Registry Monthly Reporting FAQs

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I. Introduction

The Registry Monthly Reporting Frequently Asked Questions (FAQ) document provides answers to commonly asked questions regarding the Registry Monthly Reporting processes for all registry operators.

For any questions, please contact ICANN Global Support at globalsupport@icann.org, or have a credentialed Naming Service portal (NSp) user submit a general inquiry case.

To learn more about the Naming Services portal please review the information on the Naming Services portal for Registry Operators page.

II. General

1. Why do registry operators provide monthly reports to ICANN?

As part of its mission, ICANN org is required to ensure the stable and secure operation of the Internet's unique identifier systems. The Monthly Registry Reports help ICANN org fulfill its mission by monitoring Registry Agreement compliance, and by providing reports to the ICANN community that evaluate the security and stability of operations in a wide variety of areas.

For contractual reasons, Monthly Registry Reports are withheld until three months after the end of the month to which the report relates.

The monthly reports are also used in ICANN's billing processes for registry operators and registrars. For more information, please refer to the Registry Operator Billing FAQ document.

2. Are registry operators required to provide monthly reports to ICANN org?

Section 2.4 and Specification 3 of the Registry Agreement define the requirements and details about the format and content of the registry monthly reports. The two monthly reports that must be provided to ICANN org are **Per-Registrar Transaction Reports ("Transaction Reports")** and **Registry Functions Activity Reports ("Activity Reports")**. These reports can be submitted to ICANN org immediately after the end of the month. The deadline for providing these reports is the 20th day of the following month.

3. What are Monthly Registry Reports?

Although Specification 3 of the Registry Agreement provides a detailed answer with referrals to the technical format and how the API works, below is a simplified description of monthly reports. When the below simplified description is not adequate or contradicts with the related sections in the Registry Agreement, please note that the Registry Agreement and the referred sections prevail.

| Per-Registrar Transaction Report ("Transaction Report") | Contains the total number of domains, nameservers associated with the registered domain names, as well as additional quantifiable data related to operations such as the quantity of new registrations, renewals, transfers between registrars, and deletions.

All of the above are provided in comma separated values (.CSV format*) per registrar. The report contains data for each registrar on a new line (or row). |
|---|---|
| Registry Functions Activity Report ("Activity Report") | Contains the total number of various functional activities of the gTLD, including the number of registrars working with the gTLD, zone file access provided through CZDS (zfa-passwords), responded UDP and TCP queries, WHOIS queries, queries through two Internet protocols (TCP and UDP), as well as other quantifiable information about the utilization of the Shared Registration System (SRS).

This information is provided in comma separated values (.CSV format*) as a total for the reported gTLD, thus containing a single line (or row). |

CSV formatted files are text-based, which makes their content observable by opening them in a spreadsheet application (such as MS Excel) or a text editor. Specific details about the .CSV reports used are available in RFC 4180.

4. How are Monthly Registry Reports submitted to ICANN org?

Monthly Registry Reports are only submitted to ICANN org via the Registration Reporting Interface (RRI), which is an API (Application Programming Interface). Due to its nature as an API, RRI allows "computers to talk to computers" through HTTP commands. This automates the process of submitting the report without manual interaction as soon as it is created.
For security purposes, RRI can only be accessed through specific IP addresses, which are provided by the registry operator in ICANN's Naming Services portal (NSp). These IP addresses may belong to the registry operator (if technical backend services are provided internally) or an outsourced third party defined by the registry operator. Such a third party that provides technical backend services is called a Registry Service Provider (RSP).

More information about RRI is available at https://www.icann.org/rri.

5. What is the URL for the Registration Reporting Interface (RRI)?

ICANN org uses *https://ry-api.icann.org* base URL to provide the interface for registry operator systems and software to communicate with the RRI system. Please note that RRI does not provide an interface for humans, hence the above URL for RRI would not work on your browser. RRI is an API that works via HTTP commands and the technical details of the automated interface can be found at https://tools.ietf.org/html/draft-lozano-icann-registry-interfaces-16.

6. How do registry operators log into RRI?

Typically, the systems that log into RRI are either operated by the registry operator or its RSP. The authentication standard *TLS (Transport Layer Security)* is the protocol used on the web to secure transactions (i.e., when we see a closed padlock in a web browser). TLS is used by RRI to authenticate clients, and TLS Authentication records (TLSA) are used to provide an authentication mechanism within the DNS records to link the client certificate to be used. TLSA is defined with further technical details in RFC 6698. For more information about the RRI authentication, please see https://www.icann.org/rri.

Registry operators should contact the technical team that is responsible for technical backend services (or the Registry Service Provider (RSP), if they outsource such services) for more information on how RRI is accessed for their gTLD.

7. How does a registry operator know if its reports are submitted incorrectly?

When submitting a report via RRI, the format of the report is validated to follow the technical standards. On the other hand, the completeness of its content is not validated. Registry operators and/or their RSPs must ensure the accuracy of the data prior to submitting their reports. This is typically done through one last evaluation step in their systems, right before the reports are submitted to ICANN org.

When submitting reports, RRI sends back an HTTP status code, which can be accompanied by a <response> that provides further details about the status of the delivery. When a report is delivered successfully, RRI in return will deliver an "HTTP/200" status code back to confirm that the report was received successfully. Other status codes may indicate different types of issues, as provided below, and related actions that the registry operator (or the RSP) should take.

Status Code	Description	Action Required
HTTP/200	Reports successfully received. Check <response> object to verify.	None
HTTP/401	The credentials provided do not authorize the registry operator to upload a report for the <tld>.	Registry operator should use the correct credentials or submit a case through the Naming Services portal (NSp) to update the credentials provided to ICANN.
HTTP/403	Credentials are correct for logging in but not authorized to upload reports. Typically, the reason is due to connecting through an IP address that is not whitelisted for the TLD.	Registry operator should make sure the correct IP addresses are listed in the NSp. If all IP addresses are whitelisted, the registry operator should contact their RSP to identify the issue.
HTTP/405	Unsupported request method.	Registry operators should contact their RSP to use the correct request method.

HTTP/500	RRI system is experiencing a technical failure.	ICANN will fix this issue. There is no action required by the registry operator.
HTTP/501	Requesting to use a functionality that is not implemented yet.	Registry operator should only use the functions provided on https://tools.ietf.org/html/draft-lozano-icann-registry-interfaces-16.

Detailed technical information about the ICANN Registry Interfaces is available at https://tools.ietf.org/html/draft-lozano-icann-registry-interfaces.

8. When and where are the monthly reports published?

For contractual reasons, Monthly Registry Reports are withheld until three months after the end of the month to which the report relates. Monthly Registry Reports are published on the Monthly Registry Reports page at icann.org and ICANN Open Data, which is a service offered free-of-charge to any Internet user.

9. When changing the technical backend service provider (a.k.a. Registry Service Provider or RSP), which RSP should submit the monthly registry reports to ICANN org?

Transitioning from one RSP to another requires registry operators to go through a Material Subcontracting Arrangement (MSA) process. During the MSA process, registry operators are required to generate a Transition Plan, which defines the timeline for the losing RSP to hand over reporting responsibilities to the gaining RSP.

Once the transition has been completed, the losing RSP typically generates the reports, at the end of the last day of the reported month, and manually provides them to the gaining RSP for submission via RRI. This should be reflected in the Transition Plan.

10. If a registry operator fails to submit the Monthly Registry Reports by the 20th of the following month, does ICANN org accept late delivery?

Per Section 2.4 of the Registry Agreement, Monthly Registry Reports are due within twenty (20) calendar days following the end of each calendar month. For example, the reports for January can be submitted between February 1st - 20th.

If reports for the previous month are not delivered until the 20th of the following month, the issue is automatically escalated to ICANN Contractual Compliance. In such cases, ICANN Contractual Compliance sends an inquiry or notice to the registry operator. The registry operator should follow the instructions provided in the inquiry or notice, which typically would question the reason, when/how the registry operators plan to deliver monthly report(s) and any further actions to prevent similar reasons impact delivery of the monthly report(s) in future.

III. Troubleshooting

11. What are typical errors in the Per-Registrar Transaction Report ("Transaction Report")?

Apart from miscalculations, the typical errors on Transaction Reports are usually related to field names and incorrect IANA IDs. Below is a list of the most frequent errors not related to calculation, and methods to avoid them.

- Registry operators or their RSPs should make sure to compare IANA IDs in Transaction Reports against the IANA IDs provided (and frequently updated) by IANA at https://www.iana.org/assignments/registrar-ids. They should also avoid including the IANA IDs that are terminated before the reported month. Valid transactions exiting their grace period are expected shortly after the termination date.
  - Issue example: An IANA ID, which was terminated before the first day of the reported month is included among the IANA IDs in Transaction Reports.
- Registry operators or their RSPs should make sure all fields in Transaction Reports match the list of fields in Specification 3, Section 1 of the Registry Agreement.
  - Issue example: A field (e.g., attempted-adds) may be missing.
  - Issue example: An extra field that is not defined in the Specification 3, Section 1 of the Registry Agreement may exist.
  - Issue example: A typo error in field names may exist (e.g., providing "transfer-gaining-successful" field name as "transfer-gaining-successful*ly*").
- Registry operators or their RSPs should make sure to choose MIME type as "text/csv" when generating the reports.
  - Issue example: Field names and/or the values in the report contain extra characters (e.g., additional double quotes with backslash characters).
  - Issue example: Line break characters are not compatible with the definition of CR LF in RFC 2234.
  - Note for best practice: Reporting numeric values within double quotes (") is not an issue, but the best practice is to add these values without double quotes. This ensures that your report size is smaller and will be easier to process.

Avoiding these issues is possible by adding a separate evaluation step in the reporting system of the registry operator or RSP that flags issues before the reports are submitted.

12. Which data fields in Transaction Reports are frequently miscalculated?

Only the registry operators and their RSPs can validate the content and detect miscalculated values in the Transaction Reports. The below fields are the most frequently miscalculated fields in Transaction Reports, based on reports that were resubmitted.

Field #	Data Field
03	total-domains
05-14	net-adds-…-yr
15-24	net-renews-…-yr

33	deleted-domains-grace
36	agp-exemption-requests
37	agp-exemptions-granted
38	agp-exempted-domains

Calculation errors occur due to various issues that may exist in the software algorithms and/or the business processes of the registry operators and/or RSPs. It is important for registry operators to review monthly reports every month for any underlying business processes that may generate issues. Such reviews should preferably be conducted together with the RSP, if technical backend services are outsourced by the registry operator.

13. What are common errors in Registry Functions Activity Reports?

Common issues in Registry Functions Activity Reports are related to the first few fields about zfa-passwords and WHOIS queries.

The most common error is reporting *the 'zfa-passwords'* field value as "0", which is almost always incorrect. This field should either indicate the number of CZDS requests approved for access to zone files or the text value "CZDS". The validation method applied by RRI has a special clause for the "CZDS" value in the zfa-passwords field and accepts this text value because it is interpreted as "ICANN org should obtain the numerical value from https://czds.icann.org/reports."

Regarding the WHOIS-related fields on the Registry Functions Activity Reports, the ICANN Security and Stability Advisory Committee (SSAC) has identified several issues, which are detailed in SSAC's letter to ICANN org on 3 May 2019. Information about the next steps is also available in ICANN org's response to the SSAC's letter on 30 May 2019.

14. Can past reports be resubmitted due to errors found after the report submission deadline?

Yes, requests to update previously submitted reports can be sent to ICANN org for resubmission. The resubmission request process for Per-Registrar Transaction Reports ("Transaction Reports") is different from the Registry Functions Activity Reports ("Activity Reports"). Please see related questions below for each report resubmission process.

15. How can a registry operator or its RSP resubmit Registry Functions Activity Reports ("Activity Reports") if an error was detected?

If errors were detected in Activity Reports, the registry operator or its RSP can take the following steps to request resubmission of the Activity Reports for previous month(s):

1. If resubmission is requested by the registry operator:
   Any credentialed user can submit the request to ICANN org via the Naming Services portal (NSp) as a General Inquiry case by providing the following information:
   a. A general description of what caused the error(s),
   b. The gTLD(s) and month(s) affected by the error(s),
   c. The period during which the registry operator plans on resubmitting the report(s) via RRI,
   a. Information on how the error(s) will be prevented in the future.
2. If resubmission is requested by the RSP:
   The RSP should email a request to globalsupport@icann.org and provide the following information:
   d. The information listed in 1.a. through 1.d. above,
   e. A confirmation that the registry operator approved this resubmission request.
3. The registry operator or RSP should wait to receive ICANN org's confirmation that RRI is ready to receive the corrected reports. Once ICANN org archives the data from the previous reports, a notification will be sent to the registry operator or RSP to resubmit the Activity Report(s) via RRI during the requested period
4. The registry operator or RSP should provide confirmation to ICANN org via the NSp case or email once the report(s) have been resubmitted.

16. As a registry operator, if there was an error in my registry's per-Registrar Transaction Report(s) to ICANN org, how do I resubmit my report(s) and request an invoice adjustment?

Per Article 2, Section 2.4 of the Registry Agreement, monthly reports are due within twenty (20) calendar days following the end of each calendar month. If you have already submitted your monthly per-Registrar Transaction Report(s) to ICANN org but have found an error for a previously billed period and you need to request an adjustment to the report(s) and your invoice(s), please take the following steps:
   1. A credentialed user should submit a general inquiry case via the Naming Services portal (NSp) and include a general description of what caused the error, the months affected by the error, the number of registrars affected, and how the error will be mitigated in the future.
   2. For each affected month and per-Registrar Transaction Report, provide a financial impact summary statement that includes what the TLD registry operator and registrars were originally billed for in that month compared to the new billable values for the adjusted per-Registrar Transaction Report(s). Please include the total domains indicated in data field #3 of the per-Registrar Transaction Report in your summaries for each as well (see sample below):

TLD	YYYY-MM	Previous Total Domains	Total Invoiced Amount for Previously Submitted Registry Monthly Transactions	Total Invoiced Amount for Previously Submitted Registrar Monthly Transactions	New Total Domains	New Invoice Amount for Registry Monthly Transactions	New Invoice Amount for Registrar Monthly Transactions
.TESTTLD1	2020-08	450	$125 (500 x $0.25)	$90 (500 x $0.18)	420	$117.50 (470 x $0.25)	$84.60 (470 x $0.18)
.TESTTLD2	2020-09	425	$100 (400 X $0.25)	$72 (400 x $0.18)	405	$95 (380 x $0.25)	$68.40 (380 x $0.18)

3. Attach the updated monthly per-Registrar Transaction Report(s), which if approved, will be re-uploaded to the Registration Reporting Interface (RRI). Please review Specification 3, Section 1 of the Registry Agreement to ensure that the updated report data is reflected correctly and in the appropriate data fields.
4. We encourage you to notify all registrars affected by your billing adjustment request, so that they are aware of any pending credits or additional invoices they may receive.

Please note that ICANN org must review and approve your request for a per-registrar transaction and/or billing adjustment. Registry operators may be subject to an audit if they submit adjustment requests frequently (e.g., more than once a year) or if they have under-reported transactions as described in Section 2.11(b) of the Registry Agreement.

17. How does the registry operator prepare corrected reports?

ICANN org strongly recommends that corrections on reports are not made manually since corrections are likely to impact other fields. For example, updating the number of renewed or new registrations ("net-renews-...-yr" or "net-adds-...-yr") is likely to have an impact on the "total-domains" field.

Depending on the type of error and the reasons behind the error, we recommend identifying the reason(s) that caused the error and working backwards to update all fields that may be impacted. The registry operator and/or its RSP should review Specification 3, Section 1 of the Registry Agreement to ensure the accuracy of the values in the updated reports.

18. How does the registry operator report IDN variants to ICANN?

It's recommended that registry operators check the Registry Agreement Exhibit A for various terms and conditions related to IDN variants. If there is an exception to the default action (e.g., "blocked from registration" for IDN variants), registry operators should make sure IDN variant registrations in the zone are provisioned in the TLD's DNS zone file and included in the registry's monthly reports.

19. What if one of the registrar partners requests an extraordinary circumstance exemption for the Add Grace Period (AGP) deletions? How should the registry operator reflect this in the per-Registrar Transaction Reports ("Transaction Reports")?

To learn more about how to process AGP extraordinary circumstance exemption requests, please see the AGP Limits Policy on icann.org. Registry operators are required to follow this policy and must ensure that the registry Per-Registrar Transaction Reports ("Transaction Reports") accurately reflect any AGP deletions and any extraordinary circumstance exemptions that have been granted to the registrar(s).

In addition to populating all of the standard required data fields for the Transaction Reports as specified in Specification 3, Section 1 of the Registry Agreement, please ensure that any domains deleted within five (5) days of initial registration are included in data field #32 as indicated below. If you have granted a registrar's request for an AGP extraordinary circumstance exemption, you will also need to ensure that data fields 36, 37, and 38 are populated with the correct data as well. Please see the chart below for an explanation and description of the relevant per-Registrar Transaction Report data fields:

Data Field #	Data Field Name	Data Field Label	Data Field Purpose
32	deleted-domains-grace	Domains deleted within the Add Grace Period (AGP) do not include names deleted while in pending create status in EPP (Extensible Provisioning Protocol). A deletion must be reported in the month the name is purged.	To provide the number of domain names deleted by the registry operator within five (5) days of initial registration.
36	agp-exemption-requests	Total number of AGP exemption requests.	To provide the total number of exemption requests received from a given registrar (e.g. 1, 2, 3).
37	agp-exemptions-granted	Total number of AGP exemption requests granted.	To provide the total number of exemption requests the registry operator grants to a given registrar (e.g. 1, 2, 3).
38	agp-exempted-domains	Total number of names affected by granted AGP exemption requests.	To provide the total quantity of domain names affected by the registry operator granting the exemption request.

Once ICANN org receives the registry operator's Per-Registrar Transaction Report(s) with this information, a credit may be applied to your registry operator account and any registrar accounts indicated as part of the standard billing process.

20. How can technical staff or an RSP test the connection to RRI?

RRI communicates using the REST (REpresented State Transfer) API architecture, which is common for communicating through API. There are many paid/free software applications that can communicate with RRI for testing purposes. Such tester software applications can also be found as browser extensions, like the Talend API Tester. ICANN org suggests that registry operators and RSPs use such software tools at their own risk and only for testing purposes. ICANN org does not provide any support for such tools.

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