Registration Directory Services (RDS)-WHOIS2 Review

Draft Report and Recommendations

Webinar
17 September 2018

ICANN

Agenda

1 RDS-WHOIS2 Review Mandate & Timeline

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3 Methodology

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RDS-WHOIS2 Review: Mandate & Timeline

Agenda Item #1

WHOIS | RDS

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.
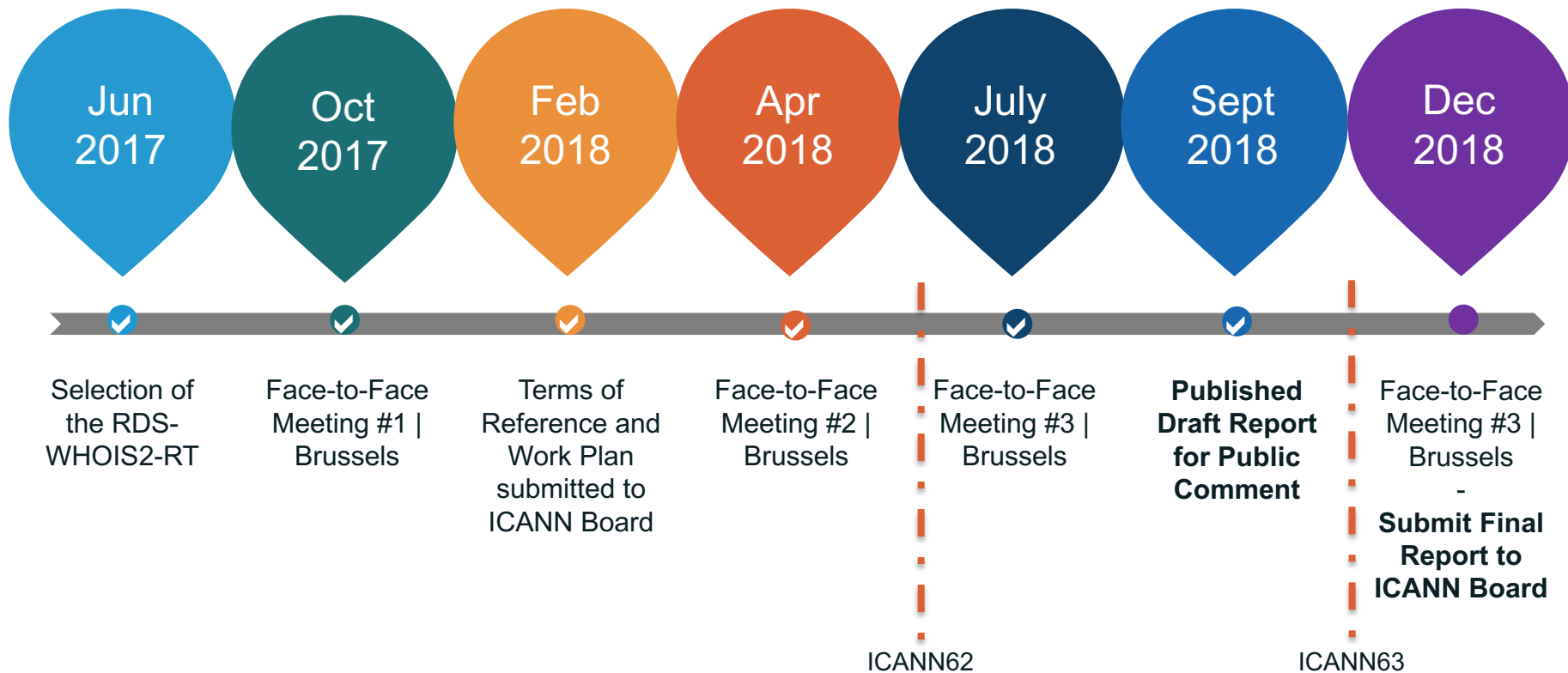
RDS Review

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.

Registration Directory Services Review

- Registration Directory Services (formerly known as "WHOIS") Review

- Mandated by ICANN Bylaws Section 4.6(e)

- 11 members

1	Alan Greenberg	M	ALAC	NA
2	Carlton Samuels	M	ALAC	LAC
3	Dmitry Belyavsky	M	ALAC	EUR
4	Cathrin Bauer-Bulst	F	GAC	EUR
5	Lili Sun	F	GAC	AP
6	Thomas L. Walden, Jr.	M	GAC	NA
7	Erika Mann	F	GNSO	EUR
8	Stephanie Perrin	F	GNSO	NA
9	Susan Kawaguchi	F	GNSO	NA
10	Volker Greimann	M	GNSO	EUR
11	Chris Disspain	M	ICANN Board	AP

Milestones

Jun 2017
Selection of the RDS-WHOIS2-RT

Oct 2017
Face-to-Face Meeting #1 | Brussels

Feb 2018
Terms of Reference and Work Plan submitted to ICANN Board

Apr 2018
Face-to-Face Meeting #2 | Brussels

July 2018
Face-to-Face Meeting #3 | Brussels

ICANN62

Sept 2018
Published Draft Report for Public Comment

Dec 2018
Face-to-Face Meeting #3 | Brussels
-
Submit Final Report to ICANN Board

ICANN63

RT held 40 teleconferences, and three face-to-face meetings prior to issuing this Draft Report

Scope

Agenda Item #2

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**

Review Team Non-Objectives

The objectives do **NOT** include:

- Further review of the OECD Guidelines
  (Bylaws item)

- Review of Registration Data Access Protocol (RDAP)
  (SO/AC Suggestion)

- Review of the WHOIS protocol
  (SO/AC Suggestion)

- Comprehensive review of GDPR impact on WHOIS landscape
  (Topic of current interest)

- Review of GDPR implementation impact
  (Topic of current interest)

Methodology

Agenda Item #3

Review Team Methodology

- Mandated by ICANN's Bylaws

- Transparent, open to observers

- Consensus building

- Findings informed by ICANN org briefings

- Fact-based analysis to identify possible issues

- Formulate recommendations (if any) to address identified issues

Recommendations

Issues

Facts & Analysis

Review Team Methodology

	Objectives
1	WHOIS1 Rec #1 - Strategic Priority
	WHOIS1 Rec #2: Single WHOIS Policy
	WHOIS1 Rec #3: Outreach
	WHOIS1 Rec #4: Compliance
	WHOIS Rec #5-9: Data Accuracy
	WHOIS Rec #10: Privacy/Proxy Services
	WHOIS Rec #11: Common Interface
	WHOIS Rec #12-14: Internationalized Domain Names
	WHOIS Rec #15-16: Plan & Annual Reports
2	Anything New
3	Law Enforcement Needs
4	Consumer Trust
5	Safeguard Registrant Data
6	Contractual Compliance Actions, Structure, & Policies
7	ICANN Bylaws

- The review team completed most of its work through subgroups.

- Each Subgroup consisted of a rapporteur plus 2-4 team members.

- Subgroups held teleconferences to carry out their work, in addition to e-mail discussions.

- Subgroup's documents and its conclusions were then reviewed in depth by the entire review team.

Findings

Agenda Item #4

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

Findings

Data Accuracy

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

- **Fully Implemented**: 2 recs.
    - Better understanding of Accuracy issues
    - Syntactic accuracy of data has improved

- **Partially** or **not implemented**: 3 recs.
    - Not clear whether whether the data allows identification of and contact with registrants
    - GDPR may ultimately obscure data accuracy within the RDS (WHOIS) repository even more.

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.

Findings

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.

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.

Findings

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

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).

Findings

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.

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.
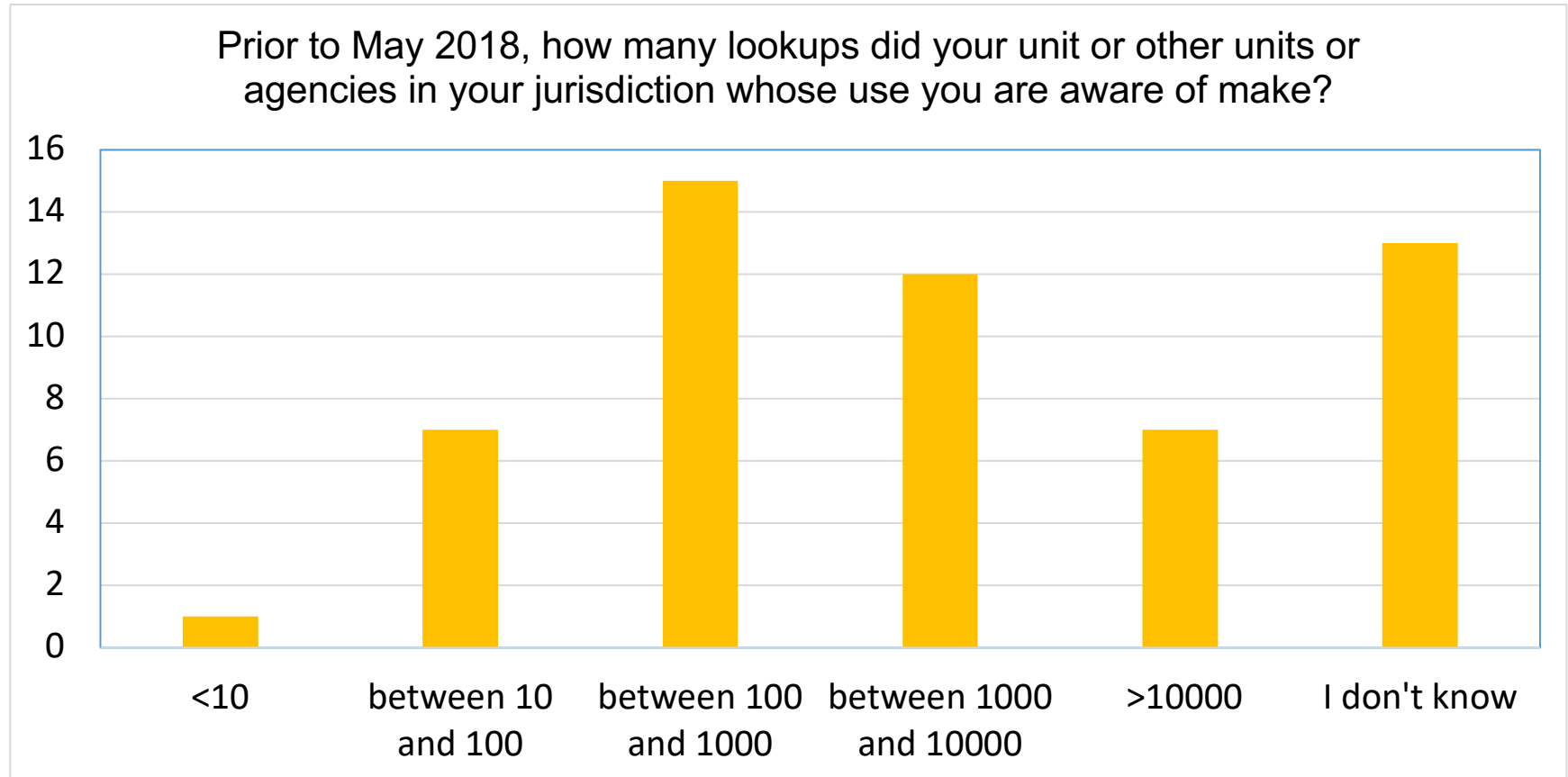
Findings

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.
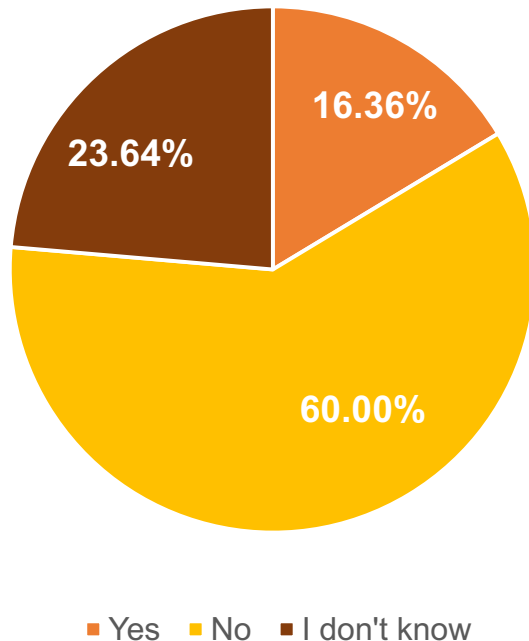
Law Enforcement Survey Findings

Frequency of Use

Prior to May 2018, how many lookups did your unit or other units or agencies in your jurisdiction whose use you are aware of make?
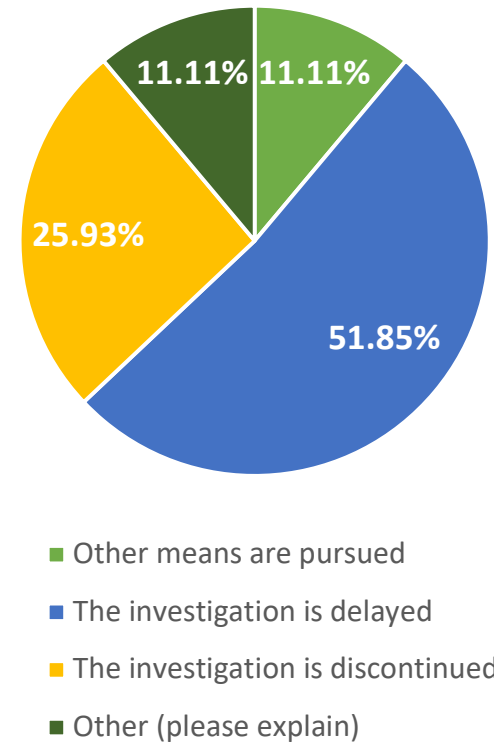
Law Enforcement Survey Findings

Impact of Unavailability

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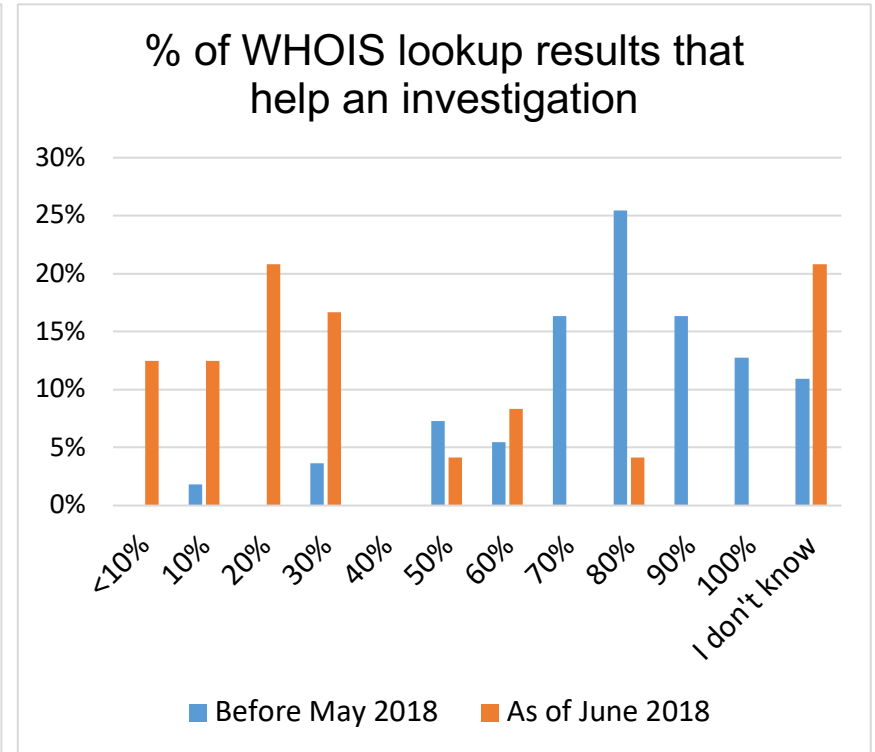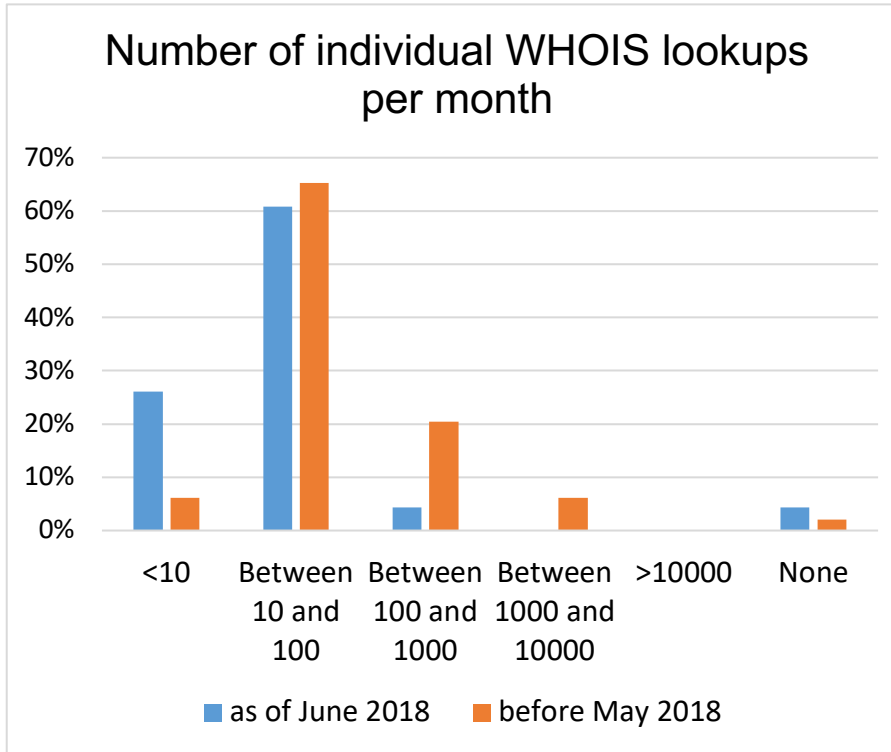

- Yes
- No
- I don't know

16.36%
23.64%
60.00%

Impact of unavailability of WHOIS information on an investigation

11.11% 11.11%
25.93%
51.85%

- Other means are pursued
- The investigation is delayed
- The investigation is discontinued
- Other (please explain)

Law Enforcement Survey Findings

Impact of Change

Number of individual WHOIS lookups per month

Legend: ■ as of June 2018 ■ before May 2018

Categories: <10, Between 10 and 100, Between 100 and 1000, Between 1000 and 10000, >10000, None

% of WHOIS lookup results that help an investigation

Legend: ■ Before May 2018 ■ As of June 2018

Categories: <10%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%, I don't know

Law Enforcement Survey Findings

Impact of Change

Did WHOIS meet investigative needs before May 2018?

- No 2%
- Yes 53%
- Partially 45%
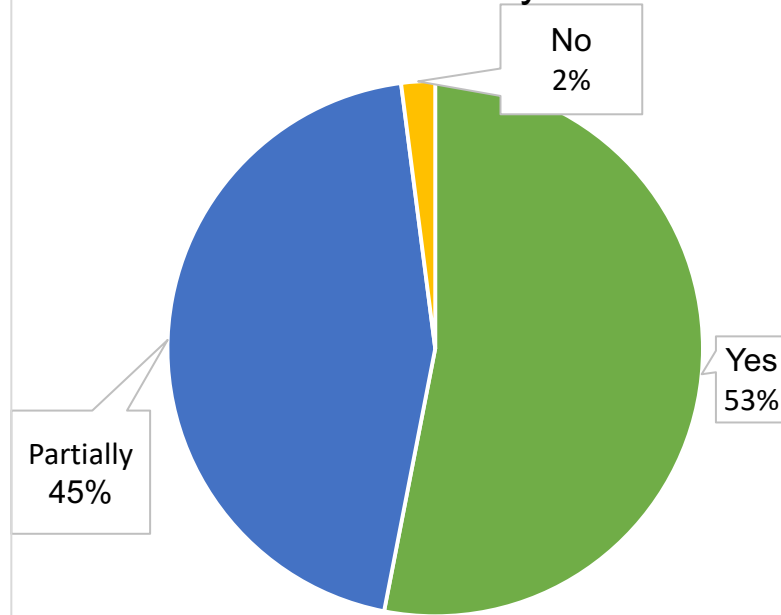
Does the current WHOIS meet investigative needs?

- Yes 8%
- Partially 25%
- No 67%
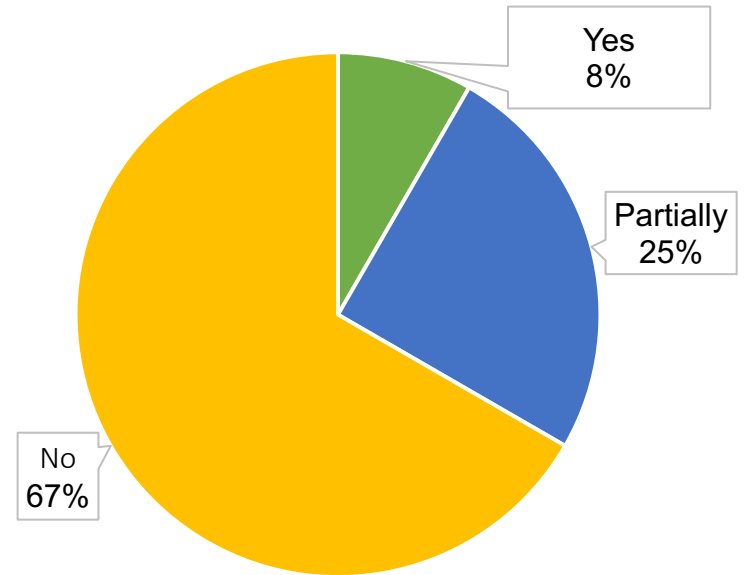
Conclusions

Agenda Item #5

Conclusions

- **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 Draft Recommendations**

• Analysis of the past WHOIS1 Review Team recommendations • RDS-WHOIS2 Review Team's new findings and recommendations.	**23** **New Draft Recommendations Adopted with Full Consensus** • 9 with High Priority • 6 with Medium Priority • 7 with Low Priority • 1 with no Priority confirmed yet

Recommendations

Agenda Item #6

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	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
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

Recommendations

WHOIS1 Recommendation #3: Outreach

#	Recommendation	Priority	Consensus
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

Recommendations

WHOIS1 Recommendation #3: Outreach *(continued)*

#	Recommendation	Priority	Consensus
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

Recommendations

WHOIS1 Recommendation #4: Compliance

#	Recommendation	Priority	Consensus
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
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

Recommendations

WHOIS1 Recommendations #5-9: Data Accuracy

#	Recommendation	Priority	Consensus
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.	TBD	No objections to place holder, pending further investigation

Recommendations

WHOIS1 Recommendation #10: Privacy/Proxy Services

#	Recommendation	Priority	Consensus
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

Recommendations

WHOIS1 Recommendation #11: Common Interface

#	Recommendation	Priority	Consensus
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
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

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 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

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	No objections

Recommendations

Law Enforcement Needs

#	Recommendation	Priority	Consensus
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

Recommendations

Safeguarding Registrant Data

#	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

Recommendations

ICANN Contractual Compliance Actions, Structure and Processes

#	Recommendation	Priority	Consensus
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.	Medium	No objections

Recommendations

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

#	Recommendation	Priority	Consensus
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
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).	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

Recommendations

ICANN Bylaws

#	Recommendation	Priority	Consensus
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

Q&A

Thank you!

Submit a public comment on our Draft Report: https://www.icann.org/public-comments/rds-whois2-review-2018-09-04-en

Meet with us at ICANN63

Schedule a conference call

Follow our wiki at https://community.icann.org/display/WHO/RDS-WHOIS2+Review