Summary of FOIWG Recommendations

Prepared for the Government Advisory Committee

Introduction

The Framework of Interpretation Working Group (FOIWG) was chartered by the ccNSO in May of 2011, following publication of the Final Report of the Delegation and Re-delegation Working Group (DRDWG). Based on an exhaustive review of IANA and ICANN records regarding changes in ccTLD managers, the DRDWG Final Report identified several areas of concern about the IANA Operator's implementation of RFC 1591.[1] In particular, the DRDWG concluded that greater clarity and consistency is needed with respect to the concepts of "consent" and "significantly interested parties" found in RFC 1591. The DRDWG also noted that IANA had no set procedures for revoking and re-delegating ccTLD management responsibility without the consent of the incumbent manager. [2]

The FOIWG was tasked with developing and proposing a framework for interpreting existing policies and guidelines - in particular RFC 1591 and the 2005 GAC Principles – in an effort to resolve the issues identified by the DRDWG. Proposed amendments, updates or changes to existing policy were specifically outside the scope of the FOIWGs mandate.[3]

The FOIWG includes diverse members of the ccNSO community, liaisons from ALAC and the GNSO, and GAC observers (Frank March and Suzanne Radell). The group meet telephonically for several hours every other week and face to face during ICANN meetings. The FOIWG has conducted several public consultations on its work product. The result of this two-year effort includes the following:

- An interpretation of RFC 1591s requirements for obtaining and documenting the agreement of an incumbent manager to the transfer of management responsibility for a ccTLD ("Consent");
- An interpretation of RFC 1591s requirements for obtaining and documenting the support of significantly interested parties, generally the local Internet community ("Significantly Interested Parties") for selection of a ccTLD manager;
- An interpretation of RFC 1591 regarding re-delegation of a ccTLD without the Consent of the incumbent manager ("Revocation");
- A comprehensive glossary of terms associated with ccTLD delegations and re-delegations based on the framework of interpretation for Consent, Significantly Interested Parties, and Revocation described above; and
- Recommendations for IANA reports on changes in management responsibility for ccTLDs. These recommendations are intended to provide greater transparency and predictability to relevant stakeholders, and to ensure adherence to the Framework of Interpretation.[4]

The FOIWG hopes that adoption of this Framework of Interpretation by the IANA Operator will support coherent, consistent and predictable decision-making regarding

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[1] Attached as Annex A.

[2] Background on the DRDWG is attached as Appendix B.

[3] Background on the FOIWG is attached as Annex C.

[4] These are recommendations and not interpretations of the policy statements as neither RFC 1591 nor the GAC Principles refer to IANA reports.

the delegation and re-delegation of ccTLDs (including IDN ccTLDs) while enhancing accountability and transparency for all stakeholders

Summary of FOIWG Interpretations and Recommendations

1. <u>Consent</u>

Section 3.6 of RFC 1591 requires IANA to acquire the incumbent manager's consent (in the form of a communication) for any transfer of ccTLD management responsibility to another organization (a "Transfer"). The Final Report of the Delegation and Re-delegation Working Group (DRDWG) concluded that IANA's application of the consent requirement in RFC 1591 was inconsistent and unpredictable:

> *The interpretation of consent (communication that the transfer is agreed), by IANA's own admission, is highly variable depending on a number of factors including culture and the immediate physical security of the ccTLD manager. This includes interpreting a failure to reply to an IANA email as consent in certain cases of re-delegations where the current manager has stated he does not support the request.*

The DRDWG concluded: "the concepts of consent (voluntary, involuntary and informed) need to be further explored and clarified during the development of the "Framework of Interpretation.""

The FOIWG has interpreted RFC 1591 to require the following:

- IANA must seek the Consent of both the incumbent manager and the proposed manager before it transfers management authority for a ccTLD.
- IANA should establish and publish the procedure it will follow when requesting a party's Consent.
- IANA's communication seeking such Consent should clearly state (a) what the party is being asked to agree to and (b) what steps IANA will or may take in response to the party's (i) affirmative consent, (ii) affirmative refusal to consent, or (iii) failure to respond to the communication requesting consent.
- IANA should document and record all responses to such a request.
- The Consent must be specific, informed, unambiguous, affirmatively communicated, and freely given.
- IANA should adopt and publish the specific criteria it will apply to determine whether a response to IANA's request for Consent meets these requirements.

The FOIWG also recommends that IANA adopt a consistent approach to reporting on re-delegations, including a specific minimum level of information regarding its acquisition of Consent to any transfer of ccTLD management responsibility. This would enhance transparency and predictability and better communicate IANA's expectations to affected stakeholders.

2. <u>Significantly Interested Parties</u>

Section 3.4 of RFC 1591 specifies that "significantly interested parties" should have a voice in selecting a ccTLD manager. The Final Report of the Delegation and Re-delegation Working Group (DRDWG) concluded that IANA's implementation of this requirement is inconsistent and unpredictable:

> *An analysis of all approved delegation and re-delegation requests published by ICANN indicates a significant degree of inconsistency in applying the "Interested Parties" requirement. This includes the approval of a number delegation and re-delegation requests which have no documentation indicating any support by Interested Parties.*

The FOIWG has interpreted RFC 1591 as follows:

- Significantly Interested Parties include, but are not limited to: a) the government or territorial authority for the country or territory associated with the ccTLD and b) any other individuals, organizations, companies, associations, educational institutions, or others (including the incumbent manager) that have a direct, material, substantial, legitimate and demonstrable interest in the operation of the ccTLD(s).
- The relevant national government or territorial authority is a significantly interested party with respect to selection of the manager for the relevant ccTLD.
- To be considered a Significantly Interested Party, any other party other than the government must demonstrate that it is has a direct, material, legitimate, and demonstrable interest in the operation of the ccTLD(s).
- IANA should encourage applicants to provide documentation of Significantly Interested Parties support of delegation, transfer, or revocation request(s), but IANA should also provide an opportunity for stakeholders to comment on the request via a public process.

The FOIWG also recommends that the IANA Operator adopt a consistent approach to reporting on delegations, transfers and revocations that reflects and documents its compliance RFC 1591's requirement that "Significantly Interested Parties" have a voice in the selection of ccTLD managers.

3.   Unconsented Re-delegations (Revocation)

RFC 1591 does not use the term "re-delegation." Rather, Section 3.5 of RFC 1591 contemplates "revocation" of a ccTLD delegation under certain circumstances, followed by delegation of a new manager. The Final Report of the DRDWG identified the following issues pertaining to "Unconsented Re-delegations:"

> *There is no procedure for re-delegation of a ccTLD without the consent of the incumbent operator. Neither RFC1591 nor ICP1 discuss the re-delegation of a ccTLD without the consent of the incumbent operator. Instead both of these documents discuss the **revocation** of a delegation by IANA**, for cause**, followed by a re-delegation to a new operator. This is somewhat confusing given that in these types of situations the revocation has never caused a ccTLD to be removed from the root prior to being delegated to a new operator – thus trying to ensure continued resolution of the domains registered in the relevant ccTLD. This further illustrates some of the issues surrounding the re-delegation of ccTLDs without the consent of the incumbent operator.*

The FOIWG has interpreted RFC 1591 as follows:

- There are three mechanisms available to the IANA Operator: Delegation, Transfer and Revocation.
- As discussed above, a Transfer requires the Consent of the incumbent ccTLD manager.
- "Revocation" refers to the process by which the IANA Operator rescinds responsibility for management of a ccTLD from a manager in circumstances where the IANA Operator reasonably demonstrates that there are persistent problems with the operation of the domain, or the manager continues to engage in "substantial misbehavior," despite the efforts of the IANA Operator, using all means at its disposal, to resolve such conduct.
- If a manager is engaged in "substantial misbehavior" or there are "persistent problems in the operation of a ccTLD" and the ccTLD manager is unwilling or unable to rectify the problems to the reasonable satisfaction of the IANA Operator and/or stop the offending conduct, the IANA Operator may propose a Transfer.
- If the incumbent manager does not Consent to a proposed Transfer, the only mechanism available to the IANA Operator to deal with ultimately intractable problems is Revocation.
- Revocation is a last resort option.   Before taking this option, the IANA Operator should use all means at its disposal to assist the manager to change conduct that amounts to "substantial misbehavior".
- Revocation should only be considered if the IANA Operator reasonably demonstrates that the incumbent manager is unable or unwilling in an appropriate time frame to:

- o Resolve specified material failures to carry out its responsibilities under RFC 1591; and/or
- o Carry out those responsibilities in the manner required by RFC 1591
- In cases of Revocation, the IANA Operator should attempt, in collaboration with significantly interested parties, to ensure the ccTLD will continue to resolve names until a suitable replacement can take over.
- The FOIWG believes it is consistent with general principles of fairness and with RFC1591 to afford an affected manager the opportunity to appeal a notice of revocation issued by the IANA Operator to an independent body.

Annex A: RFC 1591

Domain Name System Structure and Delegation

Status of this Memo

1. Introduction

This memo provides some information on the structure of the names in the Domain Name System (DNS), specifically the top-level domain names; and on the administration of domains. The Internet Assigned Numbers Authority (IANA) is the overall authority for the IP Addresses, the Domain Names, and many other parameters, used in the Internet. The day-to-day responsibility for the assignment of IP Addresses, Autonomous System Numbers, and most top and second level Domain Names are handled by the Internet Registry (IR) and regional registries.

 2. The Top Level Structure of the Domain Names

In the Domain Name System (DNS) naming of computers there is a hierarchy of names. The root of system is unnamed. There are a set of what are called "top-level domain names" (TLDs). These are the generic TLDs (EDU, COM, NET, ORG, GOV, MIL, and INT), and the two letter country codes from ISO-3166. It is extremely unlikely that any other TLDs will be created. Under each TLD may be created a hierarchy of names. Generally, under the generic TLDs the structure is very flat. That is, many organizations are registered directly under the TLD, and any further structure is up to the individual organizations. In the country TLDs, there is a wide variation in the structure, in some countries the structure is very flat, in others there is substantial structural organization. In some country domains the second levels are generic categories (such as, AC, CO, GO, and RE), in others they are based on political geography, and in still others, organization names are listed directly under the country code. The organization for the US country domain is described in RFC 1480 [1].

Each of the generic TLDs was created for a general category of organizations. The country code domains (for example, FR, NL, KR, US) are each organized by an administrator for that country. These administrators may further delegate the management of portions of the naming tree. These administrators are performing a public service on behalf of the Internet community. Descriptions of the generic domains and the US country domain follow. Of these generic domains, five are international in nature, and two are restricted to use by entities in the United States.

World Wide Generic Domains:

COM - This domain is intended for commercial entities, that is companies. This domain has grown very large and there is concern about the administrative load and system performance if the current growth pattern is continued. Consideration is being taken to subdivide the COM domain and only allow future commercial registrations in the subdomains.

EDU - This domain was originally intended for all educational institutions. Many Universities, colleges, schools, educational service organizations, and educational consortia have registered here. More recently a decision has been taken to limit further registrations to 4 year colleges and universities. Schools and 2-year colleges will be registered the country domains (see US Domain, especially K12 and CC, below).

NET - This domain is intended to hold only the computers of network providers, that is the NIC and NOC computers, the administrative computers, and the network node computers. The customers of the network provider would have domain names of their own (not in the NET TLD).

ORG - This domain is intended as the miscellaneous TLD for organizations that didn't fit anywhere else. Some non- government organizations may fit here.

INT - This domain is for organizations established by international treaties, or international databases.

United States Only Generic Domains:

GOV - This domain was originally intended for any kind of government office or agency. More recently a decision was taken to register only agencies of the US Federal government in this domain. State and local agencies are registered in the country

domains (see US Domain, below).

MIL - This domain is used by the US military.

Example country code Domain:

US - As an example of a country domain, the US domain provides for the registration of all kinds of entities in the United States on the basis of political geography, that is, a hierarchy of <entity-name>.<locality>.<state-code>.US. For example, "IBM.Armonk.NY.US".

In addition, branches of the US domain are provided within each state for schools (K12), community colleges (CC), technical schools (TEC), state government agencies (STATE), councils of governments (COG), libraries (LIB), museums (MUS), and several other generic types of entities (see RFC 1480for details [1]). To find a contact for a TLD use the "whois" program to access the database on the host rs.internic.net. Append "-dom" to the name of TLD you are interested in. For example: whois -h rs.internic.net us-dom or whois -h rs.internic.net edu-dom

3. The Administration of Delegated Domains

The Internet Assigned Numbers Authority (IANA) is responsible for the overall coordination and management of the Domain Name System (DNS), and especially the delegation of portions of the name space called top-level domains. Most of these top-level domains are two-letter country codes taken from the ISO standard 3166. A central Internet Registry (IR) has been selected and designated to handle the bulk of the day-to-day administration of the Domain Name System. Applications for new top-level domains (for example, country code domains) are handled by the IR with consultation with the IANA. The central IR is INTERNIC.NET.

Second level domains in COM, EDU, ORG, NET, and GOV are registered by the Internet Registry at the InterNIC. The second level domains in the MIL are registered by the DDN registry at NIC.DDN.MIL. Second level names in INT are registered by the PVM at ISI.EDU. While all requests for new top-level domains must be sent to the Internic (at hostmaster@internic.net), the regional registries are often enlisted to assist in the administration of the DNS, especially in solving problems with a country administration. Currently, the RIPE NCC is the regional registry for Europe and the APNIC is the

regional registry for the Asia-Pacific region, while the INTERNIC administers the North America region, and all the as yet undelegated regions.

The contact mailboxes for these regional registries are:

INTERNIC hostmaster@internic.net

APNIC hostmaster@apnic.net

RIPE NCC ncc@ripe.net

The policy concerns involved when a new top-level domain is established are described in the following. Also mentioned are concerns raised when it is necessary to change the delegation of an established domain from one party to another.

A new top-level domain is usually created and its management delegated to a "designated manager" all at once. Most of these same concerns are relevant when a sub-domain is delegated and in general the principles described here apply recursively to all delegations of the Internet DNS name space. The major concern in selecting a designated manager for a domain is that it be able to carry out the necessary responsibilities, and have the ability to do an equitable, just, honest, and competent job.

1) The key requirement is that for each domain there be a designated manager for supervising that domain's name space. In the case of top-level domains that are country codes this means that there is a manager that supervises the domain names and operates the domain name system in that country. The manager must, of course, be on the Internet. There must be Internet Protocol (IP) connectivity to the nameservers and email connectivity to the management and staff of the manager. There must be an administrative contact and a technical contact for each domain. For top-level domains that are country codes at least the administrative contact must reside in the country involved.

2) These designated authorities are trustees for the delegated domain, and have a duty to serve the community. The designated manager is the trustee of the top-level domain for both the nation, in the case of a country code, and the global Internet community.

Concerns about "rights" and "ownership" of domains are inappropriate. It is appropriate to be concerned about "responsibilities" and "service" to the community.

3) The designated manager must be equitable to all groups in the domain that request domain names. This means that the same rules are applied to all requests, all requests must be processed in a non-discriminatory fashion, and academic and commercial (and other) users are treated on an equal basis. No bias shall be shown regarding requests that may come from customers of some other business related to the manager -- e.g., no preferential service for customers of a particular data network provider. There can be no requirement that a particular mail system (or other application), protocol, or product be used. There are no requirements on subdomains of top-level domains beyond the requirements on higher-level domains themselves. That is, the requirements in this memo are applied recursively. In particular, all subdomains shall be allowed to operate their own domain name servers, providing in them whatever information the subdomain manager sees fit (as long as it is true and correct).

4) Significantly interested parties in the domain should agree that the designated manager is the appropriate party. The IANA tries to have any contending parties reach agreement among themselves, and generally takes no action to change things unless all the contending parties agree; only in cases where the designated manager has substantially mis-behaved would the IANA step in. However, it is also appropriate for interested parties to have some voice in selecting the designated manager.

There are two cases where the IANA and the central IR may establish a new top-level domain and delegate only a portion of it: (1) there are contending parties that cannot agree, or (2) the applying party may not be able to represent or serve the whole country. The later case sometimes arises when a party outside a country is trying to be helpful in getting networking started in a country -- this is sometimes called a "proxy" DNS service. The Internet DNS Names Review Board (IDNB), a committee established by the IANA, will act as a review panel for cases in which the parties cannot reach agreement among themselves. The IDNB's decisions will be binding.

5) The designated manager must do a satisfactory job of operating the DNS service for the domain. That is, the actual management of the assigning of domain names, delegating subdomains and operating nameservers must be done with technical competence. This includes keeping the central IR (in the case of top-level domains) or other higher-level domain manager advised of the status of the domain, responding to requests in a timely manner, and operating the database with accuracy, robustness, and resilience. There must be a primary and a secondary nameserver that have IP connectivity to the Internet and can be easily checked for operational status and database accuracy by the IR and the IANA. In cases when there are persistent problems with the proper operation of a domain, the delegation may be revoked, and possibly delegated to another designated manager.

6) For any transfer of the designated manager trusteeship from one organization to another, the higher-level domain manager (the IANA in the case of top-level domains) must receive communications from both the old organization and the new organization that assure the IANA that the transfer in mutually agreed, and that the new organization understands its responsibilities. It is also very helpful for the IANA to receive communications from other parties that may be concerned or affected by the transfer.

4. Rights to Names

1) Names and Trademarks In case of a dispute between domain name registrants as to the rights to a particular name, the registration authority shall have no role or responsibility other than to provide the contact information to both parties. The registration of a domain name does not have any Trademark status. It is up to the requestor to be sure he is not violating anyone else's Trademark.

2) Country Codes The IANA is not in the business of deciding what is and what is not a country.

The selection of the ISO 3166 list as a basis for country code top-level domain names was made with the knowledge that ISO has a procedure for determining which entities should be and should not be on that list. 5. Security Considerations Security issues are not discussed in this memo.

6. Acknowledgements

Many people have made comments on draft version of these descriptions and procedures. Steve Goldstein and John Klensin have been particularly helpful.

7. Author's Address Jon Postel USC/Information Sciences Institute 4676 Admiralty Way Marina del Rey, CA 90292 Phone: 310-822-1511 Fax: 310-823-6714 EMail: Postel@ISI.EDU

7. References

[1] Cooper, A., and J. Postel, "The US Domain", RFC 1480, USC/Information Sciences Institute, June 1993.

[2] Reynolds, J., and J. Postel, "Assigned Numbers", STD 2, RFC 1340, USC/Information Sciences Institute, July 1992.

[3] Mockapetris, P., "Domain Names - Concepts and Facilities", STD 13, RFC 1034, USC/Information Sciences Institute, November 1987.

[4] Mockapetris, P., "Domain Names - Implementation and Specification", STD 13, RFC 1035, USC/Information Sciences Institute, November 1987.

[6] Partridge, C., "Mail Routing and the Domain System", STD 14, RFC 974, CSNET CIC BBN, January 1986.

[7] Braden, R., Editor, "Requirements for Internet Hosts -- Application and Support", STD 3, RFC 1123, Internet Engineering Task Force, October 1989.

Annex B: Delegation and Redelegation Working Group

Members:

Africa
- Eberhard Lisse, .na
- Vika Mpisane, .za
- Paulos Nyirenda, .mw
- Alioune Badara Traore, .ml

Asia-Pacific
- Keith Davidson, .nz
- Chris Disspain, .au (ccNSO Chair)
- Young-Eum Lee, .kr (ccNSO Vice-Chair)
- Dave Main, .ws
- Bill Semich, .nu

EU
- Martin Boyle, .uk
- Staffan Jonson, .se
- Annebeth Lange, .no
- Slobodan Markovic, .rs
- Desiree Miloshevic, .gi
- Nigel Roberts, .gg
- Denzil West, .ms

Latin America
- Patricio Poblete, .cl (Observer)

- Oscar Robles, .mx

North America
- Byron Holland, .ca (ccNSO vice-Chair)
- Dotty Sparks de Blanc, .vi

GAC
- Jayantha Fernando, Sri Lanka
- Suzanne Sene, USA

Other
- Jaap Akkerhuis, expert invited by the Chair
- Becky Burr, NomCom appointee to the ccNSO Council
- Erick Iriarte Ahon, LACTLD (Observer)

ICANN Staff Support
- Bart Boswinkel
- Kim Davies
- Anne-Rachel Inne
- Kristina Nordström
- Gabriella Schittek
- Bernard Turcotte

Timeline: The Delegation and Redelegation Working Group was chartered on 2 June 2009 and delivered its final report on 7 March 2011

Charter: The working group was chartered to advise the ccNSO Council whether it should launch a policy development process to recommend changes to the current policy for delegation, re-delegation and retirement of ccTLDs. The working group considered the current policies relating to delegation, re-delegation and retirement of ccTLDs and reported on matters of concern that it identified with those current policies. It also considered possible solutions to any issues or matters of concern.   The full DRDWG Charter is available online at:
http://ccnso.icann.org/workinggroups/drdwg.htm

Recommendations: The DRDWG conducted research on the ICANN decisions relating to delegations and re-delegations of ccTLDs and identified decisions that contained elements of inconsistent application of policies, guidelines and procedures, and on occasions that ICANN decisions have been based on criteria not included in the relevant policies, guidelines and procedures. Noting the considerable time requirement to develop a PDP along with the urgent need to provide clarification of various issues and procedures within ICANN, and therefore for reasons of expediency, efficiency,

effectiveness and flexibility, the DRDWG recommended that, as a first step, the ccNSO Council undertake the development of a —Framework of Interpretation‖ for the delegation of ccTLDs. The final report and other DRDWG materials are available online at: http://ccnso.icann.org/workinggroups/drdwg.htm.

Annex C: Framework of Interpretation Working Group

Working Group Members:
ccNSO:
Ugo Akiri, .ng
Martin Boyle, .uk
Becky Burr, .us (Vice Chair)
Keith Davidson, .nz (Chair)
Chris Disspain, .au
Stephen Deerhake, .as
Dejan Djukic, .rs
Daniel Kalchev, .bg
Dmitry Kohmanyuk, .ua
Desiree Miloshevic, .gi
Eberhard Lisse, .na
Lesley Cowley, .uk (ex-officio)
Paulos Nyirenda, .mw
Patricio Poblete, .cl
Nigel Roberts, .gg
Bill Semich, .nu
Dotty Sparks de Blanc, .vi
Denzil West, .ms

GAC:
Heather Dryden (GAC Chair)
Jayantha Fernando
Frank March
Alice Munyua
Suzanne Radell

Other Liaisons:
Maureen Hilyard, ALAC
Cheryl Langdon Orr, ALAC
Cintra Sooknanan, ALAC
Carlos Aguirre, GNSO

Staff Support and Special Advisors:
Jaap Akkerhuis, ICANN / ISO
Bart Boswinkel, ICANN
Kim Davies IANA
Elise Gerich, IANA
Kristina Nordström, ICANN
Gabriella Schittek, ICANN
Bernard Turcotte, ICANN

More information about the FOIWG, including its interim reports, minutes, etc. are available at: http://ccnso.icann.org/workinggroups/foiwg.htm