



Response by the Centre for Internet and Society to the Draft Proposal to Transition the Stewardship of the Internet Assigned Numbers Authority (IANA) Functions from the U.S. Commerce Department's National Telecommunications and Information Administration (NTIA) to the Global Multistakeholder Community

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For more than a year now, the customers and operational communities performing key internet functions related to domain names, numbers and protocols have been negotiating the transfer of IANA stewardship. India has dual interests in the ICANN IANA Transition negotiations: safeguarding independence, security and stability of the DNS for development, and promoting an effective transition agreement that internationalizes the IANA Functions Operator (IFO). Last month the IANA Stewardship Transition Coordination Group (ICG) set in motion a public review¹ of its combined assessment of the proposals submitted by the names, numbers and protocols communities. In parallel to the transition of the NTIA oversight, the community has also been developing mechanisms to strengthen the accountability of ICANN and has devised

¹ Research assistance was provided by Padmini Baruah and Vidushi Marda, with inputs from Sunil Abraham.

two workstreams that consider both long term and short term issues.² This is our response to the consolidated ICG proposal which considers the proposals for the transition of the NTIA oversight over the IFO.

Do the ICG Process and Proposal Meet Global Expectations?

One way of judging the ICG proposal is to ask the question whether it meets what was expected as the outcome of this transition? And what was that? That expectation, to put it simply, is that the United States not having any greater privileges over the running of the Internet's core infrastructure than any other country. *Inter alia*, this being an expectation is borne out by the WSIS process, during which the oversized control and influence of the United States in global Internet governance, particularly with respect to the was one of the two main issues of contention (with the other being the digital divide), and this was alluded to in statements by the IGP,³ IGC,⁴ APC,⁵ the government of India,⁶ Brazil,⁷ etc.

² Jyoti Panday, Transitioning the NTIA Oversight of the DNS Root – Evaluating Progress Made and Problems, ORF Cyber Monitor, September 9, 2015.

See: <http://www.orfonline.org/cms/export/orfonline/html/cyber/Cyber-Monitor09.pdf>

³ Internet Governance Project, II.2005 Political Oversight of ICANN: A Briefing for the WSIS Summit, November 2005. See:

<http://www.internetgovernance.org/2005/11/01/II-2005-political-oversight-of-icann-a-briefing-for-the-wsis-summit/>

⁴ The Civil Society Internet Governance Caucus demanded, during the WSIS process that:

“We recognize that the time has come for a change in the political oversight of the logical Internet infrastructure....

5. ICANN will negotiate an appropriate host country agreement to replace its California Incorporation, being careful to retain those aspects of its California Incorporation that enhance its accountability to the global Internet user community.

6. ICANN's decisions, and any host country agreement, must be required to comply with public policy requirements negotiated through international treaties in regard to, inter alia, human rights treaties, privacy rights, gender agreements and trade rules.” (2005).

<https://www.itu.int/wsis/docs2/pc3/contributions/sca/hbf-29.doc>

⁵ Adam Peake, ‘Internet governance and the World Summit on the Information Society (WSIS)’, Association for Progressive Communications (APC), June 2004, <http://rights.apc.org/documents/governance.pdf>

⁶ “India, on the other hand, decried the fact that a vital global resource should be in the hands of a “non-inclusive, opaque organization not accountable for its actions”. Moreover India questioned the fact that all 13 root servers, were in the hands of developed countries.”

<https://www.itu.int/wsis/newsroom/2/pc2/highlights/25feb.html>. See also, Congressional Research Service, ‘The Future of Internet Governance: Should the U.S. Relinquish Its Authority Over ICANN?’, p. 21, August 18, 2015, <http://fas.org/sgp/crs/misc/R44022.pdf>

⁷ *Id.*

Historical and Political Context Missing from ICG Mandate

The United States government had initially attempted to finish this transition by 2003, missed that deadline, and during the WSIS process announced in 2004 that it would be done by 2006, and missed that deadline again.⁸ We have finally come, in 2014, after 16 years of the creation of ICANN and after 16 years of path dependency, at this juncture.

The ICANN-formed ICG sees the US government's actions very narrowly, as though the government were acting in isolation, ignoring the rich dialogue and debate that's gone on earlier about the transition. While it would be no one's case that political considerations should be given greater weightage than technical considerations such as security, stability, and resilience of the domain name system, it is shocking that political considerations have been completely absent in the discussions in the number and protocol parameters communities, and have been limited in the names community. It can be also argued that the certain IANA functions such as Root Zone Management function have a considerable political implication. It is imperative that the political nature of the function is duly acknowledged and dealt with, in accordance with the wishes of the global community. In the current process the political aspects of the IANA function has been completely overlooked and sidelined.⁹

It is important to note that this transition has not been a necessitated by any technical considerations. It is primarily motivated by political¹⁰ and legal considerations.¹¹ However, the questions that the ICG asked the customer communities to consider were solely technical. Indeed, the communities could have chosen to overlook that, but they did not choose to do so.¹² For instance, while the IANA customer community proposals reflected on *existing* jurisdictional arrangements, they did not reflect on how the jurisdictional arrangements *should be post-transition*, while this is one of the questions at the heart of the entire transition. Indeed, the names community's CWG proposal even proposes **U.S. jurisdiction as a requirement** for the

⁸ NTIA, Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions, Department of Commerce, 2011 See: http://www.ntia.doc.gov/files/ntia/publications/fr_ianafunctionsnoi_02252011.pdf

⁹ "The DNS Root Zone Management function is by far the most politically sensitive of the IANA Functions." SAC067 Report, pg. 11, <https://www.icann.org/en/system/files/files/sac-067-en.pdf>

¹⁰ Congressional Research Service, 'The Future of Internet Governance: Should the U.S. Relinquish Its Authority Over ICANN?', See Introduction, also see p. 18, August 18, 2015, <http://fas.org/sgp/crs/misc/R44022.pdf>

¹¹ *Id.*

¹² This is not surprising given the composition of "global multistakeholder community" that participated in these discussions, as seen on the mailing lists: There was hardly any participation from Latin America, the Caribbean, Eastern Europe, Africa, and relatively little participation from Asia-Pacific (discounting Australia & New Zealand). It was mainly developed countries from WEOG (Western Europe, with North America, Australia and New Zealand).

post-transition IANA entity/IANA functions operator,¹³ while this precisely has been one of the most contentious aspects of the existing NTIA ‘open’ calls for award of the IANA contract.

Finally, the NTIA Administrator, in a hearing before the U.S. House of Representatives’s Energy & Commerce Committee, *stated that ICANN and IANA remaining in the United States were likely to be conditions for the transition.*

The global community should take note of this, and should fault such unilateral pre-conditions and a process that allows a single government to place such pre-conditions. The placing of such conditions makes a mockery of the calls for globalization of the core operations of the Domain Name System.

Desiring “Minimal Changes” is Political Status-Quoism not Technical Stability

In multiple customer community discussions, the need for minimal changes has either been assumed or has been put forth as a desirable characteristic.¹⁴ This has been justified as promoting technical stability of the DNS. However, they are not equivalent, even though they often overlap. The way that core Internet resources are currently run have arisen largely by historical accident and not by careful planning. These structures were put in place by U.S. government (Department of Defense and the Department of Commerce) without consulting the global community. This doesn’t by itself provide a reason to change it, but *importantly*, this isn’t by itself a reason to continue with the way things are.

For instance, having 10 of the 12 operators of the ICANN-approved root are based in a single jurisdiction. This is highly undesirable. Just as technical resilience demands that not all root servers be located in the same data centre, legal resilience demands that not all root servers be located in the same jurisdiction. Given the technical nature of the considerations present in the IANA customer communities’ responses, they haven’t taken this into account at all. As far as one can tell, IETF and the CRISP team did not have any discussion (on the IETF’s IANAPLAN list or on the NRO’s CRISP list) around jurisdiction nor did they consult any lawyers about this.

While the adage, “if it ain’t broke, don’t fix it”, might largely be true, what the IANA customer communities and resultantly the ICG proposal, have focussed on is whether the DNS is broken from a *technical* perspective, and have paid scant attention to the question of whether the current *political and legal* set-up is ideal.¹⁵

¹³ ICG Report, Pt Annex S, p. 131. Provision, Subcontracting [US Presence Requirements]

¹⁴ Exchange between Izumi Okutani and Pranesh Prakash [NRO-IANAXFER] Call for submission of comment to the combined ICG proposal and the CRISP Team draft response, September, 2015, <https://www.nro.net/pipermail/ianaxfer/2015-September/000653.html>

¹⁵ The only area where these political questions are being raised, but in a limited manner, are in the discussions around ICANN accountability.

As emphasized earlier, it would be foolhardy to forsake technical stability and resiliency on the altar of political and legal resiliency. However, it would be equally if not more foolhardy not to consider the issue of political and legal resiliency *even when a proposed change does not negatively impact technical stability and resiliency*, at the altar of status quoism.

Thus, there are problems in the way the ICG has approached the issue, which greatly compromise the ICG's proposal.

Narrow Focus on IANA Contract by NTIA and ICG

As noted above, the current set-up of core DNS operations is a historical accident and not a clearly thought-through stable set-up. For instance, the IANA functions contract that ICANN has with the NTIA does not cover all the functions that IANA currently performs (such as being responsible for a time-zone database known as tzdata) or the operations of the .INT gTLD.¹⁶ Yet, despite one of the possible outcomes being the splitting of the IANA functions, and the conundrum of what would then happen to non-contractual IANA functions, the ICG did not include non-contractual IANA functions as part of their deliberations.

Nor did the ICG consider the NTIA's agreement with Verisign for performing its role as the root zone maintainer — which is what makes Verisign *primus inter pares* among the ICANN-recognized authoritative root zone operators — because the NTIA had not opened that up for discussion. Deliberation on the Root Zone Maintainer function is crucial since it plays, in some respects, as important a role if not a more important one than the IANA Functions Operator.¹⁷ After all, the IANA Functions Operator (and thereupon the NTIA) authorize changes to the root.zone file, while it is the Root Zone Maintainer which actually effectuates the changes.

There have been suggestions in the past to merge the IFO and Verisign functions related to root zone management¹⁸ or that Verisign should give its responsibilities to the IFO.¹⁹ If there is no need²⁰ for a distinct RZM function,²¹ and the names community proposal has suggested

¹⁶ Section C- Description/Specs/Work Statement See:
http://www.ntia.doc.gov/files/ntia/publications/sf_26_pg.1-2-final_award_and_sacs.pdf

¹⁷ Milton Mueller, 'What's going on between NTIA, ICANN and VeriSign?' See:
<http://www.internetgovernance.org/2015/08/18/whats-going-on-between-ntia-icann-and-verisign/>

¹⁸ Milton Mueller and Brenden Kuerbis, Roadmap for globalizing IANA: Four principles and a proposal for reform: A submission to the Global Multistakeholder Meeting on the Future of Internet Governance. See:
<http://www.internetgovernance.org/wordpress/wp-content/uploads/ICANNreformglobalizingIANAfinal.pdf>

¹⁹ *Supra* note 17.

²⁰ In 2011, CNNIC suggested that a root server could be run by IANA itself, and thus in essence have IANA in the role of the Root Zone Manager.
<http://www.ntia.doc.gov/files/ntia/comments/110207099-1099-01/attachments/CNNIC%20comments%20on%20IANA%20Funcionts.pdf>

automating the RZA role then any proposal related to the management of DNS must ensure that changes in the relationships between the three entities accommodate such alternative arrangements and not continue to enforce the status quo that has persisted since the inception of ICANN.

Further, Verisign, being an owner of multiple top-level domains, has a clear conflict of interest in its role as Root Zone Maintainer. That this is the status quo should not be allowed to be an argument against changing it. The status quo isn't sacred, and the status quo doesn't guarantee stability of the DNS.

There have also been instances of Verisign slipping up in the performance of its role, as highlighted by David Conrad, who is currently ICANN's Chief Technical Officer.²² Lastly, Verisign, as it is a commercial company with conflicts of interest, does not perform its role transparently and uses proprietary software in the performance of what should be a public role. This disallows public scrutiny of the code for bugs and error.²³ Yet, these important discussions relating to security and stability of the DNS were not part of the conversation because the NTIA did not allow for it and the ICG did not push for it.

By narrowing its focus this way, the ICG lost the ability to have a deliberation based on logic of DNS operations, and was forced to have discussions on the narrow parameters set by the NTIA. As the Stability and Security Advisory Committee has noted, "operational relationships within which the root zone management partners have operated pre-transition will change when NTIA no longer fulfills the Administrator role. Defining these post-transition relationships will depend on NTIA's transition arrangements for oversight of the Root Zone Maintainer functions currently performed by Verisign." Subsequently, the NTIA asked ICANN and Verisign to submit a joint proposal to it on the removal of NTIA as a party to that agreement. This joint

²² David Conrad points to a time when "a bug in Verisign's root zone management software caused an unanticipated change in glue records for zones operated by AFNIC (detected by at least one ccTLD manager after the root zone had been published IIRC)." <https://mm.icann.org/pipermail/cwg-stewardship/2015-January/001458.html>

²³ As David Conrad notes, "the code Verisign uses, as opposed to code ICANN uses, is not open source so it is difficult to independently verify". <https://mm.icann.org/pipermail/cwg-stewardship/2015-January/001458.html>

proposal was not opened up to public participation, and was done *sub rosa*.²⁴ This by itself ***robs the transition of both logic (necessary components of a transition were not part of an open discussion), as well as legitimacy.***

Alternatives

Here are ideas that ought to have been part of the discussion, since they make sense, but were either chilled because of fear of how the NTIA or the US government / Congress might react,²⁵ or were feared as not being status-quoist enough.

Splitting of IANA Functions

The Internet Architecture Board, in a submission to the NTIA in 2011 claims that splitting the IANA functions would not be desirable.²⁶ The IAB notes, “There exists synergy and interdependencies between the functions, and having them performed by a single operator facilitates coordination among registries, even those that are not obviously related,” and also that that the IETF makes certain policy decisions relating to names and numbers as well, and so it is useful to have a single body. But they don’t say why having a single email address for all these correspondences, rather than 3 makes any difference: Surely, what’s important is cooperation and coordination. Just as IETF, ICANN, NRO being different entities doesn’t harm the Internet, splitting the IANA function relating to each entity won’t harm the Internet either. Instead will help stability by making each community responsible for the running of its own registers, rather than a single point of failure: ICANN and/or “PTI”.

A number of commentators have supported this viewpoint in the past: Bill Manning of University of Southern California’s ISI (who has been involved in DNS operations since DNS started), Paul M. Kane (former Chairman of CENTR’s Board of Directors), Jean-Jacques Subrenat (who is currently an ICG member), Association française pour le nommage Internet en coopération (AFNIC), the Internet Governance Project, InternetNZ, and the Coalition Against Domain Name Abuse (CADNA).

The Internet Governance Project stated: “IGP supports the comments of Internet NZ and Bill Manning regarding the feasibility and desirability of separating the distinct IANA functions. Structural separation is not only technically feasible, it has good governance and accountability

²⁴ The Indian government submission to the CWG-Stewardship had noted this relationship and called for the role of RZM to be included in the transition process.

<http://forum.icann.org/lists/comments-cwg-stewardship-draft-proposal-22apr15/pdf/GK6yVohdU.pdf>

²⁵ This phenomenon is described very well by independent researcher Rishabh Dara in his submission on the ICG proposal. See: <https://comments.ianacg.org/pdf/submission/submission23.pdf>

²⁶ IAB response to the IANA FNOI, July 28, 2011. See: <https://www.iab.org/wp-content/IAB-uploads/2011/07/IANA-IAB-FNOI-2011.pdf>

implications. By decentralizing the functions we undermine the possibility of capture by governmental or private interests and make it more likely that policy implementations are based on consensus and cooperation.”²⁷

Similarly, CADNA in its 2011 submission to NTIA notes that that in the current climate of technical innovation and the exponential expansion of the Internet community, specialisation of the IANA functions would result in them being better executed. The argument is also that delegation of the technical and administrative functions among other capable entities (such as the IETF and IAB for protocol parameters, or an international, neutral organization with understanding of address space protocols as opposed to RIRs) determined by the IETF is capable of managing this function would ensure accountability in Internet operation.

Given that the IANA functions are mainly registry-maintenance function, they can to a large extent be automated. However, a single system of automation would not fit all three. Instead of a single institution having three masters, it is better for the functions to be separated.

Most importantly, if one of the current customers wishes to shift the contract to another IANA functions operator, even if it isn't limited by contract, it is *limited by the institutional design*, since iana.org serves as a central repository. This limitation didn't exist, for instance, when the IETF decided to enter into a new contract for the RFC Editor role. This transition presents the best opportunity to cleave the functions logically, and make each community responsible for the functioning of their own registers, with IETF, which is mostly funded by ISOC, taking on the responsibility of handing the residual registries, and a discussion about the .ARPA and .INT gTLDs.

From the above discussion, three main points emerge:

- Splitting of the IANA functions allows for technical specialisation leading to greater efficiency of the IANA functions.
- Splitting of the IANA functions allows for more direct accountability, and no concentration of power.
- Splitting of the IANA functions allows for ease of shifting of the [names,number,protocol parameters] IANA functions operator without affecting the legal structure of any of the other IANA function operators.

²⁷ Internet Governance Project, Comments of the Internet Governance Project on the NTIA's "Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions" (Docket # 110207099-1099-01) February 25, 2011 See:

<http://www.ntia.doc.gov/federal-register-notice/2011/request-comments-internet-assigned-numbers-authority-iana-functions>

Jurisdictional Resilience

Law and geopolitics are as important a consideration for stability of the Internet as the technical infrastructure. This can be seen from multiple instances.

It is the IANA contract that decides who gets to run an internet registry in the event of the transfer of the NTIA oversight to the IFO it will be within ICANN's power to move the ownership of the dot-com to a different entity. While there are processes for such a transfer of ownership²⁸, concerns arising from these arrangements have been raised, most recently by Russia during the Ukraine crisis in 2014.²⁹ Further these processes have been actively abused in the past in cases of Iraq's .IR registry and Afghanistan's .AF registry following the U.S.-led military invasion of both countries.³⁰

It should also be noted that the United States government has also used the fact that Verisign is incorporated in the United States to extend its jurisdiction on domain names, being the only country in the world to make this claim on the basis of jurisdiction of DNS registries. While previously, registering a domain name with a non-U.S. registrar and avoiding U.S.-based host servers was viewed as sufficient to fall outside U.S. jurisdiction a court order requiring the domain name registrar to transfer ownership of the domain (or redirect the site) was only enforceable in the jurisdiction in which it was issued.

In 2012, in the state of Maryland, prosecutors were able to obtain a warrants ordering Verisign, the company that manages the .COM domain name registry, to redirect the website to a warning page advising that it has been seized by the U.S. Department of Homeland Security.³¹ This happened with more than 700 websites, *including those that had been declared legal by foreign courts* (the Spanish courts, in the case of RojaDirecta.com).³² Even domain names registered with non-U.S. registrars were seized. Of the 672 registries listed in ICANN's registry directory, 307 are U.S.-based!³³ This means that the United States more than can exercise through the location of the domain name registry.

²⁸Documents concerning the redelegation of these ccTLDs are available at <http://www.iana.org/reports>.

²⁹ Kevin Murphy, 'Amid Ukraine crisis, Russia scared ICANN might switch off its domains', DomainIncite , September 2014, <http://domainincite.com/17373-amid-ukraine-crisis-russia-scared-icann-might-switch-off-its-domains>

³⁰ Brian Whitaker, '.iq test', The Guardian, Iraq World Dispatch, See: July 5, 2004 See: <http://www.theguardian.com/world/2004/jul/05/iraq.technology>

³¹ Michael Geist, 'All Your Internets Belong to US, Continued: The Bodog.com Case', March 6, 2012. <http://www.michaelgeist.ca/2012/03/bodog-case-column-post/>

³²David Kravets, 'Uncle Sam: If It Ends in .Com, It's .Seizable', Wired, June 3, 2012. See: <http://www.wired.com/2012/03/feds-seize-foreign-sites/>

³³ Of the 672 gTLD registries ICANN lists, 307 are US-based (2nd place: Ireland, with 80). September 3, 2015. See: https://twitter.com/pranesh_prakash/status/639462783948484608

That Verisign’s accountability issues related to its RZM function and the conflict of interest arising from its role as the dotcom registry under contract with IANA not being addressed by the operational communities is a serious gap in the internationalizing of the DNS root. The incentives are structured in a manner which necessitate VeriSign develop and maintain a close relationship with ICANN which is reflected in its proposal of handing over the RZA function contract to ICANN

The RZA proposal circulated by NTIA and developed by the two parties that have maximum stake in ensuring the status quo of the DNS root persists, coupled with the problems associated with plans being developed to remove the IANA contract away from ICANN at a future date makes this transition incomplete and unworkable at worst and in need of further deliberation at best.

In order to ensure the legal resilience of the DNS, it is important to have three kinds of jurisdictional safeguards:

- Legal immunity for core technical operators of Internet functions (as opposed to policymaking venues) from legal sanctions or orders from the state in which they are legally situated.
- Division of core Internet operators among multiple jurisdictions
- Jurisdictional division of policymaking functions from technical implementation functions.

Following the above precepts would, for instance, mean that the entity that performs the role of the Root Zone Maintainer should not be situated in the same legal jurisdiction as the entity that functions as the policymaking venue. This would in turn mean that either the Root Zone Maintainer function be taken up Netnod (Sweden-headquartered)³⁴ or the WIDE Project (Japan-headquartered)³⁵, or that if the IANA Functions Operator(s) is to be merged with the RZM, then the IFO be relocated to a jurisdiction other than those of ISOC and ICANN. This, as has been stated earlier, has been a demand of the Civil Society Internet Governance Caucus.

Further, it would also mean that root zone servers operators be spread across multiple jurisdictions (which the creation of mirror servers in multiple jurisdictions will not address).

The “Global Multistakeholder Community” is Neither Global nor Multistakeholder.

If the “global multistakeholder community” means those who participate in an open process, then the ICG comments represent the global multistakeholder community. If the

³⁴ Netnod, ICANNWiki, <https://icannwiki.com/Netnod>.

³⁵ WIDE Project, Wikipedia, https://en.wikipedia.org/wiki/WIDE_Project.

“global multistakeholder community” actually means that the discussions were globally representative, that there was participation of a variety of actors including civil society and governments (and not being primarily industry/technical organizations), then this process is an abysmal failure.

If one counts participation across the main lists where the final shape of the ICG proposal were thrashed out (ICANN’s ICG and CWG-Stewardship lists, the NRO’s IANAxfer and CRISP list, and the IETF’s IANAPLAN), then a total of 239 individuals participated. Of these 239, **only 98** substantively contributed to the final shape of the ICG proposal, if one takes a count of 20 mails (admittedly, an arbitrary cut-off) as a substantive contribution, with 12 of these 98 being ICANN staff some of whom were largely performing an administrative function.

Of these 98, 39 (or **1 in 4**) were, as far as one could ascertain from public records, from a single country: the United States of America.

Of these 98, 77 (or **8 in 10**) were, as far as one could ascertain from public records, participants from countries which are part of the WEOG UN grouping (which includes Western Europe, US, Canada, Israel, Australia, and New Zealand), which only has developed countries. None of those who participated substantively were from the EEC (Eastern European) group and only 5 of 98 from GRULAC (Latin American and Caribbean Group).

Of these 98, 77 (or **8 in 10**) were male and 21 were female, as far as one could ascertain from public records.

Of these 98, 76 (or **8 in 10**) were identifiable as primarily being from industry or the technical community, as far as one could ascertain from public records, with only 4 (or **1 in 25**) being readily identifiable as primarily speaking on behalf of governments.

Lastly, the processes followed by ICANN and the NRO (CRISP) did not allow for equal and open for participation by all relevant parties.

Does the ICG Proposal Meet the ICG’s and NTIA’s Criteria?

The other set of criteria for judging the ICG proposal are those set by the ICG itself, along with those set by the NTIA. Even here, the current ICG proposal falls short.

Questions Concerning the Proposal as a Whole

- 1) Completeness and clarity: Is the combined proposal complete? Each of the operational community proposals contains aspects to be completed in the future when the proposal is

implemented. Is the combined proposal specified in sufficient detail such that it can be evaluated against the NTIA criteria?

- a. No, the proposal is not complete. As highlighted above, jurisdiction and other legal issues are completely missing from the ICG summary. Only the names community even proposes what post-transition jurisdiction of the IANA Functions Operator should be (U.S.), while the ICG and the other two community proposals ignore this completely.
 - b. No, the proposal is not clear. Even the basic question of whether ICANN going to be the IANA Functions operator or is the “PTI” going to be the IANA Functions Operator is unclear, since the three different proposals see the answer differently.
 - c. The proposal is not complete since issues relating to root zone management, an essential part of the transition of stewardship of the DNS root zone to the global multistakeholder community, are not addressed.
 - d. The formalization of the relationship between the RIRs and the IANA number server operator needs to be addressed.
 - e. The proposal is not complete since contingency scenarios, including stress tests, have not been outlined and discussed in the ICG proposal.
 - f. In this regard, we associate ourselves with the comments made by Rishabh Dara, an independent doctoral student, in his submission to the ICG,³⁶ as well as the comments made in the submission on behalf of the Just Net Coalition by Richard Hill.³⁷
- 2) Compatibility and interoperability: Do the operational community proposals work together in a single proposal? Do they suggest any incompatible arrangements where compatibility appears to be required? Is the handling of any conflicting overlaps between the functions resolved in a workable manner?
- a) The answers to the previous question apply here.
 - b) Further questions should have been asked of the communities, since there was not definitive conclusion about IANA remaining a single function. Two of the customer community proposals regard ICANN as the IANA Functions Operator, while the CWG proposal regards the PTI as the IFO.

³⁶ Rishabh Dara, Comments to ICG Proposal See:
<https://comments.ianacg.org/pdf/submission/submission23.pdf>

³⁷ Richard Hill, on behalf of the Just Net Coalition, Comments to ICG Proposal See:
<https://comments.ianacg.org/pdf/submission/submission18.pdf>

- c) **There is no clarity on how the registries on the IANA.org domain would be concurrently updated by multiple IANA Functions Operator in the event one of the communities decides to switch to a different IANA Functions Operator.**
- 3) **Accountability:** Do the operational community proposals together include appropriate and properly supported independent accountability mechanisms for running the IANA functions? Are there any gaps in overall accountability under the single proposal?
- a) In response to this question, we associate with the comments made by the Just Net Coalition in the submission made on its behalf by Richard Hill,³⁸ and with the comments made by Rishabh Dara in part (3) of his submission to the ICG.³⁹
 - b) The most important accountability mechanism is that of changing the IANA Functions Operator. While all 3 community proposals envisage this possibility as part of their contract, there is no clear plan on how it would be operationalized. As mentioned above, there is no clarity on how the registries on the IANA.org domain would be concurrently updated by multiple IANA Functions Operator in the event one of the customer communities decides to switch to a different IANA Functions Operator.
- 4) **Workability:** Do the results of any tests or evaluations of workability that were included in the operational community proposals conflict with each other or raise possible concerns when considered in combination?
- a) For the reasons outlined in the questions (1) and (2), the ICG proposal as a whole does not seem workable in its current state.
 - b) If the current ICG proposal is accepted, and in the future the CSC, after following its processes, decides to shift to a different IFO, how exactly will that happen? Will ICANN, in essence, go looking for a replacement for an ICANN subsidiary or affiliate?
 - c) In this regard, we wish to associate with the comments made by Rishabh Dara in parts (2) and (6) of his submissions.⁴⁰

³⁸ *Id.*

³⁹ *Supra* note 34.

⁴⁰ *Supra* note 34.

Questions Concerning NTIA Criteria

- 5) Do you believe the proposal supports and enhances the multistakeholder model? If yes, please explain why. If not, please explain why and what proposal modifications you believe are necessary.
- a) If the multistakeholder model includes the participation of civil society, academia, and governments, then no. Given that except the U.S. government,⁴ and the U.K. government, few others participate in IETF processes, and given that the NROs don't really involve civil society actors or governments (except as NIRs), the proposal doesn't support or enhance the "multistakeholder model".
 - b) The ICG process has been customer-centric, without clear channels for non-customer participation except, narrowly, through the inclusion of non-customers in ICANN's non-contracting parties house.
 - c) Given that key elements of the transitions (such as the cooperative agreement for the Root Zone Maintainer) were kept out of the purview of the ICG process, that can hardly be called an open multistakeholder process.
- 6) Do you believe the proposal maintains the security, stability, and resiliency of the DNS? If yes, please explain why. If not, please explain why and what proposal modifications you believe are necessary.
- a) There is no explanation as to why — other than status-quoism — between multiple alternatives, all of which maintain the security, stability, and resiliency of the DNS, the alternatives present in the current proposal was chosen.
 - b) The proposal does not negatively affect the security of the DNS, but does not ensure the resiliency of the DNS. A proposal that meets the criterion of resiliency must cover not just the fact of the various possibilities allowed under that proposal but the practical effects of one of those possibilities actually happening. In concrete terms, while the ICG proposal does contemplate the possibility of each of the communities might change their IFO from the PTI to another entity, the practical effect of doing so is unclear from the proposal. Will iana.org still be host to the registries, as is the question of having a single

⁴ U.S. agencies such as the National Security Agency and National Institute for Standards and Technology have been the most regular and entrenched governmental participants in the IETF process. More recently, other entities like CNNIC from China have also been participating sporadically.

- c) The ICG proposal does not include tests for resiliency and stability, some of which the CWG has been working on.
- 7) Do you believe the proposal meets the needs and expectations of the global customers and partners of the IANA services? If yes, please explain why. If not, please explain why and what proposal modifications you believe are necessary. Please indicate if you are a customer or partner of the IANA services.
- a) The consolidated proposal as it stands is reflective of a truly global multi-stakeholder Internet community. The numbers and protocols proposals were developed with limited involvement from few participants (for instance, there was hardly any substantive discussion on these on LACNIC's Internet-Gov list)⁴². In developing the consolidated proposal the ICG has not gone beyond the proposals submitted by the operational communities.⁴³ While this may be a limitation of its scope this has implications on the legitimacy of the multistakeholder process that it has been charged with overseeing.
- b) It is important that the ICG should also evaluate if the processes convened by the operational community were inclusive and received a varied participation by stakeholders outside of the operational communities themselves. One way of doing this would be to see how many positive responses the ICG gets from members of RIRs and IETF and compare that to the overall membership / participation levels in these entities.
- c) While the transition may have been pegged on the involvement of the "global multistakeholder community", the number of members and observers were limited to a minuscule and few were involved in drafting the initial proposal while other members were relegated to either agreeing or disagreeing with proposals that have been developed. Further, there was no consistency in assimilating or capturing dissenting opinions. For example, the process adopted by ICG was flawed as it did not require the three communities to distinguish between the 'proposal development process' and 'approval process'.⁴⁴

⁴² Internet-Gov Mailing List Archives, <https://mail.lacnic.net/pipermail/internet-gov/>.

⁴³ This has been a source of complaint by observers such as Richard Hill and Tamer Rizk.

⁴⁴ Rishabh Dara, Comments to the ICG, see pt. b under Process Related Comments. See: <https://comments.ianacg.org/pdf/submission/submission23.pdf>

- 8) Do you believe the proposal maintains the openness of the Internet? If yes, please explain why. If not, please explain why and what proposal modifications you believe are necessary.
- a) It is unclear what is meant by “openness” of the Internet. If the question can be read as: “Does the proposal disallow any one government from having disproportionate influence on the DNS”, then the answer is no. The proposal does not challenge the U.S.-centricism of DNS operations, and as such it does not enhance the openness of the Internet.
- 9) Do you have any concerns that the proposal is replacing NTIA’s role with a government-led or inter-governmental organization solution? If yes, please explain why and what proposal modifications you believe are necessary. If not, please explain why.
- a) Our main concern is that while the NTIA’s role is diminishing, the powers of the U.S. government aren’t. This transition is a conditional one, with the pre-conditions having been laid down by the NTIA, and with the possibility of the U.S. Senate adding additional conditions via the DOTCOM Act⁴⁵, which has been passed by the U.S. House of Representatives so far. So, if the question is phrased narrowly with regard to NTIA’s role, then no, there is no concern that a government-led or intergovernmental organization solution is being proposed by the ICG. However, even after a transition on the lines broadly outlined by the ICG proposal, the U.S.-centricism of DNS operations will continue, not just implicitly, but even explicitly in the proposal by the CWG. This will subject the DNS operations to U.S. sanctions, to U.S. courts, to the U.S. Congress, and to unilateral U.S. executive action. Given the fact that the ICG proposal does not demand any form of legal immunity for the core technical operation of the DNS system, it does not preclude governmental interference in the DNS system.
- 10) Do you believe that the implementation of the proposal will continue to uphold the NTIA criteria in the future? If yes, please explain why. If not, please explain why and what proposal modifications you believe are necessary.

⁴⁵ Domain Openness Through Continued Oversight Matters (DOTCOM) Act of 2015, June 10, 2015. See: <http://docs.house.gov/meetings/IF/IFoo/20150616/103649/BILLS-114805ih.pdf>

- a) The NTIA's criteria, some of which are unstated (such as their statement to the House Committee that U.S. jurisdiction is an important aspect of DNS stability and resilience) are not necessarily just.
- b) The NTIA's criteria include convening a "multistakeholder process to develop the transition plan", which, as demonstrated above, hasn't been accomplished in reality even though on paper it might be.

Questions Concerning ICG Report and Executive Summary

- 11) Do you believe the ICG report and executive summary accurately reflect all necessary aspects of the overall proposal? If not, please explain what modifications you believe are necessary.
 - a) As explained above, there are interoperability-related issues between the proposals. It seems that in those cases where there is a mismatch or lack of clarity with regard to interoperability, the CWG proposal has been given primacy among the three proposals.

General Questions

- 12) Do you have any general comments for the ICG about the proposal?
 - a) Any evaluation of the consolidated proposal from the operational communities or plans to implement the transition must consider if it achieves the vision of "globalization of ICANN and IANA functions, towards an environment in which all stakeholders, including all governments, participate on an equal footing." The statement stems from a call issued by leaders of organizations responsible for coordination of the Internet technical infrastructure globally who met in Montevideo, Uruguay, to consider current issues affecting the future of the

Internet in 2013.⁴⁶ As the transition process has been led by the NTIA criteria it is critical that the ICG consider the issues and values highlighted in the statement.

- b) The Montevideo Statement had stressed the importance of globally coherent Internet operations, and warned against Internet fragmentation at a national level. In the present ICG proposal the process for redelegation of ccTLDs is one example of an issue that has been left unaddressed and has the potential to lead to calls for internet fragmentation along national lines. The ICG must consider this critical issue and we have addressed the same in detail below.
- c) The statement also highlighted the “undermining of the trust and confidence of Internet users globally due to recent revelations of pervasive monitoring and surveillance”. In our opinion the NTIA transition announcement and subsequently the ICG proposal have both kept the Root Zone Maintainer (RZM) function outside of the scope of this transition. As this function is critical to maintaining the security and stability of operations of the DNS system, the present proposal does not address the issues around pervasive monitoring and undue influence of one national government over the RZM role. We therefore urge that this proposal is sent back to review and further deliberation by the operational communities so that it may include the transition of the RZM role within the scope of transition arrangements.
- d) Finally, at Montevideo the leaders also “identified the need for ongoing effort to address Internet Governance challenges, and agreed to catalyze community-wide efforts towards the evolution of global multistakeholder Internet cooperation.” The NTIA by unilaterally setting the criteria for the successful transition of the IANA Functions Operator (IFO) and by precluding the multistakeholder community from engaging on the transition of the NTIA oversight as the RZA and evolution of the RZM function has not achieved the “global multistakeholder Internet cooperation’ that had been envisioned pre-transition in 2013.
- e) As noted by Byron Holland in the ccNSO submission on the ICG proposal, the current draft contains many factual errors.

In conclusion, the current ICG proposal is flawed both procedurally and substantively, thanks in part to the reports it had as its inputs, in part due to the process the ICG followed and

⁴⁶ Montevideo Statement on the Future of Internet Cooperation, 07 October 2013, See: <http://www.internetsociety.org/news/montevideo-statement-future-internet-cooperation>

decisions that it made, and in part due to the NTIA's handling of the process. The proposal further entrenches U.S. interests in core DNS operations, rather than globalizing them; it is largely status quoist; it fails to capture and it fails to address many of the most important considerations that ought to be part of the transition.