ICANN/IANA-IETF MoU Supplemental Agreement

Introduction

This document is concluded between the IETF Administrative Support Activity (IASA) and ICANN to supplement the Memorandum of Understanding between the IETF and ICANN concerning the technical work of the Internet Assigned Numbers Authority function of ICANN (ICANN/IANA) dated March 1, 2000.

This supplemental agreement between ICANN/IANA and the IASA, forms part of the missing criteria and procedures referred to in section 4.1 of the MoU and describes the commitments, services, and tasks ICANN/IANA undertakes on behalf of the IETF, as well as the commitments, services, and tasks members of the IETF community will provide to ICANN/IANA at the direction of the IESG and/or IAB.

This agreement describes a base level of commitment on behalf of both parties. It is anticipated that this document will evolve over time as new tasks are identified, existing tasks are completed, and service time expectations are revised. This is an amendment of the supplemental agreement that was implemented in January 2007. Specific details of this SLA may be modified (or clarified) at any time by mutual agreement.

Services

1. ICANN/IANA will maintain a publicly accessible, web-based "Resource Registry Matrix" document that describes:

   a. The name of each registry;
   b. Registration requirements for parameters in that registry;
   c. The normative RFC defining the requirement for the registry if applicable;
   d. Expert's name if applicable

   This Resource Registry Matrix will:

   a. Be kept current;
   b. Use hyperlinks to connect the Matrix to the registries it describes;
   c. Use nesting to indicate sub-registries.

   ICANN/IANA will continue to modify the format of the Matrix with the final display format being mutually agreed to by the IETF-IANA committee and ICANN/IANA.

2. IANA will provide, on a queue-by-queue basis, mechanisms that allow for Public and IESG transparency into status of individual requests. This transparency includes the ability to:

   a. Find/verify the existence of a request;
   b. View the actual status of request and who holds the "action item".

   Note that the Public and IESG/requester views may be different. The IESG/requester view may include more detail that is not appropriate for public visibility.

   The IESG transparency into the status of individual requests shall be accomplished within three (3) months of agreement implementation. The Public version will be completed within three (3) months of agreement implementation.

   The IANA will continue to provide the public view of the status of all approved Internet Drafts and their state in the IANA processing queue (www.iana.org/draft-status/draft-queue-status-all.html).

3. ICANN/IANA will make reasonable efforts to ensure that no single point of failure/expertise exists for its processes. During the reporting year of 2007, IANA prepared an initial report for all known single points of failure. Subsequent reports for additional single points of failure were provided as they were identified. ICANN/IANA shall, in confidence to the IETF-IANA committee, continue to document (in a separate document to the monthly report) all new single points of failure/expertise and will detail efforts undertaken to address and/or ameliorate them.

4. In 2007, IANA completed the first phase of the RFC Inventory project. This project included reviewing all RFCs up to 4500 to identify any uncompleted IANA actions. ICANN/IANA shall review the results of the RFC inventory project and complete any actions not fulfilled. For every three (3) month period, data output for 1500 RFCs will be reviewed and proposed actions will be categorized. Actions will be completed or communications to clarify the proposed actions will begin. ICANN/IANA will provide an update of progress made to the IETF-IANA Working Group in accordance with that schedule.

5. ICANN/IANA will notify the resource requester WITHIN THREE (3) BUSINESS DAYS of when ICANN/IANA has an expectation that action on the request will exceed established service levels with an explanation for the delay and, when possible, a forecast as to when action will be completed on the request.

6. ICANN/IANA will continue to provide Fast Track Expedited Processing as an exception to its first-in, first-out policy when requested by the IESG.

Service Levels

Due to the nature of resource request reviews, ICANN/IANA and the IETF community are jointly responsible for cooperatively managing the resource request process. ICANN/IANA has control over the functions it performs directly, e.g., receiving requests, making sure they are syntactically and semantically sensible, forwarding the requests to Designated Experts where appropriate, creating and modifying the registries, etc. The IETF community has direct or indirect control over functions performed by third parties, including IESG Designated Experts, the IESG, the IAB, the RFC Editor, and the requester. As such, the processing of requests has a "total processing time" calendar days goal established for each function and a "IANA processing time" calendar days goal to reflect time expended directly by ICANN/IANA.

7. When registries using Designated Experts are created, the IESG shall assign Designated Experts for resource registries at time of document approval and notify ICANN/IANA of those assignments. ICANN/IANA may not assign resources in a registry until after the IESG has assigned Designated Experts for that resource's registry.

8. ICANN/IANA shall meet or exceed IANA processing time service expectations/commitments for 90% of all work requests as defined in "Appendix A – ICANN/IANA Service Time Commitments".

9. "Third party processing time", that is, the total processing time minus the IANA processing time, which exceeds the goals in Appendix A (unless otherwise stated elsewhere herein) shall trigger the appropriate escalation procedure described in the section entitled "Escalation".

10. ICANN/IANA shall provide due dates in assignments for third party actions, such as Designated Experts, based upon processing times specified for such action herein.

11. As such, the "total processing time" of a request can be further broken down into an "IANA time", "Requester time", and "Other time". When measuring the time taken to process requests, the "overall processing time" refers to the total amount of time (from whatever source) to complete the request. The "IANA time" refers to that portion of the time that is directly attributable to IANA activity, etc. This SLA includes target service times for the IANA portion of servicing requests. Target times for some (but not all) of the other components are also defined here.

Escalation

The following escalation processes shall continue to be followed to ensure an orderly escalation path to handle the cases where timely responses are not forthcoming.

12. Designated Experts Escalation:

    a. ICANN/IANA shall forward the request to the primary Designated Expert within seven (7) calendar days after receiving a correct and complete request.
    b. ICANN/IANA shall wait for a response from the Designated Expert for fourteen (14) calendar days. ICANN/IANA shall re-forward the request to the primary Designated Expert and forward the request to the secondary Designated Expert(s) (if applicable) every two (2) business days if no response is received thereafter for a period of thirty days.
    c. If ICANN/IANA does not receive a response within thirty (30) calendar days from the Designated Expert, ICANN/IANA shall notify the IESG of Designated Expert failure and request resolution of the problem (e.g., by replacing the Designated Expert per RFC 2434 and subsequent revisions).

13. IESG Escalation:

    a. Upon issuing a request to the IESG (and document shepherds when appropriate), ICANN/IANA shall wait for a response from the IESG for fourteen (14) calendar days. ICANN/IANA shall re-forward the request to the IESG at least once per business week thereafter until the thirtieth day.
    b. If ICANN/IANA does not receive a response within thirty (30) calendar days, ICANN/IANA shall notify the IETF-IANA committee of the lack of an IESG response to a request in a timely fashion and will request instruction as to what to do with the request.
    c. ICANN/IANA shall wait for a response from the IETF-IANA committee for fourteen (14) calendar days. ICANN/IANA shall re-forward the request to the IETF/IANA committee at least once per week until the thirtieth day.
    d. If ICANN/IANA does not receive a response from the IETF/IANA committee within thirty (30) calendar days, ICANN/IANA shall notify the IAB of the lack of a response from the IESG and/or the IETF-IANA committee. The IAB is tasked with working with the IESG and other relevant parties to resolve the issue. In order to preserve the normal appeals chain (RFC 2434bis), the IAB is not expected to directly resolve the request itself.

14. Requester Escalation:
    When ICANN/IANA is waiting on a response from the requestor, ICANN/IANA will re-forward the request regularly (e.g., once per week). If no response is received within 30 days, ICANN/IANA may send a notification of the administrative close of the request (without prejudice) to the requester and close the ticket.

15. ICANN/IANA has publicly documented an external escalation path that can provide the IESG and others with a standard path for escalating issues regarding requests, work, process, and productivity. This document can be found at http://www.iana.org/escalation/procedure.html. ICANN/IANA will continue to keep this document current. ICANN/IANA will continue to maintain an internal escalation path to ensure that requests do not get "stuck" in a particular state.

Documentation

16. ICANN/IANA will keep the documentation up-to-date for the functions it performs for the IETF. The processes and procedures to be documented include:

   a. Creation of new public registries as called for in IESG approved documents;
   b. Maintenance of public registries including updating registries as called for in IESG approved documents as well as updating registries via appropriate requests submitted directly to ICANN/IANA (i.e., for registries not requiring action as part of a document approval process);
   c. Review (for ICANN/IANA actions) all documents that appear on IESG telechats (not all of which undergo a formal IETF Last Call). For approved documents, see Appendix B – IANA Document Flow for a depiction of how documents are processed within ICANN/IANA;
   d. Interactions with document authors (and the IESG) when ensuring the ICANN/IANA considerations are sufficiently clear and unambiguous so that ICANN/IANA can carry out any associated actions (done prior to the document approval by the IESG);
   e. Coordination with the RFC Editor in the final steps of document publication;
   f. Maintenance of a publicly accessible list of the Designated Experts associated with those registries that make use of a Designated Expert, as well as a non-publicly accessible list of the contact information for those experts;
   g. Continue to provide regular updates, not less than once per business day, of a publicly accessible web page that provides a listing of the state of all approved Internet Draft documents in ICANN/IANA Internet-Draft queue.

Reports

17. ICANN/IANA will continue to track and publicly report on a monthly basis the following:

   a. Resource allocation statistics as described in item18;

b. The utilization of parameters (e.g., the percentage of available values and those registries in danger of being exhausted) within ICANN/IANA registries;

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

18. ICANN/IANA will continue to provide publicly accessible, clear, and accurate monthly statistics showing work that has been done and the work items that are currently queued. These statistics should be drawn over all IETF-related ICANN/IANA requests broken down into meaningful categories, i.e.:

a. IESG approved documents;
b. Reference Updates
c. Last Calls
d. Evaluations
e. New MIME type requests;
f. Modifications to and/or deletions of MIME type requests;
g. New Port number requests;
h. Modifications to and/or deletions of Port number requests;
i. New Private Enterprise Number (PEN) requests;
j. Modifications to and/or deletions of PEN requests;
k. New TRIP ITAD Numbers
l. Miscellaneous Protocol Parameter requests (for those where IANA does not receive more than 5 per month, they are grouped together here)

For those requests relating to other IETF-created registries for which the request rate is more than five per month, IANA will track the rate for which requests are coming in and consult with the IETF-IANA committee regarding the need to track separately.

For each of these categories information should be collected for:

a. Number of requests in the queue at the beginning of the reporting period
b. Number of new requests received during the reporting period
c. Number of requests completed during the reporting period
d. Number of requests in the queue at the end of the reporting period
e. Histogram showing the ages of requests still in the queue at end of reporting period
f. Histogram for cumulative IETF requests for created/closed/resolved at the end of the reporting period and the year to date

For completed requests, information should be reported for:

a. Mean service times (i.e., "total" and "IANA");

b. Mean service times, showing individual contribution from "IANA", "Requester", and "Other";
c. Standard deviation from the average service times;
d. Minimum service time;
e. Median service time;
f. Cumulative stats reflecting outliers, i.e., the totals of all completed requests within their respected categories, including outliers;
g. Maximum service time;
h. Histogram of cumulative stats reflecting outliers (as e. above), data by proportion.
   (1) Number completed within 0-7 days,
   (2) Number completed within 8-14 days,
   (3) Number completed within 15-30 days,
   (4) Number completed in more than 30 days

These service times should be collected and published for total, IANA and third party times.

The exact statistics in this SLA continues to be reviewed and may change over time based upon experience. Such changes may be made by mutual agreement.

19. The optimal form for displaying monthly statistics is a work in progress and will likely change over time. ICANN/IANA will continue to provide access to the raw "event log" data from which statistics can be generated to allow others to generate statistics/reports from the underlying data.

Collaboration

20. ICANN/IANA shall work with the appropriate parties to integrate the IANA ticketing system with other IETF tools (e.g., ID Tracker) and the RFC Editor tracker. For an example of integration, it should be possible to:

    a. "Click" from ID tracker to see actual IANA state, when applicable;
    b. Post ICANN/IANA document review comments to the ID tracker
    c. Easily find IANA review comments from within ID tracker
    d. See a clear indication within ID tracker as to whether IANA has performed a review, has significant concerns, and whether they have been addressed (e.g., an IANA "discuss")

ICANN/IANA will document the requirements needed for integration between the IANA ticketing system and the I-D tracker within two (2) months of agreement implementation.

ICANN/IANA shall continue to provide raw data weekly, including states and sub-states, to the IETF-IANA committee until the completion of the integration.

21. The IETF has intent to develop metrics to measure the overall process for publishing new specifications. These metrics include separating time spent in WGs, IESG, IANA, RFC-Editor, and so on. The IANA shall work together with the IETF to define the requirements such metrics place on the data from the IANA. The actual production of possible additional data will be agreed upon separately.

22. ICANN/IANA shall work with the IETF-IANA committee to review all registries for clarity:

    a. Prioritize "clarity challenged" registries (as defined by the IESG) ;
    b. Request input from existing working groups as appropriate
    c. Request input from the wider community

23. ICANN/IANA and IESG will examine the use of mechanisms defined in RFC 3553 to refer precisely to the registry name spaces by URN.

24. ICANN/IANA will provide a teleconference bridge to facilitate monthly teleconferences between ICANN/IANA and the IETF-IANA committee. The date, time, and duration of these calls will be mutually agreed between ICANN/IANA and the IETF-IANA committee members. At a minimum, IANA will, as part of these monthly teleconferences, provide a status update of all outstanding issues raised at the previous month's teleconference.

25. The Parties agree to review the terms of this document in one year to determine whether any modifications may be required. Prior to this review, this document will be interpreted flexibly.

26. IANA Action Summary Table

	IANA Action Summary		
	Action	**Reference**	**Delivery Date After Effective Date**
1	IESG transparency into status of individual requests	2	Within 3 months
2	Public transparency into status of individual requests	2	Within 3 months
3	Single points of failure documentation to IETF-IANA WG	3	Monthly
4	Review output from RFC inventory project to complete any incomplete actions	4	Status update every 3 months
5	Track and publicly report on a monthly basis	17	Monthly
6	Provide publicly accessible, clear and accurate monthly statistics	18	Monthly
7	Provide access to raw "event log" data	19	Monthly
8	Document the requirements needed for integration between the IANA ticketing system and the I-D tracker	20	Within 2 months
9	Provide raw data weekly to IETF-IANA WG	20	Weekly until tracker integration
10	Review terms of agreement	25	In 1 year

Effective Date

27. This agreement is effective January 1, 2008.

Agreed to on _____/____/_____ by
(Month)   (Day)   (Year)

On behalf of ICANN: On behalf of IASA:

_____   _____
Signature   Signature

Barbara Roseman   Ray Pelletier
Name   Name

General Manager, IANA   IETF Administrative Director
Title   Title

ICANN   IASA
Organization   Organization

Appendix A – ICANN/IANA Service Time Commitments

Resource	Proc Time	Clock starts at	Clock stops at
Documents (including IETF and RFC Editor submissions)	14	Receipt of official IESG approval of the document or receipt of official notice of intend to publish from the RFC-Editor.	Sending an "IANA Actions Complete" message to the RFC Editor
Protocol parameter requests requiring IESG Designated expert and/or IETF mailing list review	14	Receipt of initial request	Notification of resource assignment
Protocol parameter requests that do not require technical review	7	Receipt of initial request	Notification of resource assignment
All other requests	14	Receipt of initial request	Notification of resource assignment

Additional ICANN/IANA and Third Party Service Time Requirements:

A. ICANN/IANA shall update the Resource Registry Matrix with the IESG Designated Experts within 1 week of notification of the appointment.

B. The processing time goals for third parties shall be in calendar days as follows:

   a. Designated Experts – 14 days
   b. Requester – 30 days
   c. IESG – 14 days
   d. Other – 7 days

Notes:

- At implementation, ICANN/IANA commits to continuous process improvement leading to the reduction of outliers as reflected on histograms, and of processing times less than or equal to the values in the column entitled "Processing Time Now". ICANN/IANA commits to processing times less than or equal to the values for 90% of the requests.

- All processing times ("Proc Time") are given in "net" ICANN/IANA time in terms of "calendar days".

- ICANN/IANA will notify the committee in advance if it anticipates that any of these service time commitments will not be met. In such a case, ICANN/IANA will provide documentation on the cause(s) of being unable to meet the commitment(s) and steps taken to address those causes.

- Changes to the service time commitments will be mutually agreed between ICANN/IANA and the IETF-IANA committee.

Appendix B – IANA Document Flow

IANA document flow

Approved

No IC

IANA informs
RFC-Editor
actions are
complete

Analyze
Action

Need
Clarification

Author
clarify

WG

AD

?

On Hold
- NormRef
- AD Request
- WG Request
- Author Request
- RFC-Ed Request
- Other

?

Action
Clear

Expert
Needed

Expert
Review

Author / WG / ADs
clarify request

In Progress

Simple action -
no author
confirmation
required

Make assignment,
Send to author for
double-check

Author
OK

IANA informs
RFC-Editor
actions are
complete

RFC

RFC Editor
Replies with
RFC number

Update
References
/ Website

Done