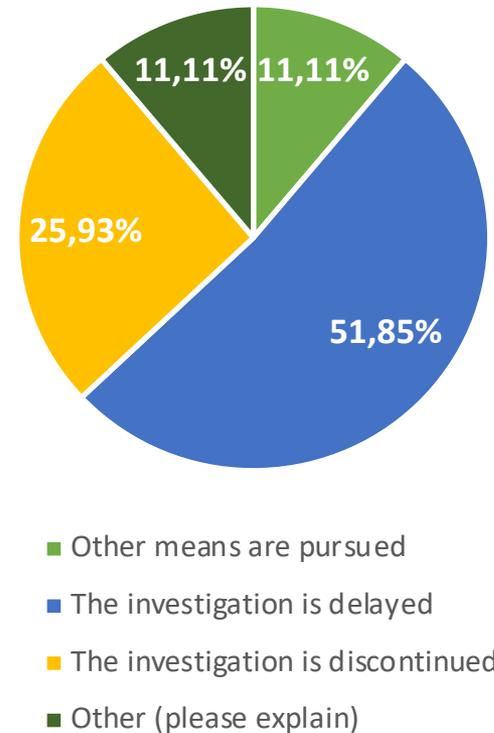
Law Enforcement Survey Findings

Impact of Unavailability

Are there alternative data sources that you could use or already use to fulfill the same investigative needs?

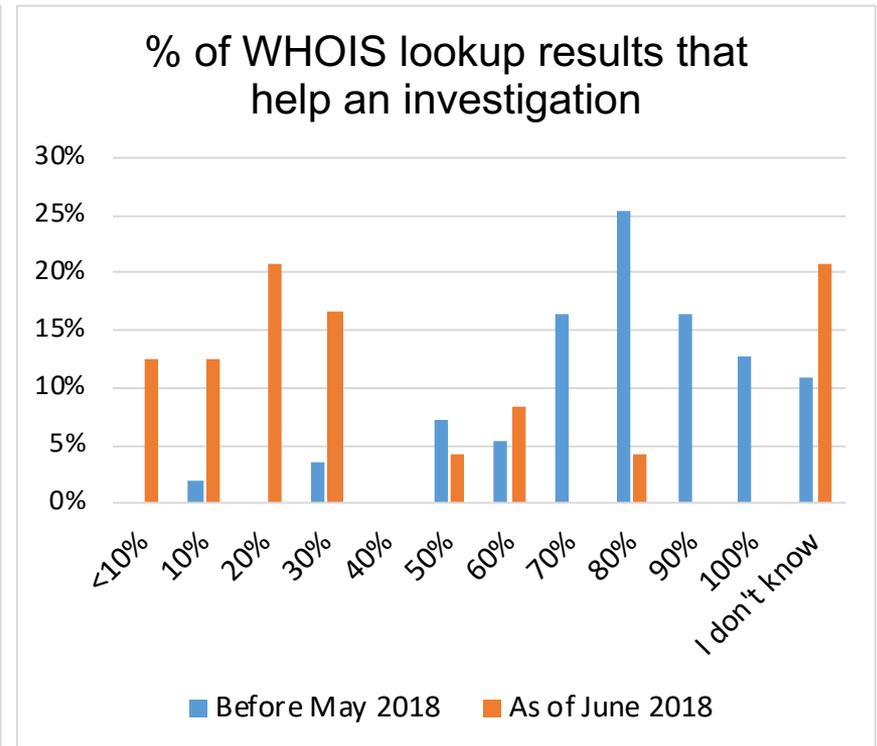
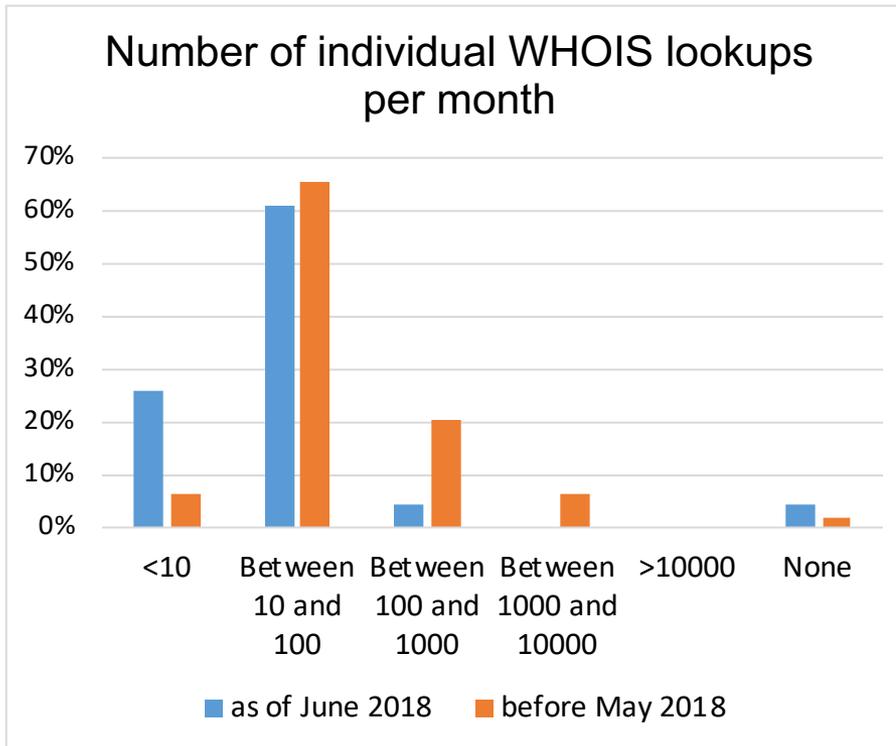


Impact of unavailability of WHOIS information on an investigation



Law Enforcement Survey Findings

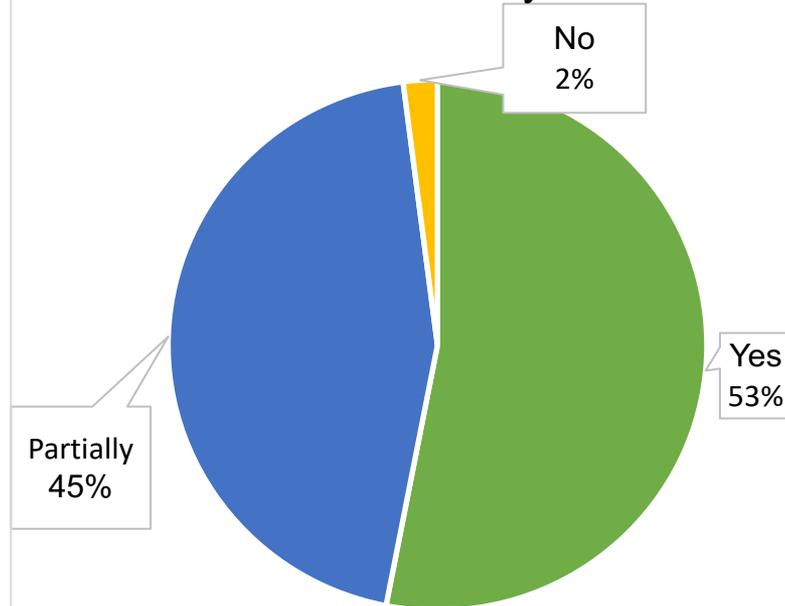
Impact of Change



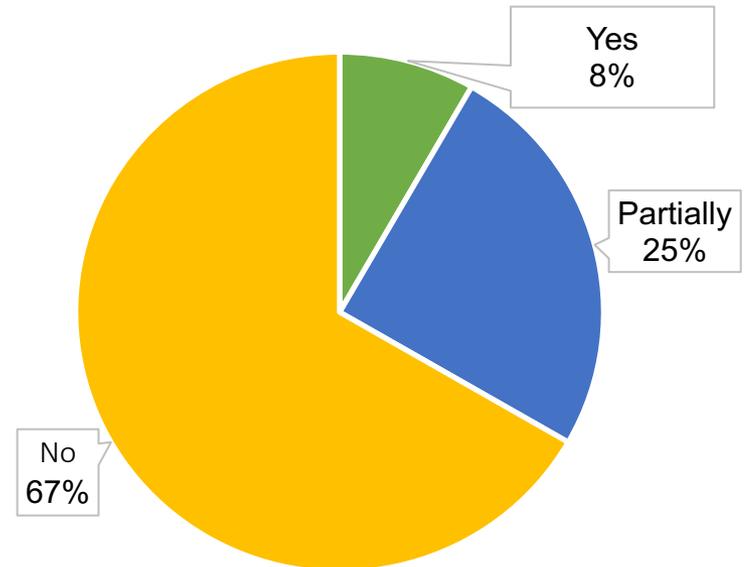
Law Enforcement Survey Findings

Impact of Change

Did WHOIS meet investigative needs before May 2018?



Does the current WHOIS meet investigative needs?

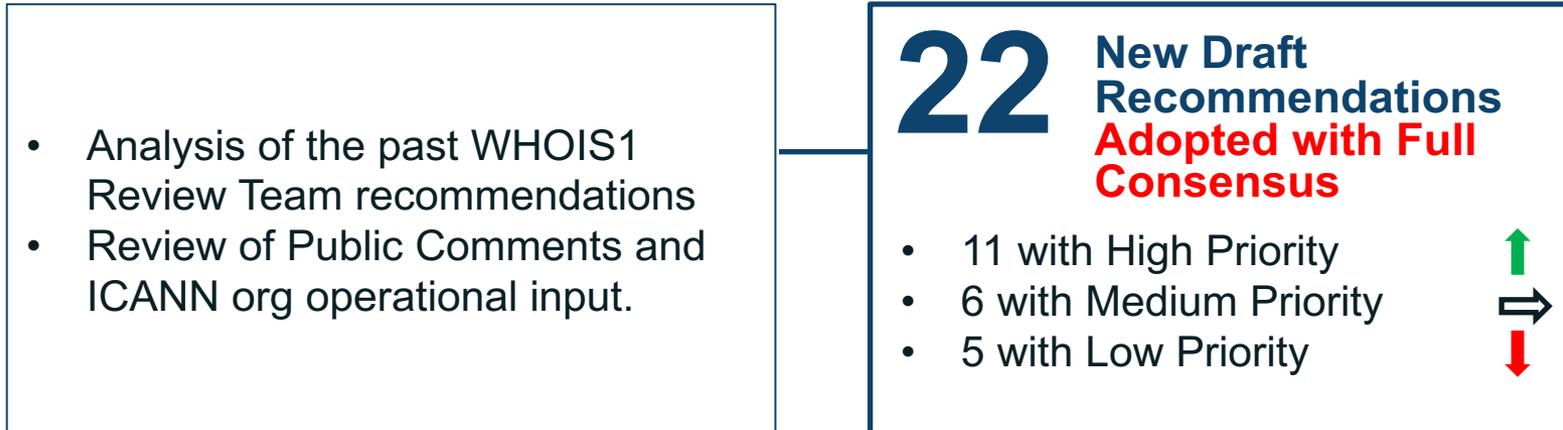


Conclusions – Final Report

- WHOIS1 Recommendations Implementation Assessment:

WHOIS1 Report	Recommendations Implementation Review	
16 recommendations	ICANN org	16 fully implemented
	RDS-WHOIS2 RT	8 fully implemented, 7 partially implemented 1 not implemented

- Review team Final Recommendations



Recommendations

WHOIS1 Recommendation #1: Strategic Priority

#	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	Full Consensus
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	Full Consensus
R1.3	The ICANN Board, in drafting the Charter of a Board working group on RDS, should 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	Full Consensus

Recommendations

Law Enforcement Needs

#	Recommendation	Priority	Consensus
LE.1	The ICANN Board should resolve that ICANN organization conducts regular data gathering through surveys and studies to inform a future assessment of the effectiveness of RDS (WHOIS) in meeting the needs of law enforcement. This will also aid future policy development (including the current Temporary Specification for gTLD Registration Data Expedited Policy Development Process and related efforts).	High	Full Consensus
LE.2	The ICANN Board should consider conducting comparable surveys and/or studies (as described in LE.1) with other RDS (WHOIS) users working with law enforcement on a regular basis.	High	Full Consensus

Annex: Recommendations

Recommendations

WHOIS1 Recommendation #1: Strategic Priority

#	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	Full Consensus
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	Full Consensus
R1.3	The ICANN Board, in drafting the Charter of a Board working group on RDS, should 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	Full Consensus

Recommendations

WHOIS1 Recommendation #3: Outreach

#	Recommendation	Priority	Consensus
R3.1	<p>The ICANN Board should direct the ICANN organization to update all of the information related to RDS (WHOIS) and by implication other information related to the registration of second-level gTLDs domains. The content should be revised to make the information readily accessible and understandable, and it should provide details of when and how to interact with ICANN organization or contracted parties. Although not the sole focus of this recommendation, interactions with ICANN organization 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.</p>	Medium	Full Consensus

Recommendations

WHOIS1 Recommendation #3: Outreach (*continued*)

#	Recommendation	Priority	Consensus
R3.2	<p>With community input, the ICANN Board should instruct the ICANN organization to identify groups outside of those that routinely engage with ICANN organization, and these should be targeted 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. RDS (WHOIS) outreach should be included when considering communications in underserved regions. 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.</p>	High	Full Consensus

Recommendations

WHOIS1 Recommendation #4: Compliance

#	Recommendation	Priority	Consensus
R4.1	The ICANN Board should initiate action to ensure ICANN Contractual Compliance is directed to proactively monitor and enforce registrar obligations with regard to RDS (WHOIS) data accuracy using data from incoming inaccuracy complaints and RDS accuracy studies or reviews 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	Full Consensus
R4.2	The ICANN Board should initiate action to ensure that ICANN Contractual Compliance is directed to cross-reference existing data from incoming complaints and studies such as the ARS to detect patterns of failure to validate and verify RDS (WHOIS) data as required by the RAA. When such a pattern is detected, compliance action or an audit should be initiated to review compliance of the Registrar with RDS (WHOIS) contractual obligations and consensus policies.	High	Full Consensus

Recommendations

WHOIS1 Recommendations #5-9: Data Accuracy

#	Recommendation	Priority	Consensus
R5.1	The Accuracy Reporting System, which was instituted to address concerns regarding RDS (WHOIS) contact data accuracy has demonstrated that there is still an accuracy concern and therefore such monitoring must continue. ICANN organization should continue to monitor accuracy and/or contactability through either the ARS or a comparable tool/methodology.	High	Full Consensus

Recommendations

WHOIS1 Recommendation #10: Privacy/Proxy Services

#	Recommendation	Priority	Consensus
R10.1	The Board should monitor the implementation of the PPSAI. If the PPSAI policy does not become operational by 31 December 2019, the ICANN Board should ensure an amendment to the 2013 RAA (or successor documents) is proposed that ensures that the underlying registration data of domain name registrations using Privacy/Proxy providers affiliated with registrars shall be verified and validated in application of the verification and validation requirements under the RAA unless such verification or validation has already occurred at the registrar level for such domain name registrations.	Low	Full Consensus
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	Full Consensus

Recommendations

WHOIS1 Recommendation #11: Common Interface

#	Recommendation	Priority	Consensus
R11.1	<p>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:</p> <ul style="list-style-type: none">• 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	Full Consensus
R11.2	<p>The ICANN Board should direct the ICANN organization to ensure that the common interface displays all applicable output for each gTLD domain name registration as available from contracted parties, including multiple versions when the outputs from registry and registrar differ. The common interface should be updated to address any policy or contractual changes to maintain full functionality.</p>	High	Full Consensus

Recommendations

WHOIS1 Recommendations #12-14: Internationalized Domain Names

#	Recommendation	Priority	Consensus
R12.1	Reviewing the effectiveness of the implementation of Recs #12-14 should be deferred. The ICANN Board should recommend that review to be carried out by the next RDS Review Team after RDAP is implemented, and the translation and transliteration of the registration data launches.	Low	Full Consensus

Recommendations

WHOIS1 Recommendations #15-16: Plan & Annual Reports

#	Recommendation	Priority	Consensus
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	Full Consensus

Recommendations

Law Enforcement Needs

#	Recommendation	Priority	Consensus
LE.1	The ICANN Board should resolve that ICANN organization conducts regular data gathering through surveys and studies to inform a future assessment of the effectiveness of RDS (WHOIS) in meeting the needs of law enforcement. This will also aid future policy development (including the current Temporary Specification for gTLD Registration Data Expedited Policy Development Process and related efforts).	High	Full Consensus
LE.2	The ICANN Board should consider conducting comparable surveys and/or studies (as described in LE.1) with other RDS (WHOIS) users working with law enforcement on a regular basis.	High	Full Consensus

Recommendations

Safeguarding Registrant Data

#	Recommendation	Priority	Consensus
SG.1	<p>The ICANN Board should require that the ICANN org, 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.</p> <p>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 should initiate action intended to effect such changes.</p> <p>The ICANN Board should consider whether and to what extent notifications of breaches that it receives should be publicly disclosed.</p>	Medium	Full Consensus

Recommendations

ICANN Contractual Compliance Actions, Structure and Processes

#	Recommendation	Priority	Consensus
CC.1	<p>The ICANN Board should initiate action intended to ensure 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:</p> <ul style="list-style-type: none">(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	Full Consensus
CC.2	<p>The ICANN Board should initiate action intended to ensure that all gTLD domain name registration directory entries contain at least one full set of either registrant or admin contact details comparable to those required for new registrations under 2013 RAA (or any subsequent version thereof) or applicable policies.</p>	Medium	Full Consensus

Recommendations

ICANN Contractual Compliance Actions, Structure and Processes (*continued*)

#	Recommendation	Priority	Consensus
CC.3	The ICANN Board should take steps to ensure that ICANN Contractual Compliance is adequately resourced factoring in any increase in workload due to additional work required due to compliance with GDPR or other legislation/regulation.	High	Full Consensus
CC.4	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	Full Consensus

Recommendations

ICANN Bylaws

#	Recommendation	Priority	Consensus
BY.1	The ICANN Board should take action to extend 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 (which refers to the OECD Guidelines) 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	Full Consensus