RIPE ncc

Position Paper on IANA Structure

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Status

This document is a position paper reflected the views of the three authors.

Scope

The intended audience for this position paper is all interested parties concerned with the future structure of IANA. Comments to the authors are welcome.

1. Introduction

The position paper looks at the activities carried out by IANA and at the direct users of these activities. A organisational structure for IANA is then proposed based upon the principle of bottom-up governance, in which the direct users of the IANA activities govern IANA.

2. Activities

The activities that IANA now carries out have been, and will continue to be, critical for the growth and stability of the Internet. Since these activities are critical they should stand central in any discussion of the future structure of IANA. The activities currently carried out by IANA are the following:

2.1. Address Space Allocation and global policy forum

- Provides an address space allocation/registration service to the regional IRs (RIR).
- Provides a process to establish global address space related policies.
- Establishes a process for arbitration of conflicts regarding these policies.
- Provides coordination services to RIRs.

2.2. DNS TLD Allocation and Registration; Operation of Root Name Servers

- Registers all TLDs.
- Maintains root zone information.
- Allocates nTLDs. gTLDs are allocated in a process outside IANA
- Operates root name servers (may be delegated to individual operators).

2.3. Assigning Unique Parameters for Internet Protocols

- Assigns and registers other unique parameters.

2.4. RFC Editor

- Edits the RFC series of documents.
- Provides a repository for these documents.

2.5. Internet Monthly Report (IMR)

3. Activity users

Who are the direct users for these activities? It is stressed that the focus should be on the *direct* users as opposed to indirect users since persons even remotely connected with the Internet community could be classed as users. In order to allow scalability direct users who are inherently accountable (in good bottom-up fashion) to minor indirect users need to be the focus.

If direct users are mapped to activities the following direct user groupings appear.

3.1. IP number allocation, RIR coordination and global policy forum

This activity has the following direct users:

- RIPE NCC
- ARIN
- AP-NIC
- Any future RIR

3.2. DNS TLD Allocation and Registration; Operation of Root Name Servers

This activity has the following direct users:

- CORE
- Any future coordinating points for individual TLD registries since individual representation does not scale

3.3. Assigning unique parameters for Internet protocols

This activity has the following direct users:

- IETF

3.4. RFC editor

This activity has the following direct users:

- IETF

3.5. Internet Monthly Report (IMR)

This activity has the following direct users:

- The Internet community in general, however it should be borne in mind that this activity is very minor in comparison to the others. It merely compliments them.

From this direct user to activity mapping it becomes apparent that there are three main groupings of direct users. They are the RIRs the TLD coordination points (TLD Coord), and the IETF. It is apparent that direct users are typically regional or global entities. If at any time in the future other entities than those mentioned become direct users of the IANA activities, then they should be recognised as such.

In the discussion that follows this position paper other direct user groups will probably be mentioned. A few of these other groups are highlighted below with a explanation of why it is thought that they are not direct users but indirect users of the IANA activities.

ISP's

By means of the global bottom-up structures that are in place at the RIRs, the individual ISP has a voice within his own RIR community; the consensus of which the RIR brings to IANA.

TLD Registries

By means of the bottom up structures that are in place in the case of CORE or in the process of being started within the Regional areas (to more or less degrees) the individual TLD registry has a voice within his own TLD Coord area community; the consensus of which the TLD Coord brings to IANA.

Industry

Industry is there to serve its client, normally an individual ISP or TLD registry, who is already represented by a direct user. If an individual industry player wants to get more involved then the option exists to put more input into the IETF or the Regional technical meetings which give advice to the RIRs.

Government

If, as is constantly espoused, the majority of governments want the Internet to be self-regulating then they should not be classed as direct users influencing policy. Their relationship to the IANA activities is without doubt that they are indirect users or an interested party.

End user or individual

An individual is always able to get involved in the IETF or the Regional technical meetings which give advice to the RIRs.

4. Direct user / IANA relations

IANA provides (if all of the activities are kept within IANA) definite services to all three direct user groupings; the RIRs, the TLD Coords, and IETF. Thus the relationship between IANA and these groups should be concrete and governing, in the same manner as the RIRs relate with the ISPs in their region, i.e. truly bottom-up. In such a structured relationship only the three direct users would fund and govern the IANA activities.

5. Proposed IANA organisational structure principles

In order to be able to constructively discuss a proposed structure for IANA the various organs of the IANA organisation need to be defined. The aim here is to be clear as to what a particular organ is and does and not be discuss whether the name of a particular organ is appropriate or not. It is proposed that there are three distinct organs in IANA; the general council, the executive board, and the management.

General Council

This organ is the ruling organ in IANA and consists of representatives from every direct user.

Executive Board

This organ is subordinate to the general council and is responsible for the day-to-day governance of IANA. The members of the executive board are elected by the general council.

Management

This organ is subordinate to the executive board and is responsible for daily operations of IANA. The executive board hires the management

In general the three organs are expected to interact in the following manner. All direct users have a right to have a representative(s) on the general council. Each individual direct user would be responsible for how his representative(s) are chosen. The general council being the ruling organ of IANA would have the responsibility to adopt annual accounts, budgets, charging schemes, and general activities of IANA. General council members would also be the sole funders of IANA.

The general council would elect the executive board of approximately five members. The general council would be allowed to elect general council representatives or external persons to be an executive board member. The terms of executive board members would be three years in a staggered rotation. The executive board being responsible for day-to-day governance would be responsible for, monitoring the finances of IANA, ensuring appropriate business procedures are in place (including dispute procedures) and being used, legally representing IANA, and deciding upon IANAs activities within the mandate given by the general council. The executive board would report to the general council.

The executive board would hire a management comprising of one or more persons. The management being responsible for the day-to-day operations of IANA would be responsible for IANA personnel hiring, executing of all IANA activities, financial management. The management would report to the executive board.

The proposed IANA organisational structure outlined above is the governing structure. There could also be an advisory structure that compliments the governing structure, but this advisory structure is not a critical success factor in the setting up of IANA. For that reason and to avoid complication, discussion of an advisory structure is not a topic of this position paper.

6. Open issues

There are many details of the the proposed organisation structure and operational rules that are not covered above. These details, the open issues, many well take time to agree upon but they are not insurmountable. The authors feel that it is more important to first agree upon the organisation principles as outlined in this position paper before delving into the open issue details. Examples of open issues that must be addressed are:

- although the direct users have been outlined in general the specific direct users need to be identified.
- what criteria will be used to determine how many representatives each individual direct user has in the general council.
- what mechanism will be used to elect executive board members
- what is the usefulness of the IMR and can it be developed
- what are the activity related budgets for IANA
- what mechanism is used to determine how much each individual direct user is charged for the IANA services.

7. Summary

The outline proposal given above is, in the opinion of the authors, the fairest and most stable way of structuring IANA in the future and thus gives most stability to the Internet. This proposal is true to the aim of global bottom-up governance within the Internet and is definitely global industry self-regulating. By following a true bottom-up model (i.e. governance and funding by the direct users) democracy is enhanced together with the crucial impartiality of IANA. If parties other than the direct users were structurally able to fund and influence the IANA activities then this bottom-up democratic aim would not be achieved and more importantly the crucial impartiality of IANA would be questionable.