

Internet Assigned Numbers Authority
Monthly Report
June 17, 2007

*For the Reporting period of
June 1, 2007 – June 30, 2007*

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Executive Summary

This monthly report provides statistical information of IANA operations as they relate to the IETF. Also included are the deliverables for this reporting period in accordance with the SLA signed between ICANN and the IETF effective 1 January 2007.

In a recent IETF-IANA committee telechat, it was agreed that the IANA would include an analysis of the data in the report itself and an annex of the charts. The charts are also available on IANA's website.

Statistics

As outlined in the IETF-IANA SLA, IANA is tasked with collecting and reporting on IETF-related statistics. The IETF-IANA group continues to work to come to an agreement regarding what the statistical output should look like. IANA will continue to provide the larger set of statistics using the agreed upon format. There continue to be some points below that are not fulfilled in this month's report due to complications with the way the requests are processed.

Below you will find the line item from the SLA of the statistics requested, a description of what queue's statistics are being provided to fulfill that deliverable and an analysis of the data for each queue. The actual charts representing the data can be found at <http://www.iana.org/reporting-and-stats/index.html>.

IANA continues to improve the way the tool processes the data to generate statistics. The data has become more accurate as almost all older tickets have been resolved. Current issues that remain are how the tool deals with merged tickets and queue changes. Some progress has been made with regards to how the tool will handle those situations but resolution of all these issues has not been reached. With input from those reviewing the report, we have also discovered that the numbers for tickets "created" each month are not accurate. The created number affects the first chart of each set titled "Requests created/closed/opened". The problem may be related to tickets getting created in the queue but at some time during the month they are moved to a different queue. However, we are looking into what is causing this error. IANA continues to determine the best way to handle this issue so that the statistics can be represented in the most accurate way possible.

For this month's statistics, the charts were generated using graphing tool as opposed to manually generated using Microsoft Excel. Full automation has not yet been reached however and IANA continues to work through the remaining challenges to fully automate

the statistic reports and charts. IANA recognizes that the various formats of the graphs, which are generated by the tool, are not optimal. Improvement to the scale, colors, fonts and other visual features are being reviewed.

Types of charts for each queue found at <http://www.iana.org/reporting-and-stats/index.html>:

- Month to month comparison histogram of requests created/closed/open
- Month to month comparison histogram of age groups of closed tickets
- This month's absolute age of closed requests
- Month to month comparison histogram of age groups of open tickets
- This month's absolute age and current state of open requests
- Month to month comparison of mean, median and standard deviation for processing times of closed tickets

IESG approved documents (a)

There are 2 processes that involve documents that have been approved for publication as an RFC where IANA has involvement. The first is when a document is approved by the IESG or the RFC-Editor indicates that they will be publishing the document. IANA reviews the document to determine what actions need to be performed if any. The second is when the RFC-Editor notifies IANA that an RFC-number has been assigned and IANA needs to update references in registries that were updated with new registries and/or assignments.

Requests in the "drafts-approval" queue begin at the time IANA receives a notification of an approval or intent to publish a document and end when the RFC-Editor has acknowledged receipt of the notification of completed actions by IANA. The requests in the "drafts-update-refs" queue begins at the time the RFC-Editor notifies IANA of the RFC number assigned to a document that had actions performed by IANA and ends with IANA updating all references to the document in IANA registries.

DRAFTS-APPROVAL QUEUE

IANA completed a total of 22 requests for the month of June (15 of which were NO IC). A total of 19 requests were completed within the goal of 14 IANA days or less. Of the 3 remaining requests closed in June, 1 was closed with IANA days of 18. The remaining 2 were closed with IANA days of 23 and 41. These numbers result in 86% of requests being processed within the proposed time goals, which is up 16% from last month.

For the requests that took 18 and 23 days, slight improvements made last month will move this requests into the desired goal range. For the request taking much longer, below you will find further analysis on reasons for the delay:

The request taking 41 IANA days needed more consultation with the initial reviewer after approval to work through what the exact IANA actions were. Careful review at Last Call

and Evaluation will help alleviate this type of problem. If the IANA fully understands the actions before approval, the IANA time in the approval queue will be minimal.

As of the last day of June, there were 10 requests open. All of these requests had an IANA processing time still within the goal range of 14 days or fewer. As described in last month's report, the adjustments made last month will take time to propagate. However, the IANA days for the approvals queue have improved and we are 4% away from our goal.

DRAFTS-UPDATE-REFS QUEUE

Note: This type of request is not clearly identified in the SLA. Updating references would be most appropriately fit into the parameter requests not requiring technical review. A suggested goal for IANA completion time would be a maximum of 7 days.

IANA completed a total of 10 requests for the month of June. All but 1 request was completed within the 7 IANA day goal range. The one request completed within 20 IANA days was an unusual case where IANA needed to consult with various parties as the updates involved making changes to an RIR related registry.

As of the end of the month, there were 4 requests open. All had a total number of days of 4 or less. These entered the queue at the very end of the month and were still being processed as normal.

Review of documents on IESG telechat agendas (b)

IANA reviews all documents that appear on the IESG telechats, which occur every other week. There are 2 ways the review of documents is tracked. The first is through IANA's participation during the IESG Last Call of a document (the "drafts-lastcall" queue). The second is through the IESG Evaluation of documents (the "drafts-evaluation" queue).

Requests begin at the time IANA receives a notification of Last Call or Evaluation from the IESG and ends with IANA submitting official comments to the IESG. Below you will find the statistics for both the "drafts-lastcall" and "drafts-evaluation" queues.

DRAFTS-LASTCALL QUEUE

Note: For the drafts-lastcall queue there are no processing goals described in the SLA. Last Calls are sent to IANA with a due date. IANA's goal is to submit official comments by that due date. Most Last Calls are either 2 to 4 weeks long. This would give the IANA a maximum of 28 days to complete a review and submit comments.

A total of 30 requests were completed for the month of June. Only 5 of the 30 requests were completed in the 15-30 day range. All others were completed within 14 days. As of the end of the month there were 2 open requests. Both requests were still within the 28 maximum IANA day goal. One of these needed extra review as IANA was determining how to handle second last calls of documents.

DRAFTS-EVALUATION QUEUE

Note: For the drafts-evaluation queue there are no processing goals described in the SLA. Evaluations are sent to IANA with no due date, however IANA's goal is to submit the official comments before the document is discussed on the telechat. An evaluation announcement can arrive with only 1 day until the document appears on the IESG telechat as well as arrive before the Last Call comment period has ended.

A total of 39 requests were completed in the month of June. All but 2 requests were completed in 14 days or less. As of the last day of the month there were only 3 open requests, all which were open less than 14 days. It is difficult to determine whether IANA is meeting any specific goal as setting processing time goals for this queue is difficult. However, from looking at processing times, it appears that this queue is well managed.

New Media (MIME) type requests (c)

IANA receives requests for registration of new Media types. Also received, but rarely, are modification and deletion requests for Media types. All of these are processed in the "iana-mime" queue. These requests begin with the receipt of an application for (or modification/deletion of a Media type and end with the request being resolved with a successful registration, removal or modification. In some cases the requests are closed due to withdrawal of the request by the requester or via administrative closure, typically due to lack of response from the requester. We understand that MIME Media types are currently referred to as just "Media Types". The queue "iana-mime" however, was named prior to this change.

IANA-MIME QUEUE

A total of 21 requests were closed in the month of June. The maximum time with IANA for any of these requests was 4 days. 100% of the closed requests have been completed with an IANA time as outlined in the processing goals of 14 days or less.

At the end of the month, there were a total of 6 open requests. Four of these requests were either waiting on the expert or requester for response. One was just received on the last day of the month and the other was just approved and ready for registration. The maximum number of days any of these requests had been in IANA time as of the end of the month was 3 days.

Modification to and/or deletions of Media (MIME) type requests (d)

All media type requests are processed in the "iana-mime" queue. This queue includes a field to designate the request is for a new type or the modification or deletion of an existing type. These total statistics for the media type queue are found above in the "New Media type requests" section. In any given month there are little or no requests for deletion or modification of media types.

New Port number requests (e)

IANA receives requests for assignment of new user port numbers. These requests are processed in the “iana-ports” queue. Port requests begin with the receipt of an application for a user port number and end with the request being resolved with a successful registration, withdrawn by the requester, or administratively closed.

IANA-PORTS QUEUE

Note: Previously the “expert review” time was being counted as IANA time as the review was completed by IANA internal experts. Starting July 1, 2007, we will be reporting this as third-party (other) time, as IANA is requesting the IESG designate an official expert for this process.

There were a total of 19 requests closed in the month of June. Of those only 1 request had IANA time over the 14-day goal. It was an unusual request as it was a reallocation of system ports. Advice from the IESG was sought and an Area Director assisted in the review of the request. More than 90% of requests completed this month were processed within the 14 IANA day goal.

As of the end of the month there were 14 requests that remained open. All have IANA days less than 14. As mentioned above, we were still counting expert time as IANA so that affected these open requests, resulting in larger IANA days, however still within the goal range.

Modification to and/or deletions of Port number requests (f)

PORT-MODIFICATION QUEUE

IANA receives requests for modification of existing port numbers. Also received, but are rare, are deletion requests. Both of these are processed in the “port-modifications” queue. These requests begin with the receipt of a modification (or deletion) request and end with the request being resolved with a successful modification (or removal) or closed due to withdrawal or administrative closure.

During this reporting period, there were a total of 10 closed requests. 90% of those closed were done so within the goal processing time of 7 IANA days or less. All 3 open requests at the end of the month had only 1-2 IANA days and all rest was with the requester. IANA will continue to ping the requester until the 60-day limit is reached. Overall, this queue is in good standing and there are no problems encountered at this time.

New Private Enterprise Number (PEN) requests (g)

All PEN (Private Enterprise Numbers) type requests are processed in an automated program that does not go through IANA’s ticketing system. The tool includes new,

modification and deletion requests. The tool does not yet produce statistics similar to what is available for the other protocol parameter queues. Raw data shows that 178 new PENs were assigned in June 2007.

Modification to and/or deletions of PEN requests (h)

Modifications and/or deletions of PENs occur in a separate tool in which the statistics production is not yet available. More information can be found above in the “New Private Enterprise Number (PEN) requests” section. Raw data shows that 13 existing PENs were modified in June 2007.

Requests for the creation and/or deletion of registries (i)

IANA receives requests for the creation of registries through documents that will be published as RFCs. There is no separate queue for tracking the creation of registries, separately from actions that are approved via RFC publication. For more information, please see the above section “IESG approved documents”. Further discussion is needed to determine if different statistics need to be produced for registry creation/deletion.

Requests relating to other IETF-created registries for which the request rate is more than five per month (j)

For those registries where there are more than 5 requests per month, IANA creates a separate queue for tracking those tickets. Currently there is two request types where IANA has created separate queues: TRIP ITAD Numbers and Multicast addresses.

Although not requested by the SLA, also included in this report are the statistics on the general protocol parameter queue. This queue contains all other requests for assignments and registrations in the other IANA maintained protocol parameter registries.

IANA-TRIP QUEUE

There were a total of 20 IANA-TRIP requests closed in the month of June. 100% of the closed requests had an IANA time of 7 days or less. In the stats, there is one request showing 9 IANA days, however this was an error of state changes and the IANA days should have been 1 day. Nine closed requests had a total processing time larger than 7 days. All of those with larger times were due to non-responsiveness from the requester.

Of the 2 requests that remain open, 1 needed consultation with the TRIP expert as it was an unusual request, we recently heard from him are continuing the assignment process. There is 1 request that is being delayed due to internal processes.

IANA-MULTICAST QUEUE

There were no requests completed in the month of June. Four tickets were received and remain open at the end of the month. These tickets are currently waiting on either the requester or the expert, and have been in those states for the majority of the life of the requests. Based on the open requests in this queue, IANA is keeping up with processing goals, as the IANA time for these open requests is 4 days or less.

IANA-PROT-PARAM QUEUE

Note: The IANA-PROT-PARAM queue is for all the miscellaneous requests that are not processed in a separate queue due to the lack of volume for any one type of request. These requests can be first-come first-served, expert review, IESG approval or another review method. In the SLA, processing goals are determined on the type of request. However, for this queue there is no separation of request type.

There were a total of 21 requests closed during the month of June. 100% of the requests were processed within the 7 IANA days or less. The total number of days for these requests vary due to requester and other time.

There are 5 requests that were open as of the end of the month. 2 of these requests have been open over 100 days as they are in IESG Escalation. Resolution for these requests is being worked through by the appropriate area director. Of the 5 requests, the maximum IANA time on any one request at the end of the month was only 2 days. All other time spent in the queue is with the requester, expert or other party. In summary, the IANA time for general protocol parameter requests are within the established goals for each of the request types.

Methodology

The statistics presented here and on the website were gathered by extracting data from the IANA ticketing system queues into daily logs for each queue that are then concatenated into monthly logs for each queue

The logs were processed by a PERL script to extract the transaction history of each ticket in each queue, from the date the ticket was opened until the date the ticket was closed, or the end of the monthly log for tickets not yet closed.

The number of open tickets, closed tickets, the amount of time spent in each of IANA, Other, and Requestor related states (for which transaction data is available), and the total elapsed time from ticket open to close (or the end of the present reporting period), as well as the minimum processing time, maximum processing time, mean processing time, median processing, and standard deviation from the mean processing time will be presented.

The format of the snapshot files used to maintain state (transaction state and prior partial totals) across monthly report processing has not yet been documented.

Definitions

Below are tables containing the definitions for the queues in which IANA tracks IETF-related requests. IANA will continue to provide this information until it is placed on the statistics section of the IANA website.

Definitions for the drafts-lastcall, drafts-eval, drafts-approved and drafts-update-refs queues

RT STATUS	DESCRIPTION
Created	A request is created when IANA receives either a notification from the IETF Secretariat that a document has been approved by the IESG for publication as an RFC OR when the RFC-Editor notifies IANA that they intend to publish a document as an RFC.
Resolved	A request is resolved when the RFC-Editor confirms that they have received IANA's notification of completed actions OR when IANA confirms that there are no IANA Considerations.
Rejected	(not used in this queue)
Processing Time	The number of calendar days between the date the ticket was Created and Resolved. If a ticket is not yet resolved, Processing Time is the number of workdays between the date the ticket was created and the last date of this reporting period (06-30-2007).

Definitions for the iana-ports, port-modifications, iana-multicast, iana-trip, iana-mime and iana-prot-param queues

RT STATUS	DESCRIPTION
Created	A request is created when the user has submitted a template or a web form.
Resolved	A request is resolved when the ticket is closed either because the requested resource has been assigned, the resource registration has been modified or deleted as requested or the ticket has either been administratively closed or withdrawn by the requester.
Rejected	The request was inappropriate or could not be met for policy reasons.
Processing Time	The number of calendar days between the date the ticket was Created and Resolved. If a ticket is not yet resolved, Processing Time is the number of workdays between the date the ticket was created and the last date of this reporting period (06-30-2007).

Clock definitions

CLOCK	DESCRIPTION
IANA	This includes the time the IANA is working on the request
3 rd Party	This includes time spent with the designated expert, IESG, Authors, Working Group Chairs, RFC-Editor or other outside party
Requester*	This includes the time the request is with the requester
Zombie	This state appears if the ticket was created prior to January 1, 2007 and no state was known or given. Those with this state will not exist as soon as all tickets created before Jan 1 are resolved.

Deliverables

In accordance with the SLA, the IANA is reporting on the following deliverables due within six (6) months of implementation of this agreement:

- 1) Provide publicly accessible, clear and accurate periodic statistics (continual)
- 2) Track and publicly report on a monthly basis (monthly report - continual)
- 3) Single points of failure documentation to IETF-IANA Working Group (continual)
- 4) IESG transparency into status of individual requests
- 5) 90% of requests shall be processed within processing goals
- 6) Inventory all RFCs calling for registry creation to verify completion
- 7) Reduce monthly backlog to zero for each queue

Provide publicly accessible, clear and accurate periodic statistics

See “Statistics” section of this report and also <http://www.iana.org/reporting-and-stats/index.html>.

Track and publicly report on a monthly basis (monthly report)

The SLA describes 3 items IANA will provide monthly reports. These items are outlined below along with a description of actions taken for each.

- a. Resource allocation statistics as described in SLA item 20

* For the case of drafts-lastcall, drafts-eval, drafts-approval and drafts-update-refs queues, the requestor is either the IESG or the RFC-Editor so there is no “requestor time”.

In item 20 of the SLA, there is a detailed list of statistics to be produced for the monthly report. The agreed upon partial statistics are found in the “Statistics” section of this report.

- b. The utilization of all identified finite resources defined within ICANN/IANA registries

The IANA is undertaking a project to review all registries to identify those that are finite and additionally those that are in danger of being exhausted. As of the end of this reporting period, no registries have been identified as being in danger of exhaustion. IANA will continue to report findings in future monthly reports.

- c. Efforts that have addressed single points of failure/expertise (see item 3 in the SLA)

Single points of failure documentation to IETF-IANA Working Group (continual)

In conjunction with the monthly report, the IANA submits a separate document to the IETF-IANA Group documenting what steps have taken place to examine all known single-points of failure related to the IETF work. For those known single-points of failure, IANA will describe what actions were taken to correct where the point existed or what plan has been put in place for future resolution. During this reporting period, no single-point of failure was identified.

IESG transparency into status of individual requests

IANA will be working with the IESG regarding the method of transparency into individual requests.

90% of requests shall be processed within processing goals

Across all queues, IANA has reached the goal of processing 90% of requests within the established goals defined in the SLA. In looking at the individual queues, this goal was reached for all queues except for drafts-approval, which reached 86%. Please see the analysis above in the statistics section of this report for details on the results for each queue.

Inventory all RFCs calling for registry creation to verify completion

This deliverable was discussed at the last IETF-IANA committee telechat on June 25, 2007. An extension of 3 months was requested in order to complete this deliverable as the project required more resources and time than anticipated. It was agreed that an extension was appropriate. This deliverable will now be due for the 9th month report (Reporting period September 1-30).

Reduce monthly backlog to zero for each queue

This deliverable was discussed at the last IETF-IANA committee telechat on June 25, 2007. An extension of 3 months was requested in order to complete this deliverable. Most of the work has been completed, however additional time to confirm all older requests had been reviewed is needed. It was agreed that an extension was appropriate. This deliverable will now be due for the 9th month report (Reporting period September 1-30).

Conclusions

As can be seen by the provided information in this report, IANA has met the deliverables (or received extensions) as outlined in the SLA for the sixth month. IANA will continue to report on the outstanding deliverables in future monthly reports.

Statistics continue to require further consultation with the IETF-IANA committee. After the group comes to consensus regarding what statistics should be presented monthly, the SLA will need revising.