



31 March 2011

Ms Fiona M. Alexander  
Associate Administrator  
Office of International Affairs  
National Telecommunications and Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue, N.W.  
Room 4701  
Washington, DC 20230  
IANAFunctions@ntia.doc.gov

Dear Ms Alexander

RE: Request for Comments on the Internet Assigned Numbers Authority Functions

CENTR, the European ccTLD organisation welcomes the opportunity to provide comments on the National Telecommunications and Information Administration (NTIA) request for public comment on potential enhancements to the performance of the Internet Assigned Numbers Authority (IANA) functions.

**Comments on specific questions raised in the NTIA's NOI**

*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.*

The advantages gained by splitting the IANA functions to different organisations are currently unclear and there is a risk that any such split would lead to more bureaucracy and complexity.

*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.*

Yes, reference to both the ccTLD operators and the policies they develop is to be recommended. The IANA contractor should be expected to respond to decisions on ccTLDs that are, in most cases, made through nationally-developed processes: This is in line with the US Government's commitment in the "U.S. Principles on the Internet's Domain Name and Addressing System" and in its support for the WSIS Tunis Agenda.

*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.*

The automation of the IANA root zone management function would address many of the shortcomings of the current process and it is therefore our strong belief that the early implementation of the automation project should get the highest priority. The European ccTLD community has in the past contributed significantly (both financially and in terms of expertise) to the project and is looking forward to its deployment. We also believe that the additional requests related to the roll-out of DNSSEC across the world could lead to significant overload on the system without the automation.

An overview of suggestions for improvements can be found in the annex. This annex summarises the outcome of a survey that was held amongst CENTR Members from 11 March 2011 until 18 March 2011. 21 Members completed the survey.

The survey covered the following topics:

- Time to complete change requests (split in name server changes and 'others')
- Satisfaction with service level
- Suggestions on the following topics:
  - o General comments
  - o Communication
  - o Security
  - o Process
  - o Feedback (ticket tracking)

*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?*

The current metrics provide a sufficiently detailed perspective on IANA's overall performance. However, IANA's transparency in budget needs to be improved as it is currently impossible to track costs.

Also, we suggest that – in cooperation with the ccTLD community – IANA develops a Service Level Agreement for its root zone management function. This Service Level Agreement should include framework parameters and timelines. These service levels should also be accompanied by detailed documentation that explain the root zone management function (and when implemented the eIANA interface) and should be made available in the UN languages.

*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.*

We want to highlight the current lack of accountability which urgently needs to be tackled. A good example is the non-existence of an objection procedure for decisions of the DNS Stability panel.

As mentioned in the response to question 4, CENTR encourages the drafting of detailed documentation. In addition we believe that the development of a "Framework of Interpretation" for the delegation and redelegation of ccTLDs will help significantly to make the process more transparent.

*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.*

The implementation of eIANA is expected to increase the level of security of the root zone management function. In particular the communication and identification processes should benefit from the new interface. Using commonly available tools for signing (and the validation of signatures) is believed to sufficiently guarantee proper security for this process. A great number of the CENTR Members mentions PGP or X.509 in the survey.



Care should be taken however, that these processes do not obstruct the efficient and effective interaction in case of emergency.

Yours Sincerely

Mathieu Weill  
Chairman of the Board

Peter Van Roste  
General Manager

Annex:           CENTR IANA performance survey

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CENTR, the Council of European National Top Level Domain Registries, is the world's largest association of Internet domain name registries. CENTR has over 50 members each of them operating the top level domain name for their country.

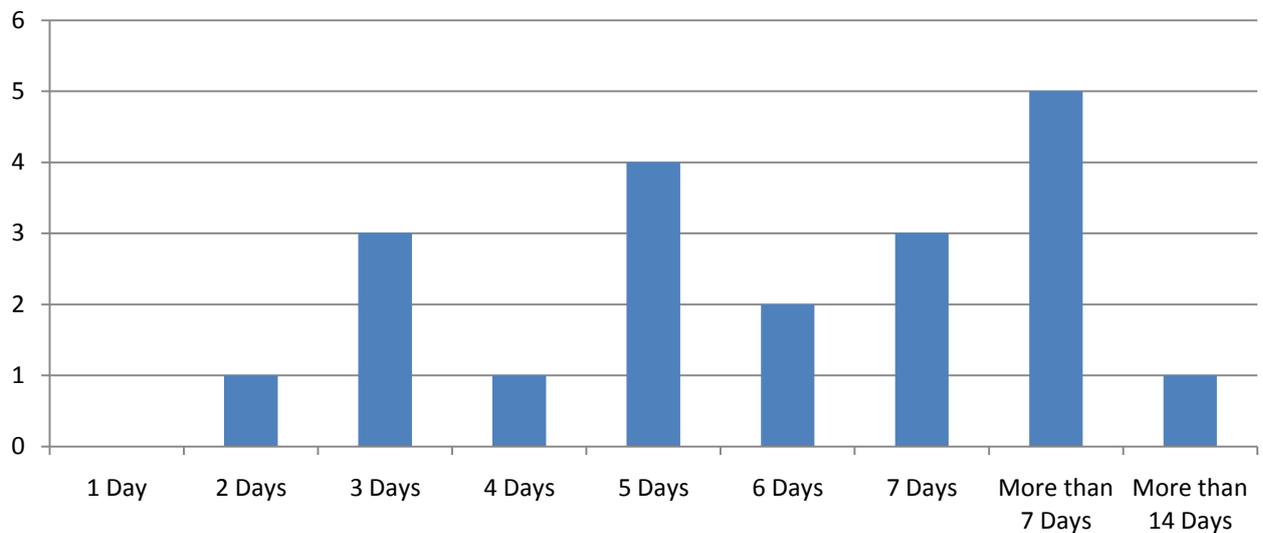
**Annex**

**CENTR IANA PERFORMANCE SURVEY  
SUMMARY REPORT**

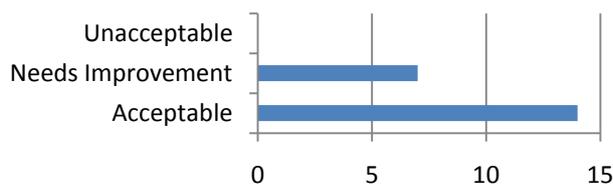
This Summary report represents the responses attained from a survey among CENTR members on the performance of IANA. 21 CENTR members participated in the survey between 13 and 22 March 2011. The 21 ccTLD registries that took part in the survey represent all together over 28 million ccTLD domain registrations.

Participants to the survey were the ccTLD managers for .am, .at, .be, .bg, .ca, .dk, .es, .fr, .ie, .is, .lu, .lv, .me, .nl, .no, .pt, .ru, .se, .si, .ua and, .uk.

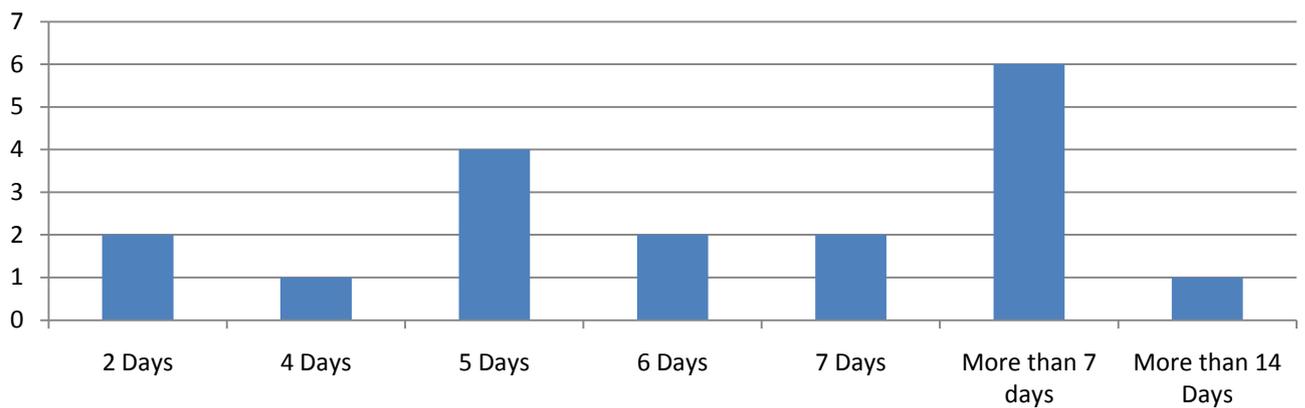
**How long did it take to complete your latest Name server / DNSSEC related change?**



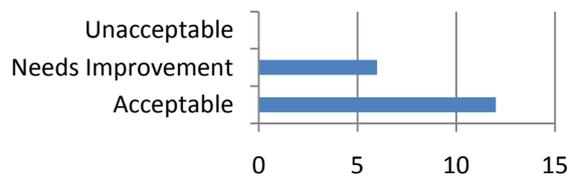
**Did you find this timeframe:**



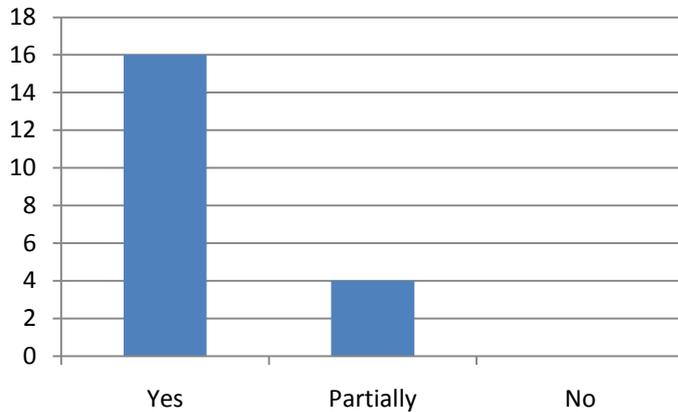
## How long did it take to complete your latest 'other' change (name, contact details)?



## Did you find this timeframe:



## Are you satisfied with IANA's performance (root zone management)?



### If you are not satisfied, or are partially satisfied with IANA's performance (root zone management), please explain why.

- It's acceptable for planned modifications, but its too slow otherwise.
- General performance is ok, but due to difference in time zones each question/answer takes 2 working days.
- Changes should be automatic and at the decision of the registry. Any data validation etc should be done in the background and the request should only be stalled in extreme "breaking" cases.
- The implementation of technical issues should be taken care of much quicker.
- The procedure could be performed using on-line tools.
- More reactivity is needed in case of emergency.
- No closing for holidays.

## **Communication – What improvements could IANA implement to enhance its performance in this area?**

Automate some routine steps – eg contacts' confirmations.

Try to answer requests in such a way that they are dealt with within 24h (e.g. answer requests from CET in the morning (PST)).

The current e-mail template is not easy to use if you need to change records. It's OK to add and remove records. The reason for the delay in processing our request is mostly due to our different office hours. Each e-mail usually takes a day to get answered and with the e-mail-verification this adds up.

Use of the e-IANA software.

Web or even EPP interface for changes requests.

Communication is quite clear. What we especially like is the summary at the end of the confirmation mail (which should be upfront I think).

Provide web or application interface e.g. e-IANA.

In the past IANA provided a web tool: "IANA Registry Services", performance might be improved if all approvals (from the admin, tech) can be given via this tool instead of via e-mails.

Faster turnaround times for TLDs not in the IANA time zone.

Web or even EPP interface for changes requests.

Secure web portal for requesting changes confirmed via email.

On one of the latest server changes we requested, there was some misunderstanding concerning notifications, and IANA could have contacted to clarify.

It would be useful to see the progress of tickets once confirmed, especially for name server changes. Also, a web interface to submit updates and confirm changes.

Increased authentication security.

## Security –

### What improvements could IANA implement to enhance its performance in this area?

Accept PGP/X.509 signed requests. And/or get "e-IANA" working! (Net gain: 24-48h)

It's unclear if e-mail-verification is secure enough, perhaps they should verify PGP-signatures.

More security should be added -- the e-mail interface is too primitive and in principle prone to spoofing. At some point in time, IANA considered giving ccTLD managers security tokens, to be used for securing the communication. This idea, however good, was sort of abandoned. At least, use X.509 signed communication. In some countries this is legally binding.

Use the e-IANA software.

Only requests with eg defined PGP signatures will be handled. The confirmation given by the admin and tech should contain some validation methods.

Provide web or application interface e.g. e-IANA.

Today we need to use the IANA Root zone change template. This template can be completed by anyone. Upon this request, 2 e-mails are sent by IANA to the admin and tech contact of the registry. A malicious person might manage to intercept these e-mails (e-mails are considered to be very insecure, they are sent in clear text and can be read by anyone who does packet sniffing anywhere along the e-mail route). Finally, the request is also sent by fax, which is also easy to fake. We would prefer a new secure web tool: "IANA Registry Services" which require a login for the admin and tech. E-mails with notifications about change requests are still useful.

Accept digitally signed requests and confirmations only or provide web access using certificates.

Consider PGP signatures for email verification.

Unclear if e-mail-verification is secure enough, perhaps they should verify PGP-signatures.

IANA would benefit from encrypted communications when making changes e.g. PGP.

We need additional security checks - right now, there the is password in the subject line, but if the email address of the contact is compromised, or its DNS is attacked, this would be an issue. I think out of band communication (for example, SMS messages) would be useful to notify of all domain changes. Actually, just "notify-also" contact by email may be a good start (such contact address would be an audit trail, too.)

Improve authentication.

## **Process -**

### **What improvements could IANA implement to enhance its performance in this area?**

When a DNS server details should be changed the process includes confirmation from everyone who uses it. This slows down the process. A short timeout would be very useful.

Use the e-IANA software.

More automation (e-IANA) and a method for the registry to authorize the requests by "pre-signing them" so that waiting for a confirmation is not necessary.

Allow greater visibility for TLD managers of the progress of their requests.

Secure web portal for requesting changes confirmed via email

Provide an automated interface to speed up and simplify changes

Indicate high/low priority for tickets (not all my changes are high-priority, but some may be).

More transparency on the status of requests

## **Feedback and follow up –**

### **What improvements could IANA implement to enhance its performance in this area?**

Add at least one feedback message when IANA is forwarding the request to DoC: it's a confirmation that all questions are answered and it allows to see who is taking what time.

Provide feedback as the request passes different internal IANA process stages.

Use the e-IANA software.

I'd like the confirmation mail which gives all information needed.

A new tool that provides more feedback and follow up of requests that are in progress, maybe a history function would be an extra nice to have.

It would be nice to see/get the status of the request (eg.: Submitted to DoC, Waiting for confirmations...).

We have not been asked by IANA themselves to rate their performance and our user's satisfaction.

I think IANA is very good at this already. Better than all help desks I have seen.

Automation, transparent workflow.

## Any Other Comments?

e-IANA. Please.

Make data changes public. Not necessarily the communication, but the results. Making the performance data public will help gain more community confidence.

Please be aware that the processing times of a contact changes is fairly old (2004) and performance might have significantly changed since then.

We've come to expect 3-5 days (over a weekend) turnaround on name server changes that are not deemed an emergency request. We have complete faith that a request deemed an emergency request would be handled in short order.

We need some "IANA users" forum, perhaps FAQ area (or wiki?)

Perhaps step-by-step instructions for "standard" cases so IANA do not have to send those over and over again - thus making its messages shorter.