The Transition of NTIA's Stewardship of the IANA Functions

Background paper

June 2014

Introduction

1. **On 14 March 2014**, the US Department of Commerce's National Telecommunications and Information Administration (NTIA) announced its intention to transition key internet domain name functions to the global multi-stakeholder community (http://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-transition-key-internet-domain-name-functions). It "[has asked] ICANN to convene global stakeholders to develop a proposal to transition the current role played by NTIA in the coordination of the Internet's domain name system."

2. **The US Government** currently claims that its role is very narrow. Although it has been more activist in the past its current position is: "NTIA currently contracts with ICANN to carry out the Internet Assigned Numbers Authority (IANA) functions and has a Cooperative Agreement with Verisign under which it performs related root zone management functions." In other words, it appears to have the role of managing the contract and cooperative agreement and, ultimately, can re-tender.

3. **ICANN has just** closed a consultation on Principles and Mechanisms and the Process to Develop a Proposal to Transition NTIA's Stewardship of the IANA Functions (8 May): the CENTR Board put in a response to this consultation at https://centr.org/CENTR-BoD_Comment-IANA_transitionprocess. We now need to prepare for the discussions at ICANN London.

4. **This paper discusses** This paper discusses the issues associated with the transition of key Internet domain name functions to the global multi-stakeholder community: it looks at a framework of principles that need to underpin the discussion, and identifies potential risks that a proposal to transition the current role played by NTIA in the coordination of the DNS will need to address.

5. **Further work will** be needed to assess different scenarios for containing risks.

6. **This paper looks** specifically at the position for ccTLDs: while there might be common ground with other IANA functions and customers, there are also fundamental differences in the environment in which ccTLDs operate.

7. **The paper leads into** the issues around IANA oversight and the model for the IANA framework post transition. Starting to think about the options will be necessary, but we have not developed a formal position yet. More important is to understand what the key issues are for ccTLDs.

What is in play?

8. **Historically, NTIA** has written the contractual requirements for the delivery of the IANA function. Most recently, it has done this in discussion with the community (the Notice of Inquiry and Further Notice of Inquiry) that led to the current Statement of Work. It then has selected the operator against requirements. The specification of the role and the selection of the contractor are important functions.

9. **Otherwise the NTIA** role is very narrow. As the contracting party it is responsible for checking that due process has been followed by the IANA contractor in line with the contract. This leads to three key functions:
   a. the delivery of service against contractually defined service-level standards;

   b. accountability to the users of the IANA with decisions in line with, and based on, the agreed policy framework; and

   c. (ultimately) in the case of failure to meet contractual obligations, re-tendering the IANA function.

10. **The chain of accountability** currently is that the ccTLD registries are accountable to their customers – their registrants, their local stakeholder community and other interested parties. As the provider of a key service, the IANA contractor is accountable to the registries and has performed this function accurately over the years. While NTIA has provided an oversight role, this is more theoretical (a possible "back-stop" in case of errors) than actual and does not interfere with the customer-supplier ccTLD-IANA relationship. This has allowed a large degree of automation in updating root-zone records, for example, as a technical and clerical service. We would not want to introduce new processes that introduced delays in operations.

Principles

11. **Along with other** organisations that are dependent on the service provided by IANA, we rely on the framework being:
   a. Secure and stable: changes should not undermine the operation of the IANA function. To ensure this we probably need to avoid unnecessary changes: changes should be the minimum needed to respond to specific requirements.

   b. Predictable: decisions are clearly rooted in agreed policy. In the case of ccTLDs, the bottom-up policy process is the role of the ccNSO, which has carried this out in an open process. Policy is based on RFC1591;

   c. Reliable, timely and efficient. It is a vital service and any proposal should ensure continuity of service over the transition and beyond, meeting a recognised and agreed quality of service and in line with service-level commitments;

   d. Adaptable to developing needs and continued improvement;

   e. Automated

f. Non-discriminatory; and

g. Accountable and transparent.

12. There are important and specific issues associated with ccTLD registries that are not shared by other IANA customers and that might have an impact on how we would want to shape the outcome from the transition process:

a. A very small number of ccTLD registries have formal contracts, although all ccTLDs rely on the root-zone management service administered by IANA. Many registries have adopted light-weight agreements with ICANN – accountability frameworks, exchange of letters – and there is a significant number that do not have any agreement with ICANN. There is currently no requirement for a contractual relationship to ensure the IANA service and, under the current NTIA contractual relationship, there is no obligation for financial contributions to use the IANA service. In addition, there is probably no clear consensus among ccTLDs on what a formalised arrangement might look like, but some legal framework might be needed to enforce a service-level agreement, for example. This ultimately needs to be a registry decision.

b. A significant number of ccTLD registries are not members of ICANN's ccNSO.

Within ICANN the ccNSO is the organisation responsible for bottom-up policy development for ccTLD IANA issues and this is the framework for IANA decisions for ccNSO members.

The current contract (C.2.9.2.c) states that "The Contractor shall apply existing policy frameworks in processing requests related to the delegation and redelegation of a ccTLD … and any further clarification of these policies by interested and affected parties , as enumerated in Section C.1.3." Section C1.3 identifies interested and affected parties to "including, but are not limited to, the multi-stakeholder, private sector led, bottom-up policy development model for the DNS that ICANN represents; … top-level domain (TLD) operators/managers (e.g., country codes and generic); governments; and the Internet user community).

The ccNSO currently works in manner open to non-members and tries to develop consensus with the Governmental Advisory Committee in its processes. In the parallel process on ICANN accountability, this commitment to an open policy process could be made more explicit.

c. For ccTLD registries, policies are set locally and in conjunction with the local Internet community according to, and in compliance with, RFC1591. IANA should not try to set additional requirements that are not demonstrably linked to the security and stability of the DNS.

As such, the requirements of the ccTLD registry community are unique and diverse and the transition should not seek to impose common rules and structures on ccTLDs except where this is directly and demonstrably linked to the management of the root-zone file, ie that it has global impact. Decisions on ccTLD policy should be made locally wherever possible.

What are the risks from a new environment?

13. The role of NTIA and the way it might have been expected to respond to certain demands is shown in the table below. We need to consider this in the framework of how these roles could be addressed in a new environment, following the USG transition.

	Potential Failure	Possible NTIA response	New Environment: what are the issues?
1.	Failure in meeting a reasonable service level	Contractual requirement with NTIA	Holding the new organisation to account for Quality of Service and Service Level Commitments: • Metrics in the current contract are defined by open process, based on input from the community. • Contractually binding or accountability to the community. • Ex-post review. • If refusal/inability by the IANA operator to meet minimum reasonable targets: see 3 below.
2.	Policy implementation failure?	Current multi-stakeholder, bottom-up policy-development framework in ICANN is the ccNSO: this has very limited scope (or interest) in expanding the conditions for IANA changes. NTIA would expect ICANN (as IANA contractor) to show that it had assessed changes in line with agreed policy.	Clear indication of the policy framework to the community. Within ICANN the bottom-up policy process is in the ccNSO. • Transparency about decisions and how they align with agreed policy. • Independent appeals process: while this needs to be independent of the IANA operator and the appellants, the issues associated with delegation and redelegation are complex and the appeals panel needs to be knowledgeable. • There may be serious implications for national accountability and liability issues. • Final recourse might be through a court of law.
		More generally policy is agreed through a national multi-stakeholder process. Reference to a legal framework and due process would (should) meet requirements.	• Unless there are security and stability issues associated with the ccTLD registry, the decision is likely to be made locally. Clear information is needed to demonstrate due national process has been followed and appeals processes exhausted. • A few cases might need to be pursued in other jurisdictions. • There may be liability issues that will need to be resolved.

	Potential Failure	Possible NTIA response	New Environment: what are the issues?
3.	Refusal to correct failure in service level (1 above) or a failure to implement according to agreed policy (2 above)	Retender of the contract because of breach of conditions	• The legal framework needs to be clear on how to terminate the role of an IANA operator where a significant failure is not corrected. • Need an independent authority to assess whether terms are breached and for this authority to be referenced in the IANA operator requirements.
4.	Capture of the oversight mechanism	Currently the NTIA: role would (if exercised) be based on the Statement of Work and would be visible to the community.	• Clear terms & conditions on the role of oversight mechanism and transparency of process.

Next steps

14. In the light of the principles and risk factors identified above, we can try to identify the range of solutions that might respond to the new environment <u>and</u> provide the safeguards that we would wish to see applied. Some of the possible approaches might require a wider discussion on acceptability within national multi-stakeholder frameworks or with national authorities with the aim of presenting a coherent national/European multi-stakeholder approach to the accountability framework.

15. We should note that this discussion will run over many months and will need to take into account the interests and concerns of many different organisations, groups and individuals. We will need to ensure that, whatever solution is finally agreed, our interests are taken into account and that there are adequate safeguards that protect our ability to continue to provide a highly efficient, reliable and trusted service to our customers.