Response to the IANA Stewardship Transition Coordination Group Request for Proposals on the IANA Stewardship Transition from the Cross Community Working Group on Naming Related Functions (CWG-Stewardship)

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GLOSSARY

Below are acronyms used throughout the document, presented in order of appearance.

- **CWG-Stewardship**: Cross Community Working Group to Develop an IANA Stewardship Transition Proposal on Naming Related Functions
- **ICG**: IANA Stewardship Transition Coordination Group
- **IANA**: Internet Assigned Numbers Authority
- **NTIA**: National Telecommunications and Information Administration
- **ccTLD**: Country Code Top-Level Domain
- **gTLD**: Generic Top-Level Domain
- **TLD**: Top-Level Domain
- **IDN**: Internationalized Domain Name
- **DNS**: Domain Name System
- **IETF**: Internet Engineering Task Force
- **RFC**: Request for Comments
- **ICP**: Internet Coordination Policy
- **DRD WG**: Delegation and Redelegation Working Group
- **FOI WG**: Framework Of Interpretation Working Group
- **GAC**: Governmental Advisory Committee
- **ICC**: International Chamber of Commerce
- **PDP**: Policy Development Process
- **IFO**: IANA Functions Operator
- **PTI**: Post-Transition IANA
- **DNSSEC**: Domain Name System Security Extensions
- **IFR**: IANA Function Review
- **CSC**: Customer Standing Committee
- **CCWG-Accountability**: Cross Community Working Group on Enhancing ICANN Accountability
- **SOW**: Statement of Work
- **AOC**: Affirmation of Commitments
- **IFRT**: IANA Function Review Team
- **RFP**: Request for Proposals
Response to the IANA Stewardship Transition Coordination Group Request for Proposals on the IANA Stewardship Transition from the Cross Community Working Group on Naming Related Functions (CWG-Stewardship)

Abstract
This document is a response from the Internet Names Community to the IANA Stewardship Transition Coordination Group (ICG) Request for Proposals made on September 8, 2014.

Please note that an appendix is included at the end of this document.

Proposal type
Identify which category of the IANA Functions this submission proposes to address:

[ X ] Names  [ ] Numbers  [ ] Protocol Parameters

I. The Community’s Use of the IANA
This section should list the specific, distinct IANA services or activities your community relies on. For each IANA service or activity on which your community relies, please provide the following:

II.A A description of the service or activity.
II.B A description of the customer of the service or activity.
II.C What registries are involved in providing the service or activity.
II.D A description of any overlaps or interdependencies between your IANA requirements and the functions required by other customer communities

I.A The service or activity
The IANA activities, as described in the current IANA Functions Contract, relevant to the Internet Naming Community are:

a. Root Zone Change Request Management – not including delegation and redelegation (NTIA IANA Functions Contract: C.2.9.2.a)

b. Root Zone “WHOIS” Change Request and Database Management (NTIA IANA Functions Contract: C.2.9.2.b)
c. Delegation and Redelegation of a Country Code Top-Level Domain (ccTLD) (NTIA IANA Functions Contract: C.2.9.2.c)
d. Delegation and Redelegation of a Generic Top-Level Domain (gTLD) (NTIA IANA Functions Contract: C.2.9.2.d)
e. Redelegation and Operation of the .INT TLD (NTIA IANA Functions Contract: C.2.9.4)
f. Root Domain Name System Security Extensions (DNSSEC) Key Management (NTIA IANA Functions Contract: C.2.9.2.f)
g. Root Zone Automation (NTIA IANA Functions Contract: C.2.9.2.e)
h. Customer Service Complaint Resolution Process (CSCR) (NTIA IANA Functions Contract: C.2.9.2.g)

Services provided by ICANN’s IANA department that are not part of the contractually defined IANA Functions, but which are relevant to the Internet Naming Community are:

i. Management of the Repository of IDN Practices (IANA service or activity beyond the scope of the IANA Functions Contract)
j. Retirement of the Delegation of TLDs (IANA service or activity beyond the scope of the IANA functions contract)

For further details concerning each of these IANA activities, please see Annex A.

I.B The customer of the service or activity
The primary customers of these IANA activities are TLD registry managers, .INT registrants, DNS validating resolver operators. For further details on the customer(s) for each activity, please see Annex A.

I.C Registries involved in providing the service or activity
TLD registries (including ccTLD and gTLD) are involved in providing the service. For further details on which TLD registry (ccTLD or gTLD) is involved in each activity, please see Annex A.

I.D Overlap or interdependencies between your IANA requirements and the functions required by other customer communities
The IETF, through its responsibilities for developing the underlying DNS protocol and its extensions, could designate parts of the domain name space for particular protocol-related purposes that may
overlap with usages assigned through ICANN policies. It may also designate portions of the namespace as invalid, illegal or reserved based on evolution of the underlying DNS protocol and its extensions. It may also expand the scope of namespace to be managed through such changes. Additional overlap and/or interdependencies have been identified for each activity in Annex A.
II. Existing Pre-Transition Arrangements

This section should describe how existing IANA-related arrangements work, prior to the transition.

II.A Policy Sources

This section should identify the specific source(s) of policy which must be followed by the IANA functions operator in its conduct of the services or activities described above. If there are distinct sources of policy or policy development for different IANA activities, then please describe these separately. For each source of policy or policy development, please provide the following:

- Which IANA service or activity (identified in Section I) is affected.
- A description of how policy is developed and established and who is involved in policy development and establishment.
- A description of how disputes about policy are resolved.
- References to documentation of policy development and dispute resolution processes.

II.A.i.a. Affected IANA Service (ccTLDs)

All functions that apply to ccTLDs and modify the Root Zone database or its WHOIS database are affected.

II.A.i.b. How policy is developed and established by whom (ccTLDs)

RFC1591 was written in 1994 as a "Request For Comments" (RFC) by the original IANA Functions Operator, Jon Postel. It is a short document intended to outline how the DNS was structured at that time and what rules were in place to decide on its expansion. The longest part of it outlines selection criteria for the manager of a new TLD and what was expected of such a manager.

Like all RFCs, this is a static document (RFCs are updated by the issuance of a new RFC) there have been two significant attempts to revise it so it can be more easily applied to the current context:

- Internet Coordination Policy 1 (ICP-1)
  This document from the "Internet Coordination Policy" group of ICANN was one of three such documents created by ICANN staff shortly after its creation. It attempted to update operational details over how the DNS was structured and should be run.

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1 According to the Fast Track Methodology the rules for delegation and redelegation for ccTLD apply to delegation and redelegation of IDN ccTLD.
The ICP-1 document was a source of significant friction between ICANN and the ccTLD community and the ccNSO formally rejected the ICP-1 document (final report of the ccNSO’s Delegation and Redelegation Working Group or DRDWG) arguing that it modified policy but did not meet the requirements for doing so at the time of its introduction in 1999.

- Framework Of Interpretation Working Group (FOIWG) Recommendations
  A follow-on to the ccNSO’s DRDWG, the FOIWG was joint effort between the ccNSO and the Governmental Advisory Committee (GAC) that also involved representatives from a number of ICANN communities to interpret RFC1591 in light of the Internet of today. In its final report it made a number of recommendations that clarify the application of RFC1591 within the current context.

  The ccNSO formally endorsed the FOIWG’s Final Report in February 2015 and transmitted it to the ICANN Board. It is currently pending review and adoption by the ICANN Board of Directors.

- Government Advisory Committee (GAC) Principles and Guidelines for the Delegation and Administration of Country Code Top Level Domains 2005
  This document, also known as the 2005 GAC Principles, which the GAC regards as formal “Advice” to the ICANN Board and as such is subject to the Bylaws provisions regarding such Advice at the time of submission. This Advice was developed privately by the GAC and the first version of these principles was published in 2000 and later revised to produce the 2005 version.

  Section 1.2 of this document highlights one of the key principles for governments with respect to the management of the ccTLDs associated with their country or territory code:

  \[1.2. \text{The main principle is the principle of subsidiarity. ccTLD policy should be set locally, unless it can be shown that the issue has global impact and needs to be resolved in an international framework. Most of the ccTLD policy issues are local in nature and should therefore be addressed by the local Internet Community, according to national law.}\]

2 Details at [https://www.icann.org/resources/pages/bylaws-2012-02-25-en#XI](https://www.icann.org/resources/pages/bylaws-2012-02-25-en#XI)
Also section 7.1 of this document can be directly relevant to delegation and redelegation of a ccTLD:

7.1. Principle

Delegation and redelegation is a national issue and should be resolved nationally and in accordance with national laws, taking into account the views of all local stakeholders and the rights of the existing ccTLD Registry. Once a final formal decision has been reached, ICANN should act promptly to initiate the process of delegation or redelegation in line with authoritative instructions showing the basis for the decision.

- Local laws applicable to ccTLDs, or IDN ccTLDs, associated with a specific country or territory are developed by the governments of those countries or territories

II.A.i.c. How disputes about policy are resolved (ccTLDs)

Section 3.4 of RFC1591 provided for a dispute resolution mechanism. However the body listed in the document does not currently exist. Most ccTLDs do not have any contracts that specify a dispute resolution mechanism with ICANN.

For those ccTLDs that do not have a contract with ICANN that specifies dispute resolution mechanisms, the ICANN-provided escalation paths available to them are the ICANN Ombudsman and the ICANN Bylaws relating to the Independent Review of ICANN Board Actions (which would only apply to the relevant Board action i.e. delegations and redelegations in this case). Given that these mechanisms are non-binding on the Board or ICANN they are perceived by many ccTLDs as being of limited value.

There are additional sources of accountability for the limited number of ccTLDs that have formal Sponsorship Agreements or Frameworks of Accountability with ICANN. These types of agreements have dispute resolution clauses to settle disagreements between the parties that are relevant to all actions and activities by the Operator for ccTLDs. These typically use the International Chamber of Commerce (ICC).

It is also important to note that local laws applicable to ccTLDs, or IDN ccTLDs, associated with a specific country or territory are developed by the governments of those countries or territories and that disputes with respect to such laws can be handled in courts of competent jurisdiction.
II.A.i.d. References to documentation of policy development and dispute resolution processes (ccTLDs)

- ICP 1 - [https://www.icann.org/icp/icp-1.htm](https://www.icann.org/icp/icp-1.htm)
- Independent Review Panel (IRP) - [https://www.icann.org/resources/pages/irp-2012-02-25-en](https://www.icann.org/resources/pages/irp-2012-02-25-en)
- GAC Principles 2005 - [https://gacweb.icann.org/download/attachments/28278844/ccTLD_Principles_0.pdf?version=1&modificationDate=1312385141000&api=v2](https://gacweb.icann.org/download/attachments/28278844/ccTLD_Principles_0.pdf?version=1&modificationDate=1312385141000&api=v2)

II.A.ii.a. Affected IANA Service (gTLDs)
Delegation and redelegation of gTLDs.

II.A.ii.b. How policy is developed and established by whom (gTLDs)
This is a complex and well-described process that would dwarf this document and as such will not be included. Details can be found at: [https://www.icann.org/resources/pages/governance/bylaws-en#AnnexA](https://www.icann.org/resources/pages/governance/bylaws-en#AnnexA)

II.A.ii.c. How disputes about policy are resolved (gTLDs)
This is a complex and well-described process that would dwarf this document and as such will not be included. Details can be found at: [http://newgtlds.icann.org/EN/APPLICANTS/AGB](http://newgtlds.icann.org/EN/APPLICANTS/AGB)

II.A.ii.d. References to documentation of policy development and dispute resolution processes (gTLDs)
- GNSO PDP: [https://www.icann.org/resources/pages/governance/bylaws-en#AnnexA](https://www.icann.org/resources/pages/governance/bylaws-en#AnnexA)
- New gTLD Applicant Guidebook: [http://newgtlds.icann.org/EN/APPLICANTS/AGB](http://newgtlds.icann.org/EN/APPLICANTS/AGB)
II.B Oversight and Accountability

This section should describe all the ways in which oversight is conducted over IANA’s provision of the services and activities listed in Section I and all the ways in which IANA is currently held accountable for the provision of those services. For each oversight or accountability mechanism, please provide as many of the following as are applicable:

• Which IANA service or activity (identified in Section I) is affected.
• If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way.
• A description of the entity or entities that provide oversight or perform accountability functions, including how individuals are selected or removed from participation in those entities.
• A description of the mechanism (e.g., contract, reporting scheme, auditing scheme, etc.). This should include a description of the consequences of the IANA functions operator not meeting the standards established by the mechanism, the extent to which the output of the mechanism is transparent and the terms under which the mechanism may change.
• Jurisdiction(s) in which the mechanism applies and the legal basis on which the mechanism rests.

II.B.i.a. Which IANA service or activity is affected (NTIA IANA Functions Contract)

For the purposes of this section, oversight and accountability of the IANA Functions Operator (IFO) refers to independent oversight and accountability. Specifically, oversight and accountability are defined as:

• Oversight (of the IFO performing root zone-related actions and activities) – Oversight is performed by an entity that is independent of the Operator (as defined in the NTIA IANA Functions Contract) and has access to all relevant information to monitor or approve the actions and activities that are being overseen.
• Accountability – Accountability provides the ability for an independent entity to impose binding consequences to ensure the IFO meets its formally documented and accepted agreements, standards and expectations.

All IANA Functions described in Section I of this document are affected. Annex B provides an overview of
oversight mechanisms that are found in the NTIA IANA Functions Contract.

II.B.i.b. If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way (NTIA IANA Functions Contract)

These oversight and accountability mechanisms in the NTIA IANA Functions Contract do not affect the policies listed in Section II.A.

II.B.i.c. The entity or entities that provide oversight or perform accountability functions (NTIA IANA Functions Contract)

The NTIA is currently responsible for providing this oversight. There is no description regarding how the individuals who perform these functions are selected, removed or replaced.

II.B.i.d. A description of the mechanism (NTIA IANA Functions Contract)

One of the official accountability mechanism included in the NTIA IANA Functions Contract is the ability to cancel or not renew the contract. In addition, there is also a customer complaint mechanism built into the contract.

II.B.i.e. Jurisdiction and legal basis of the mechanism NTIA IANA Functions Contract)

The jurisdiction of the mechanism is the United States of America.

II.B.i.f. Which IANA service or activity is affected (NTIA acting as Root Zone Management Process Administrator)

NTIA exercises oversight by reviewing all requests and documentation provided by the IANA Contractor for changes to the root zone or its WHOIS database to validate that IANA has met its obligations in recommending a change. NTIA can refuse to authorize the request. It affects all IANA Functions that modify the root zone and database or its WHOIS database.

II.B.i.g. If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way (NTIA acting as Root Zone Management Process Administrator)

This does not affect the policies listed in Section II.A.
II.B.i.h. The entity or entities that provide oversight or perform accountability functions (NTIA acting as Root Zone Management Process Administrator)
The NTIA is currently responsible for providing this oversight. There is no description regarding how the individuals who perform these functions are selected, removed or replaced.

II.B.i.i. A description of the mechanism (NTIA acting as Root Zone Management Process Administrator)
The accountability is exercised by the NTIA by not approving a change request by IANA for the root zone or its WHOIS database.

II.B.i.j. Jurisdiction and legal basis of the mechanism ((NTIA acting as Root Zone Management Process Administrator)
The jurisdiction of the mechanism is the United States of America.

II.B.i.k. Which IANA service or activity is affected (Binding arbitration included in TLD contracts)
Most gTLD registries as well as a few ccTLD registries have contracts (for ccTLDs also called Sponsorship Agreements or Frameworks of Accountability) with ICANN. All of these contracts provide for binding arbitration of disputes (The standard gTLD contract language begins with: “Disputes arising under or in connection with this Agreement that are not resolved pursuant to Section 5.1, including requests for specific performance, will be resolved through binding arbitration conducted pursuant to the rules of the International Court of Arbitration of the International Chamber of Commerce.”) All IANA Functions which modify the Root Zone file or database are affected.

II.B.i.l. If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way (Binding arbitration included in TLD contracts)
This does not affect the policies listed in Section II.A

II.B.i.m. The entity or entities that provide oversight or perform accountability functions (Binding arbitration included in TLD contracts)
For most gTLDs the language is: Disputes arising under or in connection with this Agreement that are not resolved pursuant to Section 5.1, including requests for specific performance, will be resolved through binding arbitration conducted pursuant to the rules of the International Court of Arbitration of the
International Chamber of Commerce. Any arbitration will be in front of a single arbitrator, unless (i) ICANN is seeking punitive or exemplary damages, or operational sanctions, (ii) the parties agree in writing to a greater number of arbitrators, or (iii) the dispute arises under Section 7.6 or 7.7. In the case of clauses (i), (ii) or (iii) in the preceding sentence, the arbitration will be in front of three arbitrators with each party selecting one arbitrator and the two selected arbitrators selecting the third arbitrator.

For the few ccTLDs with a contract, the language relating to this is usually a version of the following: Each party shall nominate one arbitrator, and the two arbitrators so nominated shall, within 30 days of the confirmation of their appointment, nominate the third arbitrator, who will act as Chairman of the Arbitral Tribunal.

II.B.i.n. A description of the mechanism (Binding arbitration included in TLD contracts)
The results of the arbitration are binding on both parties.

II.B.i.o. Jurisdiction and legal basis of the mechanism (Binding arbitration included in TLD contracts)
For gTLDs the arbitration will be conducted in the English language and will occur in Los Angeles County, California, USA.

For ccTLDs that have dispute resolution clauses with ICANN, the place of arbitration needs to be agreed to by both parties. Typically there is language inserted that identifies the law that will be relevant in evaluating each party’s actions, such as the law of the country in which the ccTLD is operated for ccTLDs, and the laws of California for ICANN’s actions.

II.B.i.p. Which IANA service or activity is affected (Applicability of local law for the administration by the IANA Functions Operator of ccTLDs associated with a specific country or territory (ccTLDs)
The NTIA IANA Functions Contract clearly establishes the importance of the GAC Principles 2005 in the delegation and redelegation of ccTLDs.

As such Section 1.7 of the GAC Principles 2005 clearly sets the stage for such oversight by governments:
1.7. It is recalled that the WSIS Plan of action of December 2003 invites “Governments to manage or supervise, as appropriate, their respective country code top-level domain name”. Any such involvement should be based on appropriate national laws and policies. It is recommended that governments should work with their local Internet community in deciding on how to work with the ccTLD Registry.

Within the context provided by Section 1.2 of the same document:

1.2. The main principle is the principle of subsidiarity. ccTLD policy should be set locally, unless it can be shown that the issue has global impact and needs to be resolved in an international framework. Most of the ccTLD policy issues are local in nature and should therefore be addressed by the local Internet Community, according to national law.

Given the IFO currently seeks government approval for all ccTLD delegations and redelegations governments usually limit the use of their power in these matters to redelegations where the local government is requesting a change of ccTLD manager which is not supported by the current manager.

ccTLD delegations and redelegations are affected.

II.B.i.q. If the policy sources identified in Section II.A are affected, identify which ones are affected and explain in what way (Applicability of local law for the administration by the IANA Functions Operator of ccTLDs associated with a specific country or territory (ccTLDs))

This does not affect the policies listed in Section II.A

II.B.i.r. The entity or entities that provide oversight or perform accountability functions (Applicability of local law for the administration by the IANA Functions Operator of ccTLDs associated with a specific country or territory (ccTLDs))

Local law should prevail unless the decision has a global impact.
II.B.i.s. A description of the mechanism (Applicability of local law for the administration by the IANA Functions Operator of ccTLDs associated with a specific country or territory (ccTLDs))
Variable depending on the specific government.

II.B.i.t. Jurisdiction and legal basis of the mechanism Applicability of local law for the administration by the IANA Functions Operator of ccTLDs associated with a specific country or territory (ccTLDs)
Jurisdiction lies in that of the country or territory concerned.
III. Proposed Post-Transition Oversight and Accountability

This section should describe what changes your community is proposing to the arrangements listed in Section II.B in light of the transition. If your community is proposing to replace one or more existing arrangements with new arrangements that replacement should be explained and all of the elements listed in Section II.B should be described for the new arrangements. Your community should provide its rationale and justification for the new arrangements. If your community’s proposal carries any implications for existing policy arrangements described in Section II.A, those implications should be described here. If your community is not proposing changes to arrangements listed in Section II.B, the rationale and justification for that choice should be provided here.

III.A The elements of this proposal

The sections below describe how the transition will affect each of the naming functions identified and what changes, if any, the CWG-Stewardship recommends addressing these effects. In summary, the CWG-Stewardship recommends:

- A new separate legal entity, Post-Transition IANA (PTI), would be formed as an affiliate of ICANN. The existing IANA naming functions, administrative staff and related resources, processes, data and know-how would be legally transferred into PTI.
- ICANN would enter into a contract with PTI, granting PTI the rights and obligations to serve as the IFO for the naming functions. This contract would also include service level agreements for the naming functions.
- Changes proposed to root zone environment and relationship with root zone maintainer

In developing this response the CWG-Stewardship has been mindful of the “Principles and Criteria that Should Underpin Decisions on the Transition of NTIA Stewardship for Naming Related Functions” as developed and agreed by the CWG-Stewardship as included in Annex C.

Note, this section provides the high-level recommendations that should be read in conjunction with the relevant annexes which provide additional details.

III.A.i. PROPOSED POST-TRANSITION STRUCTURE

The objective of Section III is to present the changes required to replace the oversight and accountability performed by the NTIA via the NTIA IANA Functions Contract and NTIA’s role as
Root Zone Management Process Administrator for the naming functions.

Specifically the oversight and accountability roles of the NTIA include the following:

- **In relation to the IANA Functions Contract:**
  - Contract process including selection of operator and cancellation of the contract (accountability);
  - Formal definition of the requirements and expectations of IANA by the NTIA – statement of work (oversight);
  - Establishment and external monitoring of quality control and performance evaluation mechanisms (oversight);
  - Issue resolution (accountability);

- **In relation to NTIA’s role as Root Zone Management Process Administrator:**
  - Approval of all changes to the content of the Root Zone (oversight and accountability);
  - Approval of all changes to the Root Zone environment such as the implementation of DNSSEC (oversight and accountability);
  - Approval of all external communications and reporting by IANA to external parties – not ICANN staff or Board (oversight and accountability);

The public consultation on the CWG-Stewardship’s initial transition proposal of 1 December 2014 confirmed that the respondents were very satisfied with the current arrangements and that any new arrangements should maintain ICANN, as the IFO at the time of transition and implement mechanisms which could ensure similarly effective oversight and accountability while minimizing complexity and costs and maintaining the security, stability and resiliency of the DNS and Internet.

In order to meet community expectations for the stewardship of the naming related IANA Functions, the CWG-Stewardship, working on the premise that there is current satisfaction with ICANN’s IANA department performance and that ICANN should remain the IANA Functions Operator, agreed that a transition proposal for the names community would require the following elements:

- A contract similar to the current NTIA IANA Functions Contract to perform the IANA Functions post-transition;
• The ability for the multistakeholder community to ensure that ICANN acts according to its requests with respect to IANA operations;
• Additional insulation, as needed, between operational and policymaking responsibilities and protections for the IFO;
• A mechanism to approve changes to the Root Zone environment (with NTIA no longer providing oversight);
• The ability to ensure that the IANA Functions are adequately funded by ICANN;
• The ability for the multistakeholder community to require, if necessary and after substantial opportunities for remediation, the selection of a new operator for the IANA Functions.

The CWG-Stewardship has also agreed that approval of all changes to the content of the Root Zone would no longer need authorization and external communications and reporting would no longer need external approval post-transition. This 2nd draft proposal attempts to meet all the above requirements by:

• Creating PTI, a separate legal entity that would be a “wholly owned subsidiary” of ICANN – in legal terms, an “affiliate.” The creation of PTI ensures both functional and legal separation within the ICANN organization.
• Establishing a contract between PTI and ICANN that would give PTI the rights and obligations as the IFO.
• Establishing a Customer Standing Committee (CSC) that is responsible for monitoring IFO performance according to contractual requirements and service level expectations, resolving issues directly with the IFO or escalating them if they cannot be resolved.\(^3\)
• Establishing a series of issue resolution mechanisms to ensure that problems are resolved effectively.
• Ensuring ICANN accepts input from multistakeholder community with respect to the annual IANA operations budget.
• Establishing a framework to approve changes to the Root Zone environment (with NTIA no longer providing oversight).
• Establishing a multistakeholder IANA Function Review (IFR) to conduct periodic and

\(^3\) The CSC would not need to be a legal entity. The CSC could be provided for under the ICANN governance documents and could also be provided for in the ICANN-PTI IANA Functions Contract.
special reviews of PTI.\textsuperscript{4} The results of the IFR are not prescribed or restricted and could include recommendations to the ICANN Board to terminate or not renew the IANA Functions Contract with PTI.

It is important to note that this proposal is significantly dependent on the results of the Cross Community Working Group on Enhancing ICANN Accountability (CCWG-Accountability) for ICANN level accountability requirements. The co-chairs of the CWG-Stewardship and the CCWG-Accountability are effectively coordinating their efforts and the CWG-Stewardship is confident that the CCWG-Accountability recommendations will meet the requirements the CWG-Stewardship has communicated to them. As such any elements in this proposal that are dependent on the results of the CCWG-Accountability work will be identified as such.

**III.A.i.a. Post-Transition IANA (PTI)**

In order to legally “ring fence” the IANA naming functions both functionally and legally from the ICANN entity, the CWG-Stewardship recommends the creation of a Post-Transition IANA (PTI). PTI would be a new legal entity in the form of a non-profit corporation or a limited liability company. The existing IANA naming functions department, administrative staff and related resources, processes, data and know-how would be legally transferred to PTI.\textsuperscript{5}

At the outset, PTI would have as its sole member ICANN. PTI would be a “wholly owned subsidiary” of ICANN – in legal terms, an “affiliate” of ICANN if PTI is a California public benefit corporation without owners. ICANN would provide funding and administrative resources to PTI through an agreed upon budget.

A contract would be entered between PTI and ICANN, which would give PTI the rights and obligations as the IFO. The contract would provide for automatic renewal, but subject to potential non-renewal by ICANN if recommended by the IANA Function Review (see further details below).

\textsuperscript{4} The IANA Function Review (IFR) would be convened periodically (first review two years after the transition is complete, and thereafter at least every five years at most). It could also be convened for a special review under certain circumstances further described in the escalation mechanisms (section III.A.ii.c.). The review could be provided for under the ICANN governance documents and could also be provided for in the ICANN-PTI IANA Functions Contract.

\textsuperscript{5} In the case of any existing ICANN contracts, MoUs or other arrangements that relate to the IANA functions, they could be assigned to and assumed by PTI, replaced by new arrangements at the PTI level or remain at ICANN with a subcontract to PTI.
III.A.i.b. PTI Board
As a separate legal entity, PTI would have a board of directors or managers. The PTI Board could be an ICANN-designated board and have the minimum statutorily required responsibilities and powers. The CWG-Stewardship expects that this would avoid the need to replicate the complexity of the multistakeholder ICANN Board at the PTI level, and maintain primary accountability at the ICANN level. Any issues that arise concerning the PTI and the PTI Board would be addressed through the overarching ICANN accountability mechanisms.6

III.A.i.c. IANA Statement of Work (carryover of provisions noting updates)
The issues currently addressed in the NTIA ICANN Functions Contract and related documents would be addressed either in the ICANN-PTI contract or in ICANN bylaws and governance documents. Furthermore, the CWG-Stewardship expects that a number of existing provisions of the NTIA IANA Functions Contract will be carried over to the PTI Contract in the form of a Statement of Work (SOW), taking into account updates that will need to be made as a result of the changing relationship post-IANA Stewardship Transition as well as other recommendations outlined in Section III. An overview of provisions expected to be carried over can be found in Annex E.

III.A.i.d. IANA Function Review
The CWG-Stewardship recommends that the SOW review be done as part of the IANA Function Review (IFR). The IFR would not only take into account performance against the SOW, but would be obliged to take into account multiple input sources into account including community comments, CSC evaluations, reports submitted by PTI, and recommendations for technical or process improvements. The outcomes of reports submitted to the CSC, reviews and comments received on these reports during the relevant time period will be included as input to the IFR.

The first IFR is recommended to take place no more than 2 years after the transition is completed. After the initial review, the IFR should occur every 5 years. The IANA Function Review should be outlined in the ICANN Bylaws and included as a “fundamental bylaw” as part of the work of the CCWG-Accountability and would operate in a manner analogous to an Affirmation of Commitments (AOC) review. These “fundamental bylaws” would be ICANN bylaws that would require the approval of the multistakeholder community to amend. The approval of a

6 CCWG-Accountability Dependency – see https://community.icann.org/x/TSYnAw
fundamental bylaw could also require a higher threshold than typical bylaw amendments, for example, a supermajority. The members of the IANA Function Review Team (IFRT) would be selected by the Supporting Organizations and Advisory Committees and would include several liaisons from other communities. While the IFRT is intended to be a smaller group, it will be open to participants in much the same way as the CWG-Stewardship.

While the IFR will normally be scheduled based on a regular 5 year cycle with other ICANN reviews, a Special Review may also be initiated following the CSC raising concerns with the GNSO and/or the ccNSO or by concerns raised by TLDs directly with the ccNSO or the GNSO. In the event of a Special Review being proposed, the ccNSO and GNSO should consult with both members and non-member TLDs, in the light of the consultations, the Councils can decide by a supermajority to call for a special review.

For further details, please see Annex F.

III.A.ii. PROPOSED OVERSIGHT & ACCOUNTABILITY REPLACEMENT

III.A.ii.a. Customer Standing Committee (CSC) - Overseeing performance of IANA Functions as they relate to naming services

The CWG-Stewardship recommends the creation of a Customer Standing Committee (CSC) to monitor the performance of PTI with the following mission:

“The Customer Standing Committee (CSC) has been established to perform the operational responsibilities previously performed by the U.S. Department of Commerce National Telecommunications and Information Administration as it relates to the monitoring of performance of the IANA naming function. This transfer of responsibilities took effect on [date].

The mission of the CSC is to ensure continued satisfactory performance of the IANA function for the direct customers of the naming services. The primary customers of the naming services are top-level domain registry operators. Root server operators are also direct customers and Internet users are indirect customers.
The mission will be achieved through regular monitoring by the CSC of the performance of the IANA naming function against agreed service level targets and through mechanisms to engage with the IANA Functions Operator to remedy identified areas of concern.

The CSC is not mandated to initiate a change in the IANA Functions Operator, but could escalate to the ccNSO and/or the GNSO, which might then decide to take further action using agreed consultation and escalation processes (see Annex J).

The complete proposed charter of the CSC can be found in Annex G.

III.A.ii.b. Service Level Expectations

The Service Level Expectation (SLE) Design Team (DT) is comprised of 3 gTLD Registry representatives and 3 ccTLD Representatives. The DT has been in contact with ICANN, including IANA staff.

The DT was asked to review the current IANA functions operations, to record the status-quo in terms of current performance to highlight where IANA is performing well and further to highlight any gaps and issues that it considered in need of further clarification prior to transition from NTIA’s oversight.

The DT also identified gaps in the current documentation used specifically that some Registry Managers prefer to interact with IANA via formal documentation sent by facsimile and some via phone calls. As little is known about these two latter categories, IANA staff are preparing a complete set of current work-flow methods to assist the DT undertake its work.

A set of documents that describe the current work flow processes undertaken for IANA Root Zone Management will be reviewed by the DT after release is approved.

In the interim period and independent of IANA, the DT has conducted an analysis based on historical transactions, using a limited set of real-world activity from published IANA Performance Reports and transaction logs provided by ccTLD Registries interacting with the IANA.

The historical transactions are from September 2013 to January 2015 period, which provided approximately 565 total data points – only 27 transactions took longer than 9 days and 13 took longer than 12 days. It should also be highlighted that some/much of the delay is as a result of the Registry not
responding to IANA to authorize the change request – so the delay is not necessarily within IANA’s control. 4 transactions took longer than 1 year (which is not necessarily a problem if the stability of the DNS is assured).

The DT anticipates having the Service Level Expectation documentation for the post-transition environment completed within one month following receipt of the additional IANA documentation. The current interim findings can be found at: https://community.icann.org/x/CA4nAw.

For further details, please see Annex H.

III.A.ii.c. Escalation Mechanisms
The CWG-Stewardship recommends requiring the continuation, with minor modifications, of a progressive set of escalation steps that can be performed for emergency situations as well as customer service complaints and a new problem management process, as applicable, for individual TLD registry operators, or others with relevant IANA Functions operational issues. Three processes are recommended:7

1. Customer Service Complaint Resolution Process
   This process is for anyone who has a complaint about IANA services.8 The CWG-Stewardship has modified the current process used by ICANN by adding some steps at the end.
2. Problem Resolution Process (for IANA naming services only)
   This is a new process created for persistent performance issues or systemic problems associated with the provision of IANA naming services.9
3. Root Zone Emergency Process
   This process is for TLD managers in cases where expedited handling is required and is the same as the process currently used by ICANN, but reflects the post-transition environment.

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7 Note, nothing in these processes prevents a TLD an operator to pursue other applicable legal recourses that may be available.
8 This process exists today for all IANA services, but the CWG-Stewardship changes intend to apply only to the IANA naming services.
9 It is beyond the scope of the CWG-Stewardship to propose processes that affect other IANA services customers (protocol parameters and numbers). However, should there be an interest in expanding this process to include those customers, those discussions could be held at a later date.
The details of these processes, including proposed modifications to the existing processes to reflect the transition, can be found in Annexes I (Customer Service Complaint Resolution Process), J (Problem Resolution Process (for IANA naming services only)) and K (Root Zone Emergency Process).

**III.A.ii.d. Separation Review**

The CWG-Stewardship recommends that a fundamental bylaw be created to define a Separation Review that can be triggered by an IFR if needed. This would only occur if other escalation mechanisms and methods have been exhausted. This process may include a cross community of the ICANN Supporting Organizations and Advisory Committees which would be formed to review the issues and make recommendations. The recommendations would need to be approved by the ICANN Board and would be subject to all escalations and appeals mechanisms.

There would be no prescribed action for the Separation Review. It would be empowered to make a recommendation ranging from “no action required” to the initiation of an RFP and the recommendation for a new IFO.

For further details please see Annex L.

**III.A.ii.e. Framework for Transition to Successor IANA Functions Operator (Continuity of Operations)**

The CWG-Stewardship recommends the continuation, with modifications, of the current transition framework for the IANA Functions should it be, for whatever reason, necessary for the IANA Functions to be transitioned from the incumbent IFO to a successor IFO. This framework would be set forth in a new contract between ICANN and the IANA Functions Operator (based on this proposal, the IFO would be PTI) and would be based upon the current NTIA-ICANN contract clause C.7.3 “Plan for Transition to Successor Contractor”. The transition framework should be part of the operations and management of the IANA Functions going forward and be considered part of the operator’s business contingency and continuity of operations planning.\(^{10}\) This is a framework only and it is expected – as per the following recommendations – that a full plan will be developed post-IANA Stewardship Transition. The principles and recommendations for the future evolution of the Framework for Transition to Successor IANA Functions Operator include:

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\(^{10}\) The CWG-Stewardship notes that the ICANN Contingency and Continuity of Operations Plan (CCOP) was not able to be released as requested through the DIDP process due to security and stability related concerns.
1. The integrity, stability and availability of the IANA Functions must be the core concern during any transition of the IANA Functions;

2. The transition framework must be further developed into a detailed, fully functional, transition plan within 18 months from the completion of the IANA Stewardship Transition;

3. The budget for IANA operations should be augmented with specific funding for the detailed transition plan development referred to in 2 (above);

4. The process established for the potential transitioning of the IANA Functions to an operator other than the incumbent should specifically recognize that the detailed transition plan referred to in 2 (above) must be in place before the commencement of the transitioning process;

5. Both the incumbent and the successor IANA Functions operators will be required to fully engage in the transition plan and to provide appropriate transition staff and expertise to facilitate a stable transition of the IANA Functions; and

6. Once developed, the full Transition to Successor IANA Functions Operator Plan should be reviewed every year by IANA staff, in conjunction with the CSC/Community as necessary, to ensure that it remains up to date and reviewed every five years to ensure that it remains fit for purpose.

For further information, please see Annex M.

III.A.iii. ROOT ZONE ENVIRONMENT AND ROOT ZONE MAINTAINER

III.A.iii.a. Proposed changes to root zone environment and relationship with Root Zone Maintainer

In relation to the Root Zone Management Process Administrator role that is currently performed by NTIA, the CWG-Stewardship recommends that this role be discontinued post-transition. As a result of this discontinuation the CWG-Stewardship recommends:

1. Changes to the Root Zone Content and the associated WHOIS database.

   Post-transition no authorization for TLD change requests is needed. As such there is a need to:
a. Ensure that the transaction software and associated processes and procedures used by IANA and the Root Zone Maintainer (currently Verisign) to request and process changes no longer require NTIA approval.

b. Ensure that post transition, the Root Zone Maintainer can and will make changes to the Root Zone as requested by IFO.
   i. The NTIA has said that there will be a parallel but separate transition process (yet to be defined) to disengage the NTIA from the Root Zone Maintainer. If that transition is not completed prior to the IANA Stewardship Transition, the Cooperative Agreement will likely have to be amended by the NTIA to allow Verisign, acting as the Root Zone Maintainer, to implement changes to the root zone requested by the IFO without requiring approval from the NTIA.
   ii. If the Root Zone Maintainer transition is completed prior to, or in conjunction with, the IANA Stewardship Transition, the new arrangements must provide a clear and effective mechanism to ensure that PTI can have its change requests for the Root Zone implemented in a timely manner by the Root Zone Maintainer (possibly an agreement between the Root Zone Maintainer and IANA).

c. Determine if additional checks/balances/verifications are required post transition
   The CWG-Stewardship recommends that a formal study be undertaken post transition to investigate whether there is a need to increase (and if so, how) the robustness of the operational arrangements for making changes to the Root Zone content to reduce or eliminate single points of failure. This study should include a risk analysis and cost/benefit analysis factoring in the history and possibility of such problems.

2. Changes to the Root Zone Management Architecture and Operation.
   Per the NTIA IANA Functions Contract, NTIA approval was required for the implementation of all changes to the Root Zone environment such as DNSSEC as well as many classes of changes to IFO processes (including what may be published). As such:
   a. The CWG-Stewardship recommends replacement of this approval function be provided for major architectural and operational changes. The entity responsible for such approvals will establish a process which allows for consultation with the bodies involved in such changes as well as with those with wide experience in the specific technology or process to ensure
that prudent but effective changes are made. The replacement approval function should coordinate with the NTIA at the time of transition to transfer relevant information about any ongoing major architectural and operational changes so that any such ongoing activities are not negatively impacted by the transition.

b. The CWG-Stewardship recommends that for changes internal to IFO and for those related to reports and communications, no external approval shall be needed. Such decision should be made, where appropriate, in consultation with the community, or the approval function referenced in sub-section a.

c. The CWG-Stewardship recommends that post transition IFO budgets must support IFO’s capability to investigate, develop and deploy the type of Root Zone enhancements required to keep the Root Zone and its management evolving.

3. Principle regarding transparency of actions by IFO

The CWG-Stewardship recommends that, to the extent allowed by external agreements and as necessitated by security issues and the need to respect business confidentiality, the IFO should operate in a transparent manner.

4. Control of Root Zone Management.

Currently updating the Root Zone requires the active participation of three parties, the IFO, the Root Zone Maintainer and the NTIA. The IFO receives change requests from various sources, validates them, and sends them to the Root Zone Maintainer who, once they are authorized by the NTIA, updates the Root Zone File, DNSSEC signs it, and distributes it to the Root operators.

Post transition there will only be the IFO and the Root Zone Maintainer. The CWG-Stewardship is not recommending any change in the separation between the two at this time. The CWG-Stewardship is recommending that should there be a proposal to combine the two or make other changes in their respective roles in root zone modification, that it be subject to wide community consultation.

For further details, please see Annex N.
III.A.iv.OTHER

III.A.iv.a. ccTLD Delegation Appeals
The CWG-Stewardship recommends not including any appeal mechanism that would apply to ccTLD delegations and redelegations in the IANA Stewardship Transition proposal. For further information, please see Annex O.

III.A.iv.b. IANA Budget
In order for the multistakeholder community to steward the IANA Functions, the CWG-Stewardship recommends that:

1. The IFO’s comprehensive costs should be transparent for any future state of the IANA Function.
2. Future Fiscal Year (FY) ICANN Operating Plans & Budgets, and if possible even the FY16 ICANN Operating Plan & Budget, include at a minimum itemization of all IANA operations costs in the FY ICANN Operating Plan & Budget to the project level and below as needed.

Further details on the expected detail, based on the information provided in relation to the FY15 budget, can be found in Annex H. Furthermore, the CWG-Stewardship has identified a number of items for future work that can be found in Annex P.

III.A.iv.c. Regulatory and Legal Obligations
The process for handling the requests for statutory waivers or licenses relating to its legal obligations in its place of business (such as, from the U.S. Department of the Treasury’s Office of Foreign Assets control) is a generally-applicable legal obligation regardless of who is serving as the IANA Functions Operator. ICANN already has a process in place for seeking any necessary licenses, and will continue to work with contacts at relevant authorities to identify ways to streamline those requests. A statutory waiver may be possible if a new statute authorizes the transition. Such a statutory waiver could provide that the President may not use trade sanctions with respect to the IANA Functions Operator. For licenses or waivers that relate to the IANA Function, ICANN commits that any licenses or waivers it seeks would also be sought for the IANA

11 CCWG-Accountability Dependency – see [include link to latest communication]
12 The names registries have long requested budget transparency and detail. See for example the work of the ccNSO SOP.
Functions Operator and for the Root Zone Maintainer as well, so that a single request for any applicable entity is required.

III.B Implications for the interface between the IANA Functions and existing policy arrangements

For the IANA naming services, the proposal seeks to retain the functional separation between the policy development processes and the IANA Functions.
IV. Transition Implications – under development

This section should describe what your community views as the implications of the changes it proposed in Section III. These implications may include some or all of the following, or other implications specific to your community:

- Description of operational requirements to achieve continuity of service and possible new service integration throughout the transition.
- Risks to operational continuity and how they will be addressed.
- Description of any legal framework requirements in the absence of the NTIA contract.
- Description of how you have tested or evaluated the workability of any new technical or operational methods proposed in this document and how they compare to established arrangements.
- Description of how long the proposals in Section III are expected to take to complete, and any intermediate milestones that may occur before they are completed.

IV.A Operational requirements to achieve continuity of service and possible new service integration throughout the transition

This section should describe what your community views as the implications of the changes it proposed in Section III.

- Description of operational requirements to achieve continuity of service and possible new service integration throughout the transition.
- Risks to operational continuity and how they will be addressed.

Operational Requirements for Service Continuity and Integration Throughout Transition:

- IANA Service Level Expectations
- CSC
- Architectural Change Oversight/Approval

Risks to Operation Continuity and Mitigation:

- Relationship between the NTIA, IANA and the Root Zone Maintainer
- Framework for Transition to Successor IANA Functions Operator (Continuity of Operations)
- Escalation Mechanisms beyond CSC
- Periodic Review of the IANA Functions
IV.B Description of any legal framework requirements in the absence of the NTIA contract

*This section should describe what your community views as the implications of the changes it proposed in Section III.*

- **Description of any legal framework requirements in the absence of the NTIA contract.**

Legal Framework Requirements:

- Relationship between the NTIA, IANA and the Root Zone Maintainer
- IANA Service Level Expectations
- IANA Problem Management Escalation Process

IV.C Workability of any new technical or operational methods

*This section should describe what your community views as the implications of the changes it proposed in Section III.*

- **Description of how you have tested or evaluated the workability of any new technical or operational methods proposed in this document and how they compare to established arrangements.**

Testing and Evaluation of New Technical or Operational Methods Proposed:

- **Review of relevant CCWG-Accountability Stress Tests**
  - Failure to Meet Operational Expectations
    - 1. Change authority for the Root Zone ceases to function, in part or in whole.
    - 2. Authority for delegations from the Root Zone ceases to function, in part or in whole.
    - 11. Compromise of credentials.
    - 17. ICANN attempts to add a new top-level domain in spite of security and stability concerns expressed by technical community or other stakeholder groups.
    - 21. A government official demands ICANN rescind responsibility for management of a ccTLD from an incumbent ccTLD Manager.
  - Legal/Legislative Action
    - 19. ICANN attempts to redelegate a gTLD because the registry operator is determined to be in breach of its contract, but the registry operator challenges the action and obtains an injunction from a national court.
    - 20. A court order is issued to block ICANN’s delegation of a new TLD because of a complaint by an existing TLD operator or other aggrieved parties.
  - Failure of Accountability to External Stakeholders
    - 25. ICANN delegates or subcontracts its obligations under a future IFO agreement to a third party. Would also include ICANN merging with or allowing itself to be acquired by another organization.

- **SAC-069 Review**
IV.D Length the proposals in Section III are expected to take to complete, and any intermediate milestones that may occur before they are completed

This section should describe what your community views as the implications of the changes it proposed in Section III.

- Description of how long the proposals in Section III are expected to take to complete, and any intermediate milestones that may occur before they are completed.

Proposal Implementation Length and Intermediate Milestones:

- Develop Timeline for Implementation based on Section III details and consider with CCWG Work Stream 1 implementation plans.

V. NTIA Requirements - under development

Additionally, NTIA has established that the transition proposal must meet the following five requirements:

- Support and enhance the multistakeholder model;
- Maintain the security, stability, and resiliency of the Internet DNS;
- Meet the needs and expectation of the global customers and partners of the IANA services;
- Maintain the openness of the Internet.
- The proposal must not replace the NTIA role with a government-led or an inter-governmental organization solution.

This section should explain how your community’s proposal meets these requirements and how it responds to the global interest in the IANA functions.

This proposal addresses each of the NTIA’s requirements as follows:

V.A Support and enhance the multistakeholder model
[To be completed]

V.B Maintain the security, stability, and resiliency of the Internet DNS;
[To be completed]

V.C Meet the needs and expectation of the global customers and partners of the IANA services;
[To be completed]
V.D Maintain the openness of the Internet.
[To be completed]

V.E The proposal must not replace the NTIA role with a government-led or an inter-governmental organization solution.
[To be completed]

VI. Community Process (DRAFT and under development)
This section should describe the process your community used for developing this proposal, including:
- The steps that were taken to develop the proposal and to determine consensus.
- Links to announcements, agendas, mailing lists, consultations and meeting proceedings.
- An assessment of the level of consensus behind your community’s proposal, including a description of areas of contention or disagreement.

VI.A The steps that were taken to develop the proposal and to determine consensus.

VI.A.1 Establishing the CWG-Stewardship
- CWG-Stewardship charter:
  https://community.icann.org/display/gnsocwgdtswardshp/Charter

VI.A.2 Members and Participants
- https://community.icann.org/pages/viewpage.action?pageId=49351381

VI.A.3 Working methods of the CWG-Stewardship
- To be added

VI.A.4 Determining Consensus
- To be added

VI.B Links to announcements, agendas, mailing lists, consultations and meeting proceedings

VI.B.1 Meetings
- Full CWG –Stewardship (meeting dates, agendas, participants and meeting notes) -
  https://community.icann.org/display/gnsocwgdtswardshp/Meetings

VI.B.2 Public Consultations
- 1 December public consultation on first CWG-Stewardship draft transition proposal:
VI.B.3 Webinars and other public presentations

- (URL TBC)

VI.B.4 Mailing list archives:

https://community.icann.org/display/gnsocwgdtstwrdshp/Mailing+List+Archives

VI.B.5 Correspondence (URL TBC)

VI.B.6 Outreach:

https://community.icann.org/display/gnsocwgdtstwrdshp/Outreach+Tracking+CWG-Stewardship

VI.C An assessment of the level of consensus behind your community’s proposal, including a description of areas of contention or disagreement.
Annex A – The Community’s Use of the IANA Functions – Additional Information

a) Root Zone Change Request Management (NTIA IANA Functions Contract: C.2.9.2.a)

- **Description of the function:** Receive and process root zone change requests for TLDs. These change requests include addition of new or updates to existing TLD name servers (NS) and delegation signer (DS) resource record (RR) information along with associated ‘glue’ (A and AAAA RRs). A change request may also include new TLD entries to the root zone.

- **Customers of the function:** TLD registries

- **What registries are involved in providing the function:** Root Zone database.

- **Overlaps or interdependencies:** Policy for entries in the root zone are determined by the ICANN policy setting mechanisms (e.g. for ccTLDs and gTLDs). The IETF standardisation process can create reservations from the global name space so that certain names that otherwise would be valid in the DNS root are disallowed.

b) Root Zone “WHOIS” Change Request and Database Management (NTIA IANA Functions Contract: C.2.9.2.b)

- **Description of the function:** the IFO maintains, updates, and makes publicly accessible a Root Zone “WHOIS” database with current and verified contact information for all TLD registry operators. The Root Zone “WHOIS” database, at a minimum, shall consist of the TLD name; the IP address of the TLD’s nameservers; the corresponding names of such nameservers; the creation date of the TLD; the name, postal address, email address, and telephone and fax numbers of the TLD registry operator; the name, postal address, email address, and telephone and fax numbers of the technical contact for the TLD registry operator; and the name, postal address, email address, and telephone and fax numbers of the administrative contact for the TLD registry operator; reports; date the “WHOIS” record was last updated; and any other information relevant to the TLD requested by the TLD registry operator. IANA shall receive and process root zone “WHOIS” change requests for TLDs.

- **Customers of the function:** TLD registries.

- **What registries are involved in providing the function:** Root Zone WHOIS database.

- **Overlaps or interdependencies:** None

c) Delegation and Redelegation of a Country Code Top Level-Domain (ccTLD) (NTIA IANA
Functions Contract: C.2.9.2.c)

- **Description of the function:** Assigning or re-assigning a manager (sponsoring organization) for a ccTLD registry (including IDN ccTLDs). The IFO applies existing policy frameworks in processing requests related to the delegation and redelegation of a ccTLD, such as RFC 1591 Domain Name System Structure and Delegation, the Governmental Advisory Committee (GAC) Principles And Guidelines For The Delegation And Administration Of Country Code Top Level Domains, and any further clarification of these policies by interested and affected parties. If a policy framework does not exist to cover a specific instance, ICANN will consult with the interested and affected parties, relevant public authorities and governments on any recommendation that is not within or consistent with an existing policy framework. In making its recommendations, ICANN shall also take into account the relevant national frameworks and applicable laws of the jurisdiction that the TLD registry serves.

- **Customers of the function:** ccTLD registries.

- **What registries are involved in providing the function:** Root Zone, Root Zone WHOIS database.

- **Overlaps or interdependencies:** Policy for entries in the root zone are determined both by the ICANN policy setting mechanisms (e.g. for ccTLDs and gTLDs), and by the IETF standardisation process (e.g. for specially reserved names)

d) Delegation and Redelegation of a Generic Top Level Domain (gTLD) (NTIA IANA Functions Contract: C.2.9.2.d)

- **Description of the function:** Assigning or re-assigning a Sponsoring Organization for a gTLD registry. ICANN verifies that all requests related to the delegation and redelegation of gTLDs are consistent with the procedures developed by ICANN. In making a delegation or redelegation recommendation ICANN must provide documentation in the form of a Delegation and Redelegation Report verifying that ICANN followed its own policy framework including specific documentation demonstrating how the process provided the opportunity for input from relevant stakeholders and was supportive of the global public interest.

- **Customers of the function:** gTLD registries

- **What registries are involved in providing the function:** Root Zone, Root Zone WHOIS database.

- **Overlaps or interdependencies:** Policy for entries in the root zone are determined both by the ICANN policy setting mechanisms (e.g. for ccTLDs and gTLDs), and by the IETF
standardisation process (e.g. for specially reserved names)

e) Redelegation and Operation of the .INT TLD (NTIA IANA Functions Contract: C.2.9.4)

- **Description of the function**: Historically, the policy for .INT is described in IETF RFC 1591. The policy allowed registration for both international organizations and for use for international databases for infrastructure use. The policy for INT related to international databases for infrastructure use was determined by the IETF. RFC 3172 recommended that such uses move under ARPA, and the only then-extant use of INT for such infrastructure (the IPv6 reverse mapping tree) was in fact moved under ARPA; all subsequent infrastructure uses have been under ARPA. Since this change, it is only possible for an international treaty organizations to register domain names under INT for use for the organization itself.

- **Customers of the function**: Eligible registrants for registration in .INT (http://www.iana.org/domains/int/policy).

- **What registries are involved in providing the function**: Root Zone database, Root Zone WHOIS, .INT Zone database, .INT WHOIS database.

- **Overlaps or interdependencies**: Historically policy has partially been determined by IETF, however per RFC 3172, .INT is no longer used for international databases for infrastructure use, instead ARPA TLD is used for this.

f) Root Domain Name System Security Extensions (DNSSEC) Key Management (NTIA IANA Functions Contract: C.2.9.2.f)

- **Description of the function**: The IANA Functions Operator is responsible for generating the KSK (key signing key) and publishing its public portion. The KSK used to digitally sign the root zone ZSK (zone signing key) that is used by the Root Zone Maintainer to DNSSEC-sign the root zone.

- **Customers of the function**: Root Zone Maintainer, DNS validating resolver operators.

- **What registries are involved in providing the function**: The Root Zone Trust Anchor.

- **Overlaps or interdependencies**: IETF's creation of algorithm numbers for key types.

g) Root Zone Automation (NTIA IANA Functions Contract: C.2.9.2.e)

- **Description of the function**: A fully automated system that includes a secure (encrypted) system for customer communications; an automated provisioning protocol allowing customers to manage their interactions with the root zone management system; an online
database of change requests and subsequent actions whereby each customer can see a record of their historic requests and maintain visibility into the progress of their current requests; a test system, which customers can use to test the technical requirements for a change request; and an internal interface for secure communications between the IANA Functions Operator; the Administrator, and the Root Zone Maintainer.

- **Customers of the function:** TLD registries.
- **What registries are involved in providing the function:** Root Zone database, Root Zone WHOIS.
- **Overlaps or interdependencies:** N/A

h) **Customer Service Complaint Resolution Process (CSCRP) (NTIA IANA Functions Contract: C.2.9.2.g)**

- **Description of the function:** A process for IANA function customers to submit complaints for timely resolution that follows industry best practice and includes a reasonable timeframe for resolution.
- **Customers of the function:** TLD registries.
- **What registries are involved in providing the function:** n/a
- **Overlaps or interdependencies:** All IANA functions that are customer facing for the names registries.

i) **Management of the Repository of IDN Practices (IANA service or activity beyond the scope of the IANA functions contract)**

- **Description of the function:** The IANA Repository of TLD IDN Practices, also known as the “IDN Language Table Registry”, was created to support the development of the IDN technology as described in the “Guidelines for the Implementation of Internationalized Domain Names (IDNs)”. In addition to making the IDN Tables publicly available on TLD registry websites, the TLD registries may register IDN Tables with the IANA Functions Operator, which in turn will display them online for public access.
- **Customers of the function:** TLD registries.
- **What registries are involved in providing the function:** IDN Language Table Registry
- **Overlaps or interdependencies:** IDNs are based on standards developed and maintained by the IETF.
j) Retirement of the Delegation of TLDs (IANA service or activity beyond the scope of the IANA functions contract)

- **Description of the function**: Retire TLDs from active use.
- **Customers of the function**: TLD registries
- **What registries are involved in providing the function**: Root Zone database, Root Zone WHOIS database.
- **Overlaps or interdependencies:**
Annex B – Oversight Mechanisms in the NTIA IANA Functions Contract

The following is a list of oversight mechanisms found in the NTIA IANA Functions Contract:

<table>
<thead>
<tr>
<th>Ongoing Obligations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C.2.12.a Program Manager.</strong> The contractor shall provide trained, knowledgeable technical personnel according to the requirements of this contract. All contractor personnel who interface with the CO and COR must have excellent oral and written communication skills. &quot;Excellent oral and written communication skills&quot; is defined as the capability to converse fluently, communicate effectively, and write intelligibly in the English language. The IANA Functions Program Manager organizes, plans, directs, staffs, and coordinates the overall program effort; manages contract and subcontract activities as the authorized interface with the CO and COR and ensures compliance with Federal rules and regulations and responsible for the following:</td>
</tr>
<tr>
<td><strong>C.4.1 Meetings -- Program reviews and site visits shall occur annually.</strong></td>
</tr>
<tr>
<td><strong>C.4.2 Monthly Performance Progress Report --</strong> The Contractor shall prepare and submit to the COR a performance progress report every month (no later than 15 calendar days following the end of each month) that contains statistical and narrative information on the performance of the IANA functions (i.e., assignment of technical protocol parameters; administrative functions associated with root zone management; and allocation of Internet numbering resources) during the previous calendar month. The report shall include a narrative summary of the work performed for each of the functions with appropriate details and particularity. The report shall also describe major events, problems encountered, and any projected significant changes, if any, related to the performance of requirements set forth in C.2.9 to C.2.9.4.</td>
</tr>
<tr>
<td><strong>C.4.3 Root Zone Management Dashboard --</strong> The Contractor shall work collaboratively with NTIA and the Root Zone Maintainer, and all interested and affected parties as enumerated in Section C.1.3, to develop and make publicly available via a website, a dashboard to track the process flow for root zone management within nine (9) months after date of contract award.</td>
</tr>
<tr>
<td><strong>C.4.4 Performance Standards Reports --</strong> The Contractor shall develop and publish reports</td>
</tr>
</tbody>
</table>
for each discrete IANA function consistent with Section C.2.8. The Performance Standards Metric Reports will be published via a website every month (no later than 15 calendar days following the end of each month) starting no later than six (6) months after date of contract award.

<table>
<thead>
<tr>
<th>C.4.5 Customer Service Survey (CSS) -- The Contractor shall collaborate with NTIA to develop and conduct an annual customer service survey consistent with the performance standards for each of the discrete IANA functions. The survey shall include a feedback section for each discrete IANA function. No later than 30 days after conducting the survey, the Contractor shall submit the CSS Report to the COR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.5.1 Audit Data -- The Contractor shall generate and retain security process audit record data for one year and provide an annual audit report to the CO and the COR. All root zone management operations shall be included in the audit, and records on change requests to the root zone file. The Contractor shall retain these records in accordance with the clause at 52.215-2. The Contractor shall provide specific audit record data to the CO and COR upon request.</td>
</tr>
<tr>
<td>C.5.2 Root Zone Management Audit Data -- The Contractor shall generate and publish via a website a monthly audit report based on information in the performance of Provision C.9.2 (a-g) Perform Administrative Functions Associated With Root Zone Management. The audit report shall identify each root zone file and root zone “WHOIS” database change request and the relevant policy under which the change was made as well as identify change rejections and the relevant policy under which the change request was rejected. The Report shall start no later than nine (9) months after date of contract award and thereafter is due to the COR no later than 15 calendar days following the end of each month.</td>
</tr>
<tr>
<td>C.5.3 External Auditor - - The Contractor shall have an external, independent, specialized compliance audit which shall be conducted annually and it shall be an audit of all the IANA functions security provisions against existing best practices and Section C.3 of this contract.</td>
</tr>
</tbody>
</table>
Annex C - Principles and Criteria that Should Underpin Decisions on the Transition of NTIA Stewardship for names functions

Final

These principles and criteria are meant to be the basis on which the decisions on the transition of NTIA stewardship are formed. This means that the proposals can be tested against the principles and criteria before they are sent to the ICG.

1. **Security, stability and resiliency**: changes must not undermine the operation of the IANA Functions and should assure accountability and objectivity in the stewardship of the service.

2. Transition should be subject to adequate stress testing.

3. Any new IANA governance mechanisms should not be excessively burdensome and should be fit for purpose.

4. Support the open Internet: the transition proposal should contribute to the open and interoperable Internet.

5. **Accountability and transparency**: the service should be accountable and transparent.
   
   i. **Transparency**: transparency is a prerequisite of accountability. While there might be confidentiality concerns or concerns over operational continuity during the process of delegation or redelegation of a TLD, the final decision and the rationale for that decision should be made public or at least be subject to an independent scrutiny as part of an ex-post assessment of service performance; Unless prevented or precluded by confidentiality, any and all audit reports and other review materials should be published for inspection by the larger community;

   ii. **Independence of accountability**: accountability processes should be independent of the IANA Functions Operator\(^\text{13}\) and should assure the accountability of the IANA Functions Operator to the inclusive global multistakeholder community;

   iii. **Independence of policy from IANA**: the policy processes should be independent of the IANA Functions Operator. The IANA Functions Operator’s role is to implement changes in accordance with policy agreed through the relevant bottom-up policy process;

   iv. **Protection against Capture**: safeguards need to be in place to prevent capture of the service or of any IANA oversight or stewardship function;

   v. **Performance standards**: the IANA Functions Operator needs to meet agreed service levels and its decisions should be in line with agreed policy. Processes need to be in place to monitor

\(^{13}\) The term IANA Functions Operator means the unit that provides the service.

\(^{14}\) A group can be considered captured when one or more members are able to effectively control outcomes despite a lack of agreement from other stakeholders whose agreement or non-objection would be required to achieve consensus. Conditions for consensus will need to be agreed appropriate for the group.
performance and mechanisms should be in place to remedy failures. A fall-back provision also needs to be in place in case of service failure; and

vi. **Appeals and redress:** any appeals process should be independent, robust, affordable, timely, provide binding redress open to affected parties and be open to public scrutiny. Appeals should be limited to challenging the implementation of policy or process followed, not the policy itself.

6. **Service levels:** the performance of the IANA Functions must be carried out in a reliable, timely and efficient manner. It is a vital service and any proposal should ensure continuity of service over the transition and beyond, meeting a recognized and agreed quality of service and in line with service-level commitments;

   i. Service level commitments should be adaptable to developing needs of the customers of the IANA Function and subject to continued improvement; and

   ii. Service quality should be independently audited (ex-post review) against agreed commitments.

7. **Policy based:** decisions and actions of the IANA Functions Operator should be made objectively based on policy agreed to through the recognised bottom-up multistakeholder processes. As such, decisions and actions of the IANA Functions Operator should:

   i. Be predictable: decisions are clearly rooted in agreed and applicable policy as set by the relevant policy body;

   ii. For ccTLDs - Respect national laws and processes, as well as any applicable consensus ICANN policies and IETF technical standards. Post transition of the IANA Functions, the IANA Functions Operator will continue to provide service to existing registries in conformance with prevailing technical norms, conforming with policy decisions of registries and the security and stability of the root zone itself.

   iii. Be non-discriminatory;

   iv. Be auditable (ex-post review); and

   v. Be appealable by significantly interested parties.

8. **Diversity of the Customers of the IANA Functions:**

   i. The IANA Functions operator needs to take account the variety of forms of relationship with TLD operators. The proposal will need to reflect the diversity of arrangements in accountability to the direct users of the IANA Functions;

   ii. For ccTLDs: the IANA Functions Operator should provide a service without requiring a contract and should respect the diversity of agreements and arrangements in place for ccTLDs. In particular, the IANA Functions Operator should not impose any additional requirements on
the registry unless they are directly and demonstrably linked to global security, stability and resilience of the DNS.

iii. For gTLDs: the IANA Function Operator should continue to provide service notwithstanding any on-going or anticipated contractual disputes between ICANN and the gTLD operator. No additional requirements for prompt delivery of IANA services should be imposed unless they are directly and demonstrably linked to global security, stability and resilience of the DNS.

9. **Separability:** any proposal must ensure the ability:

   i. To separate the IANA Functions from the current operator (i.e. ICANN) if warranted and in line with agreed processes;

   ii. To convene a process for selecting a new IANA Functions Operator; and

   iii. To consider separability in any future transfer of the IANA Functions.

10. **Multistakeholderism:** any proposal must foster multistakeholder participation in the future oversight of the IANA Functions.
Annex D – Diagram

[To be added]
Annex E – IANA Contract Provisions to be carried over post-transition (Statement of Work)

The following provisions of the IANA Functions Contract are expected to be carried over to the IANA Statement of Work (and included in the ICANN-PTI Contract) noting that updates will need to be made to reflect the changing relationship with NTIA post-transition, ensure consistency in terminology as well as updates as the result of other recommendations in the transition proposal:

- C.1.3. – Working relationship with all affected parties
- C.2.6 - Transparency and Accountability
- C.2.7. Responsibility and respect for stakeholders
- C.2.8 - Performance Standards
- C.2.9.2.a - Root Zone File Change Request Management
- C.2.9.2.b - Root Zone WHOIS Change Request and Database Management
- C.2.9.2.c - Delegation and Redelegation of a Country Code Top Level Domain (a similar provision should be created concerning retirement of a Country Code Top Level Domain)
- C.2.9.2.d - Delegation And Redelegation of a Generic Top Level Domain (gTLD)
- C.2.9.2.e – Root zone Automation
- C.2.9.2.f - Root Domain Name System Security Extensions (DNSSEC) Key Management
- C.2.12.a – Qualified Program Manager
- C.3.1 – Secure Systems
- C.3.2. – Secure System Notification
- C.3.3. – Secure Data
- C.3.4. - Security Plan
- C.3.5. – Director of Security
- C.4.2. – Monthly Performance Progress Report
- C.4.3 - Root Zone Management Dashboard
- C.4.4 – Performance Standards Reports
- C.4.5. - Customer Service Survey
- C.5.1. – Audit Data
- C.5.2 – Root Zone Management Audit Data
- C.5.3 – External Auditor
- C.6.1. Conflict of interest
- C.6.2. – Conflict of Interest Officer
- Sub-sections of C.6.2 (C.6.2.1-5) - additional conflict of interest requirements.
- C.7.1. – Redundancy
- C.7.2. – Contingency plan
- C.7.3. – Transition to a Successor Contractor
- C.12.b – Key personnel
- Baseline requirements for DNSSEC in the authoritative root zone
Annex F – IANA Function Reviews - Statement of Work Duration and Review Periodicity

What period (duration) should be covered by the first statement of work post-transition?
It is critical that any proposal provide opportunities to improve the performance of the IANA Functions Operator as it relates to naming as well as to review the proposed oversight structure against the needs of its customers and the ICANN community. This is especially important in the initial period following the transition of the NTIA’s stewardship over the IANA Functions, in order to account for lessons learned as a result of the IANA Stewardship Transition, to review the effectiveness of new structures created pursuant to the IANA Stewardship Transition, and to address any implications for IANA Functions Operator’s performance. As a result, the CWG-Stewardship recommends that the initial IANA Statement of Work (IANA SOW) for the naming functions be reviewed no more than two years from the date of the IANA Stewardship Transition. This review would be led by a multistakeholder body drawn from the ICANN community.

Following the initial review period of two years from the date of the IANA Stewardship Transition, a longer period in between reviews would be advisable to avoid the constant flow of reviews, while still accounting for emerging or evolving needs of IANA Customers and the ICANN community. We recommend that subsequent reviews be initiated on a calendar basis15 with a recommended standard period of once every five years.

While the IANA Function Review will normally be scheduled based on a regular 5 year rotation with other ICANN reviews, a Special Review may be also be initiated by community action.

Reviews would be focused on identifying necessary changes or amendments to the existing statement of work. The outcomes of an IANA Function Review are not limited and could include a variety of recommendations.

What should be the process for reviewing or amending IANA SOWs (including approval by the community and acceptance by ICANN)?

The review could identify recommended amendments to the IANA SOW to address any performance deficiencies, or to the Charter of the Customer Standing Committee to address any issues or
deficiencies. The process of developing and approving amendments would take place through a defined process that included, at minimum, the following steps, in advance of an amendment to either document being proposed:

- Consultation with the IANA Functions Operator;
- Consultation with the CSC;
- Public input session for ccTLD and gTLD operators; and
- Public comment period.

Drafted amendments would be subject to at least the following processes before they came into effect:

- Public comment period;
- Ratification by the ccNSO and the GNSO; and
- Approval by the ICANN Board.

The timeline for implementing any amendments to the IANA SOW would be agreed to between the IANA Function Review Team and the IANA Functions Operator.

**Scope of IANA Function Reviews**

At minimum, the IANA Function Review and the IANA SOW would consider the following:

- The performance of the IANA Functions Operator against the requirements set forth in the IANA SOW;
- Any necessary additions to the IANA SOW to account for the needs of consumers of the IANA naming functions or the ICANN community at large;
- Openness/transparency procedures for the IANA Functions Operator and any oversight structures, including reporting requirements and budget transparency;
- The effectiveness of new structures created to carry out IANA oversight in monitoring performance and handling issues with the IANA Functions Operator;
- The relative performance of the IANA Functions pre- and post-transition according to established service levels; and
- Discussion of process or other improvements suggested by the CSC or community.

At minimum, the following inputs would be considered as a part of the review:

- The current IANA SOW;
• Regular reports provided by the IANA Functions Operator during the defined review period including:
  ○ Monthly performance reports;
  ○ Delegation/redelegation reports;
  ○ Annual IANA Audits;
  ○ Security Process Reports;
  ○ RZM Data Audits;
  ○ Response to IANA Customer Satisfaction Surveys;\(^\text{16}\) and
  ○ Conflict of Interest Enforcement and Compliance Report.

• Inputs by the CSC including:
  ○ Issues flagged in reviewing above reports;
  ○ Public transcripts and meeting minutes;
  ○ Inputs related to the effectiveness of any remediation efforts with the IANA Functions Operator; and
  ○ Annual evaluation of IANA Functions Operator performance.

• Community inputs through Public Consultation Procedures defined by the IANA Function Review Team, potentially including:
  ○ Public Comment Periods;
  ○ Input at in-person sessions during ICANN meetings;
  ○ Responses to public surveys related to IANA Functions Operator performance; and
  ○ Public inputs during meetings of the IANA Function Review Team.

**What are the goals of the reviews?**

In reviewing the above data points the goal of the IANA Function Review Team would be:

• To evaluate the performance of the IANA Functions Operator and any related oversight bodies vis-à-vis the needs of its direct customers and the expectations of the broader ICANN community;
• To evaluate the performance of any IANA oversight bodies with respect to the responsibilities set forth in their charters;
• To consider and assess any changes effected since the last IANA Function Review and their implications for the performance of the IANA Naming Functions; and

\(^{16}\) It is expected that these reports be retained for the duration of the reporting period, and be made available to members of the IANA Function Review Team (to the extent that they are not published publically).
• To identify areas for improvement in the performance of the IANA Functions and associated oversight mechanisms.

Any recommendations would be expected to identify improvements in these areas that were supported by data and associated analysis about existing deficiencies and how they could be addressed.

**Composition of Review Teams**

**Who are the relevant stakeholders?**

All stakeholder groups represented at ICANN would be relevant for the reviews done by the IANA Function Review Team\(^\text{17}\). Additionally the Number and Protocol operational communities would each be offered the opportunity to name a liaison to the review group. The IANA Function Review Team would be composed as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>IFRT Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccNSO</td>
<td>1</td>
</tr>
<tr>
<td>ccTLDs (non-ccNSO)</td>
<td>1</td>
</tr>
<tr>
<td>Registry Stakeholder Group (RySG)</td>
<td>2</td>
</tr>
<tr>
<td>Registrar Stakeholder Group (RsSG)</td>
<td>1</td>
</tr>
<tr>
<td>Commercial Stakeholder Group (CSG)</td>
<td>1</td>
</tr>
<tr>
<td>Non-Commercial Stakeholder Group (NCSG)</td>
<td>1</td>
</tr>
<tr>
<td>Government Advisory Committee (GAC)</td>
<td>1</td>
</tr>
<tr>
<td>Security and Stability Advisory Committee (SSAC)</td>
<td>1</td>
</tr>
<tr>
<td>Root Server Operators Advisory Committee (RSSAC)</td>
<td>1</td>
</tr>
<tr>
<td>At-Large Advisory Committee (ALAC)</td>
<td>1</td>
</tr>
<tr>
<td>CSC Liaison</td>
<td>1</td>
</tr>
</tbody>
</table>

Additionally an IANA Functions’ Operator staff member would be appointed as a point of contact for the IANA Function Review Team.

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\(^{17}\) It has not yet been determined the manner in which the community function is implemented in most cases. The assumption is that the larger solutions in CWG-Stewardship & CCWG-Accountability will determine the possible forms for the community function activities. In some cases the Community Function may be expressed by an on-demand cross community group, at other times it might be represented by a mechanism that gathers the views of the various SOs and ACs.
What body should coordinate reviews?

An IANA Function Review Team should be convened once every five years (or two years from the date of transition for the initial review) for the purpose of leading a review of the IANA SOW and the additional performance parameters defined above. The IANA Function Review Team would not be a standing body and would be reconstituted for every IANA Function Review.

Individuals interested in participating in the IANA Function Review Team would submit an Expression of Interest that includes a response addressing the following matters:

- Why they are interested in becoming involved in the IANA Function Review Team;
- What particular skills they would bring to the IANA Function Review Team;
- Their knowledge of the IANA Functions;
- Their understanding of the purpose of the IANA Function Review Team; and
- That they understand the time necessary required to participate in the review process and can commit to the role.

Supporting Organizations or Advisory Committees, in accordance with their respective internally defined processes, would appoint individuals that had submitted expressions.

What is the scope of its responsibility for leading the review?

The IANA Function Review Team defined above will have the primary responsibility for carrying out the IANA performance review, including:

- Review and evaluation of the review inputs defined above;
- Initiation of public comment periods and other processes for wider community input;
- Considering inputs received during public comment periods and other procedures for community input; and
- Development of recommendations on changes to the IANA Statement of Work, to IANA Functions Operator performance.

The IANA Function Review will be a high-intensity project and all members selected are expected to participate actively in the work of the IANA Function Review Team.
The IANA Functions Operator will provide Secretariat support for the IANA Function Reviews.

**What sort of process structure is warranted (what is the timeline? what are the working methods?)?**

We recommend that the IANA Function Review be organized along the same ICANN Cross Community Working Group guidelines that have developed over the past years and which have been used successfully in the process of developing the IANA Stewardship Transition recommendations. As with the CWG-Stewardship, this review group would be co-chaired by someone designated by the GNSO and someone designated by the ccNSO. The groups would work on a consensus basis. In the event that consensus could not be reached, the IANA Function Review Team could decide by a majority vote of the group members.

We expect that this process should take nine (9) months from the appointment of members to the IANA Function Review Team to the publication of a Final Report, including conducting two 40-day public comment periods.

**How is the wider community involved in such a review?**

As with other Cross Community Working Groups, we recommend that all mailing lists and meetings would be open to interested participants and transparent, with recordings and transcripts made available to the public. At several stages in the process, community comment will be requested:

- Near the beginning of the process, the community will be asked to consider issues relevant to the review; and
- Midway through the process, a draft report will be provided for community review.

Once the final report is prepared, it will be provided to the community.

**What should trigger reviews?**

Similar to the Affirmation of Commitment (AoC) Reviews, the IANA Function Review will be triggered on a calendar basis, with the first call for expressions of interest being scheduled to kick off one year from the date of the IANA Stewardship Transition to allow sufficient time to convene the IANA Function Review Team and complete the IANA Function Review within two years of the date of the IANA Stewardship Transition. Subsequent reviews will be scheduled to commence at five year intervals from the date of the initial IANA Function Review.
A Special Review may be also be initiated upon recommendation by super-majority of both the GNSO and ccNSO following escalation by the CSC:

- CSC remedial action procedures are exhausted and fail to address the identified deficiency
- Defined escalation procedures are exhausted and fail to address the identified deficiency
- Defined accountability mechanisms are exhausted and fail to remedy the identified deficiency
- Decision to initiate a separation process is supported by a supermajority of both Naming Supporting Organizations (ccNSO, GNSO),

We recommend that the requirement to conduct and facilitate these reviews be articulated in the ICANN Bylaws and included as a Fundamental Bylaw under consideration by CCWG-Accountability. In addition, the review could be set forth in the contract between ICANN and Post-Transition IANA or PTI.

**Table of Reviews**

<table>
<thead>
<tr>
<th>Review Type</th>
<th>Frequency</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>IANA Function Review (IRF) including: Statement Of Work (SOW)</td>
<td>Initially after two years, then moving to every 5 years; Can also be triggered by the ICANN community</td>
<td>IANA Function Review Team</td>
</tr>
<tr>
<td>Review monthly performance report</td>
<td>Monthly</td>
<td>CSC</td>
</tr>
<tr>
<td>Site visit</td>
<td>On-demand</td>
<td>IRT</td>
</tr>
<tr>
<td>Review CSC report on IANA Functions Operator performance SOW report</td>
<td>Annual</td>
<td>AC/SO/ICANN Comment period ICANN Board</td>
</tr>
<tr>
<td>Review performance metrics</td>
<td>Quarterly</td>
<td>CSC</td>
</tr>
<tr>
<td>Review customer survey report</td>
<td>Yearly</td>
<td>CSC</td>
</tr>
<tr>
<td>Task</td>
<td>Frequency</td>
<td>Responsible Party</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Review security audit process report</td>
<td>Annual</td>
<td>CSC</td>
</tr>
<tr>
<td>Review RZM audit report</td>
<td>Quarterly</td>
<td>CSC RZOs</td>
</tr>
<tr>
<td>Review annual audit report</td>
<td>Annually</td>
<td>CSC with community input, ie. open ICANN comments</td>
</tr>
<tr>
<td>Review COI Enforcement Compliance audit report</td>
<td>Annually</td>
<td>Community review (AC/SO/Board) with comments to IANA</td>
</tr>
</tbody>
</table>
Annex G – Proposed Charter of the Customer Standing Committee (CSC)

Mission

The Customer Standing Committee (CSC) has been established to perform the operational responsibilities previously performed by the U.S. Department of Commerce National Telecommunications and Information Administration (NTIA) as it relates to the monitoring of performance of the IANA naming function. This transfer of responsibilities took effect on [date].

The mission of the CSC is to ensure continued satisfactory performance of the IANA function for the direct customers of the naming services. The primary customers of the naming services are top-level domain registry operators, but also include root server operators and other non-root zone functions.

The mission will be achieved through regular monitoring by the CSC of the performance of the IANA naming function against agreed service level targets and through mechanisms to engage with the IANA Functions Operator to remedy identified areas of concern.

The CSC is not mandated to initiate a change in the IANA Functions Operator, but could escalate to the ccNSO and/or the GNSO, which might then decide to take further action using agreed consultation and escalation processes.

Scope of Responsibilities

The CSC is authorised to monitor the performance of the IANA naming function against agreed service level targets on a regular basis.

The CSC will analyse reports provided by the IANA Functions Operator on a monthly basis and publish their findings.

The CSC is authorised to undertake remedial action to address poor performance in accordance with the Remedial Action Procedures (see illustrative procedures at the end of this annex).

In the event performance issues are not remedied to the satisfaction of the CSC, despite good-faith attempts to do so, the CSC is authorised to escalate through the ccNSO and GNSO using agreed consultation and escalation processes.
Complaints of unsatisfactory performance from individual registry operators are first to be directed to the IANA Functions Operator who should be given a reasonable opportunity to remedy the issue so that the CSC’s focus is on the resolution of systemic and persistent technical issues raised by customers. The CSC may receive complaints from individual registry operators regarding the performance of the IANA Naming Function; however, the CSC will not become involved in a direct dispute between any registry operator and IANA.

The ICANN bylaws make clear that it must apply policies consistently, neutrally, objectively and fairly, without singling any party out for discriminatory treatment; which would require transparent fairness in its dispute resolution processes. Members of the CSC should accordingly disclose any conflicts of interest adverse to the particular complainant they may have in addressing particular issues, and the CSC should have the power to exclude from a particular dispute any member deemed by the majority of other members not to be free of such conflicts of interest in addressing any particular issue.

The CSC will, on an annual basis or as needs demand, conduct a consultation with the IANA Functions Operator, the primary customers of the naming services, and the ICANN community about the performance of the IANA Functions Operator. This consultation is expected to include any changes to the IANA naming services that are underway or are anticipated in the future.

In the event a change in IANA naming services is anticipated, the CSC is authorised to establish an ad-hoc committee of technical and other experts to oversee the changes, in accordance with a defined process.

The CSC, in consultation with registry operators, is authorised to discuss with the IANA Functions Operator ways to enhance the provision of IANA’s operational services to meet changing technological environments; as a means to address performance issues; or other unforeseen circumstances. In the event it is agreed that a material change in IANA naming services or operations would be beneficial, the CSC reserves the right to call for a community consultation and independent validation, to be convened by the IANA Functions Operator, on the proposed change. Any recommended change must be approved by the ccNSO and RySG.
The IANA Functions Operator would be responsible for implementing any recommended changes and must ensure that sufficient testing is undertaken to ensure smooth transition and no disruption to service levels.

**Membership Composition**

The CSC should be kept small and comprise representatives with direct experience and knowledge of IANA naming functions. At a minimum the CSC will comprise:

- 2 x gTLD registry operators
- 2 x ccTLD registry operators
- 1 additional TLD representative not considered a ccTLD or gTLD registry operator such as the IAB for .ARPA could also be included in the minimum requirements but is not mandatory
- 1 Liaison from IANA

Liaisons can also be appointed from the following organisations; however, providing a Liaison is not mandatory for any group:

- 1 Liaison each from other ICANN Supporting Organizations and Advisory Committees:
  - GNSO (non-registry)
  - RSSAC
  - SSAC
  - GAC
  - ALAC

The Chair of the CSC will be elected on an annual basis by the CSC. Ideally the Chair will be a direct customer of the IANA naming function, and cannot be the IANA Functions Operator Liaison.

The CSC and the IANA Functions Operator will nominate primary and secondary points of contact to facilitate formal lines of communication.

**Membership Selection Process**

Members and Liaisons to the CSC will be appointed by their respective communities in accordance with internal processes. However, all candidates will be required to submit an Expression of Interest that includes a response addressing the following matters:

- why they are interested in becoming involved in the CSC;
- what particular skills they would bring to the CSC;
- their knowledge of the IANA Functions;
• their understanding of the purpose of the CSC; and
• that they understand the time necessary required to participate in the CSC and can commit to the role.

Interested candidates should also include a resume or curriculum vitae or biography in support of their Expression of Interest.

While the ccTLD and gTLD members and Liaisons will be appointed by the ccNSO and RySG respectively, registry operators that are not participants in these groups will be eligible to participate in the CSC as members or Liaisons.

The full membership of the CSC must be approved by the ccNSO and the GNSO. While it will not be the role of the ccNSO and GNSO to question of validity of any recommended appointments to the CSC they will take into account the overall composition of the proposed CSC in terms of geographic diversity and skill sets.

Terms
CSC appointments will be for a two-year period with the option to renew for up to two additional two-year period. The intention is to stagger appointments to provide for continuity and knowledge retention.

To facilitate this, at least half of the inaugural CSC appointees will be appointed for an initial term of three years. Subsequent terms will be for two years.

CSC appointees must attend a minimum of 9 meetings in a one-year period, and must not be absent for more than two consecutive meetings. Failure to meet this requirement may result in the Chair of the CSC requesting a replacement from the respective organisation.

Recall of members
Any CSC appointee can be recalled at the discretion of their appointing community.

In the event that a ccTLD or gTLD registry representative is recalled, a replacement must be provided in order to participate in the next meeting of the CSC.
The CSC may also request the recall of a member of the CSC in the event they have not met the minimum attendance requirements. The appointing community will be responsible for finding a suitable replacement.

Meetings
The CSC shall meet at least once every month via teleconference at a time and date agreed by members of the CSC.

The CSC will provide regular updates, no less than 3 per year, to the direct customers of the IANA naming function. These updates may be provided to the RySG and the ccNSO during ICANN meetings.

The CSC will also consider requests from other groups to provide updates regarding the IANA Functions Operator’s performance.

Record of Proceedings
Minutes of all CSC teleconferences will be made public within five business days of the meeting.

Any remedial action will also be reported by the CSC.

Information sessions conducted during ICANN meetings will be open and posting of transcripts and presentations will be done in accordance with ICANN’s meeting requirements.

Secretariat
The IANA Functions Operator will provide Secretariat support for the CSC. The IANA Functions Operator will also be expected to provide and facilitate remote participation in all meetings of the CSC.

Review
The Charter will initially be reviewed by a committee of representatives from the ccNSO and the RySG one year after the first meeting of the CSC. The review is to include the opportunity for input from other ICANN stakeholders. Any recommended changes are to be ratified by the ccNSO and the GNSO.

Thereafter, the Charter will be reviewed at the request of the CSC, ccNSO or GNSO.
The effectiveness of the CSC will initially be reviewed two years after the first meeting of the CSC; and then every three years thereafter. The method of review will be determined by the ccNSO and GNSO.

The CSC or the IANA Functions Operator can request a review or change to service level targets. Any proposed changes to service level targets as a result of the review must be agreed by the ccNSO and GNSO.

Proposed Remedial Action Procedures

This proposal is illustrative of what could be included in the Remedial Action Procedures. It is anticipated that the Procedures would be agreed between the CSC and the IANA Functions Operator prior to implementation.

<table>
<thead>
<tr>
<th>Occurs</th>
<th>Notification</th>
<th>1st Escalation</th>
<th>2nd Escalation</th>
<th>3rd Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● Process control limit exceeded</td>
<td>● Corrective action plan late</td>
<td>● Corrective action plan late</td>
<td>● Corrective action plan from 2nd escalation not delivered or executed timely.</td>
</tr>
<tr>
<td></td>
<td>● IANA customer presents evidence that IANA did not meet SLA</td>
<td>● Corrective action plan milestones missed</td>
<td>● Corrective action plan milestones missed</td>
<td>● Additional similar violations occur when corrective action from 2nd escalation is supposed to be in place</td>
</tr>
<tr>
<td></td>
<td>● IANA periodic report indicates SLA not met</td>
<td>● Two or more additional “notification” violations occur while corrective action plan is open</td>
<td>● Two or more additional “notification” violations occur while corrective action plan is supposed to be in place</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Addressee</th>
<th>IANA Manager</th>
<th>IANA Manager</th>
<th>GDD President</th>
<th>ICANN Board, CEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Content</td>
<td>● Identify SLA breach and evidence</td>
<td>● Identify SLA breach and evidence</td>
<td>same as previous</td>
<td>same as previous</td>
</tr>
<tr>
<td></td>
<td>● Conference call request to discuss issues raised by CSC message.</td>
<td>● Conference call request to discuss issues raised by CSC message.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement</td>
<td>corrective action requirement</td>
<td>same as previous plus</td>
<td>same as previous plus</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>Time frame</td>
<td>Time frame</td>
<td>independent review triggered of ICANN operations to recommend organizational change and determine whether IANA operator can continue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify party requiring response</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agreement that SLA violation occurred (or evidence to contrary)</td>
<td>Reissue corrective action plan to:</td>
<td>organizational, operational changes to correct lack of corrective action</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>- Remediate earlier failed plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correction made on individual case</td>
<td>- Include new violations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrective action plan to:</td>
<td>Corrective action plan milestones missed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- remedy current situation</td>
<td>Two or more additional “notification” violations occur while corrective action plan is open</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- prevent future occurrence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrective action plan required in 14-days</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex H – Service Level Expectations

To review the SLEs that are currently under discussion, please see
https://community.icann.org/x/CA4nAw. Please note that these have not been agreed nor reviewed by
the full CWG-Stewardship at the time of publication of this report.
Annex I – IANA Customer Service Complaint Resolution Process for Naming Related Functions

(Modified Procedure)

Refer to the existing ICANN-IANA process at http://www.iana.org/help/escalation-procedure. If anyone experiences an issue with the IANA Functions Operator’s delivery of the IANA services, then it should be reported to the IANA Functions Operator as follows. This process should be used in cases where response has been too slow, where a possible mistake has been made or when there appears to have been inequitable service delivery.

**Phase 1 – Initial remedial process for IANA Naming Functions**

The complainant could send an e-mail to escalation@iana.org and provide the ticket numbers of the requests where the problem arose. If the problem is not resolved, IANA staff will escalate the problem to the following team members in this order as applicable:

a. IANA Function Liaison for Root Zone Management
b. IANA Functions Program Manager
c. Ombudsman (voluntary step)

Efforts are made to resolve complaints as soon as possible but the structured process above allows escalation of complaints to the IANA management team. If, at any point, the complainant is not satisfied with the resolution process, the complainant can use the Ombudsman (or similar process) instead.

**Who can use the process?**

This process is open to anyone\(^\text{18}\). The functions include:

- Protocol Parameters management, including the management of the .ARPA TLD
- Root Zone Management
- Root DNS Key Signing Key Management
- Internet Number Resources Allocation
- Management of the .INT TLD

**What information must be provided?**

In addition to providing the ticket numbers for the requests where the problem arose, the customer should provide any other information that may be needed to understand and resolve the complaint.

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\(^{18}\) Including individuals, ccTLD regional organizations, ICANN SO/ACs, etc.
What is the expected time line?
Receipt of a complaint will be acknowledged within one business day and a substantive response will be sent within two business days. Efforts will be made to resolve complaints as soon as possible.

Is there another resolution process?
The Ombudsman or similar service can help resolve problems using Alternative Dispute Resolution techniques. (In the case of the current IANA Functions Operator, the Ombudsman web pages have more details.)

Escalation Contact Information for the current IANA Functions Operator (ICANN)

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>IANA</td>
<td>IANA Staff</td>
<td><a href="mailto:iana@iana.org">iana@iana.org</a></td>
</tr>
<tr>
<td>IANA Function Liaison for Technical Protocol Parameters Assignment</td>
<td>Michelle Cotton</td>
<td><a href="mailto:michelle.cotton@icann.org">michelle.cotton@icann.org</a></td>
</tr>
<tr>
<td>IANA Function Liaison for Root Zone Management</td>
<td>Kim Davies</td>
<td><a href="mailto:kim.davies@icann.org">kim.davies@icann.org</a></td>
</tr>
<tr>
<td>IANA Function Liaison for Internet Number Resource Allocation</td>
<td>Naela Sarras</td>
<td><a href="mailto:Naela.sarras@icann.org">Naela.sarras@icann.org</a></td>
</tr>
<tr>
<td>IANA Functions Program Manager</td>
<td>Elise Gerich</td>
<td><a href="mailto:elise.gerich@icann.org">elise.gerich@icann.org</a></td>
</tr>
<tr>
<td>Ombudsman</td>
<td>Chris LaHatte</td>
<td><a href="mailto:ombudsman@icann.org">ombudsman@icann.org</a></td>
</tr>
</tbody>
</table>

In an issue is escalated to members of the IANA team and/or to the Ombudsman or equivalent, the CSC is notified of the issue for informational purposes only.

Phase 2 (for IANA naming services only)
Should the issue not be resolved after phase 1, the following escalation mechanisms will be made available to direct customers:\(^\text{19}\):

\(\text{a.} \) If issue is not addressed, the complainant (direct customer) may request mediation\(^\text{20}\)

\(^{19}\) Non-direct customers, including TLD organizations, that are of the view that an issue has not been addressed through step 1 may escalate the issue to the ombudsman or via the applicable liaisons to the Customer Standing Committee to step 2.

\(^{20}\) If this is approved by the CWG, it would require further implementation work that would need to be done after approval of this step in the process and before the transition occurs.
b. CSC is notified of the issue by complainant and/or IANA Functions Operator. CSC reviews to determine whether the issue is part of a persistent performance issue and/or is an indication of a possible systemic problem. If so, the CSC may seek remediation through the Problem Resolution Process (Annex J).

c. The complainant (direct customer) may initiate an Independent Review Process, if the issue is not addressed.
Annex J - IANA Problem Resolution Process (for IANA naming services only)

(New procedure)

Problem Management (including responding to persistent performance issues or systemic problems)

The Customer Standing Committee (CSC) is authorized to monitor the performance of the IANA Functions against agreed service level targets on a regular basis. In the event that persistent performance issues are identified by the CSC, the CSC will seek resolution in accordance with a Remedial Action Plan which includes:

1. CSC reports persistent performance issues to the IANA Functions Operator and requests remedial action in a predetermined number of days.
2. CSC confirms completion of remedial action.
3. If CSC determines that the remedial action has been exhausted and has not led to necessary improvements, the CSC is authorized to escalate to the ccNSO and/or the GNSO\(^{21}\), which might then decide to take further action using agreed consultation and escalation processes\(^{22}\).

Systemic problems

The IANA Review Function will include provision to consider whether there are any systemic issues which are impacting IANA naming services, which might then decide to take further action using agreed consultation and escalation processes.\(^{23}\)

\(^{21}\) The roles of the ccNSO and GNSO in this step should be further investigated to ensure that this is consistent with their missions as well as to identify any actions that may be needed by the SOs to allow for this role.

\(^{22}\) Which would include IRP and CCWG-Accountability Work Stream 1 accountability mechanisms once these are completed.

\(^{23}\) ibid
Annex K - Root Zone Emergency Process

As well as general staff availability during standard business hours, the IANA Functions Operator will continue to provide TLD managers with a 24×7 emergency contact number that allows TLD managers to quickly reach IANA Functions Operator to declare an emergency and seek to expedite a Root Zone change request. IANA Functions Operator will execute such changes in accordance with the obligations of the standard root zone management workflow as expeditiously as possible. This prioritization will include performing emergency reviews of the request as the first priority, out of ordinary business hours if necessary, and informing its contacts at the Root Zone Maintainer of any pending changes that will require priority authorization and implementation.

Please note that both figures below are consistent with existing processes but terminology has been updated to ensure consistency and general applicability.

Figure 1.2-41. 24×7 Emergency Process
### Figure 1.2-42. 24x7 Emergency Process Step-by-Step Description

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1    | **TLD CONTACTS CALL CENTER**  
**Description**: All TLD managers are provided with an emergency contact telephone number that will reach a 24x7 call center. |
| 2    | **DOES CALLER DECLARE AN EMERGENCY?**  
**Description**: The caller is asked if the issue is an emergency that requires an urgent root zone change, and can not wait until regular business hours. |
| 3    | **CALL IANA Functions Operator DURING BUSINESS HOURS**  
**Description**: In the event the caller decides it is not an emergency, their contact details are logged and they are advised to speak to IANA Function staff during regular business hours. |
| 4    | **FOLLOW INSTRUCTIONS AND ASK QUESTIONS**  
**Description**: Call center staff follow a set of instructions to solicit relevant information relating to the nature of the emergency, and the contact details of the TLD manager. |
| 5    | **SEND EMAIL TO ROOT-MGMT@IANA.ORG**  
**Description**: The particulars of the emergency call are sent by the call center staff to the ticketing system. This opens a ticket and starts an audit log of the specific request. |
| 6    | **CALL CENTER REACHES THE IANA Functions Operator EMERGENCY RESPONSE TEAM**  
**Description**: The call center has the emergency roster of IANA Functions staff, as well as escalation points for IANA Functions Operator senior management. The call center will call through the roster until they contact a person to hand the issue to. The IANA Function staff member that receives the issue will be the primary person responsible for resolution of the issue. |
| 7    | **HAS SOMEONE FROM THE ROOT ZONE MANAGEMENT (RZM) TEAM BEEN INFORMED?**  
**Description**: The primary person responsible checks if the Root Zone Management team within the IANA Functions staff is aware of the issue. |
| 8    | **PASS INFO ON TO RZM TEAM**  
**Description**: If necessary, information relating to the emergency request is communicated to the Root Zone Management team. |
| 9    | **RZM TEAM CONTACTS TLD MANAGER**  
**Description**: The IANA Functions staff performing the root zone management functions contacts the TLD manager using the contact details provided to the call center. The nature of the issue is discussed in more detail, and a plan is devised to resolve the issue. |
| 10   | **RZM TEAM CONFIRMS EMERGENCY**  
**Description**: Following dialog with the TLD manager, the RZM team confirms the particulars of the issue and the need to perform an emergency root zone change to resolve the issue. |
| 11   | **INFORM TLD ABOUT APPROPRIATE OPTIONS**  
**Description**:  

<table>
<thead>
<tr>
<th>Description</th>
<th>In the event the TLD manager and RZM team deem that an emergency root zone change can not resolve the issue, IANA Functions Operator will inform the TLD manager about what other options they have to resolve the issue.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12</strong> <strong>VALIDATE REQUESTED CHANGES</strong></td>
<td>IANA Functions Operator validates the request in accordance with the standard procedures described in the Root Zone Change process, including performing technical checks and performing contact confirmations. IANA Functions Operator takes steps to conduct these as quickly as possible.</td>
</tr>
<tr>
<td>Description</td>
<td>IANA Functions Operator takes all available steps to inform personnel at the Root Zone Maintainer that there is an active emergency change request being conducted, and encourages the Root Zone Maintainer to process the request as quickly as possible.</td>
</tr>
<tr>
<td><strong>13</strong> <strong>GIVE HEADS UP TO Root Zone Maintainer</strong></td>
<td>IANA Functions Operator executes the root zone change request as quickly as possible according to all standard policies and procedures. IANA Functions Operator prioritizes the rapid implementation of the request above other requests at normal priority.</td>
</tr>
<tr>
<td><strong>14</strong> <strong>ACT ACCORDING TO Root Zone CHANGE REQUEST PROCESS EXPEDITIOUSLY</strong></td>
<td></td>
</tr>
</tbody>
</table>
Annex L – Separation Review

NOTE: This section is still under development and review by the CWG-Stewardship.

The Separation Review will be defined as a Fundamental Bylaw within ICANN.

Triggers for the Separation Review

An outcome of an IANA Function Review is not limited in scope and may include a recommendation, which could trigger a process, which may ultimately lead to separation.

The details of such a process need to be undertaken with great care and are subject of further discussion and review within the CWG-Stewardship. Initial text is provided in square brackets below.

[The CWG-Stewardship is further considering how such a separation review would work which, for example, could include the initiation of a Cross Community Working Group to make specific recommends that deal with recommendation made by the IFR. These could include the creation of an RFP and separation of the IANA Functions Operator. This would be done by to a cross community working group25 chartered by the Board and its recommendation would be submitted to the ICANN Board for consideration. The cross community process would include the collection of community input and intermediate comment periods on the work, with ultimate input by the multistakeholder community through the CCWG Accountability mechanisms under consideration.]

Participants in the Separation Review

Each of the AC/SO would appoint 5 people to the Separation Review.

Alternatively: Use the ICG community inclusion and proportions to include the broader community, as this will affect the entire community.

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25 There is an open question for comment on whether the recommendation of the IFR for the initiation of Separation discussion should be carried out by the IFR itself or should be assigned to a CWG as indicated in this section.
26 A point for public comment is whether the IANA Function Review recommendation for a separation process should be chartered by the Board or by the SOAC and whether the recommendations should first be submitted to the Supporting Organizations and Advisory Committees for their approval before escalation to the ICANN Board. Or whether the Separation process CWG recommendation for separation should be submitted directly to the ICANN Board by the IANA Function Review Team.
Mode of Operation

The Separation Review would function as a Cross Community Working Group and would follow established guidelines for multistakeholder Cross Community Working Groups.

Range of possible Separation Review outcomes

- No action needed
- Introduce operational sanctions relevant to the identified deficiency
- Create an RFP with a possible outcome of selecting a new entity to perform the IANA naming functions
- Initiate partial separations, i.e. initiate negotiations with new operational partners
- Initiate full separation of the IANA affiliate

CCWG-Accountability Dependencies

- Fundamental Bylaws compelling the ICANN to comply with the outcome of a process to initiate separation
- Accountability mechanisms designed to address possible IANA Functions Operator deficiencies (e.g. recall the board) as a prerequisite to initiating separation process

Suggested text for ICANN Bylaws

TBD]
Annex M – Framework for Transition to Successor IANA Operator

Framework Principles

1. The integrity, stability and availability of the IANA Functions must be the core concern during any transition of the IANA Functions.
2. Both the incumbent and any possible future IANA Functions Operator will be required to fully engage in the transition plan.
3. All involved parties will be required to provide appropriate transition staff and expertise to facilitate a stable transition of the IANA operations.

Framework recommendations:

1. The transition framework outlined in this document must be further developed into a detailed, fully functional, transition plan within 18 months of the date of implementation of the overall IANA Stewardship Transition;
2. The budget for IANA operations should be augmented with specific funding for the detailed transition plan development referred to in 1;
3. The process established for the potential transitioning of the IANA Functions to an operator other than the incumbent operator should specifically recognize that the detailed transition plan referred to in 1 must be in place before the commencement of the transitioning process.
4. Once developed, the full Transition to Successor IANA Functions Operator Plan should be reviewed every year to ensure that it remains up to date and every five years to ensure that it remains fit for purpose.

Dependencies:

Some elements of this framework may have to be adapted further depending on the CWG-Stewardship names model selected and the final transition proposal from the ICG to NTIA.

Additionally, part of the final proposal development work will need to identify those elements/ clauses of the CWG-Stewardship’s proposal that are relevant to the transition framework (using the NTIA-ICANN contract clauses table in C.7.3 for guidance).

Note on terminology:
While the current plan is based on a contractual relationship between the NTIA and ICANN we have elected to refer to the “operator” of the IANA Functions rather than “contractor” for the purposes of this annex. So ICANN as the current operator is referred to as the Incumbent IANA Functions Operator (IIFO) and the successor operator is referred to as the Successor IANA Functions Operator (SIFO) in this annex.

(Revised) plan:

Framework for Transition to Successor IANA Operator

This framework plan outlines key actions that would allow the incumbent IANA Functions Operator (IIFO) to ensure an orderly transition of the IANA Functions to a successor IANA Functions Operator (SIFO) while maintaining continuity and security of operations.

Document Structure

This document identifies those functions, systems, processes and documents that might need to be transitioned by the incumbent IANA Functions Operator, including actions that would be required to allow a successor operator to perform the IANA Functions.

Additional documents of importance to a transition include (on CWG DT-L wiki):

- Current KSK Operator Function Termination Plan
- Current CCOP (DIDP was not able to be released as requested through the DIDP process due to security and stability related concerns)
- Current ICANN Plan for Transition to Successor Contractor

Transition Actions:

1. **IANA website**: The Incumbent IANA Functions Operator would transfer the content of the IANA website; and provide copies of, or links to, the publicly available text for all processes, performance standards, request templates and other pages used to support operations or provide context to reporting. Intellectual property rights related to the IANA website and published documents will need to be assigned or licensed to the successor operator]

2. **IANA Functions registry data**: Data held by IANA will also need to transition, and some of that data will affect other communities: details of the data that is being transitioned will be determined when the full transition plan is produced.
3. **Root Zone Automation system:** The Incumbent IANA Functions Operator would transfer relevant information and management software, as appropriate and as determined by the transition plan.

4. **Request history data:** The Incumbent IANA Functions Operator would provide a copy of the databases it has used to store requests data, including ticketing systems and workflow management systems used for protocol parameter registries and the maintenance of the Root DNS Zone. The Incumbent IANA Functions Operator would also provide copies of any published reports and paper records it holds supporting these request histories.

5. **Documentation and Knowledge:** The Incumbent IANA Functions Operator would provide a copy of all documentation that captures formalized processes, institutional knowledge and experience related to the operation of the IANA Functions. The IIFO is also encouraged to provide documentation related to Monthly Performance Progress reports, Customer Satisfaction Surveys, External Auditor reports, Conflicts of Interest processes established by the IIFO, and the IIFO’s Contingency and Continuity of Operations Plan.

6. **Secure notification system data** The Incumbent IANA Functions Operator would provide details of the notification categories, the subscribers to those categories and a history of notifications.

7. **Root KSK transition** In 2010, ICANN developed a Root Zone KSK Operator Function Termination Plan that sets out the steps ICANN would take if required to transition its duties and responsibilities as the Root Zone Key Signing Key (KSK) operator to another entity. This plan was provided to NTIA in 2010\(^{27}\). That plan requires that a full KSK rollover be done so the successor starts fresh.\(^{28}\)

8. **Transition Assistance:** The Incumbent IANA Functions Operator would assist the successor operator during the transition period until the time the requisite service levels, security and stability are achieved. Such assistance would include training the employees of the successor operator and developing training material.

9. **Security for data retention:** The Incumbent IANA Functions Operator would continue to provide security for any data retained by it after transferring such data to the successor contractor.

\(^{27}\) [KSK Termination Plan (June 2010)](https://www.icann.org/news/announcement-3-2015-03-23-en)  
\(^{28}\) Given that there has up to now never been such a KSK roll-over and given the desire to maintain stability of security of the root zone a somewhat lighter procedure can be followed (TBD). The important part is the transfer of administration of the HSMs, related infrastructure and the operation of the key ceremonies. This is not unlike the process that will take place in April 2015 when the Hardware Security Modules (HSM) are going to be replaced - see: [https://www.icann.org/news/announcement-3-2015-03-23-en](https://www.icann.org/news/announcement-3-2015-03-23-en)
Annex N - Proposed changes to root zone environment and relationship with Root Zone Maintainer

1. Recommendations related to the elimination of NTIA Authorization of changes to the Root Zone content and the associated WHOIS database.

Currently, changes to the DNS Root Zone File, as well as changes to the DNS Root Zone WHOIS Database, are transmitted to the NTIA for authorization. Such changes cannot be enacted without explicit positive authorization from the NTIA. Post-transition, no authorization for TLD change requests will be needed.

   a. Changes will be required to the IANA Functions Operator and Root Zone Maintainer software to remove this requirement. In the very short term, if making the software changes cannot be completed before the transition and/or to avoid multiple coincident changes, the existing software could be used and IANA staff could authorize the changes (effectively playing the role of the NTIA).

   b. Currently there is a Cooperative Agreement between the NTIA and the Root Zone Maintainer. The NTIA has said that there will be a parallel but separate transition to disengage the NTIA from the Root Zone Maintainer. The exact form of the latter transition is not currently known, nor what, if anything, will replace the current Cooperative Agreement and the parties involved in providing the services currently covered under the Cooperative Agreement. However, there may be a requirement to have a formal agreement between the IANA Functions Operator and The Root Zone Maintainer. In the event that the Cooperative Agreement stays in place post-IANA transition (on a temporary or permanent basis), it is likely that some changes will be required in the Agreement to remove the requirement for NTIA authorization for Root Zone changes.

   c. Determine if additional checks/balances/verifications are required post transition to further improve robustness and reduce or eliminate any possible single points of failure. CWG-Stewardship recommends this issue be considered post-transition. Any new procedures/processes should be designed to minimize:

      i. The potential for accidental or malicious changes or omissions by the IANA Functions Operator or Root Zone Maintainer.
      ii. The potential for out-of-policy changes by the IANA Functions Operator. The term “policy” is used in its most general sense, representing formal Policy adopted by ICANN as well as established standards, practices and processes.
      iii. The potential for accidental or malicious errors in the communications path from the IANA Functions Operator to the Root Zone Maintainer.
      iv. The potential for accidental outages or malicious actions related to the telecommunications infrastructure serving the IANA Functions Operator and
The Root Zone Maintainer. Such outages or actions could be related to the infrastructure shared with ICANN. Any such decisions should be based on a cost/benefit and risk analysis factoring in the history and possibility of such problems.

2. The NTIA has traditionally been involved in discussions related to and/or overseeing substantive Root Zone changes, (such as the implementation of DNSSEC and the deployment of IPv6), or Root Zone Management process changes (such as decisions to make specific reports public and Root Zone Management automation requirements). The NTIA has contributed and opened avenues to resources (such as those from NIST – the National Institute of Standards and Technologies, a part of the U.S. Department of Commerce in efforts surrounding DNSSEC). Moreover as the Root Zone Administrator, they have been the entity to ultimately approve the changes going forward.

   a) Access to relevant expertise and resources will surely be possible in the absence of the NTIA acting as the Root Zone Administrator. Similarly, it is clear that the DNS-related technical and operational communities have both the technology skills and appropriate incentives to make prudent and cautious changes. Nevertheless, the CWG-Stewardship recommends that for major architectural or operational changes an approval function must be retained and assigned to some entity. It is not possible to be more specific as to where this approval function should reside until the overall CWG-Stewardship recommendations are more fully developed. Changes in process at the time of transition should be carefully tracked to ensure that they are not negatively impacted by the transition.

   b) The CWG-Stewardship further recommends that for changes internal to the IANA Functions Operator and for those related to reports and communications, no external approval shall be needed. Such decision should be made, where appropriate, in consultation with the community, or the approval function referenced above.

   c) The CWG-Stewardship notes that IANA Functions Operator budgets must not only address operational costs, but must include a component to allow for the investigation, development and deployment of further Root Zone enhancements and the necessary consultations between the IANA Functions Operator and the technical and operational communities). Such development costs may be significant.

Principles

3. Transparency

To the extent allowed by external agreements and as necessitated by security issues, the IANA Functions Operator should operate in a transparent manner.

   a. Change Requests: Currently, all change requests submitted to the IANA Functions Operator are treated as confidential (to the extent possible) until they are actually deployed by Root Server Operators. In addition to an overall preference for transparency, if the content of changes (or proposed changes) could be made public earlier, there are a number of possible
ways of addressing some of the robustness issues. Note that there are two separate aspects to this:

i. Changes requested by a registry. These could be made public either at the time of the request, or at the time that a request has passed all IANA Functions Operator verifications and validation. This would also apply to delegations or redelegations once a formal decision has been made.

ii. Notice that a Delegation and Redelegation is in process. This was suggested in the 2012 Technical Proposal from the IANA Functions Operator to the NTIA, but has not as yet been approved.

Reporting: Reports on the IANA Functions Operator operations should not be withheld unless there are explicit and defensible needs for confidentiality.

4. Control of Root Zone Management

Currently updating the Root Zone requires the active participation of three parties, the IANA Functions Operator, the Root Zone Maintainer and the NTIA. The IANA Functions Operator receives change requests from various sources, validates them, and sends them to the Root Zone Maintainer who, once they are authorized by the NTIA, updates the Root Zone File, DNSSEC signs it, and distributes it to the Root operators.

Post transition there will only be the IANA Functions Operator and the Root Zone Maintainer. The CWG-Stewardship is not recommending any change in the separation between the two at this time. The CWG-Stewardship is recommending that should there be a proposal to combine the two or make other changes in their respective roles in root zone modification, that it is subject to wide community consultation.

5. Future changes to the Root Zone Management process must be made with due consideration to the IANA Functions’ Operator ability to process change requests expeditiously.
Annex O - ccTLD Appeals Mechanism Background and Supporting Findings

While the CWG-Stewardship’s 1 December, 2014 draft proposal contained an appeal mechanism that would apply to ccTLD delegation and redelegations, some question arose as to the level of support within the ccTLD community on aspects of this proposal (see below). Design Team B was formed to assess whether there might be sufficient consensus within the ccTLD community on such an appeal mechanism. DT-B decided to undertake a survey of the ccTLD community to assess this (see the survey attached as Appendix A). After informing the ccTLD community about the upcoming survey, it was sent to the ‘ccTLD World’ list, the most comprehensive list of the managers of the 248 ccTLDs on March 23, 2015 with responses accepted to 3 April 2015. Overall, responses on behalf of just 28 managers were received (see below). Such a low level of response was judged to be an insufficient basis to provide a mandate for the inclusion of an appeal mechanism in the CWG-Stewardship’s proposal. While acknowledging the limitations of drawing any conclusions from a survey with such a low response rate, it is nevertheless worthwhile pointing out that these limited responses tended to reinforce the overall recommendation. While 93% of respondents (Q.1) believe there is a need for an appeal mechanism, only 58% (Q.2) believe that it should be developed and introduced now as part of the IANA Stewardship Transition and 73% (Q.3) agreed that it should be developed and introduced after the IANA Stewardship Transition has taken place. Questions designed to probe the level of consensus on the parameters of such an appeal mechanism (see Q.5 – Q.9) elicited no consensus suggesting that it would take considerable time for the ccTLD community to come to a consensus view on the details of an appeal mechanism. Some 71% of respondents (Q.3) indicated that they would not wish to see the design of such a mechanism delay the finalization of the IANA Stewardship Transition.

Survey of ccTLD Managers on Need for Appeal Mechanism for ccTLD Delegations and Redelegations

On 1 December 2014, the Cross Community Working Group on NTIA Stewardship Transition issued a draft proposal which contained a proposal for an ‘independent appeal panel’:

“Independent Appeals Panel (IAP) - The CWG recommends that all IANA actions which affect the Root Zone or Root Zone WHOIS database be subject to an independent and binding appeals panel. The Appeals Mechanism should also cover any policy implementation actions that affect the execution of changes to the Root Zone File or Root Zone WHOIS and how relevant policies are applied. This need not be a permanent body, but rather could be handled the same way as
commercial disputes are often resolved, through the use of a binding arbitration process using an independent arbitration organization (e.g., ICDR, ICC, AAA) or a standing list of qualified people under rules promulgated by such an organization.”

There exists in the ccTLD community an apparent lack of consensus on the question of the introduction of an ‘appeals mechanism’ in respect of ccTLD delegations and redelegations. At ICANN 51 in Los Angeles an overwhelming majority of ccTLD representatives at the 15 October 2014 ccNSO meeting indicated their wish for an ‘appeal mechanism’ as part of the IANA transition, though what was meant by ‘an appeal mechanism’ was not defined. In a survey of all ccTLD managers undertaken in November 2014, 94% of respondents agreed that ‘if the IANA operator does not perform well or abuses its position, the affected ccTLD should have the opportunity to (have access to) an independent and binding appeal process’. The expression of need resulted in the appeal mechanism proposal that the CWG-Stewardship released on 1 December 2014. The proposal indicates that such a mechanism could be used in disputes over the consistency of ccTLD delegation or redelegation decisions.

A survey was undertaken in January of this year of CWG-Stewardship members and participants (this includes representation from many communities, not just ccTLD managers) on many aspects of the CWG-Stewardship’s 1 December proposal. It found that 97% of respondents agreed that, “ccTLD registry operators should have standing to appeal delegation and re-delegation decisions to which they are a party that they believe are contrary to applicable laws and/or applicable approved ccTLD policy”. However when questions were posed about potential specific parameters of such an appeal mechanism support for it was reduced. For example, only 54% of respondents agreed that “ccTLD registry operators should have standing to appeal delegation and redelegation decisions to which they are a party that they believe are contrary to applicable laws and/or applicable approved ccTLD policy, even if the operator is not a party involved in the delegation or redelegation”. In addition, only 60% of respondents agreed that, “Governments should have standing to appeal any ccTLD delegation or redelegation decisions that they believe are contrary to applicable laws”.

This information suggests that while there may be support for an appeal mechanism in general, consensus may be difficult to achieve on some of the important aspects of such a mechanism, including:

- Who would ‘have standing’ to appeal decisions,
- What aspects of decisions might be subject to an appeal,
• Whether the scope should be limited to determining whether the process followed was complete and fair,
• whether the dispute resolution panel would have the authority to substitute its own view on a delegation, for example, direct that the incumbent manager be retained rather than a proposed new manager, or
• Be limited to requiring that the delegation process be repeated.

As a consequence, this survey is intended to determine whether they might be sufficient consensus within the ccTLD community as a whole to seek a binding appeal mechanism and if so, whether this should be sought as part of the IANA Stewardship Transition process.

QUESTIONS

Overall Need for an Appeal Mechanism

1. Do you as a ccTLD manager believe that there is a need for an appeal mechanism on ccTLD (re)delegation decisions?
2. If you answered ‘yes’ should such a mechanism be
   a. Developed now and introduced as part of the IANA Stewardship Transition, or
   b. Developed later, likely by the ccNSO, and introduced after the IANA transition has taken place.
3. If the design of this appeal mechanism were preventing the finalization of the IANA Stewardship Transition, would you agree to defer finalizing it so that the IANA process could be completed (this would likely entail the ccNSO proceeding with a separate process).

Form of Appeal Mechanism and Composition of Panel

4. The CWG indicated it believes that an appeal need not be a permanent body, but rather could be handled the same way as commercial disputes are often resolved, through the use of a binding arbitration process, an independent arbitration organization, such as the ICC, ICDR or AAA, or a standing list of qualified panelists under established rules promulgated by such an organization. The CWG recommended that a three person panel be used, with each party to a dispute choosing one of the three panelists, with these two panelists choosing the third panelist. Do you agree with this overall approach to establishing an appeal mechanism?
   a. Do you have another idea – please indicate.
5. Where there is a panel of individuals, should they be chosen:
a. From a list of recognized international experts regardless of country, or
b. From individuals the country that the ccTLD represents.
c. In another manner (please specify)

Eligibility to Appeal a (re)delegation decision.

6. Who do you believe should be permitted to appeal a ccTLD (re)delegation decision?
   a. The governmental or territorial authority referred to in a. above?
   b. The incumbent ccTLD manager?
   c. Other individuals, organizations, companies, associations, educational institutions, or others that have a direct, material, substantial, legitimate and demonstrable interest in the operation?

7. Should any of the parties referenced above be excluded from the appeals process? If yes, please indicate.

Scope and Authority of the Appellant Organization

8. Should there be any limit on the scope of the appeal?
   a. Should the scope be limited to questions about whether procedures have been followed properly?
   b. Should a panel have the authority to order that an existing delegation process be done again?
   c. Should it have the authority to suspend a pending delegation?
   d. Should it have authority to order to revoke and existing delegation?
   e. Should it have the authority to order that another party be delegated the ccTLD?

Survey Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Data</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1. Do you as a ccTLD manager believe that there is a need for an appeal mechanism on ccTLD (re)delegation decisions?</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>2. If you answered ‘yes’ should such a mechanism be -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Developed now and introduced as part of the IANA Stewardship Transition</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>b. Developed later and introduced after the IANA transition has taken place.</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>
3. If the design of this appeal mechanism were preventing the finalization of the IANA Stewardship Transition, would you agree to defer finalizing it so that the IANA process could be completed (this would likely entail the ccNSO proceeding with a separate process).

4. The CWG indicated it believes that an appeal mechanism need not include a permanent body. It suggested that disputes could be handled the same way as many commercial disputes, through the use of a binding arbitration process, using an independent arbitration organization, such as the ICC, ICDR or AAA, or a standing list of qualified panelists under established rules promulgated by such an organization.

The CWG recommended using this approach and that it use a three person panel, with each party to a dispute choosing one of the three panelists, with these two panelists choosing the third panelist. Do you agree with this overall approach to establishing an appeal mechanism?

Do you have another idea – please indicate.

The approach should not be designed now.
However I do not see any reason to decide on how it will be set now
An "as and when" appeal panel is good because it allows panelist rotation which is an important safeguard against (permanent) panelist that may be lobbied or influenced by parties to a delegation dispute. One can have more confidence in a decision taken by a jointly agreed panel which is only convened for a specific dispute. The only potential challenging area is the choice of a 3rd panelist by the 2 appointed panelists. It may be more plausible to leave the appointment of the 3rd panelist to an arbitration organisation instead of the individual panelists themselves.

I think ALL panelist should be chosen independently from each other, from an approved list of panelists, similar to a jury selection process.
Let the ccs develop their own mechanism
I do not think a central appeals mechanism is workable for ccTLD del/redel appeals but would think that every ccTLD designs its own appeals mechanisms together with its own local internet community (including the relevant government(s)).

The ccTLD community should be empowered enough to seek redress at an international independent court in case of unfair treatment by IANA functions Operator. Since national laws are respected in ccTLD policies processes and development, disputes involving Governments with the IANA Functions Operator requires a mechanism that would be acceptable to such sovereign nations.

I will suggest Court of Arbitration for IANA functions at the International Court of Appeal at the Hague, similar to Court of Arbitration for Sports put in place by FIFA.

The issues are either much more complicated (for example, contested re-delegations) than could be sensibly dealt with by an independent appeals group, or are much simpler in that they just look to see whether due process has been followed and documented. In the first case, I would oppose the creation of such a group. In the second, it would work, but would not necessarily need a complex solution as is proposed. 2. There will be issues for ccTLDs of an organisation in another jurisdiction having a say over the national ccTLD. This is not an acceptable position.

ce qui importe, c’est surtout la base sur laquelle ce panel doit se prononcer. Concernant les CCTLD, le cadre légal et réglementaire national doit être la base de la décision prise sur un recours, en même temps que le respect des procédures techniques de délégation - redélégation

5. Where the appeal mechanism uses a panel of individuals, should they be chosen:
a. From a list of recognized international experts regardless of country  
   | 11 | 13 | 24 | 46 | 54 |

b. From individuals the country that the ccTLD represents.  
   | 11 | 10 | 21 | 52 | 48 |

c. In another manner (please specify)  
   | (no responses) |

6. Who do you believe should be permitted to launch an appeal a ccTLD (re)delegation decision?  
   a. The governmental or territorial authority associated with the ccTLD?  
      | 23 | 3 | 26 | 88 | 12 |

   b. The incumbent ccTLD manager?  
      | 24 | 0 | 24 | 100 | 0 |

   c. Other individuals, organizations, companies, associations, educational institutions, or others that have a direct, material, substantial, legitimate and demonstrable interest in the operation?  
      | 5 | 16 | 21 | 24 | 76 |

7. Should any of the parties referenced above be excluded from the appeals process? If yes, please indicate.  

The FOI recommends only that the incumbent manager should have the right to appeal a non-consented revocation decision.  
As already mentioned, my understanding was that the goal of the survey was to learn if the appeal mechanism is needed in general; than decide if it is mandatory at this stage of project to enable its completion within planned time frame. So my preliminary answer to all the questions here was YES, however as already pointed out the detail design of the mechanism may be agreed and completed later on.  
"Other individuals, organisations...." should be excluded because their interest will be very hard to define & quantify. For example, if the ccTLD in dispute accredits foreign registrars, then foreign registrars have interest in the ccTLD operation even though they may not be from the concerned ccTLD country. Rather, let us keep the appeal process to the concerned government & to the incumbent ccTLD manager.  
No, but there should be clear guidelines on what issues can trigger a valid appeal to prevent appeals tying up the process of running a ccTLD and wasting time and money.  
Let the ccs develop their own process...who can appeal and the scope will depend on the development of that anyone with a relevant interest (to be determined locally per ccTLD)  
There might be good reason for the third category, but it would be in limited cases where the role of these organisations was already defined.  
dans une décision de délégation -redélégation, on peut s'attendre à ce que l'autorité territoriale soit celle qui effectue la demande, et que le conflit se situe entre elle et le gestionnaire du CCTLD. Les autres parties, qui doivent être consultées (consensus de la communauté internet locale) ne devraient pas pouvoir interjeter appel d'une décision, sauf à rendre le processus extrêmement instable.  

8. Should there be any limit on the scope of the appeal?  
   | 19 | 7 | 26 | 73 | 27 |

9. Should the scope be limited to questions about whether procedures have been followed properly  
   | 18 | 8 | 26 | 69 | 31 |

   a. Should a panel have the authority to order that an existing delegation process be done again?  
      | 17 | 8 | 25 | 69 | 31 |

   b. Should it have the authority to suspend a pending delegation?  
      | 14 | 6 | 20 | 70 | 30 |

   c. Should it have authority to order to revoke and existing delegation?  
      | 4 | 21 | 25 | 16 | 84 |

   d. Should it have the authority to order that another party be  
      | 2 | 22 | 24 | 8 | 92 |
delegated the ccTLD?
Annex P – IANA Operations Cost Analysis

Preamble:
The cost estimate below corresponds to a "fully absorbed" IANA Functions operations cost for ICANN. It therefore reflects the benefit of leveraging economies of scale from ICANN’s infrastructure and expertise of other functions. The fully absorbed IANA Functions operations cost within another entity would be different, as would be a "standalone" cost estimate as the cost of a fully operational and mature IT infrastructure would be higher, economies of scale would not exist, and additional costs of operating a separate organization would be created (relative for example to governance, communication, reporting,…).
The below analysis includes a placeholder estimate for the annual depreciation of assets, but does not include any capital costs, or representation of the value of the capital assets that are currently supporting the IANA Functions as operated by ICANN.

<table>
<thead>
<tr>
<th>US Dollars in millions</th>
<th>Using the FY15 Budget basis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A] Direct Costs (IANA department)</td>
<td>$2.4</td>
<td>These costs cover direct and dedicated personnel (12 employees) and associated costs assigned to delivering the IANA functions: registration and maintenance of protocol parameter registries; allocation of Internet numbers and the maintenance of the Internet number registries; validation and processing of root zone change requests as well as maintenance of the root zone registry; management of the .int and .arpa domains; and holder of the root zone key signing key for the security of the DNS root zone.</td>
</tr>
<tr>
<td>[B] Direct Costs (Shared resources)</td>
<td>$1.9</td>
<td>Within ICANN, other departments than the IANA department perform or participate to processes directly related to the delivery of the IANA functions. The costs of the activities carried out by other departments to perform the IANA Operations were evaluated by each department’s budget owners by identifying the direct external costs (professional services, infrastructure,...), and estimating the time spent by personnel from the department on the identified activities valued at the annual cost of each employee (base+benefits). See in Appendix the full description of the activities that are carried out by those departments, which are summarized below: - Request processing - IT - Root Key Signing - IT, Registry technical Services, SSR, GSE - IANA Website - IT, Legal, Web-admin - Protection of data and systems - IT, Security, Legal - Continuity and Contingency of service - IT</td>
</tr>
</tbody>
</table>
Support functions which organize the ability for operational activities to be carried out.

The total costs of these functions [D], after excluding the shared from those functions included in [B], were divided by the total costs of operational functions [E], to determine a percentage of support functions ([D]+[E]= total costs of ICANN Operations).

This percentage was then applied to the total costs of IANA (both IANA department direct costs and shared resources direct costs as defined above), to determine a cost of support function allocated to IANA. This cost [C] is additive to [A] and [B].

List of functions included:
- Executive
- Communications
- Operations (HR, Finance, Procurement, ERM, PMO/BI, HR development, Operations Executive, Administrative / Real Estate)
- IT (cyber-security, admin, infrastructure, PMO, Staff facing solutions)
- Governance support (Legal, Board support, Nomcom)

| [C] | Support functions allocation | $2.0 | Support functions which organize the ability for operational activities to be carried out.
| [D] | Total Functional costs of IANA Functions operations | $6.3 | Support functions which organize the ability for operational activities to be carried out.

[B] Direct costs (shared resources), associated with operations of the IANA Functions and dependencies on other ICANN departments:

1) Request processing
   a. RT trouble ticketing system supported and provided by IT
   b. RZMS software development, support and maintenance by IT
   c. Email system provided and supported by IT
   d. Online connectivity provided and supported by IT
   e. OFAC checks supported by Legal
   f. Board resolutions reviewed by Legal/sometimes drafted by Legal.
   Delegation/Redelegation Reports reviewed by Legal on as-as-needed basis
   g. All hardware and infrastructure provided and supported by IT
   h. Support from GSE to gather information for ccTLD requests

2) Root Key Signing
   a. Roles in ceremonies by IT, Registry Technical Services, SSR, Strategy, GSE, and program department
   b. Suite of Security documents reviewed and adopted by SSR and IT departments
   c. Facility rent and connectivity to the Key Management Facility (KMF) provided by IT
   d. DNSSEC SysTrust Audit requires work samples from IT, Legal, and SSR
e. Third Party Contract/RFP prepared by Procurement and reviewed by Legal

3) IANA Website
   a. Hardware provided, administered, and supported by IT
   b. Contract compliance requirements reviewed by Legal
   c. Web---admin support to post reports and documents on ICANN website

4) Security to protect data and systems
   a. Security plan reviewed and accepted by IT and SSR
   b. Reviewed by Legal prior to submission to NTIA

5) Continuity and Contingency of service
   a. Dependent on IT and Finance
   b. Plan reviewed by IT, SSR, HR, Legal, and Finance prior adoption

6) Conflict of Interest compliance
   a. Annual report prepared by HR and Legal

7) Monthly reporting of performance
   a. Posted on hardware maintained and administered by IT
   b. Contract compliance requirements reviewed by Legal

8) Customer Service Survey
   a. RFP prepared by Procurement
   b. Final report from 3rd party reviewed by Legal prior to posting

9) Administrative support
   a. Share Administrative Assistant with Contractual Compliance – 50% dedicated to supporting IANA department

10) Annual updates to Agreements
    a. Legal review of annual Supplemental Agreement to the IETF MOU
Annex Q – IANA Budget

The costs of providing the IANA services by ICANN under its agreement with the NTIA are currently not sufficiently separated from other ICANN expenses in the ICANN operating plans and budgets to determine reasonable estimates of projected costs after the IANA stewardship is transferred away from NTIA. The need for clearer itemization and identification of IANA Functions operations costs is consistent with current expectations of the interested and affected parties of the IANA Functions, and the broader community as expressed in ATRT1 and ATRT2, to separate policy development and IANA Functions operations. As a result, the CWG-Stewardship has provided recommendations with regard to the information and level of detail it expects to receive from ICANN in relation to the IANA budget in the future (see section III.A.ii.b).

In addition, the CWG-Stewardship recommends three areas of future work that can be addressed once the CWG-Stewardship proposal is finalized for SO/AC approval and again after the ICG has approved a proposal for IANA Stewardship Transition:

1. Identification of any existing IANA naming services related cost elements that may not be needed after the IANA Stewardship Transition, if any;
2. Projection of any new cost elements that may be incurred as a result of the IANA Stewardship Transition and in order to provide the ongoing services after the transition.
3. A review of the projected IANA Stewardship Transition costs in the FY16 budget to ensure that there are adequate funds to address significant cost increases if needed to implement the transition plan without unduly impacting other areas of the budget.