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The Registration Data Access Protocol (RDAP) session during ICANN 58 highlighted a shared interest by ICANN and several registry service providers in moving forward with RDAP implementation. During the session a law enforcement representative, the sole consumer of registration data in attendance, proposed launching RDAP as a pilot program among interested registries. The pilot program would replace plans to require full implementation of the protocol while WHOIS continued to be run in parallel and while requirements for a next-generation registration directory service (RDS) remained under development.

We believe that the proposed pilot approach would offer several benefits. First, it would expedite and simplify RDAP implementation for interested registries. Second, it would reconcile disagreements between ICANN and registries regarding the appropriate scope of RDAP requirements by deferring the development of formal requirements until such a time that the RDS Policy Development Process (PDP) had completed the requisite phases. Third, it would allow diverse RDAP implementations for an interim period, which could provide unique data to inform the work of the RDS PDP.

We strongly support this approach and urge ICANN to move forward with a pilot program that would enable interested registries to launch diverse RDAP implementations for this interim period.

Background

In September 2011 the SAC 051 report[1] was published by the Security and Stability Advisory Committee (SSAC). This report built upon the advice provided in previous reports (including SAC 003, SAC 027 and SAC 033) and provided recommendations for addressing the well-recognized deficiencies of WHOIS.

The ICANN board accepted the advice and directed ICANN staff to develop a roadmap to implement SAC 051.[2] The resultant roadmap, developed with community input, was adopted in June 2012. That document lays out a plan for the adoption of a replacement for the WHOIS protocol. The document identified the need for a viable replacement protocol. Both the SSAC report and the roadmap acknowledge that

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[1] https://www.icann.org/en/system/files/files/sac-051-en.pdf

[2] https://www.icann.org/en/system/files/files/sac-051-roadmap-04jun12-en.pdf

previous attempts to replace WHOIS haven't been successful.[3] With the lessons learned from previous attempts in mind, the IETF undertook development of a new replacement protocol resulting in the publication of the RDAP RFCs[4] in March 2015.

As noted in the roadmap, the goal of RDAP is to provide the ability to implement policies for the provision of registration data, but not to dictate policy, which should be developed in the appropriate policy bodies, in this case the Generic Names Supporting Organization (GNSO). Accordingly the ICANN Board initiated a GNSO Policy Development Process (PDP) to develop next-generation RDS.[5]

As previous attempts to replace WHOIS have suffered from lack of adoption, the roadmap lays out strategies for promoting adoption. One of the recommendations calls for ICANN to include a provision in registry contracts for the adoption of the replacement protocol. Recognizing the deficiencies of WHOIS, many legacy gTLD registries adopted contract language to this effect with the caveat that it be commercially reasonable to protect against open-ended obligations. Similar language was adopted in the new gTLD base registry agreement. This contract language was adopted to achieve the goal of addressing the WHOIS deficiencies highlighted in the SSAC reports but is not the goal itself.

Current Status

During ICANN 58, Cyrus Namazi hosted a panel discussion on RDAP implementation. At the close of the session, Cyrus asked each panel member what they would do next if they were in ICANN staff's position. The most common proposal was that ICANN should enable registries to implement RDAP initially as a pilot or trial while WHOIS continued to be required in parallel and while the RDS PDP was ongoing.

The session demonstrated registries and ICANN have a shared interest in advancing with RDAP implementation in a timely manner. Several registries have already developed RDAP implementations, and are currently blocked from deploying them

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[3] Prior, unsuccessful attempts to revise WHOIS include the Internet Registry Information Service (IRIS) and the RESTful WHOIS (RWS).

[4] https://rfc-editor.org/rfc/rfc7480.txt, https://rfc-editor.org/rfc/rfc7481.txt, https://rfc-editor.org/rfc/rfc7482.txt, https://rfc-editor.org/rfc/rfc7483.txt, https://rfc-editor.org/rfc/rfc7484.txt

[5] The charter of the next-generation RDS PDP calls for a multi-phased approach. In the first phase (currently in progress) the PDP is tasked to determine the requirements for gTLD registration data and whether a new policy framework for a next-generation RDS is needed. If deemed necessary, during phase 2 the working group would design the policies necessary to meet the requirements of phase 1 and then, during phase 3, provide guidance on how the next-generation RDS should be implemented, including coexistence with and eventually replacement of WHOIS.

unless they seek approval via the Registry Service Evaluation Process.[6]

However, RDAP implementation remains at an impasse due to continued disagreements between ICANN and the registry community regarding the appropriate scope of requirements for RDAP beyond those specified in the RDAP RFCs. Following publication of the RDAP RFCs, ICANN staff developed a profile that defines the requirements for how registries must implement RDAP. Registries have consistently provided feedback that the profile simply maps the existing requirements for WHOIS onto the RDAP protocol, which perpetuates the very deficiencies of WHOIS that RDAP is intended to address. Further, we maintain that the profile exceeds the contractual requirement for registries to implement the protocol.

These debates are difficult to bridge, in large part because they are premature. There is no existing set of contractual requirements or community developed policies that are intended to apply to the RDAP beyond the requirement to implement the protocol itself as it is defined in the RFCs. These policies will ultimately come from the RDS PDP, whose work remains ongoing.

Proposed Approach to Advance RDAP Implementation

Noting this and one of the key SSAC recommendations that "ICANN should work with all TLD registry operators to develop a timeline and transition plan for migration from the current WHOIS service to a successor Internet domain directory service", the Registry Stakeholder group is formally requesting authorization for gTLD operators to implement RDAP on a pilot/trial basis.

This approach is beneficial to ICANN, registries, and the community alike. It would allow RDAP implementation to move forward more expeditiously first, by removing the requirement to go through an RSEP to implement the protocol. Second, it would resolve the ongoing disagreement regarding RDAP requirements in the short term by allowing for diversity in implementations deployed as part of the pilot, while acknowledging that a more formal set of requirements will be necessary before formal deployment.

By proceeding in this manner registries will get operational experience with RDAP and have an opportunity to innovate. This operational experience and innovation will help inform the RDS PDP. It may also help identify what other changes or work may be necessary to develop formal technical requirements once the RDS PDP has completed. There will be no detriment to consumers of registration data, as registries

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[6] In parallel to ICANN 58 VeriSign published information regarding its RDAP prototype, which features a basic implementation of gated access, one of the benefits of RDAP over WHOIS. Google Registry also developed and released an RDAP implementation as part of its Open Source registry platform Nomulus.

will continue to provide the existing WHOIS service in accordance with contractual requirements.

We propose the following guidelines for the RDAP pilot:

- As soon as practicable, ICANN would announce the launch of a voluntary pilot program for RDAP implementation to run in parallel with and through the end of the next generation RDS PDP.
- Registries participating in the pilot would be expected to comply with the technical requirements established in the RDAP RFCs, but could experiment with different policy requirements and RDAP extensions.
- Registries[7] participating in the pilot program would be expected to notify ICANN of their timeline for deploying RDAP, provide a description of their proposed implementation and the location where it can be accessed.
- ICANN would waive the requirement for participating registries to go through a Registry Service Evaluation Process to deploy RDAP.
- Participating registries would be required to publish their then-current RDAP implementation features, including limitations (or lack thereof), privacy guidelines, available services, extensions and terms of use as applicable.
- ICANN would maintain a web-based resource describing the pilot program, with appropriate resources identifies including links to the RDAP service of each of the participating registries.
- Registries participating in the pilot would be expected to reasonably cooperate in sharing their operational experiences with members of the RDS PDP (e.g., through surveys or briefings during calls or ICANN meetings).
- For the duration of the pilot, registries would not be expected to include RDAP queries in Monthly Reporting. However, ICANN may participate in the pilot and work with participating registries to develop or enhance existing reporting systems to accommodate RDAP reporting and to help guide the work of the RDS PDP.
- Registries participating in the pilot program would be required to continue to run WHOIS in accordance to all the applicable requirements set forth in their Registry Agreements in parallel to RDAP, at least until WHOIS is deprecated.
- If inconsistent with the recommendations of the RDS PDP participating registries would be expected to redeploy RDAP in a manner consistent with the

[7] It is expected that participation in the program would primarily be by registries that are also RSPs. Registries that rely upon a third party for the provision of registry service providers would be expected to coordinate with their RSP prior to expressing interest in the program.

policy and implementation outcomes of that working group. Registries may continue to operate experimental RDAP pilots as long as they are clearly identified as experimental services that are functionally separated from production services.

- Registries could optionally retire their experimental RDAP deployments provided they notify ICANN.
- ICANN would be able to participate in the pilot by using the opportunity to enhance or develop its monitoring to accommodate RDAP services.

The availability of RDAP and the work currently underway in the next-generation RDS PDP represents a real opportunity for improvement. The registries look forward to continuing to work with ICANN on the development and implementation of RDAP, related RDS policies, and ultimately sun-setting WHOIS.

Thank you,

Paul Diaz
Chair, RySG