

Registration Directory Service (RDS-WHOIS2) Review

Draft Report
REC12-14 SUBGROUP REPORT - SECTION 3.9 ONLY

RDS-WHOIS2 Review Team
10 August 2018



3 Objective 1: Assessment of WHOIS1 Recommendations Implementation

3.9 WHOIS1 Rec #12-14: Internationalized Registration Data

[SUBSECTION NUMBERS WILL BE ADJUSTED WHEN ADDED BACK TO MASTER DOC]

1.1.1 Topic

Consistent with ICANN's mission and Bylaws, Section 4.6(e)(iv), the Review Team will (a) evaluate the extent to which ICANN Org has implemented each prior Directory Service Review recommendation (noting differences if any between recommended and implemented steps), (b) assess to the degree practical the extent to which implementation of each recommendation was effective in addressing the issue identified by the prior RT or generated additional information useful to management and evolution of WHOIS (RDS), and (c) determine if any specific measurable steps should be recommended to enhance results achieved through the prior RT's recommendations.

The specific [WHOIS1 Recommendation](#) assessed by this subgroup appears below:

WHOIS Recommendations #12-14: Internationalized Registration Data¹

Recommendation 12 - ICANN should task a working group within six months of publication of this report, to determine appropriate internationalized domain name registration data requirements and evaluate available solutions (including solutions being implemented by ccTLDs). At a minimum, the data requirements should apply to all new gTLDs, and the working group should consider ways to encourage consistency of approach across the gTLD and (on a voluntary basis) cold space. The working group should report within a year of being tasked.

Recommendation 13 - The final data model, including (any) requirements for the translation or transliteration of the registration data, should be incorporated in the relevant 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.

Recommendation 14 - Metrics should be developed to maintain and measure the accuracy of the internationalized registration data and corresponding data in ASCII, with clearly defined compliance methods and targets.

1.1.2 Summary of Relevant Research

The subgroup has studied the provided materials (listed below) and the decisions reached by ICANN after the WHOIS1 Report was published. The subgroup checked whether the

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¹ The WHOIS1 Final Report referred to Recommendations #12-14 as "Internationalized Domain Names."

measures taken by ICANN covers the recommendations made by WHOIS1 and whether it is necessary to provide any additional measures to fully cover the recommendations.

1.1.2.1 List of relevant materials:

The materials found relevant are enlisted on the [subgroup wiki page](#):

- ⊙ [Translation and Transliteration PDP's Final Issue Report, March 2013](#)
- ⊙ [Translation and Transliteration PDP web page](#)
- ⊙ [Translation and Transliteration PDP Working Group Final Report, Jun 2015](#)
- ⊙ [IRD Expert Working Group Final Report, September 2015](#)
- ⊙ [Translation and Transliteration IRT wiki](#)
- ⊙ [Translation and Transliteration Implementation Project Status](#)
- ⊙ [RDAP Webpage](#)
- ⊙ WHOIS1 Implementation Briefings on Recommendations 4, 12, 13, 14: [PPT](#), [PDF](#)
- ⊙ [Answers to RDS-WHOIS2 Questions on Implementation Briefings](#)

1.1.3 Analysis & Findings

1.1.3.1 Board action related to Recommendations 12-14:

The Board directs the CEO to have Staff:

1. Task a working group to determine the appropriate internationalized domain name registration data requirements, evaluating any relevant recommendations from the SSAC or GNSO
1. Produce a data model that includes (any) requirements for the translation or transliteration of the registration data, taking into account the results of any PDP initiated by the GNSO on translation/ transliteration, and the standardized replacement protocol under development in the IETF's Web-based Extensible Internet Registration Data Working Group
2. Incorporate the data model in the relevant Registrar and Registry agreements within 6 months of adoption of the working group's recommendations by the ICANN Board or put explicit placeholders in place for gTLD program agreements, and existing agreements
3. Evaluate available solutions (including solutions being implemented by ccTLDs)
4. To provide regular updates on technical development of the IRD, including the estimated timeline or roadmap of such technical development, so that the ICANN community, particularly the IDN gTLD applicant, can fully prepare for implementation of IRD features in its operation.
5. Investigate using automated tools to identify potentially inaccurate internationalized gTLD domain name registration data in gTLD registry and registrar services, and forward potentially inaccurate records to gTLD registrars for action.

1.1.3.2 Results related to Recommendation 12:

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The ICANN Board adopted an Action Plan in response to the WHOIS Review Team's Final Report that instructs Staff to implement these recommendations. Subsequently a set of

related efforts were formed to implement the WHOIS review team recommendations. These are:

- An expert working group to determine the requirements for the submission and display of internationalized registration data.
- A commissioned study to evaluate available solutions for internationalized registration data.
- A Policy Development Process (PDP) to determine whether translation or transliteration of contact information is needed. If so, specify who should bear the burden of the transformation.

WHOIS Review Team Internationalized Registration Data Expert Working Group (IRD Working Group) was created (<https://www.icann.org/en/system/files/bm/briefing-materials-1-08nov12-en.pdf>).

The timeline of IRD Team analysis is enlisted below:

Draft Final Report of IRD Team published for Public Comment – 9 Mar 2015

(<https://www.icann.org/news/announcement-2015-03-09-en>)

Report of Public Comments – 18 May 2015

(<https://www.icann.org/en/system/files/files/report-comments-ird-study-18may15-en.pdf>)

Final Report from the Expert Working Group on Internationalized Registration Data - 23

September 2015 (<http://whois.icann.org/sites/default/files/files/ird-expert-wg-final-23sep15-en.pdf>)

Board Approval of IRD recommendations Resolution 2016.03.10.05 – 2016.03.10.07 – 10

March 2016 (<https://www.icann.org/resources/board-material/resolutions-2016-03-10-en#1.e>)

Implementation Plan to be developed – (TBD) 2016

The IRD Working Group developed three principles of internationalization:

User Capability Principle: In defining a requirement for a particular data element or category of data elements, the capability of the data-submitting user should be the constraining factor. Such users should not be burdened with tasks that cannot be completed under ordinary circumstances (i.e. inputting domain name registration data in a language or script the registrant is not familiar with).

Simplicity and Reusability Principle: Where possible, existing standards that are widely used for handling internationalized data should be applied. Where simpler standards exist for internationalization, they should be preferred rather than more complex standards.

Extensibility - Where possible, the data model should be able to be easily extended to tailor to the evolution of data elements displayed by directory services for various TLD registries and registrars.

Based on these principles, the IRD Working Group proposes two high level requirements for community consideration:

registrants should only be required to input registration data in a language(s) or script(s) that they are skilled at;

unless explicitly stated otherwise, all data elements should Defining Requirements for Internationalized Registration Data be tagged with the language(s) and script(s) in use, and this information should always be available with the data element.

The Board requested that the GNSO Council review the broader policy implications of the IRD Final Report as they relate to other GNSO policy development work on WHOIS issues, and, at a minimum, forward the IRD Final Report as an input to the GNSO PDP on the Next Generation Registration Directory Services to Replace WHOIS that is currently underway (<https://gns0.icann.org/en/correspondence/crocker-to-bladel-11may16-en.pdf>).

Conclusion: The subgroup treats recommendation #12 as fulfilled. See also findings related to Rec #13.

1.1.3.3 Results related to Recommendation 13:

As the requirements for the translation and transliteration of the registration data were not finalized in time for the revision of the documents in 2013, the placeholders can be found both in Registry Agreement (RA) and Registrar Accreditation Agreement (RAA):

RA-2013, Specification 4

(<http://newgtlds.icann.org/sites/default/files/agreements/agreement-approved-09jan14-en.docx>) says:

Registration Data Directory Services. Until ICANN requires a different protocol, Registry Operator will operate a WHOIS service available via port 43 in accordance with RFC 3912, and a web-based Directory Service at <whois.nic.TLD> providing free public query-based access to at least the following elements in the following format. ICANN reserves the right to specify alternative formats and protocols, and upon such specification, the Registry Operator will implement such alternative specification as soon as reasonably practicable.

Registry Operator shall implement a new standard supporting access to domain name registration data (SAC 051) no later than one hundred thirty-five (135) days after it is requested by ICANN if: 1) the IETF produces a standard (i.e., it is published, at least, as a Proposed Standard RFC as specified in RFC 2026); and 2) its implementation is commercially reasonable in the context of the overall operation of the registry.

RAA-2013, Registration Data Directory Services(WHOIS)Specification,

(<https://www.icann.org/en/resources/registrars/raa/approved-with-specs-27jun13-en.htm#whois>) says:

Registration Data Directory Services. Until ICANN requires a different protocol, Registrar will operate a WHOIS service available via port 43 in accordance with RFC 3912, and a web-based Directory Service providing free public query-based access to at least the elements set forth in Section 3.3.1.1 through 3.3.1.8 of the Registrar Accreditation Agreement in the format set forth in Section 1.4 of this Specification. ICANN reserves the right to specify alternative formats and protocols, and upon such specification, the Registrar will implement such alternative specification as soon as reasonably practicable.

Following the publication by the IETF of a Proposed Standard, Draft Standard or Internet Standard and any revisions thereto (as specified in RFC 2026) relating to the web-based directory service as specified in the IETF Web Extensible Internet Registration Data Service working group, Registrar shall implement the directory service specified in any such standard (or any revision thereto) no later than 135 days after such implementation is requested by ICANN. Registrar shall implement internationalized registration data publication guidelines according to the specification published by ICANN following the work of the ICANN Internationalized Registration Data Working Group (IRD-WG) and its subsequent efforts, no later than 135 days after it is approved by the ICANN Board.

Board has adopted (<https://www.icann.org/resources/board-material/resolutions-2015-09-28-en#1.b>) the recommendations listed here:

Resolved (2015.09.28.02), the Board adopts the GNSO Council Policy Recommendations concerning the translation and transliteration of contact information as presented in the Final Report.

Resolved (2015.09.28.03), the CEO, or his authorized designee(s), is directed to develop and complete an implementation plan for **ICANN Rec**ommendations and continue communication and cooperation with the GNSO Implementation Review Team and community on the implementation work.

In Rationale Board noticed that
However, the Registration Data Access Protocol (RDAP) is currently being rolled out as the WHOIS replacement and it [the RDAP] is fully compatible with different scripts.

The IETF produced the RDAP protocol matching the requirements enlisted in the Rec #12 findings. The RDAP protocol is described in RFCs 7480-7484 (<http://datatracker.ietf.org/wg/weirds/documents/>). The efforts taken by ICANN related to the RDAP protocol are enlisted on page <https://www.icann.org/rdap/>.

Conclusion: The subgroup treats recommendation #13 as fulfilled. See also findings related to Rec #12. The implementation of the recommendation depends on RDAP progress.

1.1.3.4 Results related to Recommendation 14:

Regarding the RDS/WHOIS1 Review Team's third IRD recommendation that metrics should be developed to maintain and measure the accuracy of the internationalized registration data and corresponding data in ASCII, this is currently being performed as part of the Accuracy Reporting System (ARS). The page of the Accuracy Reporting System is here: <https://whois.icann.org/en/whoisars>

The ARS project Phases 1 and 2 DO NOT have special requirements related to the accuracy of the internationalized registration data as the data is not available according to the ARS study methodology.

The subgroup treats the metrics and measures developed by ARS are suitable when the internationalized registration data become available for studying.

Conclusion: The subgroup treats recommendation #14 as fulfilled.

1.1.4 Problem/Issue

The subgroup further identified the following issue: The commercial feasibility loophole in the current contracts allows registrars and registries to not implement RDAP.

1.1.5 Recommendations

Based on its analysis, members of this subgroup agree that these WHOIS1 recommendations have been fully-implemented. Work was done to the extent it can be done without an RDAP-based WHOIS system. One further recommendation is provided here to address the problems/issues identified above.

Recommendation R12.1:

Reviewing the effectiveness of the implementation of #Rec 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.

Findings: There is no actual IRD in current WHOIS system to review the implementation of Recommendations #12-14 in a pragmatic way. And even after the RDAP was implemented, the IRD can still be waiting for implementation due to lacking of requesting party and financial support.

Rationale: There is still a need to offer IRD, when all prerequisites are ready, a follow up review could be able to close the implementation of Recommendations #12-14.

Impact of Recommendation: The recommendation has no impact until RDAP is in use. When RDAP is in use, Registrar and Registries will be affected as they will have to process the international data for users both in internationalized and ASCII form and partially implement the translation/transliteration themselves. Registrants will be affected as they will be able to provide the internationalized data. Though internationalized data is expected to be more mistake-free by accident, the accuracy of ASCII data can reduce because of automated translation/transliteration. WHOIS Accuracy Reporting System (ARS) will be affected as new possibilities of providing incorrect information will appear (e.g. mismatch between internationalized and ASCII data) and it becomes necessary to involve native speakers to validate internationalized data.

Feasibility of Recommendation: Given that all the necessary work (RDAP protocol standardization, development of principles of internationalization, metrics of data accuracy) is finalized, this recommendation should also be feasible when RDAP is implemented and internationalized registration data is available.

Implementation:

To fully implement the recommendation, the efforts of registries and registrars are required to implement RDAP protocol and start collecting internationalized registrant data. The target of the successful implementation is all the audience of RDS services. There are some RDAP implementations underway already but they are very limited for now and will not be in a contrary with the recommendation. We estimate the period necessary for the implementation as more than 12 months.

Priority: As we have a feasibility loophole in the contracts and no special interest in implementation the RDAP protocol more widely than for experimental purpose, this recommendation would not be in top 5 for now.

Level of Consensus: No F2F3 Objections

1.1.6 Possible impact of GDPR and other applicable laws

As International Registration Data should be processed using the same principles, the possible impact of GDPR is the same as related to currently available data.