Internet Assigned Numbers Authority
Monthly Report
October 16, 2007

For the Reporting period of
September 1, 2007 – September 30, 2007

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Table of Contents

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.

Statistics

As outlined in the IETF–IANA SLA, IANA is tasked with collecting and reporting on IETF-related statistics. The IETF-IANA committee continues to work to come to an agreement regarding what the statistical output should look like. IANA will continue to provide the set of statistics below 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.

Current issues that remain are how the tool deals with merged tickets and queue changes. IANA is currently working on a possible adjustment to some of the charts to account for these ticket issues, which should allow for the numbers to match from month to month. Any adjustments in the charts will be agreed upon within the IETF-IANA committee before appearing as part of the set of charts for this report.

For this month's statistics, the charts were generated using a graphing tool. 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 continue to be 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 25 requests for the month of September (11 of which were NO IC). 92% of the requests were completed within the goal of 14 IANA days or less. The 1 ticket that was closed with 18 IANA days needed extra consultation with the working group chair and analysis of the actions being requested. Some of the actions for this ticket depended on IANA's work in a non-draft related ticket.

As of the last day of September, there were 3 requests open. Two of theses requests had an IANA processing time still within the goal range of 14 days or fewer. There is 1 request in which the IANA time exceeds 14 days. This request (at 17 days so far) needed a new html registry. IANA took a little more time than normal to set-up this registry as it was used as an example for how html registries should be formatted for XML conversion. Extra consultation was needed to make sure the format would work with schemas being prepared and we now have an example for future creations of html registries.

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 25 requests for the month of September. 100% of the requests were completed within the 7 IANA day goal range. As of the end of the month, there were no requests open.

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 between 2 to 4 weeks. There are some, usually ones that are being Last Called for the second or third time, which have 1 week time frames. This would give the IANA a range of 7 to 28 days to complete a review and submit comments, depending on the time frame given for each Last Call.

A total of 29 requests were completed for the month of September. 93% of the requests were completed within their time goals (breakdown below). Two of the 29 total requests were completed outside their specific goal times. The two Last Calls not completed within their time goals were 2 days and 5 days late. There was one 2 week last call that was completed in 15 days, however the date it was due moved 5 days later, so although IANA responded on time, the total number of days is over 14 because of the change in due date.

Last Call Time Frame	Total Requests	Completed on time
1 week	2	2
2 weeks	21	20
4 weeks	6	5

As of the end of the month there were 9 open requests. All open requests were still within the goal times.

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'a goal is to submit the official comments within 1 week of receipt. If the Evaluation is received less than a week before the document is discussed on the telechat, the goal is to send a response before the telechat takes place. In the event that providing a response is not possible as there was not sufficient time to review the document before the telechat, IANA will request more time.

A total of 25 requests were completed in the month of September. 92% of the requests had IANA days of 7 or less. Two of the 25 requests took 9 days and 15 days for their reviews. We will work to improve the timing of all reviews of Evaluations. The IANA days do not include the time that the document is waiting for Last Call to finish.

As of the last day of the month there was only 1 open request. This Evaluation was not ready to be sent as IANA was waiting for the Last Call period to finish.

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 6 requests were closed in the month of September. 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 3 open requests. All requests were either waiting on the expert or requester for a response. The maximum number of days any of these requests had been in IANA time as of the end of the month was 5 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, this time is reported 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 September. 100% of those requests were processed with an IANA time within the14-day goal. As of the end of the month there were 10 requests that remained open. All of these had IANA days of 3 or less.

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 was a total of 1 closed request. That request was completed within the goal processing time of 7 IANA days or less. For the 1 open request at the end of the month, the IANA days were currently at 4 days.

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 188 new PENs were assigned in September 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 19 existing PENs were modified in September 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 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 58 IANA-TRIP requests closed in the month of September. 100% of the closed requests had an IANA time of 7 days or less. Of the 13 requests that remain open at the end of the month, all are waiting on the requester to respond and have been for the life of the requests. There is 1 request that is being delayed due to internal processes.

IANA-MULTICAST QUEUE

There were a total of 2 requests closed during the month of September. 100% of those requests were processed within the goal time of 14 IANA days or less. Two tickets remain open at the end of the month. These requests are both waiting on the requester and have no more than 5 days on the IANA clock. The requesters are pinged weekly to remind them of their open request.

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 8 requests closed during the month of September. 100% of these were processed within the appropriate IANA time goals (see breakdown below). There are 5 requests that were open as of the end of the month. All but 1 request was waiting for either the expert, IESG or the requester. 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.

Request Type	Number of Requests	IANA goal time	Requests completed within goal
First Come First Serve	4	7 days or less	4
Direct submissions from Expert	1	7 days or less	1
Expert Review	3	14 days or less	3

Deliverables

In accordance with the SLA, the IANA is reporting on the following deliverables due within nine (9) 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) Inventory all RFCs calling for registry creation to verify completion (extension)
5) Reduce monthly backlog to zero for each queue (extension)
6) Work to integrate the IANA ticketing system with other IETF tools

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

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.

Inventory all RFCs calling for registry creation to verify completion (extension)

IANA put together a project to review RFCs 1-4000. As of today the reviews for 1-3500 have been completed. The review of 3501-4000 will be completed in the next month. The results of this review will create a new project where IANA will verify uncompleted actions and create defined registries from older RFCs. When questions arise during this completion process, IANA will work with the IESG, working group chairs and experts to determine what the appropriate actions are.

We are currently determining how much further in the RFC series the review should take place. We are comparing RFCs and their publication dates to confirm their existence in IANA's ticketing system where there would be evidence that the actions were completed (and not falling through the cracks). IANA is also comparing the time period of when IANA had consistent reviews (by IANA reviewers) to look for possible actions in a document before it became an RFC. This process has greatly decreased the chance of a document going through the process and not carefully evaluated to have IANA actions or not.

Reduce monthly backlog to zero for each queue (extension)

We went through over 4000 messages in the old IANA inbox (stand-alone mailbox before IANA used RT as a ticketing system for incoming mail). These messages ranged from years 2000-2005. The messages were reviewed to determine if there was a request for a protocol parameter or some type of action. If it was a request, IANA reviewed the registries to see if it had been fulfilled. Some requests were verified against sent messages to make sure the requester was responded to if no parameter was registered.

Tickets were created in RT for those messages that appear to still need some action. Many of these tickets are fixes to existing registries that we are looking to see if the proposed action is accurate. IANA verifies this information with the appropriate area directors, working group chairs and experts. In the coming months, IANA will work to get through those registry updates.

For those requests where it was not 100% clear what the outcome was, IANA sent an email to that requester to inform them to contact IANA immediately if they believe they have an unfulfilled request. There were some folders within the IANA mailbox that were corrupted and the messages could not be opened. There appears to be approximately 500 messages within those folders. As soon as the files are viewable, IANA will complete the same review as described above.

At this time, IANA's backlog is now at zero. The only outstanding IETF requests are those open in RT. This is a huge accomplishment and a milestone for IANA. As IANA now uses a ticketing system to track incoming mail, requests will not be lost and the activity in the IETF queues can easily be monitored by IANA staff.

Work to integrate the IANA ticketing system with other IETF tools

IANA sponsored a meeting with Bill Fenner (IETF Tools Team) and the RFC-Editor to discuss where integration could take place with IANA's systems and IETF systems. First, the discussion included the IANA and Bill to discuss *when* the IANA communicates with the I-D tracker (and other systems) and *how* these communications currently take place. We discussed all the types of communications that were similar in nature to determine how many could share the same automation steps. Later the RFC-Editor team joined IANA to talk collaboratively on what types of automation with the I-D tracker would work for their processes as well as how IANA communicates with the RFC-Editor's system. After the RFC-Editor discussion was complete, IANA and Bill completed an overview of what was discussed and determined the phases below.

The first phase, which has been completed, includes having the I-D tracker send messages for announcements of Last Calls, IESG Evaluations and Approvals directly to IANA's RT to automatically create tickets. This first phase was tested and the new method of receiving messages continues to successfully work. This change now allows for more precise ticket start dates in RT and removes the possibility of human error (tickets were previously created by an IANA staff person forwarding the announcements to RT).

The second phase will include extraction of custom field data from messages received by RT. For the announcements that are automatically being sent to RT, certain custom fields will get populated automatically with information when the ticket gets created. This will be done by use of a meta data extraction extension. The value this automation step will bring is to minimize human time manually entering information about the ticket into custom fields. This process will also limit the chance for human errors.

The third phase will be much more challenging. This will include IANA sending messages from RT to the I-D tracker and having the text be published as comments. This will require IANA sending a message in a PGP signed message, specially formatted (most likely in XML) to the I-D tracker. The I-D tracker would then parse the message and automatically enter the comments. Part of the third phase will also include automatic updating of the "IANA State" in the I-D tracker. This currently does not exist in the I-D tracker, however the goal is for any state change that occurs for Internet-Drafts in the IANA queue (in RT), a message will go to the I-D tracker automatically and update the state there. This will allow the community to see in the "IANA state" of a document in the I-D tracker.

Much of the third phase will depend on implementation of enhancements to the I-D tracker. The I-D tracker will need to accept messages from RT and extract comments for posting (via the specialized message). An IANA "box" will also need to be added to the I-D tracker to be able to show various pieces of information including the status of a document and whether issues exist with IANA's evaluation of the document. Bill Fenner will be working with the tools team regarding these proposed changes to the I-D tracker, however those enhancements discussed were determined to be possible. The tools team for the IETF will need to determine timing of when such enhancements could be completed.

Bill Fenner will continue to work with IANA and RFC-Editor to find ways to integrate the systems. We are currently looking into a timeline and how long it will take IANA to complete its portion of the work. After the above phase are completed, IANA will take another look at where automation might improve workflow and/or communication with the I-D tracker or other related systems.

Conclusions

For this monthly report, progress was made in many areas. The accomplishments completed within this month have created new work for IANA and will be documented in future monthly reports. Discussions within the IETF-IANA group have continued regarding future presentation of graphs. Progress has been made, however future versions of graphical presentations are still being developed and reviewed

As can be seen by the provided information in this report, IANA has completed the deliverables outlined in the SLA for the ninth month, including meeting the processing goals. IANA will continue to report on the outstanding deliverables in future monthly reports.