Fiona M. Alexander

Associate Administrator

Office of International Affairs

National Telecommunications and Information Administration

1401 Constitution Avenue, NW., Room 4701

Washington, DC 20230

The Number Resource Organization (NRO) response to the

National Telecommunications and Information Administration

[Docket No. 110207099–1099–01] RIN 0660–XA23

Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions

IANAFunctions@ntia.doc.gov

Dear Ms Alexander,

The Number Resource Organization is pleased to submit the following comments to the National Telecommunications and Information Administration request for comments on the Internet Assigned Numbers Authority functions.

The Number Resource Organization, NRO, has maintained as a general position that no government should have a special role in managing, regulating or supervising the IANA functions. The end of the current contract between ICANN and the US DoC brings an opportunity to take concrete steps toward the end of the overseer role of the US DoC towards IANA.

In a recent letter to ICANN, the NRO introduced a proposal for moving forward in the relationship between ICANN and the US Government: "The NRO suggests that ICANN, through these coming negotiations, should advocate for a staged reduction of the level of DoC's oversight to IANA. This process could possibly involve a transition from a contract to a cooperative agreement, and ultimately arrival at a non-binding arrangement, such as an affirmation of commitments (mirroring, of course, the successful progression in the relationship between ICANN itself and the US government)."[1]

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[1] http://icann.org/en/correspondence/echeberria-to-beckstrom-14mar11-en.pdf

With regard to the specific questions included in the NoI, the NRO would like to submit the following comments:

1. **The IANA functions have been viewed historically as a set of interdependent technical functions and accordingly performed together by a single entity. In light of technology changes and market developments, should the IANA functions continue to be treated as interdependent? For example, does the coordination of the assignment of technical protocol parameters need to be done by the same entity that administers certain responsibilities associated with root zone management? Please provide specific information to support why or why not, taking into account security and stability issues.**

Due to the interconnected nature of the Internet's infrastructure services, the performance of technical tasks covered by the IANA Function contract benefits considerably from being undertaken by a single entity. These benefits include the maintenance of a single point of responsibility for: communication in relation to these critical functions; undertaking changes to the root zone of the DNS (including those related to IP addressing); undertaking any new functions which may arise in future; development and management of technical and human resources, capacity and upgrade planning, risk mitigation and continuity planning; etc.

While individual technical tasks (such as root zone changes, DNS protocol changes, and routing infrastructure changes) may be performed independently, with the loss of the benefits listed above, the potential for conflicting changes suggests that close coordination of these critical functions is highly desirable. While such coordination does not require joint performance by a single entity, we strongly believe that in consideration of the risks and benefits, the NTIA should not separate the performance of these functions.

The NRO also believes that the benefits achieved by joint performance of technical functions can extend to tasks not covered by the IANA functions contract, and we expect that the IANA contractor will continue to perform additional related tasks at the request of other parties on behalf of the Internet community (e.g. performance of IN-ADDR.ARPA and IP6.ARPA zone maintenance, or publication of digitally-signed number resource information). Under no circumstances however should any additional activities of the IANA be construed to fall under the scope of the NTIA IANA agreement.

While we appreciate the contribution made by the US Government in relation with these important functions, it is crucial that the Internet community work to enhance multi-stakeholder international mechanisms for the development of the policies used to guide the administration of these technical tasks. In particular, the ICANN model (of a privately-led, not-for-profit and community-driven organization) appears most suitable to ensure an effective Internet governance scheme accountable to all its multiple stakeholders (public, private, and civil society). The Internet technical community is quite capable of directly working in partnership with ICANN so as to provide oversight of the policy development organizations as well as the provision of the related technical functions.

Finally on this topic and as we have stated[1], we believe that, given the ongoing evolution of the USG oversight of ICANN itself, a cooperative agreement for IANA functions would be a more appropriate structure than the present contracting approach.

2. **The performance of the IANA functions often relies upon the policies and procedures developed by a variety of entities within the Internet technical community such as the IETF, the RIRs and ccTLD operators. Should the IANA functions contract include references to these entities, the policies they develop and instructions that the contractor follow the policies? Please provide specific information as to why or why not. If yes, please provide language you believe accurately captures these relationships.**

The IANA functions contract or cooperative agreement should explicitly note by name the organizations that are served by IANA, as well as the requirement for performance of those functions in compliance with applicable policies. For example, "IANA should perform number resource management strictly according to the global policies developed by the Address Supporting Organization of ICANN " or "IANA should perform technical parameter management according to the technical standard guidance provided by the IETF." Furthermore, it would be desirable that the contractor of IANA functions enter into service agreements with these IANA-served organizations (including the Regional Internet Registries, AfriNIC, APNIC, ARIN, LACNIC, and RIPE NCC) regarding appropriate service management interfaces, including service levels and escalation processes.

3. **Cognizant of concerns previously raised by some governments and ccTLD operators and the need to ensure the stability of and security of the DNS, are there changes that could be made to how root zone management requests for ccTLDs are processed? Please provide specific information as to why or why not. If yes, please provide specific suggestions.**

For the sake of community confidence in the management of the DNS root zone, which we regard as essential to the success of the ICANN model itself, all such requests should be managed and performed in as open and transparent a manner as possible.

4. **Broad performance metrics and reporting are currently required under the contract. Are the current metrics and reporting requirements sufficient? Please provide specific information as to why or why not. If not, what specific changes should be made?**

It is difficult to judge the effectiveness of these metrics and reporting requirements, as it does not appear that these reports are generally available. In order to ensure the metrics are sufficient, the current metrics should be reviewed by constituencies affected by the performance of the IANA functions (e.g. DNS TLD Registries, Regional Internet Registries, IETF) and, to the greatest extent possible, the results should be shared publicly. It is understood that there may be sensitive information from time to time that should not be made public, and we support redacting such information. However, we ask that the performance reports be made public and readily available for all tasks covered by the contract.

5. **Can process improvements or performance enhancements be made to the IANA functions contract to better reflect the needs of users of the IANA functions to improve the overall customer experience? Should mechanisms be employed to provide formalized user input and/or feedback, outreach and coordination with the users of the IANA functions? Is additional information related to the performance and administration of the IANA functions needed in the interest of more transparency? Please provide specific information as to why or why not. If yes, please provide specific suggestions.**

While we are generally very satisfied with current performance of the IANA functions, there may be room for improvement. Polling each organization annually that directly interacts with the IANA functions (e.g. DNS Registries, Regional Internet Registries, IETF) would allow them to comment on their experience. The feedback received, including any contractor response to that feedback, should generally be made publicly available, subject to the editing of sensitive information.

6. **Should additional security considerations and/or enhancements be factored into requirements for the performance of the IANA functions? Please provide specific information as to why or why not. If additional security considerations should be included, please provide specific suggestions.**

Given the wide variety of potential risks, we encourage any organization associated with the performance of the IANA function to continue to take all reasonable steps necessary to ensure all data is protected via appropriate security measures per best common practices. The constantly changing cybersecurity landscape makes it impractical to embed specific requirements in a multiple-year contract. Any contractor should arrange for periodic review of each IANA function area by a qualified organization (which should include security expertise external to the organization). The purpose of such a review should be to identify any security risks in its performance and to make appropriate recommendations for change. The organization performing the IANA functions should report to NTIA and IANA-served organizations on the risks and recommendations as well as the follow-up actions which will be undertaken.

All those improvements in security aspects should not imply in any way an expansion in the IANA functions.

Best regards,

Raul Echeberría
Chair NRO