

From: [Ashley Heineman](#)
To: [Stacy Cheney](#); [Fiona Alexander](#); [Jade Nester](#); [Christopher Hemmerlein](#); [Elizabeth Bacon](#); [John Morris](#); [Suzanne Radell](#); [Vernita D. Harris](#); [Evelyn Remaley](#)
Cc: [Kathy Smith](#)
Subject: RE: PRIORITY: Comment deadline of 3 pm tomorrow (Wed)- Follow up to Monday meeting:
Date: Wednesday, September 18, 2013 3:15:00 PM
Attachments: [Not Responsive](#)

Haven't had a chance to look at Stacy's input yet, but attached is mine.

From: Stacy Cheney
Sent: Wednesday, September 18, 2013 2:09 PM
To: Fiona Alexander; Jade Nester; Christopher Hemmerlein; Elizabeth Bacon; John Morris; Ashley Heineman; Suzanne Radell; Vernita D. Harris; Evelyn Remaley
Cc: Kathy Smith
Subject: RE: PRIORITY: Comment deadline of 3 pm tomorrow (Wed)- Follow up to Monday meeting:

Here are some edits and suggestions.

From: Fiona Alexander
Sent: Tuesday, September 17, 2013 6:25 PM
To: Jade Nester; Christopher Hemmerlein; Elizabeth Bacon; Stacy Cheney; John Morris; Ashley Heineman; Suzanne Radell; Vernita D. Harris; Evelyn Remaley
Cc: Kathy Smith
Subject: PRIORITY: Comment deadline of 3 pm tomorrow (Wed)- Follow up to Monday meeting:

Thanks again to everyone for another fruitful and constructive discussion. Attached is my best effort (for today) to capture the variety of issues raised and identify some possible ways forward. This go round I'd actually like redline edits from folks and to keep this moving they are needed by **3 pm** tomorrow. I'm sure there is plenty of room for improvement on wording and welcome that, but also take a step back and look at concepts. I think we could actually offer a couple of less meaningful items and then accelerate things already envisioned under the current contract and have a strong path for next year.

3 Pages

Withheld in their entirety as
Not Responsive to the Request.

Not Responsive

Not Responsive

From: John Curran [<mailto:jcurran@arin.net>]
Sent: Thursday, September 19, 2013 1:56 PM
To: Vernita D. Harris
Subject: Re: Blueprint/Roadmap

On Sep 19, 2013, at 1:40 PM, "Vernita D. Harris" <VHarris@ntia.doc.gov<<mailto:VHarris@ntia.doc.gov>>>>
wrote:

Hi John,

It was good to see you yesterday. If you have in writing your blueprint or roadmap on the IANA Functions contract, would you consider sharing your document with me?

Sure, here's my musings on the topic.
/John

From: John Curran <jcurran@istaff.org<<mailto:jcurran@istaff.org>>>
Subject: Re: [governance] IANA contract to be opened for competitive bidding on November 4
Date: October 25, 2011 7:20:38 AM EDT
To: governance@lists.cpsr.org<<mailto:governance@lists.cpsr.org>>
Reply-To: governance@lists.cpsr.org<<mailto:governance@lists.cpsr.org>>, John Curran
<jcurran@istaff.org<<mailto:jcurran@istaff.org>>>

On Oct 25, 2011, at 7:20 AM, Ian Peter wrote:

Probably either....

On Oct 25, 2011, at 2:20 AM, Ian Peter <ian.peter@ianpeter.com<<mailto:ian.peter@ianpeter.com>>>> wrote:

1. As you say, US Government deciding to hand over control. As you say, fairly unlikely.

By "hand over control", what do you mean? Is this to ICANN or another party?

It's not inconceivable to phase out the unique USG role. If I had to make this happen, one possible approach would be the following:

1) Seek common support among the community that the scope of the IANA Functions contract should not increase at at any time.
(Basic principle is to draw a boundary around the situation so it does not grow while one is working on long-term solution)

2) Work to get multiple governments to enter into Affirmation of Commitments with ICANN. Ensure that the reviews required by such agreements are in common with the periodic reviews already being performed.

3) Presuming ICANN award of the IANA Function resolicitation, make use of the initial three year performance period to transition the IANA function of protocol registration from being directed by the IANA function contract to instead being performed by an independent contract between IAB(ISOC) and ICANN. Make clear that this task should be omitted in any renewal terms. While IAB could easily have any organization do this task, they should voluntarily agree to have ICANN perform it, and in turn agree to utilize ICANN for technical coordination of any assignments which have implications to the DNS or address communities (Yes, for those familiar with history, this is recreating the "PSO")

4) Repeating the principle, the Regional Internet Registries should formalize their relationship with ICANN via contract, and then with the IAB's endorsement, should make clear that the task of maintaining the IANA number registry of does not need to be included in the IANA Function second renewal period as it is already being provided by ICANN to the community.

5) The last step is slightly challenging. Having worked over the previous 5 years to make sure that the Domain Name portion of ICANN has a distinct identity which includes all parties with views on Domain Name policy, this Domain Name Policy group reaches an agreement with the IAB that it will contract with ICANN for root zone operation, and then enters an agreement for ICANN to do so. It also agrees in turn to utilize ICANN for technical coordination of any DNS matters which may have implications to the address or Internet protocol communities.

Once this contract has been entered, ICANN and its constituent components for technical coordination (IAB, RIRs, Domain Name Policy group) make clear that no renewal of the IANA Functions contract is required at all, and those governments supporting this "refreshed" ICANN model would need to make clear that it must be allowed to stand on its own.

Folks will note that I have put the IAB(/IETF/ISOC) in a somewhat unique role of having to concur with any changes to the system. This is not because I believe that IAB has unilateral authority in these matters, but do believe that the IAB (as the creator of these Internet identifier spaces via its protocol work) when combined with inclusive multistakeholder policy development organizations using open & transparent processes actually do constitute valid consensus authorities if also operating under the ongoing oversight as provided by ICANN (including its GAC and AoC processes.)

FYI,
/John

p.s. Oh yes, disclaimer time: the above thoughts are solely my own private views. They most certainly do not represent any organization whatsoever. May cause drowsiness. Do not operate heavy machinery while reading this email. Past Internet performance is no guide to future performance. Use caution: email contents may be very hot.

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From: [Vernita D. Harris](#)
To: [Ashley Heineman](#); [Stacy Cheney](#); [Fiona Alexander](#); [Jade Nester](#); [Christopher Hemmerlein](#); [Elizabeth Bacon](#); [John Morris](#); [Suzanne Radell](#); [Evelyn Remaley](#); [Kathy Smith](#); [Larry Strickling](#)
Subject: FW: Blueprint/Roadmap
Date: Thursday, September 19, 2013 2:17:58 PM

Yesterday, we had a meeting with ARIN's CEO, John Curran; he mentioned his blueprint/roadmap for the IANA Functions Contract. He was kind enough to send me his ideas, as I believe they are pertinent to our NTIA/ICANN relationship discussion.

Regards,
--Vernita

From: John Curran [mailto:jcurran@arin.net]
Sent: Thursday, September 19, 2013 1:56 PM
To: Vernita D. Harris
Subject: Re: Blueprint/Roadmap

On Sep 19, 2013, at 1:40 PM, "Vernita D. Harris" <VHarris@ntia.doc.gov> wrote:

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Sure, here's my musings on the topic.
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===

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Subject: Re: [governance] IANA contract to be opened for competitive bidding on November 4
Date: October 25, 2011 7:20:38 AM EDT
To: governance@lists.cpsr.org
Reply-To: governance@lists.cpsr.org, John Curran <jcurran@istaff.org>

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From: [Suzanne Radell](#)
To: [Larry Strickling](#); [Angela Simpson](#)
Cc: [Fiona Alexander](#); [Ashley Heineman](#); [Vernita D. Harris](#); [Elizabeth Bacon](#); [Jade Nester](#); [Juliana Gruenwald](#); [Heather Phillips](#); [Jim Wasilewski](#); [Cyril J. Dadd](#); [John Morris](#); [Evelyn Remaley](#)
Subject: Article of interest
Date: Friday, October 25, 2013 9:04:33 AM

Fyi, in case you hadn't seen it yet, Suz

http://www.circleid.com/posts/print/20131024_rethinking_icann_is_not_a_one_man_job/

From: [Fiona Alexander](#)
To: [Vernita D. Harris](#); [Suzanne Radell](#); [Jade Nester](#)
Cc: [Elizabeth Bacon](#); [Ashley Heineman](#)
Subject: Follow up from 1 pm conversation with Larry re: IPC prep
Date: Wednesday, October 30, 2013 3:22:35 PM
Attachments: **Not Responsive**
Importance: High

Here's the document Larry was referring to and I've added what we discussed. If you have comments on this get to me by 5 pm as I need to get this to him tonight, in addition to the talking points Suzanne is working on.

Fiona

1 Page

Withheld in their entirety as
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From: [Fiona Alexander](#)
To: [Larry Strickling](#); [John Morris](#); [Angela Simpson](#)
Subject: CRS report
Date: Sunday, November 24, 2013 2:19:29 PM
Attachments: [IG and DNS Issues for Congress.pdf](#)

I'm not even sure how to go about this, but the fellow that writes these every year does such a good job without evening talking to us. **Not Responsive**



Internet Governance and the Domain Name System: Issues for Congress

Lennard G. Kruger
Specialist in Science and Technology Policy

November 13, 2013

Congressional Research Service

7-5700

www.crs.gov

R42351

Summary

The Internet is often described as a “network of networks” because it is not a single physical entity, but hundreds of thousands of interconnected networks linking hundreds of millions of computers around the world. As such, the Internet is international, decentralized, and comprised of networks and infrastructure largely owned and operated by private sector entities. As the Internet grows and becomes more pervasive in all aspects of modern society, the question of how it should be governed becomes more pressing.

Currently, an important aspect of the Internet is governed by a private sector, international organization called the Internet Corporation for Assigned Names and Numbers (ICANN), which manages and oversees some of the critical technical underpinnings of the Internet such as the domain name system and Internet Protocol (IP) addressing. ICANN makes its policy decisions using a multistakeholder model of governance, in which a “bottom-up” collaborative process is open to all constituencies of Internet stakeholders.

National governments have recognized an increasing stake in ICANN policy decisions, especially in cases where Internet policy intersects with national laws addressing such issues as intellectual property, privacy, law enforcement, and cybersecurity. Some governments around the world are advocating increased intergovernmental influence over the way the Internet is governed. For example, specific proposals have been advanced that would create an Internet governance entity within the United Nations (U.N.). Other governments (including the United States), as well as many other Internet stakeholders, oppose these proposals and argue that ICANN’s multistakeholder model, while not perfect and needing improvement, is the most appropriate way to govern the Internet.

Currently, the U.S. government, through the National Telecommunications and Information Administration (NTIA) at the Department of Commerce, enjoys a unique influence over ICANN, largely by virtue of its legacy relationship with the Internet and the domain name system. A key issue for the 113th Congress is whether and how the U.S. government should continue to maximize U.S. influence over ICANN’s multistakeholder Internet governance process, while at the same time effectively resisting proposals for an increased role by international governmental institutions such as the U.N. An ongoing concern is to what extent will future intergovernmental telecommunications conferences (such as the December 2012 World Conference on International Telecommunications or WCIT) constitute an opportunity for some nations to increase intergovernmental control over the Internet, and how effectively will NTIA and other government agencies (such as the State Department) work to counteract that threat? H.R. 1580, introduced on April 16, 2013, states that “[I]t is the policy of the United States to preserve and advance the successful multistakeholder model that governs the Internet.”

The ongoing debate over Internet governance will likely have a significant impact on how other aspects of the Internet may be governed in the future, especially in such areas as intellectual property, privacy, law enforcement, Internet free speech, and cybersecurity. Looking forward, the institutional nature of Internet governance could have far-reaching implications on important policy decisions that will likely shape the future evolution of the Internet.

Contents

What Is Internet Governance?	1
How Is the Internet Currently Governed?.....	1
Role of U.S. Government	3
Affirmation of Commitments	4
DOC Contracts With ICANN and VeriSign	5
Debate over Future Model of Internet Governance	6
2005 World Summit on the Information Society (WSIS).....	7
Creation of the .xxx Domain and New gTLDs.....	8
.xxx.....	8
gTLD Expansion	10
Proposed Models for Internet Governance.....	14
World Conference on International Telecommunications (WCIT).....	17
Montevideo Statement on the Future of Internet Cooperation	19
Issues for Congress	19

Figures

Figure A-1. Organizational Structure of ICANN.....	23
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Appendixes

Appendix. ICANN Basics.....	22
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Contacts

Author Contact Information.....	23
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What Is Internet Governance?

There is no universally agreed-upon definition of “Internet governance.” A more limited definition would encompass the management and coordination of the technical underpinnings of the Internet—such as domain names, addresses, standards, and protocols that enable the Internet to function. A broader definition would include the many factors that shape a variety of Internet policy-related issues, such as such as intellectual property, privacy, Internet freedom, e-commerce, and cybersecurity.

One working definition was developed at the World Summit on the Information Society (WSIS) in 2005:

Internet governance is the development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.¹

Another definition developed by the Internet Governance Project (IGP)² delineates three aspects of the Internet that may require some level of governing: *technical standardization*, which involves arriving at and agreeing upon technical standards and protocols; *resource allocation and assignment*, which includes domain names and Internet Protocol (IP) addresses; and *human conduct on the Internet*, encompassing the regulations, rules, and policies affecting areas such as spam, cybercrime, copyright and trademark disputes, consumer protection issues, and public and private security. With these three categories in mind, the IGP definition is:

Internet governance is collective decisionmaking by owners, operators, developers, and users of the networks connected by Internet protocols to establish policies, rules, and dispute resolution procedures about technical standards, resource allocations, and/or the conduct of people engaged in global internetworking activities.³

How Is the Internet Currently Governed?

The nature of the Internet, with its decentralized architecture and structure, makes the practice of governing a complex proposition. First, the Internet is inherently international and cannot in its totality be governed by national governments whose authority ends at national borders. Second, the Internet’s successful functioning depends on the willing cooperation and participation by mostly private sector stakeholders around the world. These stakeholders include owners and operators of servers and networks around the world, domain name registrars and registries, regional IP address allocation organizations, standards organizations, Internet service providers, and Internet users.

¹ Tunis Agenda for the Information Society, November 18, 2005, WSIS-05/TUNIS/DOC6(Rev.1)-E, p. 6, available at <http://www.itu.int/wsis/docs2/tunis/off/6rev1.pdf>.

² The IGP describes itself as “an alliance of academics that puts expertise into practical action in the fields of global governance, Internet policy, and information and communication technology.” See <http://www.internetgovernance.org>.

³ Milton Mueller, John Mathiason, and Hans Klein, “The Internet and Global Governance: Principles and Norms for a New Regime,” *Global Governance*, vol. 13 (2007), p. 245.

Given the multiplicity and diversity of Internet stakeholders, a number of organizations and entities play varying roles. It is important to note that all of the Internet stakeholders cited above participate in various ways within the various fora, organizations, and frameworks addressing Internet governance and policy.

Key organizations in the private sector include the following:

Internet Corporation for Assigned Names and Numbers (ICANN)—ICANN was created in 1998 through a Memorandum of Understanding with the Department of Commerce (see the following section of this report, “Role of U.S. Government”). Directed by an internationally constituted Board of Directors, ICANN is a private, not-for-profit organization based in Marina Del Ray, CA, which manages and oversees the critical technical underpinnings of the Internet such as the domain name system and IP addressing (see the **Appendix** for more background information on ICANN). ICANN implements and enforces many of its policies and rules through contracts with *registries* (companies and organizations who operate and administer the master database of all domain names registered in each top level domain, such as .com and .org) and accredited *registrars* (the hundreds of companies and organizations with which consumers register domain names). Policies are developed by Supporting Organizations and Committees in a consensus-based “bottom-up” process open to various constituencies and stakeholders of the Internet. As such, ICANN is often pointed to as emblematic of the “multistakeholder model” of Internet governance.

Internet standards organizations—As the Internet has evolved, groups of engineers, researchers, users, and other interested parties have coalesced to develop technical standards and protocols necessary to enable the Internet to function smoothly. These organizations conduct standards development processes that are open to participants and volunteers from around the world. Internet standards organizations include the Internet Engineering Task Force (IETF), the Internet Architecture Board (IAB), the Internet Society (ISOC), and the World Wide Web Consortium (W3C).

Governmental entities involved in Internet governance include the following:

Governmental Advisory Committee (GAC)—As part of ICANN’s multistakeholder process, the GAC provides advice to the ICANN Board on matters of public policy, especially in cases where ICANN activities and policies may interact with national laws or international agreements related to issues such as intellectual property, law enforcement, and privacy. Although the ICANN Board is required to consider GAC advice and recommendations, it is not obligated to follow those recommendations. Membership in the GAC is open to all national governments who wish to participate. Currently, there are 113 nations represented, and the GAC Chair is presently held by Canada, with Vice Chairs held by Kenya, Sweden, and Singapore.

Internet Governance Forum (IGF)—The IGF was established in 2006 by the United Nation’s World Summit on the Information Society (WSIS). The purpose of the IGF is to provide a multistakeholder forum which provides an open discussion (in yearly meetings) on public policies related to the Internet. Open to all stakeholders and interested parties (governments, industry, academia, civil society), the IGF serves as an open discussion forum and does not have negotiated outcomes, nor does it make formal recommendations to the U.N. In December 2010, the U.N. General Assembly renewed the IGF through 2015 and tasked the U.N.’s Commission on Science and Technology for Development (CSTD) to develop a report and recommendations on how the IGF might be improved. A Working Group on Improvements to the Internet Governance Forum

was formed by the U.N., which includes 22 governments (including the United States) and the participation of Internet stakeholder groups.

Other International Organizations—Other existing international organizations address Internet policy issues in various ways. The International Telecommunications Union (ITU) is the United Nations’ specialized agency for communications and information technology. The World Intellectual Property Organization (WIPO) is another specialized agency of the U.N., which addresses a wide range of intellectual property issues, including those related to Internet policy. The Organisation for Economic Co-operation and Development (OECD) provides a forum for governments to work together to address economic issues, including the recent development of Internet policymaking principles. While none of these organizations have direct control or authority over the Internet, their activities can have influence over future directions of global Internet policy.

National governments—National governments have acted to address various Internet policy issues within their own borders. Many of the national laws and regulations pertain to user behavior on the Internet. For example, in the United States, laws have been passed addressing such issues as cybersecurity and cybercrime, Internet gambling, Internet privacy, and protection of intellectual property on the Internet. Governments have also established internal Internet policy coordinating bodies (e.g., the National Telecommunication and Information Administration’s Internet Policy Task Force and the European Commission’s Information Society).

Role of U.S. Government

The United States government has no statutory authority over ICANN or the domain name system. However, because the Internet evolved from a network infrastructure created by the Department of Defense, the U.S. government originally owned and operated (primarily through private contractors) many of the key components of network architecture that enabled the domain name system to function. In the early 1990s, the National Science Foundation (NSF) was given a lead role in overseeing domain names used in the civilian portion of the Internet (which at that time was largely comprised of research universities). By the late 1990s, ICANN was created, the Internet had expanded into the commercial world, and the National Telecommunications and Information Administration (NTIA) of the Department of Commerce (DOC) assumed the lead role.

A 1998 Memorandum of Understanding between ICANN and the DOC initiated a process intended to transition technical DNS coordination and management functions to a private-sector not-for-profit entity. While the DOC plays no role in the internal governance or day-to-day operations of ICANN, the U.S. government, through the DOC/NTIA, retains a role with respect to the DNS via three separate contractual agreements. These are:

- a 2009 Affirmation of Commitments (AoC) between DOC and ICANN;⁴

⁴ For more information on the Affirmation of Commitments, including the precursor agreements between DOC and ICANN such as the Joint Project Agreement and the Memorandum of Understanding, see CRS Report 97-868, *Internet Domain Names: Background and Policy Issues*, by Lennard G. Kruger.

- a contract between ICANN and DOC to perform various technical functions such as allocating IP address blocks, editing the root zone file, and coordinating the assignment of unique protocol numbers; and
- a cooperative agreement between DOC and VeriSign to manage and maintain the official DNS root zone file.

By virtue of those three contractual agreements, the United States government—through DOC/NTIA—exerts a legacy authority over ICANN, and arguably has more influence over ICANN and the DNS than other national governments.

While NTIA is the lead agency overseeing domain name issues, other federal agencies maintain a specific interest in the DNS that may affect their particular missions. For example, the Federal Trade Commission (FTC) seeks to protect consumer privacy on the Internet, the Department of Justice (DOJ) addresses Internet crime and intellectual property issues, and the Department of Defense and Department of Homeland Security address cybersecurity issues. However, none of these agencies have legal authority over ICANN or the running of the DNS.

Affirmation of Commitments

On September 30, 2009, DOC and ICANN announced agreement on an Affirmation of Commitments (AoC) to “institutionalize and memorialize” the technical coordination of the DNS globally and by a private-sector-led organization.⁵ The AoC replaced the previous Memorandum of Understanding and subsequent Joint Project Agreement between DOC and ICANN. It has no expiration date and would conclude only if one of the two parties decided to terminate the agreement.

Under the AoC, ICANN committed to remain a not-for-profit corporation “headquartered in the United States of America with offices around the world to meet the needs of a global community.” According to the AoC, “ICANN is a private organization and nothing in this Affirmation should be construed as control by any one entity.” Specifically, the AoC called for the establishment of review panels which will periodically make recommendations to the ICANN Board in four areas: ensuring accountability, transparency, and the interests of global Internet users (panel includes the Administrator of NTIA); preserving security, stability, and resiliency; impact of new generic top level domains (gTLDs); and WHOIS policy.⁶

On December 31, 2010, the Accountability and Transparency Review Team (ATRT) released its recommendations to the Board for improving ICANN’s transparency and accountability with respect to Board governance and performance, the role and effectiveness of the GAC and its interaction with the Board, public input and policy development processes, and review mechanisms for Board decisions.⁷ At the June 2011 meeting in Singapore, the Board adopted all

⁵ Affirmation of Commitments by the United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers, September 30, 2009, available at http://www.ntia.doc.gov/ntiahome/domainname/Affirmation_of_Commitments_2009.pdf.

⁶ WHOIS is a publicly available online database that provides information on domain name registrants. WHOIS is used to identify domain name holders. WHOIS policy is controversial because it encompasses two competing considerations: protecting the privacy of domain name holders versus enabling law enforcement and trademark holders to identify owners of domain names and websites engaging in criminal activities or infringing on intellectual property.

⁷ The ATRT final report is available at [http://www.icann.org/en/reviews/affirmation/atrt-final-recommendations-\(continued...\)](http://www.icann.org/en/reviews/affirmation/atrt-final-recommendations-(continued...))

27 ATRT recommendations. According to NTIA, “the focus turns to ICANN management and staff, who must take up the challenge of implementing these recommendations as rapidly as possible and in a manner that leads to meaningful and lasting reform.”⁸

DOC Contracts With ICANN and VeriSign

A contract between DOC and ICANN authorizes the Internet Assigned Numbers Authority (IANA) to perform various technical functions such as allocating IP address blocks, editing the root zone file, and coordinating the assignment of unique protocol numbers. Additionally, a cooperative agreement between DOC and VeriSign (a company that operates the .com and .net registries) authorizes VeriSign to manage and maintain the official root zone file that is contained in the Internet’s root servers that underlie the functioning of the DNS.⁹ By virtue of these legal agreements, the DOC must approve changes or modifications made to the root zone file (changes, for example, such as adding a new top level domain).¹⁰

Debate among Internet stakeholders was ongoing over the renewal of the IANA contract between DOC and ICANN, which was due to expire on September 30, 2012. The IANA contract renewal provided a further arena for the larger debate over Internet governance. NTIA’s draft Statement of Work (SOW) detailing work requirements for the IANA contract¹¹ included a provision requiring that requests to IANA for new gTLDs be accompanied by documentation demonstrating how the proposed new gTLD “reflects consensus among relevant stakeholders and is supportive of the global public interest.”¹² ICANN and many others in the domain name community submitted comments to NTIA, expressing strong opposition to the proposal that requests to IANA for new gTLDs be accompanied by documentation demonstrating global public support and consensus. According to ICANN, such a step would undermine ICANN’s multistakeholder model by revising the gTLD implementation and policy processes already adopted through the bottom-up decision-making process.¹³

(...continued)

31dec10-en.pdf.

⁸ NTIA, *Press Release*, “NTIA Commends ICANN Board on Adopting the Recommendations of the Accountability and Transparency Review Team,” June 24, 2011, available at http://www.ntia.doc.gov/press/2011/NTIA_Statement_06242011.html.

⁹ According to the National Research Council, “The root zone file defines the DNS. For all practical purposes, a top level domain (and, therefore, all of its lower-level domains) is in the DNS if and only if it is listed in the root zone file. Therefore, presence in the root determines which DNS domains are available on the Internet.” See National Research Council, Committee on Internet Navigation and the Domain Name System, *Technical Alternatives and Policy Implications, Signposts on Cyberspace: The Domain Name System and Internet Navigation*, National Academy Press, Washington, DC, 2005, p. 97.

¹⁰ The June 30, 2005, “U.S. Principles on the Internet’s Domain Name and Addressing System” stated the intention to “preserve the security and stability” of the DNS, and asserted that “the United States is committed to taking no action that would have the potential to adversely impact the effective and efficient operation of the DNS and will therefore maintain its historic role in authorizing changes or modifications to the authoritative root zone file.” See http://www.ntia.doc.gov/ntiahome/domainname/USDNSprinciples_06302005.pdf.

¹¹ Department of Commerce, National Telecommunications and Information Administration, “Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions,” 76 *Federal Register* 10570, February 25, 2011.

¹² *Ibid.*, p. 34662.

¹³ See ICANN comments at http://www.ntia.doc.gov/files/ntia/icann_fnoi_comments_20110722.pdf, p. 7.

NTIA's final contract solicitation, released on November 10, 2011, lessened the IANA contractor requirements for adding new gTLDs, stating that when adding new gTLDs to the root zone, the contractor must provide "specific documentation demonstrating how the process provided the opportunity for input from relevant stakeholders and was supportive of the global public interest."¹⁴ The IANA contract solicitation issued by NTIA specified that the contractor must be a wholly U.S. owned and operated firm or a U.S. university or college; that all primary operations and systems shall remain within the United States; and that the U.S. government reserves the right to inspect the premises, systems, and processes of all facilities and components used for the performance of the contract.

On July 2, 2012, NTIA announced the award of the new IANA contract to ICANN for up to seven years (through September 2019). The new contract included a separation between the policy development of IANA services and the implementation by the IANA functions contractor. The contract also featured "a robust company-wide conflict of interest policy; a heightened respect for local national law; and a series of consultation and reporting requirements to increase transparency and accountability."¹⁵

U.S. government authority and control over IANA and the management of the root zone file is a long-standing point of contention internationally. For example, while the European Commission approved many aspects of the new IANA contract, it sounded the following caution:

The Commission believes greater respect should be given by the IANA contractor to respecting applicable law (such as EU personal data protection laws). The Commission will continue to take the initiative for such provisions in future IANA contracts as part of its efforts to ensure sustainable multi-stakeholder governance of the Internet, in the service of public interest, as a matter of both principle and efficient practice. In that context, it noted with regret that non-US companies are not allowed to compete for the forthcoming IANA contract.¹⁶

Debate over Future Model of Internet Governance

Given its complexity, diversity, and international nature, how should the Internet be governed? Some assert that a multistakeholder model of governance is appropriate, where all stakeholders (both public and private sectors) arrive at consensus through a transparent bottom-up process. Others argue that a greater role for national governments is necessary, either through increased influence through the multistakeholder model, or under the auspices of an international body exerting intergovernmental control.

To date, ICANN and the governance of the domain name system has been the focal point of this debate. While ICANN's mandate is to manage portions of the technical infrastructure of the

¹⁴ Available at https://www.fbo.gov/index?s=opportunity&mode=form&id=c564af28581edb2a7b9441eccfd6391d&tab=core&_cview=0.

¹⁵ NTIA, Press Release, "Commerce Department Awards Contract for Management of Key Internet Functions to ICANN," July 2, 2012, available at <http://www.ntia.doc.gov/press-release/2012/commerce-department-awards-contract-management-key-internet-functions-icann>.

¹⁶ European Commission, "Digital Agenda: Commission welcomes improvements in new IANA contract," *Press Release*, November 14, 2011, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/1345&format=HTML&aged=0&language=EN&guiLanguage=en>.

Internet (domain names and IP addresses), many of the decisions ICANN makes affect other aspects of Internet policy, including areas such as intellectual property, privacy, and cybersecurity. These are areas which many national governments have addressed for their own citizens and constituencies through domestic legislation, as well as through international treaties.

As part of the debate over an appropriate model of Internet governance, criticisms of ICANN have arisen on two fronts. One criticism reflects the tension between national governments and the current performance and governance processes of ICANN, whereby governments feel they lack adequate influence over ICANN decisions that affect a range of Internet policy issues. The other criticism is fueled by concerns of many nations that the U.S. government holds undue legacy influence and control over ICANN and the domain name system.

The debate over multistakeholderism vs. intergovernmental control initially manifested itself in 2005 at the World Summit on the Information Society (WSIS), which was a conference organized by the United Nations. More recently, this debate has been rekindled in various international fora, partially sparked by two ICANN actions in 2011: the approval of the .xxx top-level domain and the approval of a process to allow an indefinite number of new generic top level domains (gTLDs).

2005 World Summit on the Information Society (WSIS)

Following the creation of ICANN in 1998, many in the international community, including foreign governments, argued that it was inappropriate for the U.S. government to maintain its legacy authority over ICANN and the DNS. They suggested that management of the DNS should be accountable to a higher intergovernmental body. The United Nations, at the first phase of the WSIS in December 2003, debated and agreed to study the issue of how to achieve greater international involvement in the governance of the Internet, and the domain name system in particular. The study was conducted by the U.N.'s Working Group on Internet Governance (WGIG). On July 14, 2005, the WGIG released its report,¹⁷ stating that no single government should have a preeminent role in relation to international Internet governance. The report called for further internationalization of Internet governance, and proposed the creation of a new global forum for Internet stakeholders. Four possible models were put forth, including two involving the creation of new Internet governance bodies linked to the U.N. Under three of the four models, ICANN would either be supplanted or made accountable to a higher intergovernmental body. The report's conclusions were scheduled to be considered during the second phase of the WSIS held in Tunis in November 2005. U.S. officials stated their opposition to transferring control and administration of the domain name system from ICANN to any international body. Similarly, the 109th Congress expressed its support for maintaining existing U.S. control over ICANN and the DNS (H.Con.Res. 268 and S.Res. 323).¹⁸

The European Union (EU) initially supported the U.S. position. However, during the September 2005 preparatory meetings, the EU seemingly shifted its support towards an approach which favored an enhanced international role in governing the Internet. Conflict at the WSIS Tunis

¹⁷ Working Group on Internet Governance, Report from the Working Group on Internet Governance, World Summit on the Information Society, Document WSIS-II/PC-3/DOC/5-E, August 3, 2005, available at <http://www.itu.int/wsis/docs2/pc3/html/off5/index.html>.

¹⁸ In the 109th Congress, H.Con.Res. 268 was passed unanimously by the House on November 16, 2005. S.Res. 323 was passed in the Senate by Unanimous Consent on November 18, 2005.

Summit over control of the domain name system was averted by the announcement, on November 15, 2005, of an Internet governance agreement between the United States, the EU, and over 100 other nations. Under this agreement, ICANN and the United States maintained their roles with respect to the domain name system. A new international group under the auspices of the U.N. was formed—the Internet Governance Forum (IGF)—which would provide an ongoing forum for all stakeholders (both governments and nongovernmental groups) to discuss and debate Internet policy issues.

Creation of the .xxx Domain and New gTLDs

Starting in 2010 and 2011, controversies surrounding the roll-out of new generic top level domains (gTLDs) and the addition of the .xxx TLD led some governments to argue for increased government influence on the ICANN policy development process.¹⁹

.xxx

Since 2000, ICANN has repeatedly considered whether to allow the establishment of a gTLD for adult content. On June 1, 2005, ICANN announced that it had entered into commercial and technical negotiations with a registry company (ICM Registry) to operate a new “.xxx” domain, which would be designated for use by adult websites. With the ICANN Board scheduled to consider final approval of the .xxx domain on August 16, 2005, the Department of Commerce sent a letter to ICANN requesting that adequate additional time be provided to allow ICANN to address the objections of individuals expressing concerns about the impact of pornography on families and children and opposing the creation of a new top level domain devoted to adult content. ICANN’s Governmental Advisory Committee (GAC) also requested more time before the final decision.

On March 30, 2007, the ICANN Board voted 9-5 to deny the .xxx domain. ICM Registry subsequently challenged ICANN’s decision before an Independent Review Panel (IRP), claiming that ICANN’s rejection of ICM’s application for a .xxx gTLD was not consistent with ICANN’s Articles of Incorporation and Bylaws. On February 19, 2010, a three-person Independent Review Panel ruled primarily in favor of ICM Registry, finding that its application for the .xxx TLD had met the required criteria.

Subsequently, on June 25, 2010, at the ICANN meeting in Brussels, the Board of Directors voted to allow ICM’s .xxx application to move forward, and at the December 2010 ICANN meeting, the ICANN Board passed a resolution stating that while “it intends to enter into a registry agreement with ICM Registry for the .xxx TLD,” the Board would enter into a formal consultation with the Governmental Advisory Committee on areas where the Board’s decision was in conflict with GAC advice relating to the ICM application.²⁰

While not officially or formally in opposition to the approval of .xxx, the GAC advised ICANN that “there is no active support of the GAC for the introduction of a .xxx TLD” and that “while

¹⁹ See McCarthy, Kieren, *.nxt*, “Global Internet Governance Fight Looms,” September 22, 2011, available at <http://news.dot-nxt.com/2011/09/22/internet-governance-fight-looms>.

²⁰ ICANN, *Adopted Board Resolutions, Cartagena*, December 10, 2010, available at <http://www.icann.org/en/minutes/resolutions-10dec10-en.htm#4>.

there are members, which neither endorse nor oppose the introduction of a .xxx TLD, others are emphatically opposed from a public policy perspective to the introduction of an .xxx TLD.”²¹ The GAC listed a number of specific issues and objections that it wished ICANN to resolve.

A February 2011 letter from ICANN to the GAC acknowledged and responded to areas where approving the .xxx registry agreement with ICM would conflict with GAC advice received by ICANN.²² The Board acknowledged that ICANN and the GAC were not able to reach a mutually acceptable solution, and ultimately, on March 18, 2011, the Board approved a resolution giving the CEO or General Counsel of ICANN the authority to execute the registry agreement with ICM to establish a .xxx TLD. The vote was nine in favor, three opposed, and four abstentions.

The decision to create a .xxx TLD was not viewed favorably by many governments.²³ In an April 6, 2011, letter to the Department of Commerce, the European Commissioner for the Digital Agenda asked that the introduction of .xxx be delayed.²⁴ In its response, NTIA said it “share[s] your disappointment that ICANN ignored the clear advice of governments worldwide, including the United States, by approving the new .xxx domain.”²⁵ However, NTIA stated why it would not (and did not) interfere with the addition of .xxx:

While the Obama Administration does not support ICANN’s decision, we respect the multi-stakeholder Internet governance process and do not think that it is in the long-term best interest of the United States or the global Internet community for us unilaterally to reverse the decision. Our goal is to preserve the global Internet, which is a force for innovation, economic growth, and the free flow of information. I agree with you that the Board took its action without the full support of the community and accordingly, I am dedicated to improving the responsiveness of ICANN to all stakeholders, including governments worldwide.²⁶

²¹ Letter from Chair, Governmental Advisory Committee to ICANN Chairman of the Board, March 16, 2011, available at <https://gacweb.icann.org/download/attachments/1540116/20110316+GAC+Advice+on+xxx.pdf?version=2&modificationDate=1312469527000>.

²² Letter from ICANN to Chair of GAC, February 10, 2011, available at <http://icann.org/en/correspondence/jeffrey-to-to-dryden-10feb11-en.pdf>.

²³ ICANN must receive formal approval from NTIA for any additions of new gTLDs to the DNS. See Kevin Murphy, “US upset with ICANN over xxx,” *Domain Incite*, March 20, 2011, available at <http://domainincite.com/us-upset-with-icann-over-xxx/>.

India and Saudi Arabia have stated their intention to block the xxx domain. See “xxx addresses open for business,” *The Times of India*, April 19, 2011, available at http://articles.timesofindia.indiatimes.com/2011-04-19/computing/29446429_1_icann-suffix-websites.

²⁴ Kevin Murphy, “Europe asked US to delay .xxx,” *Domain Incite*, May 5, 2011, available at <http://domainincite.com/europe-did-ask-the-us-to-delay-xxx/>.

²⁵ Letter from Lawrence Strickling to Neelie Kroes, “Strickling letter to Kroes re: dot-xxx,” *.nxt*, April 20, 2011, available at <http://news.dot-nxt.com/2011/04/20/strickling-letter-kroes-xxx>.

²⁶ *Ibid.*

gTLD Expansion

Top Level Domains (TLDs) are the suffixes that appear at the end of an address (after the “dot”). Prior to ICANN’s establishment in 1998, the Internet had eight generic top level domains (gTLDs), including .com, .org, .net, and .gov. In 2000 and 2004, ICANN held application rounds for a limited number of new gTLDs—currently there are 22. Some are reserved or restricted to particular types of organizations (e.g., .museum, .gov, .travel) and others are open for registration by anyone (.com, .org, .info). Applicants for new gTLDs are typically commercial entities and non-profit organizations who seek to become ICANN-recognized registries that will establish and operate name servers for their TLD registry, as well as implement a domain name registration process for that particular TLD.

The growth of the Internet and the accompanying growth in demand for domain names have focused the debate on whether and how to further expand the number of gTLDs. Beginning in 2005, ICANN embarked on a long consultative process to develop rules and procedures for introducing and adopting an indefinite number of new gTLDs into the domain name system. A new gTLD can be any word or string of characters that is applied for and approved by ICANN. Between 2008 and 2011, ICANN released seven iterations of its gTLD Applicant Guidebook (essentially the rulebook for how the new gTLD program will be implemented). On June 20, 2011, the ICANN Board of Directors voted to approve the launch of the new gTLD program, under which potentially hundreds of new gTLDs could ultimately be approved by ICANN and introduced into the DNS. Applications for new gTLDs were to be accepted from January 12 through April 12, 2012.

The rollout of new gTLDs was controversial. Advocates (including the domain name industry) argued that a gTLD expansion will provide opportunities for Internet innovation and competition. On the other hand, many trademark holders pointed to possible higher costs and greater difficulties in protecting their trademarks across hundreds of new gTLDs. Similarly, governments expressed concern over intellectual property protections, and along with law enforcement entities, also cited concerns over the added burden of combating various cybercrimes (such as phishing and identity theft) across hundreds of new gTLDs. Throughout ICANN’s policy development process, governments, through the Governmental Advisory Committee, advocated for additional intellectual property protections in the new gTLD process. The GAC also argued for more stringent rules that would allow for better law enforcement in the new domain space to better protect consumers. Although changes were made, strong opposition from many trademark holders²⁷ led to opposition from some parts of the U.S. government towards the end of 2011. For example:

- On December 8, 2011, the Senate Committee on Commerce, Science and Transportation held a hearing on the ICANN’s expansion of TLDs. Subsequently, on December 28, 2011, a letter from Senator John Rockefeller, chairman of the Senate Committee on Commerce, Science and Transportation, to the Secretary of Commerce and the Administrator of NTIA, stated his concern that “this expansion of gTLDs, if it proceeds as planned, will have adverse consequences for the millions of American consumers, companies, and non-profit organizations that use the Internet on a daily basis” and that at the hearing, “witnesses speaking

²⁷ The Association of National Advertisers (ANA) has been a leading voice against ICANN’s current rollout of the new gTLD program. See ANA webpage, “Say No to ICANN: Generic Top Level Domain Developments,” available at <http://www.ana.net/content/show/id/icann>.

on behalf of more than a hundred companies and non-profit organizations explained that ICANN's current plan for gTLD expansion will likely cause millions of dollars in increased costs related to combating cybersquatting." In the letter, Senator Rockefeller requested that NTIA "should consider asking ICANN to either delay the opening of the application period or to drastically limit the number of new gTLDs it approves next year."²⁸ A subsequent December 22, 2011, letter to ICANN from Senators Klobuchar and Ayotte also registered concern over the TLD expansion and asked ICANN to further address law enforcement, trademark, and consumer concerns before launching the program.²⁹

- On December 14, 2011, the House Committee on Energy and Commerce, Subcommittee on Communications and Technology, held a hearing on ICANN's top level domain program. Subsequently on December 21, 2011, a bipartisan group of Committee Members sent a letter to ICANN requesting that the expansion of the gTLDs be delayed, noting that "many stakeholders are not convinced that ICANN's process has resulted in an acceptable level of protection."³⁰ The Energy and Commerce Committee Members argued that "a short delay will allow interested parties to work with ICANN and offer changes to alleviate many of them, specifically concerns over law enforcement, cost and transparency that were discussed in recent Congressional hearings."³¹
- A December 16, 2011, letter to the Secretary of Commerce from Representative Bob Goodlatte, chairman of the House Subcommittee on Intellectual Property, Competition, and the Internet, and Representative Howard Berman, ranking Member of the House Committee on Foreign Affairs, urged DOC to take all steps necessary to encourage ICANN to undertake further evaluation and review before the gTLD expansion is permitted to occur. The letter asked DOC to determine whether the benefits of the expansion outweigh the costs and risks to consumers, businesses, and the Internet, and that if the program proceeds, that ICANN should initially limit the expansion to a small pilot project which can be evaluated.³² Previously, the Subcommittee on Intellectual Property, Competition, and the Internet had held a May 4, 2011, hearing on oversight of the gTLD program.
- A December 16, 2011, letter from the Federal Trade Commission (FTC) to ICANN argued that a "rapid, exponential expansion of gTLDs has the potential to magnify both the abuse of the domain name system and the corresponding challenges we encounter in tracking down Internet fraudsters." The FTC urged ICANN to implement the new gTLD program as a pilot program and

²⁸ See "Rockefeller Says Internet Domain Expansion Will Hurt Consumers, Businesses, and Non-Profits—Urges Delay," *Press Release*, Senate Committee on Commerce, Science and Transportation, December 28, 2011, available at <http://commerce.senate.gov/public/index.cfm?p=PressReleases>.

²⁹ Letter from Senator Amy Klobuchar and Senator Kelly Ayotte to ICANN, December 22, 2011, available at <http://www.icann.org/en/correspondence/klobuchar-ayotte-to-beckstrom-crocker-22dec11-en.pdf>.

³⁰ House Committee on Energy and Commerce, "Committee Urges ICANN to Delay Expansion of Generic Top-Level Domain Program," *Press Release*, December 21, 2011, available at <http://energycommerce.house.gov/news/PRArticle.aspx?NewsID=9176>.

³¹ *Ibid.*

³² Letter from Representative Goodlatte and Representative Berman to the Secretary of Commerce, December 16, 2011, available at <http://www.icann.org/en/correspondence/goodlatte-berman-to-bryson-16dec11-en.pdf>.

substantially reduce the number of gTLDs that are introduced in the first application round, strengthen ICANN's contractual compliance program, develop a new ongoing program to monitor consumer issues that arise during the first round of implementing the new gTLD program, conduct an assessment of each new proposed gTLD's risk of consumer harm as part of the evaluation and approval process, and improve the accuracy of WHOIS data, including by imposing a registrant verification requirement. The FTC added that "ICANN should address these issues before it approves any new gTLD applications. If ICANN fails to address these issues responsibly, the introduction of new gTLDs could pose a significant threat to consumers and undermine consumer confidence in the Internet."³³

- A December 27, 2011, letter to ICANN from the Senate and House Judiciary Committees expressed concerns over the new gTLD program and urged ICANN to "strengthen protections for consumers and trademark holders who risk being harmed by the proliferation of domain names on the web." The letter also urged ICANN to work closely with the law enforcement community "to ensure that the program's rollout does not adversely impact their efforts to fight fraud and abuse on the Internet."³⁴

At the December 2011 House and Senate hearings, ICANN stated its intention to proceed with the gTLD expansion as planned. ICANN defended its gTLD program, arguing that the new gTLDs will offer more protections for consumers and trademark holders than current gTLDs; that new gTLDs will provide needed competition, choice, and innovation to the domain name system; and that critics have already had ample opportunity to contribute input during a seven-year deliberative policy development process.³⁵ Ultimately, ICANN did not delay the initiation of the new gTLD program, and the application window was opened on January 12, 2012, as planned.

Much of the pressure on ICANN to delay the new gTLD program was directed at NTIA, given NTIA's unique relationship with ICANN. At both the December 2011 Senate and House hearings, NTIA expressed support for ICANN's planned rollout of the TLD expansion program, arguing that national governments have been able to address intellectual property, law enforcement, and consumer concerns through the Governmental Advisory Committee (GAC):

NTIA believes that ICANN improved the new gTLD program by incorporating a significant number of proposals from the GAC. ICANN's new gTLD program also now provides law enforcement and consumer protection authorities with significantly more tools than those available in existing gTLDs to address malicious conduct. The fact that not all of the GAC's

³³ Letter from FTC to ICANN, December 16, 2011, available at <http://www.ftc.gov/os/closings/publicltrs/111216letter-to-icann.pdf>.

³⁴ Letter from the Chairmen and Ranking Members of the Senate and House Judiciary Committees to Rod Beckstrom, CEO, ICANN, December 27, 2011, available at <http://www.icann.org/en/correspondence/leahy-to-beckstrom-27dec11-en.pdf>.

³⁵ Testimony of Kurt Pritz, Senior Vice President, ICANN, before the House Committee on Energy and Commerce, Subcommittee on Communications and Technology, December 14, 2011, available at <http://republicans.energycommerce.house.gov/Media/file/Hearings/Telecom/121411/Pritz.pdf>. The gTLD expansion is also strongly supported by many in the Internet and domain name industry, see letter to Senator Rockefeller and Senator Hutchison at <http://news.dot-nxt.com/sites/news.dot-nxt.com/files/gtld-industry-to-congress-gtlds-8dec11.pdf>.

proposals were adopted as originally offered does not represent a failure of the process or a setback to governments; rather, it reflects the reality of a multi-stakeholder model.³⁶

While NTIA stated that it would continue to monitor progress and push for necessary changes to ICANN's TLD expansion program, a key aspect of NTIA's argument for supporting ICANN's planned rollout was to preserve the integrity of the multistakeholder Internet governance process:

NTIA is dedicated to maintaining an open, global Internet that remains a valuable tool for economic growth, innovation, and the free flow of information, goods, and services online. We believe the best way to achieve this goal is to continue to actively support and participate in multi-stakeholder Internet governance processes such as ICANN. This is in stark contrast to some countries that are actively seeking to move Internet policy to the United Nations. If we are to combat the proposals put forward by others, we need to ensure that our multi-stakeholder institutions have provided a meaningful role for governments as stakeholders. NTIA believes that the strength of the multi-stakeholder approach to Internet policy-making is that it allows for speed, flexibility, and decentralized problem-solving and stands in stark contrast to a more traditional, top-down regulatory model characterized by rigid processes, political capture by incumbents, and in so many cases, impasse or stalemate.³⁷

On January 3, 2012, NTIA sent ICANN a letter concerning implementation of the new gTLD program.³⁸ While NTIA recognized that the program "is the product of a six-year international multistakeholder process" and that NTIA does "not seek to interfere with the decisions and compromises reached during that process," NTIA urged ICANN to consider implementing measures to address many of the criticisms raised. Such measures would address concerns of trademark holders, law enforcement, and consumer protection. NTIA also asked ICANN to assess (after the initial application window closes and the list of prospective new gTLDs is known) whether there is a need to phase in the introduction of new gTLDs, and whether additional trademark protection measures need to be taken.

NTIA concluded its letter as follows:

How ICANN handles the new gTLD program will, for many, be a litmus test of the viability of this approach. For its part, NTIA is committed to continuing to be an active member of the GAC and working with stakeholders to mitigate any unintended consequences of the new gTLD program.³⁹

On June 13, 2012, ICANN announced it had received 1,930 applications for new gTLDs,⁴⁰ and ICANN has now moved into the evaluation phase; ICANN will decide whether or not to accept each of the 1,930 new gTLD applications. With the first round application period concluded, there remain significant issues in play as the new gTLD program goes forward. First, ICANN has

³⁶ Testimony of Fiona M. Alexander, Associate Administrator, NTIA, before the House Committee on Energy and Commerce, Subcommittee on Communications and Technology, December 14, 2011, available at <http://www.ntia.doc.gov/speechtestimony/2011/testimony-associate-administrator-alexander-icann-s-top-level-domain-name-progr>.

³⁷ Ibid.

³⁸ Letter from Lawrence Strickling, Assistant Secretary for Communications and Information, U.S. Department of Commerce, to ICANN, January 3, 2012, available at <http://www.ntia.doc.gov/other-publication/2012/ntia-letter-regarding-gtld-program>.

³⁹ Ibid.

⁴⁰ A complete list of new gTLD applications is provided at <http://newgtlds.icann.org/en/program-status/application-results/strings-1200utc-13jun12-en>.

stated that a second and subsequent round will take place, and that changes to the application and evaluation process will be made such that a “systemized manner of applying for gTLDs be developed in the long term.”⁴¹ ICANN’s goal is to begin the second application round “within one year of the close of the application submission period for the initial round.”⁴² Thus, many observers are eager to see what changes may be made in the second round.

Second, when the new gTLDs go “live,” many stakeholders are concerned that various forms of domain name abuse (e.g., trademark infringement, consumer fraud, malicious behavior, etc.) could manifest itself within the hundreds of new gTLD domain spaces. Thus, the effectiveness of ICANN’s approach to addressing such issues as intellectual property protection of second level domain names and mitigating unlawful behavior in the domain name space will be of interest as the new gTLD program goes forward.

With respect to the new gTLD program, the GAC provides advice to the ICANN Board on any first round applications the GAC considers problematic. GAC advice can take three forms:

I. The GAC advises ICANN that it is the consensus of the GAC that a particular application should not proceed. This will create a strong presumption for the ICANN Board that the application should not be approved.

II. The GAC advises ICANN that there are concerns about a particular application “dot-example.” The ICANN Board is expected to enter into dialogue with the GAC to understand the scope of concerns. The ICANN Board is also expected to provide a rationale for its decision.

III. The GAC advises ICANN that an application should not proceed unless remediated. This will raise a strong presumption for the Board that the application should not proceed unless there is a remediation method available in the Guidebook (such as securing the approval of one or more governments), that is implemented by the applicant.⁴³

The GAC also issues Early Warnings to the ICANN Board in the event that any GAC member finds an application problematic for any reason. An Early Warning is an indication that a formal GAC objection is possible (either through the GAC advice process or through the formal objection process). Applicants are notified of an Early Warning against their application and given the opportunity to address the concerns or to withdraw the application (thereby qualifying for a partial refund of the application fee).

Proposed Models for Internet Governance

As discussed above, ICANN is a working example of a multistakeholder model of Internet governance, whereby a bottom-up collaborative process is used to provide Internet stakeholders with access to the policymaking process. Support for the multistakeholder model of Internet governance is reflected in international organizations such as the Organisation for Economic Co-operation and Development (OECD) and the Group of Eight (G8). For example, the OECD’s

⁴¹ ICANN, *New gTLD Applicant Guidebook*, June 4, 2012, Module 1, p. 1-21, available at <http://newgtlds.icann.org/en/applicants/agb>.

⁴² *Ibid.*

⁴³ *Ibid.*, Module 3, p. 3-3.

Communiqué on Principles for Internet Policy-Making cites multistakeholderism as a central tenet of Internet governance:

In particular, continued support is needed for the multi-stakeholder environment, which has underpinned the process of Internet governance and the management of critical Internet resources (such as naming and numbering resources) and these various stakeholders should continue to fully play a role in this framework. Governments should also work in multi-stakeholder environments to achieve international public policy goals and strengthen international co-operation in Internet governance.⁴⁴

Similarly, at the G8 Summit of Deauville on May 26-27, 2011, the G8 issued a declaration on its renewed commitment for freedom and democracy that contained a new section on the Internet. Support for a multistakeholder model for Internet governance with a significant national government role was made explicit:

As we support the multi-stakeholder model of Internet governance, we call upon all stakeholders to contribute to enhanced cooperation within and between all international fora dealing with the governance of the Internet. In this regard, flexibility and transparency have to be maintained in order to adapt to the fast pace of technological and business developments and uses. Governments have a key role to play in this model.⁴⁵

As discussed above, in 2005, the World Summit on the Information Society (WSIS) considered four models of Internet governance, of which three would have involved an intergovernmental body to oversee the Internet and the domain name system. While the WSIS ultimately decided not to pursue an intergovernmental model in 2005, some nations have again advocated an intergovernmental approach for Internet governance. For example:

- India, Brazil, and South Africa (referred to as IBSA) proposed that “an appropriate body is urgently required in the U.N. system to coordinate and evolve coherent and integrated global public policies pertaining to the Internet.” The IBSA proposed body would “integrate and oversee the bodies responsible for technical and operational functioning of the Internet, including global standards setting.”⁴⁶
- In order to implement the major aspects of the IBSA proposal, the government of India proposed (in the U.N. General Assembly) the establishment of a new institutional mechanism in the United Nations for global Internet-related policies, to be called the United Nations Committee for Internet-Related Policies (CIRP). CIRP would be comprised of 50 member states chosen on the basis of equitable geographical representation. The Internet Governance Forum (IGF) and four advisory stakeholder groups would provide input to CIRP, which would report directly to the General Assembly and present recommendations for consideration,

⁴⁴ Organisation for Economic Co-operation and Development, OECD High Level Meeting, *The Internet Economy: Generating Innovation and Growth, Communiqué on Principles for Internet Policy-Making*, June 28-29, 2011, p. 4, available at <http://www.oecd.org/dataoecd/33/12/48387430.pdf>.

⁴⁵ G8 Declaration, *Renewed Commitment for Freedom and Democracy*, G8 Summit of Deauville, May 26-27, 2011, available at <http://www.g20-g8.com/g8-g20/g8/english/live/news/renewed-commitment-for-freedom-and-democracy.1314.html>.

⁴⁶ IBSA Multistakeholder meeting on Global Internet Governance, *Recommendations*, September 1-2, 2011 at Rio de Janeiro, Brazil, available at http://www.culturalivre.org.br/artigos/IBSA_recommendations_Internet_Governance.pdf.

- adoption, and dissemination among all relevant intergovernmental bodies and international organizations.⁴⁷
- Another group of nations, including China and the Russian Federation, proposed a voluntary “International Code of Conduct for Information Security,” for further discussion in the U.N. General Assembly. The Code includes language that promotes the establishment of a multilateral, transparent, and democratic international management system to ensure an equitable distribution of resources, facilitate access for all, and ensure a stable and secure functioning of the Internet.⁴⁸

Thus, governments such as the United States and the European Union support ICANN’s multistakeholder model, while at the same time advocating increased governmental influence within that model.⁴⁹ By contrast, other nations support an expanded role for an intergovernmental model of Internet governance. The debate has been summarized by NTIA as follows:

By engaging all interested parties, multistakeholder processes encourage broader and more creative problem solving, which is essential when markets and technology are changing as rapidly as they are. They promote speedier, more flexible decision making than is common under traditional, top-down regulatory models which can too easily fall prey to rigid procedures, bureaucracy, and stalemate. But there is a challenge emerging to this model in parts of the world.... Some nations appear to prefer an Internet managed and controlled by nation-states. In December 2012, the U.S. will participate in the ITU’s World Conference on International Telecommunications (WCIT). This treaty negotiation will conduct a review of the International Telecommunication Regulations (ITRs), the general principles which relate to traditional international voice telecommunication services. We expect that some states will attempt to rewrite the regulation in a manner that would exclude the contributions of multi-stakeholder organizations and instead provide for heavy-handed governmental control of the Internet, including provisions for cybersecurity and granular operational and technical requirements for private industry. We do not support any of these elements. It is critical that we work with the private sector on outreach to countries to promote the multi-stakeholder model as a credible alternative.⁵⁰

⁴⁷ The CIRP proposal is available at <http://igfwatch.org/discussion-board/indias-proposal-for-a-un-committee-for-internet-related-policies-cirp>.

⁴⁸ United Nations General Assembly, Sixty-sixth session, Item 93 of the provisional agenda, Developments in the field of information and telecommunications in the context of international security, “Letter dated 12 September 2011 from the Permanent Representatives of China, the Russian Federation, Tajikistan, and Uzbekistan to the United Nations addressed to the Secretary-General,” September 14, 2011, A/66/359, available at <http://blog.internetgovernance.org/pdf/UN-infosec-code.pdf>.

⁴⁹ The European Commission has been a particularly strong voice in favor of significantly increasing GAC influence on the ICANN policy process. See Kieren McCarthy, “European Commission calls for greater government control over Internet,” *nxt*, August 31, 2011, available at <http://news.dot-nxt.com/2011/08/31/ec-greater-government-control>.

⁵⁰ Remarks by Lawrence Strickling, Assistant Secretary of Commerce for Communications and Information, National Telecommunications and Information Administration, Department of Commerce, before the PLI/FCBA Telecommunications Policy & Regulation Institute, Washington, DC, December 8, 2011, available at <http://www.ntia.doc.gov/speechtestimony/2011/remarks-assistant-secretary-strickling-practising-law-institutes-29th-annual-te>.

World Conference on International Telecommunications (WCIT)

The World Conference on International Telecommunications (WCIT) was held in Dubai on December 3-14, 2012. Convened by the International Telecommunications Union (the ITU, an agency within the United Nations), the WCIT was a formal meeting of the world's national governments held in order to revise the International Telecommunications Regulations (ITRs). The ITRs, previously revised in 1988, serve as a global treaty outlining the principles which govern the way international telecommunications traffic is handled.

Because the existing 24-year-old ITRs predated the Internet, one of the key policy questions in the WCIT was how and to what extent the updated ITRs should address Internet traffic and Internet governance. The Administration and Congress took the position that the new ITRs should continue to address only traditional international telecommunications traffic, that a multistakeholder model of Internet governance (such as ICANN) should continue, and that the ITU should not take any action that could extend its jurisdiction or authority over the Internet.

As the WCIT approached, concerns heightened in the 112th Congress that the WCIT might potentially provide a forum leading to an increased level of intergovernmental control over the Internet. On May 31, 2012, the House Committee on Energy and Commerce, Subcommittee on Communications and Technology, held a hearing entitled, "International Proposals to Regulate the Internet."⁵¹ To accompany the hearing, H.Con.Res. 127 was introduced by Representative Bono Mack expressing the sense of Congress regarding actions to preserve and advance the multistakeholder governance model. Specifically, H.Con.Res. 127 expressed the sense of Congress that the Administration "should continue working to implement the position of the United States on Internet governance that clearly articulates the consistent and unequivocal policy of the United States to promote a global Internet free from government control and preserve and advance the successful multistakeholder model that governs the Internet today." H.Con.Res. 127 was passed unanimously by the House (414-0) on August 2, 2012.

A similar resolution, S.Con.Res. 50, was introduced into the Senate by Senator Rubio on June 27, 2012, and referred to the Committee on Foreign Relations. The Senate resolution expressed the sense of Congress "that the Secretary of State, in consultation with the Secretary of Commerce, should continue working to implement the position of the United States on Internet governance that clearly articulates the consistent and unequivocal policy of the United States to promote a global Internet free from government control and preserve and advance the successful multistakeholder model that governs the Internet today." S.Con.Res. 50 was passed by the Senate by unanimous consent on September 22, 2012. On December 5, 2012—shortly after the WCIT had begun in Dubai—the House unanimously passed S.Con.Res. 50 by a vote of 397-0.

During the WCIT, a revision to the ITRs was proposed and supported by Russia, China, Saudi Arabia, Algeria, and Sudan that sought to explicitly extend ITR jurisdiction over Internet traffic, infrastructure, and governance. Specifically, the proposal stated that "Member States shall have the sovereign right to establish and implement public policy, including international policy, on matters of Internet governance."⁵² The proposal also included an article establishing the right of Member States to manage Internet numbering, naming, addressing, and identification resources.

⁵¹ Available at <http://energycommerce.house.gov/hearings/hearingdetail.aspx?NewsID=9543>.

⁵² See Article 3A, "Proposals for the Work of the Conference," available at <http://files.wcitleaks.org/public/Merged%20UAE%20081212.pdf>.

The proposal was subsequently withdrawn. However, as an intended compromise, the ITU adopted a nonbinding resolution (Resolution 3, attached to the final ITR text) entitled, “To Foster an enabling environment for the greater growth of the Internet.” Resolution 3 includes language stating “all governments should have an equal role and responsibility for international Internet governance” and invites Member States to “elaborate on their respective positions on international Internet-related technical, development and public policy issues within the mandate of ITU at various ITU forums.”⁵³

Because of the inclusion of Resolution 3, along with other features of the final ITR text (such as new ITU articles related to spam and cybersecurity), the United States declined to sign the treaty. The leader of the U.S. delegation stated the following:

The Internet has given the world unimaginable economic and social benefits during these past 24 years—all without UN regulation. We candidly cannot support an ITU treaty that is inconsistent with a multi-stakeholder model of Internet governance. As the ITU has stated, this conference was never meant to focus on internet issues; however, today we are in a situation where we still have text and resolutions that cover issues on spam and also provisions on internet governance. These past two weeks, we have of course made good progress and shown a willingness to negotiate on a variety of telecommunications policy issues, such as roaming and settlement rates, but the United States continues to believe that internet policy must be multi-stakeholder driven. Internet policy should not be determined by member states but by citizens, communities, and broader society, and such consultation from the private sector and civil society is paramount. This has not happened here.⁵⁴

Of the 144 eligible members of the ITU, 89 nations signed the treaty, while 55 either chose not to sign (such as the United States) or remain undecided.⁵⁵

While the WCIT in Dubai is concluded, the international debate over Internet governance is expected to continue in future intergovernmental telecommunications meetings and conferences. The 113th Congress is overseeing and supporting the U.S. government’s continuing efforts to resist international attempts to exert control over Internet governance. On February 5, 2013, the House Committee on Energy and Commerce, Subcommittee on Communications and Technology, held a hearing entitled “Fighting for Internet Freedom: Dubai and Beyond.” The hearing was held jointly with the House Committee on Foreign Affairs, Subcommittee on Terrorism, Nonproliferation, and Trade and the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations.

On April 16, 2013, H.R. 1580, a bill “To Affirm the Policy of the United States Regarding Internet Governance,” was introduced by Representative Walden. Using language similar to the WCIT-related congressional resolutions passed by the 112th Congress (S.Con.Res. 50 and H.Con.Res. 127), H.R. 1580 states that “It is the policy of the United States to preserve and advance the successful multistakeholder model that governs the Internet.” On April 17, 2013, H.R. 1580 was approved (by voice vote) by the House Committee on Energy and Commerce.

⁵³ International Telecommunications Union, *Final Acts*, World Conference on International Telecommunications, Dubai, 2012, Resolution 3, p. 20, available at <http://www.itu.int/en/wcit-12/Documents/final-acts-wcit-12.pdf>.

⁵⁴ Statement delivered by Ambassador Terry Kramer from the floor of the WCIT, December 13, 2012. U.S. Department of State, *Press Release*, “U.S. Intervention at the World Conference on International Telecommunications,” December 13, 2012, available at <http://www.state.gov/r/pa/prs/ps/2012/12/202037.htm>.

⁵⁵ The official ITU list of signatories and non-signatories is at <http://www.itu.int/osg/wcit-12/highlights/signatories.html>.

Montevideo Statement on the Future of Internet Cooperation

In October 2013, the President of ICANN and the leaders of other major organizations responsible for globally coordinating Internet technical infrastructure⁵⁶ met in Montevideo, Uruguay, and released a statement calling for strengthening the current mechanisms for global multistakeholder Internet cooperation. Their recommendations included the following:

- They reinforced the importance of globally coherent Internet operations, and warned against Internet fragmentation at a national level. They expressed strong concern over the undermining of the trust and confidence of Internet users globally due to recent revelations of pervasive monitoring and surveillance.
- They identified the need for ongoing effort to address Internet Governance challenges, and agreed to catalyze community-wide efforts towards the evolution of global multistakeholder Internet cooperation.
- They called for accelerating the globalization of ICANN and IANA functions, towards an environment in which all stakeholders, including all governments, participate on an equal footing.⁵⁷

The day after the Montevideo Statement was released, the President of ICANN met with the President of Brazil, who announced plans to hold an international Internet governance summit in April 2014 that will include representatives from government, industry, civil society, and academia.

Issues for Congress

Congress plays an important role overseeing NTIA's stewardship of the domain name system and ICANN. The House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation have held numerous oversight hearings exploring ICANN's performance in general, as well as specific DNS issues that arise (e.g., the proposed gTLD expansion). Additionally, other committees, such as the House and Senate Judiciary Committees, maintain an interest in the DNS as it affects Internet policy issues such as intellectual property, privacy, and cybercrime. Since 1997, congressional committees have held 31 hearings on the DNS and ICANN.⁵⁸

Congress has an impact on the issue of Internet governance, both via its oversight of NTIA and the DNS, and through its actions in other and more specific areas of Internet policymaking. For example, Congress continues to oversee and evaluate NTIA's strategy of supporting ICANN's multistakeholder model while opposing arguments for increased intergovernmental control. At the same time, NTIA is seeking to maximize government influence within the ICANN process (primarily through the GAC), especially in instances where Internet policy intersects with

⁵⁶ The Internet Society, World Wide Web Consortium, Internet Engineering Task Force, Internet Architecture Board, and all five of the regional Internet address registries.

⁵⁷ Full statement is available at <http://www.icann.org/en/news/announcements/announcement-07oct13-en.htm>.

⁵⁸ For a complete list, see the Appendix in CRS Report 97-868, *Internet Domain Names: Background and Policy Issues*, by Lennard G. Kruger.

national laws addressing such issues as intellectual property, privacy, law enforcement, and cybersecurity.

One of NTIA's arguments for increasing government influence over ICANN policymaking (via the GAC) is that if governments feel their interests are not adequately addressed within the ICANN process, this perception will give support to the argument that the DNS and the Internet should be governed through a more formal intergovernmental mechanism. Congress may wish to examine where an appropriate balance exists between a sufficient level of governmental influence within the ICANN system, and an inappropriately excessive level of governmental control through the GAC that might threaten the multistakeholder model that ICANN represents.

To the extent that ICANN is successful in its endeavors and its credibility remains strong with Internet stakeholders, the argument for a multistakeholder model of Internet governance will be bolstered. By contrast, to the extent that ICANN falls short, the arguments for a growing role for some sort of formal intergovernmental body could become stronger. The following are some important issues that the 113th Congress may wish to consider as part of its oversight of NTIA's relationship with ICANN:

- How transparent and accountable is the ICANN governance structure, and to what extent do all Internet stakeholders have equal access to and influence over the ICANN policymaking process?
- How effectively does ICANN balance the interests and positions of differing stakeholders on particularly controversial issues, such as the new gTLD program? How successful will be the rollout of the gTLD program and other high-profile initiatives in the future?
- Regarding the Board of Directors and the ICANN staff, to what extent are sufficient ethics safeguards in place to prevent special interests (who may, for example, have financial interests at stake) from exerting undue influence over ICANN policy decisions?⁵⁹
- Should the U.S. government maintain its current legacy authority over ICANN and the DNS, and if so, how can NTIA best use this authority judiciously in order to advance U.S. government interests, while at the same time minimizing the perception by other nations (as well as the international community of Internet stakeholders) that the United States has an inappropriate level of control or influence over the Internet and the DNS?
- To what extent will ongoing and future intergovernmental telecommunications conferences constitute an opportunity for some nations to increase intergovernmental control over the Internet, and how effectively are NTIA and other government agencies (such as the State Department) working to counteract that threat?

Congress may also have a collateral impact on the debate over Internet governance through legislative activity related to specific areas of national Internet policy. For example, in the 112th Congress, provisions intended to protect intellectual property in the Preventing Real Online

⁵⁹ See for example: *Press Release of Senator Ron Wyden*, "Wyden Calls for Ethics Rules to Prevent Revolving Door for Internet Domain Name Regulators," September 14, 2011, available at <http://wyden.senate.gov/newsroom/press/release/?id=2e414e69-1250-4ca3-ae6b-2b6091ed52cc>.

Threats to Economic Creativity and Theft of Intellectual Property Act (PROTECT IP or PIPA, S. 968) and the Stop Online Piracy Act (SOPA, H.R. 3261) sought to prohibit Internet service providers from directing Internet traffic to domain names with infringing content.⁶⁰ One of the arguments against the legislation was that any imposition of U.S. restrictions on the functioning of the DNS will, in the long run, undermine the integrity of the current multistakeholder model of Internet governance and give ammunition to those arguing for a formal intergovernmental body overseeing the Internet. For SOPA/PIPA and other Internet-related legislation, Congress may weigh arguable Internet governance impacts within the context of other arguments for and against the legislation. But the impact of domestic Internet laws and regulations on the overall Internet governance debate is an issue that may increasingly be considered by Congress.

Finally, the debate over how the Internet's domain name system is governed may have a significant impact on future debates on how other Internet policy areas are governed on a worldwide basis.⁶¹ The ultimate success or failure of ICANN, and the multistakeholder model of Internet governance it represents, could help determine how other Internet policy issues—such as cybersecurity and privacy—are addressed.

⁶⁰ See CRS Report R42112, *Online Copyright Infringement and Counterfeiting: Legislation in the 112th Congress*, by Brian T. Yeh.

⁶¹ See for example: The White House, *International Strategy for Cyberspace: Prosperity, Security, and Openness in a Networked World*, May 2011, p. 21-22, available at http://www.whitehouse.gov/sites/default/files/rss_viewer/international_strategy_for_cyberspace.pdf.

Appendix. ICANN Basics

ICANN is a not-for-profit public benefit corporation headquartered in Marina del Rey, CA, and incorporated under the laws of the state of California. ICANN is organized under the California Nonprofit Public Benefit Law for charitable and public purposes, and as such, is subject to legal oversight by the California attorney general. ICANN has been granted tax-exempt status by the federal government and the state of California.⁶²

ICANN's organizational structure consists of a Board of Directors (BOD) advised by a network of supporting organizations and advisory committees that represent various Internet constituencies and interests (see **Figure A-1**). Policies are developed and issues are researched by these subgroups, who in turn advise the Board of Directors, which is responsible for making all final policy and operational decisions. The Board of Directors consists of 16 international and geographically diverse members, composed of one president, eight members selected by a Nominating Committee, two selected by the Generic Names Supporting Organization, two selected by the Address Supporting Organization, two selected by the Country-Code Names Supporting Organization, and one selected by the At-Large Advisory Committee. Additionally, there are five non-voting liaisons representing other advisory committees.

The explosive growth of the Internet and domain name registration, along with increasing responsibilities in managing and operating the DNS, has led to marked growth of the ICANN budget, from revenues of about \$6 million and a staff of 14 in 2000, to revenues of \$239 million and a staff of 178 forecast in 2013.⁶³ ICANN has been traditionally funded primarily through fees paid to ICANN by registrars and registry operators. Registrars are companies (e.g., GoDaddy, Google, Network Solutions) with which consumers register domain names.⁶⁴ Registry operators are companies and organizations that operate and administer the master database of all domain names registered in each top level domain (for example VeriSign, Inc. operates .com and .net, Public Interest Registry operates .org, and Neustar, Inc. operates .biz).⁶⁵

Additionally, the collection of fees from the new generic top level domain (gTLD) program could contribute to an unprecedented level of revenue for ICANN in the years to come. For example, ICANN forecasts revenues of \$162 million from the new gTLD application fees in 2013, which is twice the amount of traditional revenues from all other sources.⁶⁶

⁶² ICANN, *2008 Annual Report*, December 31, 2008, p. 24, available at <http://www.icann.org/en/annualreport/annual-report-2008-en.pdf>.

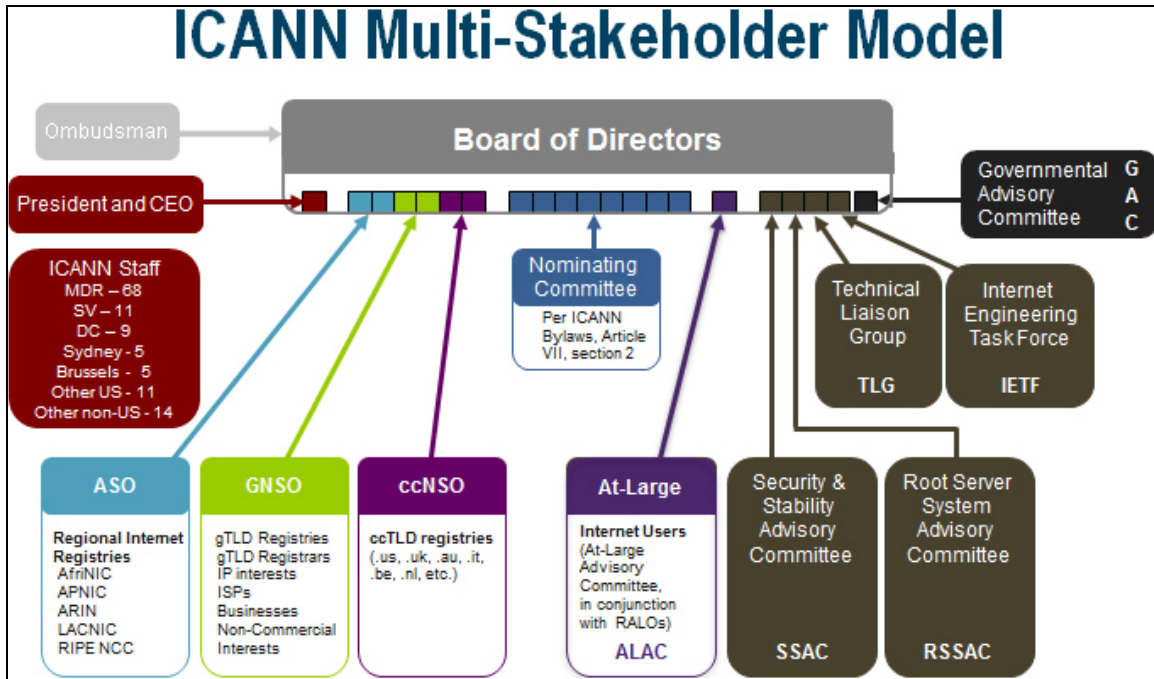
⁶³ ICANN Board Meeting, *FY14 Budget Approval*, August 22, 2013, available at <http://www.icann.org/en/about/financials/adopted-opplan-budget-fy14-22aug13-en.pdf>.

⁶⁴ A list of ICANN-accredited registrars is available at <http://www.icann.org/en/registries/agreements.htm>.

⁶⁵ A list of current agreements between ICANN and registry operators is available at <http://www.icann.org/en/registries/agreements.htm>.

⁶⁶ *FY14 Budget Approval*, p. 4.

Figure A-I. Organizational Structure of ICANN



Source: ICANN; <http://www.icann.org/en/groups/chart>.

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Other Agency - Dept. of Defense



1 Page

Withheld in its entirety for
Referral to Another Agency

1 Page

Withheld in their entirety as
Not Responsive to the Request.

From: [Jade Nester](#)
To: [Evelyn Remaley](#)
Subject: FW: Globalization Input
Date: Friday, January 03, 2014 3:48:52 PM
Attachments: [Other Agency - Dept. of Defense](#)

-----Original Message-----

From: Vernita D. Harris
Sent: Wednesday, December 18, 2013 3:31 PM
To: Jade Nester
Subject: FW: Globalization Input

Here is another document.

[Other Agency - Dept. of Defense](#)



Other Agency - Dept. of Defense



3 Pages

Withheld in its entirety
pursuant for Referral to
Another Agency

From: [Suzanne Radell](#)
To: [Vernita D. Harris](#)
Cc: [Jade Nester](#); [Elizabeth Bacon](#); [Ashley Heineman](#); [John Morris](#); [Evelyn Remaley](#)
Subject: FW: [discuss] IANA
Date: Monday, January 06, 2014 9:38:57 AM

Fyi if you hadn't already come across this information, Suz

-----Original Message-----

From: discuss-bounces@1net.org [<mailto:discuss-bounces@1net.org>] On Behalf Of Jari Arkko
Sent: Monday, January 06, 2014 8:10 AM
To: discuss@1net.org
Subject: [discuss] IANA

I wanted to share some thoughts on how I see IANA, its role and evolution. This is mostly from an IETF perspective, but it also touches on the role of IANA for addresses and domain names.

<http://www.ietf.org/blog/2014/01/iana/>

As pointed out by the article, the IAB and its IANA evolution team is working on a framework document that talks about the overall model, and the separation of oversight from policy and implementation. An early draft is here:

<http://tools.ietf.org/html/draft-iab-iana-framework-00>

I know that the IAB and Olaf Kolkman would appreciate feedback, from both within the IETF and other parts of the ecosystem. They are soliciting feedback to the IAB internetgovtech list (<http://www.iab.org/mailman/listinfo/internetgovtech>) but we do of course take input from all directions we can get.

Jari Arkko
IETF Chair

discuss mailing list
discuss@1net.org
<http://1net.org/mailman/listinfo/discuss>

From: [Elizabeth Bacon](#)
To: [Jade Nester](#)
Subject: FW: Draft Response Coordination: NSS Globalization Working Group Task - Legacy Root Server Globalization
Date: Monday, February 03, 2014 1:17:42 PM
Attachments: [Not Responsive](#) .

Just as an fyi out of the Globalization group meeting.

Other Agency - Dept. of Defense



1 Page

Withheld in their entirety as
Not Responsive to the Request.

From: [Suzanne Radell](#)
To: [Vernita D. Harris](#); [Elizabeth Bacon](#)
Cc: [Jade Nester](#); [Stacy Cheney](#)
Subject: FW: discuss Digest, Vol 3, Issue 67
Date: Wednesday, February 19, 2014 9:11:13 AM
Attachments: [ATT00001.txt](#)

Fyi

From: discuss-bounces@1net.org [mailto:discuss-bounces@1net.org] **On Behalf Of** Phil Corwin
Sent: Tuesday, February 18, 2014 6:37 PM
To: Milton L Mueller; discuss@1net.org
Subject: Re: [discuss] discuss Digest, Vol 3, Issue 67

Milton:

Good to hear from you.

I was merely quoting from relevant sections of the GAO summary of its report and in no way was I trying to selectively skew a characterization of its conclusions. I included in my 1Net e-mail posting a link to that GAO summary where the website contained a further link to the full 2000 GAO report so that anyone with an interest could download and read all of it.

Ironically, my awareness of the GAO inquiry came from this passage:

"The U.S. Department of Commerce repeatedly refers to ICANN as the result of a policy of "privatizing" the domain name system (DNS). Privatization normally means that the supply of a product or service has been transferred from the government to a private sector company. What the Commerce Department has turned over to ICANN, however, is not ownership of a service or asset but the authority to develop policies and to legislate binding rules for the domain name registration industry. Froomkin (2000) argues persuasively that it is nothing less than an illegal delegation of government powers. The very same Commerce Department, moreover, has reserved to itself ultimate "policy authority" over the root. **The General Accounting Office (GAO 2000) says that the agency does not have the authority to transfer the name and address space to a private firm without congressional legislation.** The concept of privatization", therefore, does not take us very far. (emphasis added)

---"ruling the root" by Milton L. Mueller, p. 212

Your reference spurred me to search for the original of the 2000 GAO Report, and I found that its conclusions were more ambiguous than your 2002 characterization. That GAO report contained a letter from the then-General Counsel of DOC that stated that the questions of whether the IANA functions constituted U.S. property that would require legislative authority to transfer would require considerable research before an informed answer could be provided. That research has never been conducted because, at least up to now, the U.S. has never considered transferring its counterparty status to any other entity.

I have no firm personal view as to whether DOC/NTIA could lawfully proceed as you suggest it might in 2015 in the absence of authorizing legislation. However, as a political matter, that Executive department and subsidiary agency might well wish to have the cover of some type of Congressional backing before taking such a step given the potential consequences.

Best regards,
Philip

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"Luck is the residue of design" -- Branch Rickey

-----Original Message-----

From: Milton L Mueller [<mailto:mueller@syr.edu>]
Sent: Tuesday, February 18, 2014 6:08 PM
To: Phil Corwin; discuss@1net.org
Subject: RE: discuss Digest, Vol 3, Issue 67

Phil:

Your quotation from the GAO report of 2000 is rather selective. Here is a fuller picture.

"... control over the authoritative root server is not based on any statute or international agreement,..."

" The Department [of Commerce] has no specific statutory obligations to manage the domain name system or to control the authoritative root server."

"Although the U.S. government has supported and funded the development of the domain name system, Congress has not chosen to legislate specifically in this area, nor has it designated an agency to be responsible for it. DOD, NSF, and now the Department have undertaken their activities under their general authorities. "

"In its policy statement [the 1998 White Paper], the Department was announcing that it planned to

phase out its management role over the domain name system, a role that the government had assumed when the ARPANET was first developed. Since it is a role not specifically required by statute, the Department was not delegating or transferring a statutory duty when it proposed to transition administrative control over the domain name system to a private entity. The Department undertook its domain name system management responsibilities to carry out the President's directive to support efforts to privatize the domain name system.

Under these circumstances, neither the Department nor any other federal agency is under an explicit statutory obligation to manage the domain name system including control over the authoritative root server."

This last paragraph convinces me that DoC has every right and authority to relinquish its control by simply walking away from the IANA contract when it expires in 2015 and announcing as a matter of policy that the transition referenced in the White Paper is finished.

I think the allegedly "unclear" nature of the transfer stems from the GAO's lack of confidence in its knowledge of both the technology of the root server system and its history. By supporting the development of the DNS, the U.S. federal government did not create a "property" interest in anything that I can see. It paid people to run a registry but as far as I know it is not claiming a property interest in the root zone data.

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.3462 / Virus Database: 3697/7069 - Release Date: 02/06/14 Internal Virus Database is out of date.

From: [Suzanne Radell](#)
To: [Ashley Heineman](#); [Elizabeth Bacon](#); [Evelyn Remaley](#); [Fiona Alexander](#); [John Morris](#); [Jade Nester](#); [Stacy Cheney](#); [Vernita D. Harris](#)
Subject: FW: [discuss] Possible approaches to solving "problem no. 1"
Date: Thursday, February 13, 2014 11:36:28 AM
Attachments: [ATT00001.txt](#)

For those of you who are not following the Inet list discussions, I thought you might find this interesting.

From: discuss-bounces@1net.org [discuss-bounces@1net.org] On Behalf Of George Sadowsky [george.sadowsky@gmail.com]
Sent: Thursday, February 13, 2014 11:30 AM
To: Milton L Mueller; discuss@1net.org List
Subject: Re: [discuss] Possible approaches to solving "problem no. 1"

Milton,

Thanks for bringing up your original writing. I looked for it in my own archives, couldn't find it, and so depended upon memory. That's not always a good option for an aging brain. I apologize for misstating your position.

I don't think I'm avoiding coming to grips with any differences. I'm glad that you were able to sharpen the options as you've done below. My comments were an attempt to describe and delineate the space of possible solutions, and you have helped to do that.

I am not trying to discredit the denationalization option. It's clear that the GAC will stay. However, under your #3 option, will the GAC have any say whatsoever in any IANA (or son of IANA, or new-name) decisions regarding the root zone file, and if so, under what terms? The devil is in such details.

Milton, you may have thought I was waffling because I was just describing and delineating what I regarded as the space of alternatives. I wasn't waffling; I was trying to invoke discussion of those alternatives. I can tell you that:

A. I am personally in favor of option 3, and have been for some time.

B. Given the current structure of ICANN, including the GAC, it will be really important to get any revised denationalized (your words) structure defined well with respect to the new interrelationships.

Others, however, may disagree, and I did not want to push the discussion, at that point in time, toward my own preferences.

Oh the other hand, so far most of the comments seem to favor option #3, so perhaps it's worth concentrating some discussion on it. I am not a lawyer, but it's clear to me (assuming that IANA stays coupled to ICANN) that ICANN's legal status changes. Are there anti-trust or competitiveness law implications? My guess is that there surely are, and from multiple countries.

What legal structure should such a born-again ICANN take. Here's where I was hoping that Jovan's text below would be interesting to discuss; so far, no one has picked that up. If #3 is the correct path to take, i.e. if we know where we want to go. and we know where we are now, what are the feasible paths that could get us there? I refer back to item 5 in the problem statement. It is not going to go away:

5. Acceptable solutions for assignment of the IANA root zone function should meet several criteria: (1) protection of the root zone from political or other improper interference; (2) integrity, stability, continuity, security and robustness of the administration of the root zone; (3) widespread [international] trust by Internet users in the administration of this function; (4) support of a single unified root zone; and (5) agreement regarding an accountability mechanism for this function that is broadly accepted as being in the global public interest.

So, where do we go from here? Milton, since you are clearly also in favor of this option, perhaps you would

describe for us your proposed structure of the post-transition organizations and relationships between them, in sufficient detail to address the various conflicts and dangers that might arise, and what paths we might choose to arrive there. That could be a basis for interesting further discussion on this list.

George

On Feb 12, 2014, at 4:47 PM, Milton L Mueller <mueller@syr.edu<<mailto:mueller@syr.edu>>> wrote:

George. You did not quite get the 3 options right. They were:

- 1) Unilateral control by 1 govt (the status quo)
- 2) Multilateral control
- 3) De-nationalization of the IANA function; ie., removal of USG control and delegation of it to ICANN. Note well: this does NOT require exclusion of governments from all involvement in ICANN.

What you propose as a solution, "one based upon multistakeholderism," is actually an attempt to avoid coming to grips with difference between #2 and #3. By attempting to do this, you are seriously muddying the waters at a time that we need absolutely clarity.

EITHER root zone changes are the responsibility of ICANN, in which case you are advocating #3 (because ICANN is not an intergovernmental organization) OR governments have some kind of special authority over root zone changes, in which case your solution devolves to #2. Please decide which one you are advocating. I will not let you waffle.

What you've done in an attempt to discredit the de-nationalization option is to pretend that if we devolve control to ICANN, that governments are excluded entirely from the process. This is obviously false. Governments currently play a major role in ICANN, via GAC advice. So one could easily cut the cord to the USG, vest the IANA function in ICANN fully, and governments would still be involved. Even if the GAC were dismantled, as some of us favor, it is still completely possible and indeed desirable for individuals who work for or are contracted by governments to participate in ICANN.

Some of us are proposing to reform the role of governments in ICANN to make it consistent with a truly equal-status, multistakeholder governance process. I am really getting tired of hearing, as a response to these proposals, that "governments are a part of our world and we can't ignore or exclude them." That is either a dishonest or a completely clueless response. By eliminating special powers for governments and avoiding intergovernmental control, we are not proposing to completely exclude governments from the process. We are simply proposing to adhere more consistently to the MS model and give government agencies and employees the same status as everyone else.

Milton Mueller
Professor, Syracuse University School of Information Studies
<http://faculty.ischool.syr.edu/mueller/>

>The third approach is in my view equally unrealistic. Governments are
>a part of our world. They have useful and essential functions. We depend upon the creation and evolution of legal structures along with the administrative and judicial mechanisms that institutes and implement them. We may be concerned with their inappropriate use of power, but we can't deny that they have a place at the table. We are likely, however, to differ about what that place is and what limitations might be put upon them.

The second approach, one based upon multistakeholderism, seems like the only viable and significantly acceptable one. While that choice may be comforting in terms of its inclusive orientation, the space of solutions that could be called multistakeholder is vast and multidimensional, with the only necessary condition for being in the set is that all relevant stakeholder groups, however defined, have some degree of inclusion into the process and that no one group has an absolute veto over the activities of the group. Distributions of power, representation, and decision making authority all vary, possibly enormously among stakeholder

groups. The very choice of what groups are included and who they include contributes to the diversity among solutions. (For example, while ICANN correctly claims to be organized according to a multistakeholder model, in fact it is organized in accordance with a very specific and well-defined instantiation of the multistakeholder model.)

So if we are going to talk about multi-stakeholder approaches to the problem, we will need to differentiate between a variety of them that might be suggested. Saying that an approach is a multi-stakeholder approach is not sufficient; it will need to be characterized in a more definite manner.

Finally, any approach that will be successful must make the great majority of us comfortable with its ability to maintain security, stability, and independence of the Internet's fundamental naming and addressing systems, and with its ability to withstand takeover by any special interests. Governments, including the US government, must be an integral part of that majority if any transition is to be feasible and ultimately successful. Solutions that do not meet this criterion, and are not demonstrably better than what we have now, should not and will not be adopted.

Incremental approaches

Assuming that there are continuity and stability virtues in minimizing the amount of change that is made, I ask myself: are there acceptable solutions to the problem that minimize the amount of change needed? In which direction would they go? I personally don't have a good answer for that. Perhaps others do.

Diplomatic approaches, from Jovan Kurbalija

In a recent provocative article, Jovan Kurbalija has outlined a number of scenarios that find their rationale in established diplomatic behavior. The article, at:

<http://www.diplomacy.edu/blog/international-inviolability-root-zone>

contains the following scenarios. I include them here because I think they represent serious approaches to the issue we're discussing. They may or may not be practical.

USE DIPLOMATIC LAW APPROACH TO SOLVE THE POLICY PROBLEM OF THE ROOT ZONE

The predominantly symbolic relevance of the root zone issue has created the basis for an analogy with diplomatic law, which deals with another highly symbolic issue: representation of countries. It includes diplomatic precedence, the protection of diplomatic buildings, and the main functions of representation.[3] How can the regulation of symbolic aspects of diplomatic relations help in regulating the symbolic aspects of Internet politics? Here are two possibilities:

The first possibility could be described as a 'physical' one, making the server and root database inviolable, in particular from any national jurisdiction. This possibility opens the question of where the root server will be located. It could be located at the UN premises in New York and Geneva, which would simplify matters, since those entities already enjoy inviolability, including immunity from any national jurisdiction. Another option, such as continuing to use the current location would require changes in the US national law, in order to ensure international inviolability of the root database. One could also consider assigning root zone file immunity as part of an ICANN+ arrangement (making ICANN a quasi-international organisation – discussed further down in the text). [4]

The second possibility, which is a 'virtual' one: the root database should be assigned inviolability *per se*, wherever it is located. This solution is based on the analogy with diplomatic law which specifies that '[t]he archives and documents of the mission shall be inviolable at any time and wherever they may be.' (i.e. article 24 of the Vienna Convention on Diplomatic Relations).

In this way, the root database can enjoy inviolability according to international law. Neither the USA, nor any other authority, can interfere with the root database without necessary authorization. This could be the first phase in the policy process, which could build trust, and prepare for the second phase, which has to deal with the more difficult question:

WHO WILL HAVE THE RIGHT TO AMEND THE ROOT DATABASE?

Here we get back to the question of decision-making process and the status of ICANN. This has been exhaustively discussed, and it is clear that a workable solution should be based on a high level of inclusion, transparency, and checks and balances. As a practical solution for the root zone file, one could think of a double key system, involving a strengthened ICANN, with a stronger role for the GAC (to some extent codifying and formalizing what has been happening through the growing relevance of the GAC). A possible role for a reformed UN Trusteeship council could also be considered, as one of the actors in this checks and balances system.

ICANN's new quasi-international status, for example, following Swiss laws, could address most of the above-mentioned points. Shifting ICANN from the national to the international level, would require ensuring ICANN's accountability towards consumers, users, and the Internet industry. Immunity should not be impunity. Again, here we could have a solution through the interplay between international public law and private law options.

HOW TO ACHIEVE THE NEW ROOT ZONE ARRANGEMENT?

The closest analogy is the governance of the Red Cross system. Analogous to the Geneva conventions in the humanitarian field, 'a root convention' would minimally grant immunity to the root database, and maximally specify how the root database would be managed. If the adoption of a root zone file convention would be too complex, one could consider an advisory opinion of the International Court of Justice, which could recognize the 'instant' customary law (practice of the US government of not interfering in countries' domain names without the consent of these countries). Either a convention or instant customary law would provide a functional basis for ICANN, which could be a quasi-international organisation, with a carefully balanced checks and balances approach, and a prominent role for the GAC. Such an ICANN+ would both host the root server, and manage the root database.

There are some other solutions and possibilities. The bottom line is that there is a solution that could be both practical and legal. The symbolic issue of the root zone, at least, could be put to rest, and allow us to spend 'policy energy' on more practical and relevant issues. It could be also be a reasonable compromise.

Conclusion

It's quite possible that all of the above is a product of too limited thinking, and that an alternative, more comprehensive and high level approach looking at the entire Internet ecosystem as a whole might be more fruitful. If so, what might such an approach be based upon, and why might it look like? Perhaps on further reflection, and considering possible approaches to it, we may find that the problem definition is lacking, and needs modification or amplification. If so, that represented profess of a certain kind.

I present the above as my thoughts regarding possible approaches, with a large contribution from Jovan. I admit to not having good answers to the problem, but I hope that the above material is helpful to starting a serious discussion. If there is any appetite on the list to continue this discussion, I, and possibly others, would be interested in your comments.

Regards,

George

From: [Fiona Alexander](#)
To: [OIA](#); [Evelyn Remaley](#); [John Morris](#)
Subject: FW: Final ecosystem report
Date: Sunday, February 23, 2014 5:42:05 PM
Attachments: [Cerf-Strategy Panel ICANN's Role in the Internet Governance System FINAL_v02202014.pdf](#)

Strategy Panel: ICANN's Role in the Internet Governance Ecosystem¹ (20 Feb 2014)

Table of Contents

- [1. Preamble](#)
- [2. Everyone and Everything On the Internet](#)
- [3. Meaning of "Governance"](#)
- [4. Perspectives on Internet Governance](#)
- [5. Mapping the Internet Governance Ecosystem](#)
- [6. Principles for ICANN in this Ecosystem](#)
- [7. Roadmap towards Globalization of ICANN](#)
- [8. Conclusions](#)
- [ANNEX A: History Of ICANN And The Department Of Commerce \(DOC\)](#)
- [ANNEX B: There May Never Be a Single "Constitutional Moment"](#)
- [ANNEX C: List of Figures and Text Boxes](#)

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Strategy Panel: ICANN's Role in the Internet Governance Ecosystem (Executive Summary)

The Strategy Panel studied ICANN's Role in the Internet Organizations' Ecosystem, and in particular, the Panel reviewed the assumptions, linkages and frameworks that dictate ICANN's responsibilities in the current Internet governance ecosystem. It sought insights into ways to maintain and enhance ICANN's role in the evolving ecosystem while cultivating thought leadership on ways in which ICANN can serve a complex network of Internet interests. The Panel convened for the first time at ICANN 48 in Buenos Aires in November 2013, and developed its recommendations after a mixture of in-person meetings, several collaborative video conferences, phone calls and online collaboration. The Panel collected input from ICANN's global community through two public webinars, and provided opportunities for feedback from the community by email and through a survey. A summary of the Panel's main findings and recommendations are provided below.

Historical Perspective

The Internet has become a vast and increasingly accessible and global information and communication infrastructure since its invention in 1973 and its operational birth in 1983. The diversity and number of organizations and individual users; providers of equipment; services; applications; and elements of the Internet's governance reflect its extraordinary expansion by a millionfold over the period of its operation. Agencies of the US Government, beginning with the US Defense Department, have persistently relinquished governance responsibilities over a period of 40 years in favor of private sector institutions. The last remaining element manifests itself through the National Telecommunications and Information Agency's (NTIA) relationships with ICANN and with Verisign who have a shared responsibility for the generation and propagation of the Root Zone of the Internet Domain Name System (DNS). Many private and some public sector organizations have been delegated responsibility from ICANN for the management of top-level domain names.

ICANN also has responsibility for managing top-level assignment of the numeric Internet Protocol (IP) address space and for administration of a number of registries for parameters and their values associated with the Internet protocol suite. The private sector Internet Architecture Board (IAB) and the Internet Engineering Task Force (IETF), housed in the Internet Society (ISOC), have responsibility for the evolution of the core Internet protocol standards while the World Wide Web Consortium (W3C) deals with the protocols and standards of the World Wide Web.

The challenge before us is to determine a path for ICANN to accommodate participation of all stakeholders in a way that reflects the global reach of the Internet. The Internet is

expected to serve 90-95% of the world's population by 2030. Applications of the Internet continue to grow and diversify. As with almost all significant infrastructure, the Internet can be and is abused by a small fraction of the population of its users. The combination of scale, diversity, geographic scope and mix of constructive applications and harmful abuses creates an enormously complex governance challenge. The essentially transnational character of the network of networks comprising the Internet adds depth and color to governance questions.

Ecosystem Models

A wide range of individuals and institutions, including governments at all levels, are involved in creating, developing, operating and evolving applications and services on the Internet or defining the interoperable standards that apply to its evolution and use. These myriad actors have diverse agendas, interests, motivations and incentives, not all of which are aligned. There are extremely diverse products and services that interoperate and rely on the Internet and the World Wide Web to enable their use.

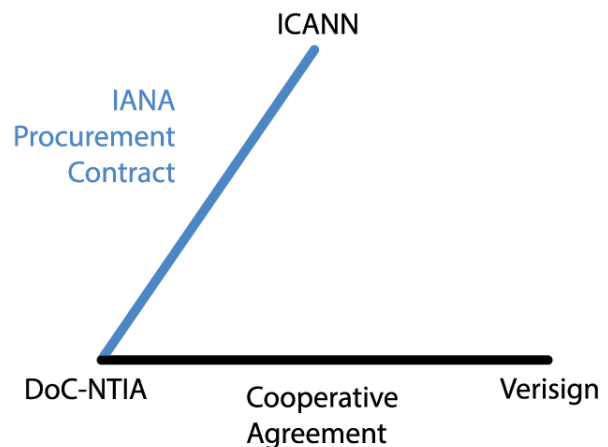


Figure 1: Description of Root Zone Management Process Through IANA Functions

The Panel developed several illustrative models of the Internet ecosystem as a way to help think about the nature of the current relationships that exist. First, the Panel looked at the unique relationship that exists between ICANN, the U.S. Department of Commerce (DOC) via its National Telecommunications and Information Administration (NTIA) and Verisign (Figure 1).

Layering of functionality of the Internet and parsing of primary institutional focus into various sectors helped the Panel to analyze the parties interested in Internet governance and the nature of their incentives and responsibilities. While such models are never complete or precise, they help to categorize the focus of attention of many of the organizations that populate the Internet ecosystem, including those with a share of governance responsibility. The two illustrations below demonstrate alternative ways to analyze the ecosystem, showing how there are different functional layers in which actors operate.



Figure 3: Layered Model of the Internet — Issues

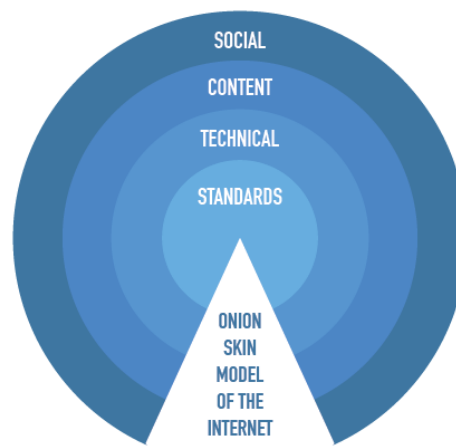


Figure 2: Onion Skin Perspective

Governance Models

As the Internet has expanded in scope and importance, there has been an increase in interest among many stakeholders to change the way Internet governance is implemented. Some have argued for an international, multi-lateral structure such as the International Telecommunication Union (ITU), to undertake a primary role. Others have argued strongly for a governance structure that is inclusive and representative of governmental *and* non-governmental interests. **The Panel's conclusion is that the multistakeholder model is by far preferable and should be elaborated and reinforced.** In defining what “governance” means, the Panel adopted this working definition of Internet governance from the World Summit on the Information Society (WSIS):

Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.

Stewardship in the Internet Governance Ecosystem

The Panel spent considerable time discussing the role of various actors within the Internet ecosystem as “stewards.” There are many players in the Internet ecosystem, some pursue academic and research interests, some focus on economic goals, some have political and societal objectives, some primarily care about the needs of individual

users or their protection.² Given the increasingly ubiquitous nature of the Internet, all actors have a common interest in the well-functioning of the overall infrastructure and a common concern that it is not abused. Still, none of these actors on their own have the capacity to address all these issues, rather they have a joint interest in exercising their responsibilities. Stewardship means caring more for the good management, use and evolution of a shared resource than for any individual stake in it. The inescapable, trans-border interdependence among all actors produces a *shared or entangled responsibility for the stewardship* of the common Internet infrastructure.

Perspectives on Internet Governance

The Panel studied the perspectives of several stakeholders in the governance ecosystem and noted the specific concerns that these stakeholders have about the Internet Assigned Numbers Authority (IANA) functions. The technical community assembled to make their position clear through the “Montevideo Statement” on October 7, 2013.³ Among the recommendations, the technical community made,

- They identified the need for ongoing effort to address Internet governance challenges, and agreed to catalyze community-wide efforts towards the evolution of global multistakeholder Internet cooperation.
- They called for accelerating the globalization of ICANN and the IANA functions, towards an environment in which all stakeholders, including all governments, participate on an equal footing.

The Panel also studied the dissatisfaction that some governments have with the current arrangement that span multiple political perspectives. The calls for change are broad, and they come from all areas of the political spectrum. We offer a few examples below, and further detail is available in the main report:

- **Europe.** In a report about the Internet and international politics, one European official stated Europe’s position this way: “How can the EU take on this challenge? . . . We need a firm commitment from the member states to work together on this issue and to continue to work with the United States. We also should bring in like-minded countries like Brazil and India.”⁴ On February 12, 2014, the European Commission issued a position paper that called for further work to “identify how to globalize the IANA functions, whilst safeguarding the continued stability and security of the domain-name system.”⁵

² For example, law enforcement, privacy, security, data integrity and protection from harm.

³ Montevideo Statement on the Future of Internet Cooperation, Oct 7, 2013, *available at* <http://goo.gl/dwGcuG>

⁴ Erin Baggot (Rapporteur), “The Internet and International Politics: Implications for the United States and Europe,” Jun 16, 2013 at 30, *available at* <http://goo.gl/OS16t5>

⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Internet Policy and Governance, COM(2014) 72/4, Feb 12, 2014, *available at* <http://goo.gl/RDEPu1>. In response, the U.S. government weighed in with a swift confirmation, stating that the U.S. government has “long encouraged the further globalization of ICANN.” Statement of Assistant Secretary Strickling on the European Commission

- **India.** *The Hindu* reported on an internal document drafted by the Indian National Security Council Secretariat in December 2013 as follows: “[t]he control of Internet was in the hands of the U.S. government and the key levers relating to its management was dominated by its security agencies... Mere location of root servers in India would not serve any purpose unless we were also allowed a role in their control and management.”⁶
- **Brazil.** Brazil has openly encouraged the adoption of an inclusive multistakeholder model, although President Dilma Rousseff also noted in her September, 2013 speech at the UN General Assembly that “[t]he United Nations must play a leading role to regulate the conduct of states with regard to these technologies.”⁷

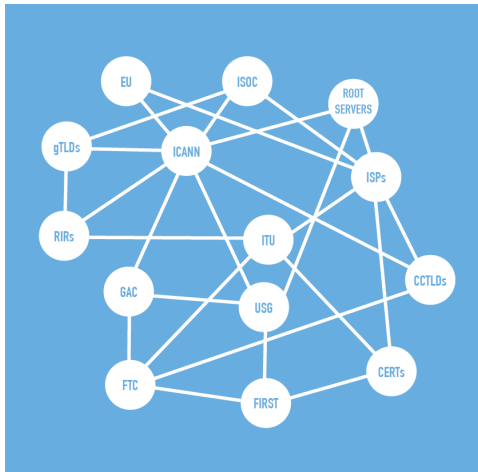


Figure 5: A Web of Relationships

- **Russia.** Politicians at all levels within Russia have consistently called for the allocation of names & numbers to be moved to a state-based mechanism.

Mapping the Internet Governance Ecosystem

In its most general sense, the governance of the Internet is characterized by a **web of relationships** among institutions that have roles affecting the operation and use of the Internet across all the layers that comprise its functions. These relationships reflect and recognize the responsibilities, roles and

dependencies among various institutions and organizations. The ensemble of collaborative and loosely-coupled mutual dependencies is a feature in the system, and respect for them has been and continues to be a fundamental characteristic of the governance of the Internet. Figure 5 illustrates this in a notional way.

ICANN itself partakes of this web of relationships, and in Figures 6 and 7 we illustrate some of those connections. ICANN *coordinates* closely with other organizations that have a direct role in managing these technical elements of the Internet architecture. Moreover ICANN has *participatory* relationships with many international or global institutions that have interest in and responsibilities for other aspects of governance.

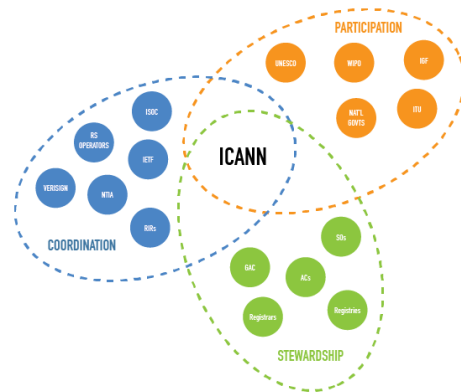


Figure 6: Expanding Web of ICANN Relationships

Statement on Internet Governance, Feb. 12, 2014, available at <http://goo.gl/OaeW4G>.

⁶ Sandeep Joshi, “India to push for freeing Internet from U.S. control,” *The Hindu* Dec 7, 2013, available at <http://goo.gl/zGPofR>

⁷ Statement by H.E. Dilma Rousseff at the Opening of the General Debate of the 68th Session of the United Nations General Assembly, Sep 24, 2013, available at <http://goo.gl/1NWf7f>.

Mapping ICANN Relationships within Layered Model

How does ICANN fit within the Internet's layered model? Under the multi-stakeholder Internet governance ecosystem, no single institution, stakeholder or influencer plays a unique role in governance, but instead, participates as a representative of its respective constituency or in accordance with its particular responsibilities. In Figure 7, we provide an illustration of how some of these organizations fit into the Internet's layered model. Note that our illustration is not a comprehensive view, it is intended to characterize some of the institutions, as well as some of the interactions, but there are many more.⁸ This particular illustration focuses on ICANN although similar illustrations exist for many of the different actors in the ecosystem.

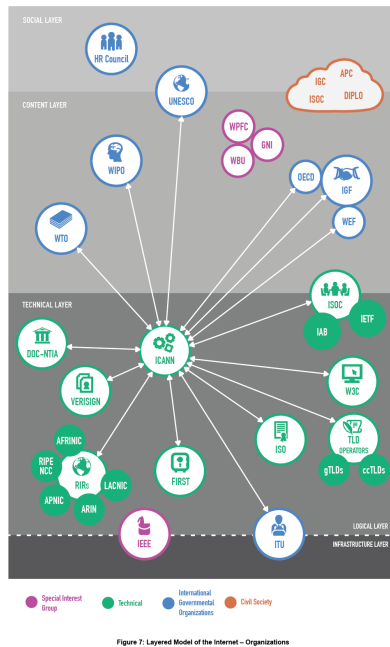


Figure 7: Layered Model of the Internet - Organizations

If one had to select one word to characterize the Internet governance ecosystem it would have to be *diversity*. The system is populated by individuals, small or large formal and informal groupings, organizations and institutions drawn from the private sector, academia, civil society and governments, as well as intergovernmental and non-governmental organizations across the globe.

Principles for ICANN in this Ecosystem

There may never be and perhaps never should be a single “constitutional moment” for the Internet, or for ICANN. This Panel contributes to the development of principles by proposing a set in the context of “5 Rs.” These are: (1) Reciprocity, (2) Respect, (3) Robustness, (4) Reasonableness and (5) Reality.

1. **Reciprocity:** Do no harm nor threaten to harm. A principle of reciprocity will help assure that actors behave and take actions with others in the same way that they, themselves, would expect to be treated in the ecosystem.
2. **Respect:** Honor freedom of choice and diversity. As Professor David Clark (formerly Chief Internet Architect of the project after 1982) famously articulated in 1992, “We reject kings, presidents and voting.” The absence of formal hierarchies and titles, then, implicates a profound need for inclusion, cooperation and collaboration. For ICANN we believe that this means putting in place incentives for cooperation across all stakeholders, including the supporting organizations,

⁸ Examples of ICANN relationships to other organizations in the ecosystem include: GAC observers (ITU, WTO, OECD, UNESCO, and WIPO); IETF works with ICANN on the protocol parameter registry service of the IANA functions; ITU, W3C, and IAB advise the ICANN Board through Technical Liaison Group (TLG); WIPO is Uniform Domain-Name Dispute Resolution Policy (UDRP) provider for gTLDs; UNESCO works with ICANN on IDNs (Internationalized Domain Names) for new gTLD program; ICANN relies on ISO regarding for ccTLD designations; and ICANN is a member of WEF. ICANN has no specific relationship with the UN Human Rights Council; WPEC; WBU; GNI; IEEE. Note that we only represent governmental organizations that have more than one government, although ICANN also has relationships with single agencies like the NTIA or single companies like Verisign.

advisory councils, board, and staff. The expansion of one group's participation must not occur at the expense of another's diminution.

3. **Robustness:** Send conservatively and accept liberally. The Internet and its governance mechanisms are very complex. Where possible, ICANN should borrow from the principles that have worked at the IETF in this context and adapt them. In particular, the "Postel Principle," suggests that actors in the ecosystem should "be conservative in what you send, and liberal in what you accept."⁹ In the context of the IETF, this has become known as the "Robustness principle."¹⁰ It is by this methodology that the interactions between users, the various aspects of the technical community, and the issues within it are addressed. While striving to iterate, validate and simplify, ICANN's policy-making work can also embrace the Robustness principle and avoid top-down mandates.
4. **Reasonableness:** Avoidance of capricious or arbitrary decisions. The legitimacy of any governance system depends on the trust that the participants place in the process, the decisions, and the outcome. It would be rare to achieve unanimous support of any action, the hallmark of a trusted system is one where reasonable people can have different opinions. In order for reason to prevail, the Panel believes that stakeholders must have faith in ICANN's transparency, accountability, subsidiarity, and fairness.
5. **Reality:** Theories must be persistently measured and tested against practice. Internet governance has been developed through a heuristic approach (i.e., experience-based techniques for problem solving, learning, and discovery) and should continue to evolve this way in the future. The distributed nature of the Internet's implementation and the communication among many bodies contributing the Internet's operation demonstrate the feasibility of a flexible collaborative model, even knowing that mistakes will be made. Internet governance mechanisms and institutions must adopt structure, mechanisms for action, decision-shaping, -making, -review, and -recourse that follow the function of the mechanism or organization. Form follows function.

Roadmap

After reviewing the areas described above, the Panel made the following recommendations for ICANN's roadmap:

1. **Globalize, not Internationalize.** Countries are stakeholders, to be sure, but the structure of ICANN and its associated or related institutions are now and should become increasingly global or regional in scope. We are reminded once again that form follows function.
2. **Consolidation and Simplification of Root-Zone Management.** The Panel sees

⁹ Proposed by Internet pioneer Jon Postel, this concept is referred to variously as the "Postel Principle" or "Postel's Law" or the "Robustness principle." See more in Main Report at §2; Also see Paul Hoffman "Tao of IETF: A Novice's Guide to the Internet Engineering Task Force" *IETF*, Nov 2, 2012, available at <http://www.ietf.org/tao.html>.

¹⁰ "Robustness Principle" Wikipedia, Nov 8, 2013, available at http://en.wikipedia.org/wiki/Robustness_principle.

the issues related to the protection of the root-zone system and the IANA functions contract as issues that should be addressed holistically. Transparency and accountability principles should dictate a high degree of public visibility for this process.

3. ***A Web of Affirmations of Commitments (Document what happens today).*** Among the most important concepts discussed in the panel was the use of bilateral, and possibly multilateral, affirmations of mutual commitments to document the relationships and commitments among the players in the Internet governance ecosystem. The resulting web of documented relationships will create a flexible, resilient and defensible structure that can evolve over time and that has no central point of brittle control. There are currently multiple ways that stakeholders work with each other, although only a few of these commitments and work practices are established in writing.
4. ***Establish ICANN Affirmations of Commitments*** The Panel recommends that ICANN develop tailored Affirmation of Commitments (AOC) texts related to ICANN's responsibilities. These would document bilateral or multilateral commitments between and among ICANN and non-governmental ecosystem partners (e.g., the I* organizations) that wish to participate. In the case of ICANN relationships with governments, it is recommended that a separate and common Affirmation text be established so as to achieve egalitarian treatment. It is possible that the GAC can be of assistance in helping to craft the text of such a common document.
5. ***Globalize the Process for Accountability within a Web of Relationships.*** We posit the idea of accountability panels whose membership and processes are agreed by parties to an AOC. The purpose of a panel is to provide recourse should a party to an AOC believe that another party has failed in some way that must be accounted for and that all other resolution mechanisms implied or explicit within the AOC have not yielded satisfaction.

Conclusion

The Panel believes that ICANN has a critical but confined role in the Internet ecosystem that is strongly bounded by its responsibility to manage the Root Zone of the DNS and delegation to top-level domain name registries, top-level assignment of Internet address space primarily to Internet Service Providers (ISPs), and parameter registries in accordance to advice given to the IANA from the work of the IETF and IAB.

ICANN has an obligation to make progress documenting mutual relationships with and commitments to other entities in the Internet ecosystem; refining its internal practices in the pursuit of its excellence in operation and ensuring that it carries out its responsibilities in the global public interest. The Panel emphasizes that does not imply that there need be any expansion of ICANN's role beyond the responsibility that it has already been given. Mutual AOCs could be flexible and adapt with technology, time, and need.

The Panel believes that the actions found in the Roadmap (Section 7) of this report represent concrete steps towards realizing the principles outlined in Section 6. We recognize the evolving nature of ICANN's tasks and hope that this report will contribute to ICANN's ability to fulfill its obligations and the vision that created it in 1998.

* * * *

[Full Report Follows]

Strategy Panel: ICANN's Role in the Internet Governance Ecosystem¹¹ (Full Report)¹²

1. Preamble

As requested by the Internet Corporation for Assigned Names and Numbers (ICANN), this panel will review the assumptions, linkages and frameworks that dictate ICANN's responsibilities in the current Internet governance ecosystem. It will seek insights into ways to maintain and enhance ICANN's role in the evolving ecosystem while cultivating thought leadership on ways in which ICANN can serve a complex network of Internet interests. The panel's task has been described by ICANN as follows:¹³

- Facilitate review of the assumptions, linkages and frameworks that underlie ICANN's responsibilities in the current Internet ecosystem;
- Seek insights on ways to maintain and enhance ICANN's stewardship in an evolving ecosystem; and
- Cultivate thought leadership on ways in which ICANN can serve a complex set of Internet constituencies;
- Provide a set of guiding principles to ensure the successful evolution of ICANN's transnational multistakeholder model in cooperation with national and international bodies;
- Propose a roadmap for evolving and globalizing ICANN's role in the Internet governance ecosystem in consultation with global players; and
- In coordination with the many other global players and ICANN stakeholders, propose a framework for implementation of ICANN's role, objectives and milestones in global Internet governance.

The Strategy Panel studied ICANN's Role in the Internet Organizations' Ecosystem, and in particular, the Panel reviewed the assumptions, linkages and frameworks that dictate

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¹² Please see Footnote 1, *supra*, for the authors' note. Recommended citation: Vinton G. Cerf (Chair) et al., "ICANN's Role in the Internet Governance Ecosystem," Report of the ICANN Strategy Panel, February 2014. The opinions are the panelists' opinions and this does not reflect any official position of ICANN.

¹³ "Strategy Panels Unveiled at ICANN 47 in Durban" *ICANN*, Jul 15, 2013, available at <http://www.icann.org/en/news/announcements/announcement-15jul13-en.htm>

ICANN's responsibilities in the current Internet governance ecosystem. It sought insights into ways to maintain and enhance ICANN's role in the evolving ecosystem while cultivating thought leadership on ways in which ICANN can serve a complex network of Internet interests.

The Panel convened for the first time at ICANN 48 in Buenos Aires in November 2013, and developed its recommendations after a mixture of several collaborative video conferences, phone calls and online collaboration. The panelists collaborated in the writing of this report together with drafters and staff through the use of a shared online document wherein participants had ongoing opportunities to propose the text, offer comments, alert each other to alternative viewpoints and to deliberate. Additionally, the Panel collected input from ICANN's global community through two public webinars,¹⁴ and provided opportunities for feedback from the community by an open email listserv that was open for submission from September 2013 until February 14, 2014,¹⁵ and through a survey.¹⁶ The Panel believes the report represents a rough consensus view, though it is possible that not all observations are unanimous. The Panel reports on its findings below.

2. Everyone and Everything On the Internet

The Internet emerged from a long-term series of experiments and developments in collaboration with government, academia, and later, civil society and the private sector. Its early roots as a project initiated by the U.S. Department of Defense (among others) have now been shed and the Internet has become a global digital communication and information platform that continues to evolve, grow and extend in scope even as it has reached over 30 years of operation in 2014.¹⁷

It is important to recognize that the Internet is different from all the familiar networks that have come before it. It is *always on* and the devices connected to it are *always in contact*. It is a two-way system, unlike broadcast networks like traditional cable and over-the-air television or radio. Unlike the telephone system, any device is ready to send or receive traffic to and from multiple sources and sinks at the same time. It is not surprising that it has developed a unique set of governance practices arising out of practical necessity, catering to its history and technology.

¹⁴ The Strategy Panel Webinar archive is available at <http://goo.gl/uYh5Kr>.

¹⁵ The Strategy Panel email archive is available at <http://mm.icann.org/pipermail/ioepanel/>.

¹⁶ The survey was hosted through Survey Monkey, and contained several questions for the community. The questions are noted in the webinar presentation deck, available at <http://goo.gl/LrwU0o>

¹⁷ Conceived in 1973, the Internet arose out of earlier explorations of packet communication technology, and required ten years of development before it was launched into operation in early 1983. A useful historical summary: "Brief History of the Internet" *Internet Society*, 2014, available at <http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet>

a) Globalization of the Internet

The Internet is pervasive in many parts of the world and there are currently 2.7 billion people online, which is about 40% of the global population.¹⁸ According to a recent study¹⁹, the next 5 billion users will come from Asia and Africa:

	<i>Internet Penetration Today</i>	<i>Target Penetration for 5B</i>	<i>New Internet Users to Hit Target by 2030</i>	<i>% of Total Growth</i>	<i>Expected Annual Growth</i>
Asia	32%	90%	3.1B	62%	7.3%
Africa	16%	90%	1.3B	26%	13.9%
Americas	61%	95%	0.5B	10%	3.9%
Europe	75%	95%	0.1B	2%	1%

As can be seen above, of the next 5 billion Internet users, most will not come from the same developed regions as before, nor will they access the Internet in the same way. As Vinton Cerf described in 2005, "the Internet is actually a grand collaboration of hundreds of thousands of network operators."²⁰ The complexity of this collaboration continues and includes providers of access through fiber-optic cables, copper, satellite and mobile phone companies, together with nearly two billion websites and as many as 1 trillion separately indexed pages.²¹ The increasing use of smart phones is spreading access more broadly than ever, and 4 billion (the majority) of the next 5 billion users (the "long tail") will change the context within which we view and frame Internet governance issues. The basic underlying notion surrounding the Internet is now, and should remain, an open communication platform for everyone. The world has only just started to see this evolution in technology.²²

We will discuss the ecosystem further in Section 4 below. However, it is worth noting now that the Internet's policy landscape is just as dynamic as the technology itself. By way of illustration, in addition to the panels proposed by ICANN, there are some

¹⁸ *Id.*

¹⁹ David Reed, Jennifer Haroon and Patrick Ryan, "Technologies and Policies to Connect the Next 5 Billion" *Berkeley Technology Law Journal*, Vol. 29, 2014, (forthcoming), available at <http://ssrn.com/abstract=2378684> [Hereinafter: Reed et al., Next 5 Billion]

²⁰ Vinton G. Cerf, "Internet Governance -- Draft 1.3" *ICANN*, Oct 28, 2004, available at <http://www.icann.org/en/news/presentations/cerf-internet-publication-28oct04-en.pdf> [Hereinafter: Cerf, Internet Governance]

²¹ See Jesse Alpert & Nissan Hajaj, "We knew the Web was big..." *Official Google Blog*, Jul 25, 2008, available at <http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html> (noting 1 trillion pages); Also see "The Size of the World Wide Web" available at <http://www.worldwidewebsite.com/> (noting about 1.82 billion web sites).

²² John Markoff, "Viewing Where the Internet Goes" *New York Times*, Dec 30, 2013, available at <http://www.nytimes.com/2013/12/31/science/viewing-where-the-internet-goes.html?pagewanted=1>

illustrative announcements that have garnered great interest in the Internet community. While these are only a few among several initiatives, they demonstrate how quickly the landscape is changing: the first is the Global Multistakeholder Meeting on the Future of Internet Governance, also known as Net Mundial, expected to be a global multistakeholder event hosted in Brazil this April;²³ the second is the creation of /1net, an initiative started by the technical infrastructure community in the wake of the Montevideo Statement,²⁴ and the third is the announcement of a Global Commission on Internet Governance led by Chatham House and CIGI.²⁵ These diverse initiatives differ greatly in terms of their scope, objectives, inclusiveness and participation. For example, anybody can join in a lively online discussion through the /1net listserv, while the Commission is a closed, invitation-only group of experts. Although the level of inclusiveness and kinds of activities that will come out of these initiatives may be different, they all partake of the commonality that defines the Internet: a shared view of responsibilities and stewardship. Any legitimacy that may arise from any specific initiative comes from the trust and confidence of the constituencies involved. The increased interest of so many different groups in defining how the future Internet should take shape, and the willingness to join the conversation, are positive developments.

When ICANN was formed in 1998, Internet access was a phenomenon that required a wired connection, and there were only about 147 million global Internet users, only 6% of the 2.7 billion users in 2014.²⁶ In the case of Africa, a World Bank report stated that 21 African countries were estimated to have just over 1,000 users each in 1999, noting that the Internet was a “largely insignificant medium.”²⁷ Not only was adoption and use of the Internet in relative infancy, so were the systems of multistakeholder institutions. For example, the Internet Society (ISOC) was formed only six years before (in 1992) and the Internet Governance Forum (IGF) was not established until seven years later (in 2005). As mentioned above, in 2013 and early 2014, a number of new events and initiatives have already been announced. With these initiatives, it is likely that the Internet governance ecosystem will be richer ten years from now: likely more diverse, more developed and more interrelated than ever before. While we cannot predict how this ecosystem will look, hopefully it will evolve in a way that is inclusive of the many new voices that are joining the Internet, particularly from emerging economies-- and as the new users join the Internet, they increasingly participate in the governance discussions that affect their use of it. Additionally, it's not just people that are joining the Internet: devices and appliances (the “Internet of Things”) represent an estimated \$4.8 trillion

²³ Global Multistakeholder Meeting on the Future of Internet Governance, *available at* <http://netmundial.br/> or <http://netmundial.org/>

²⁴ /1net, *available at* www.1net.org

²⁵ “CIGI and Chatham House launch Global Commission on Internet Governance, chaired by Sweden’s Carl Bildt,” Chatham House, Jan 22, 2014, *available at* <http://www.chathamhouse.org/media/news/view/196835>

²⁶ “Internet Growth Statistics” *All About Market Research*, Feb 2014, *available at* <http://www.allaboutmarketresearch.com/internet.htm>.

²⁷ Charles Kenny, “Expanding Internet access to the rural poor in Africa” *Information Technology for Development*, Vol. 9, 2000, 25-31, *available at* <http://itd.ist.unomaha.edu/Archives/28.pdf>

market today and estimated to become a \$8.9 trillion market by 2020.²⁸

As the Internet grows, and as it adds more users and devices, so has the diversity of applications of the technology. The utility of the Internet has grown so broad that many people and institutions that are not direct users are still affected by, or indirectly dependent upon, the use and reliable operation of the Internet. While the Internet in itself is nothing more than a tool with an impressive positive usage, a realistic assessment of the Internet's impact unfortunately also has to take into account a range of abuses perpetrated by a small fraction of the population that harbors ill intent²⁹ and exploit the open, global infrastructure, as is a risk with all tools. To this must also be added organized crime and harmful national agendas. The diverse mix of positive and negative activity creates an extremely complex and nuanced governance challenge with many dimensions.

b) Institutional Diversity

Adding to the complexity of Internet governance is the wide range of individuals and institutions, including governments at all levels, that are involved in creating, developing, operating and evolving applications and services on the Internet or defining the interoperable standards that apply to its evolution and use. These myriad actors have diverse agendas, interests, motivations and incentives, not all of which are aligned. There are extremely diverse products and services that interoperate and rely on the Internet and the World Wide Web to enable their use.³⁰

If anything characterizes the Internet it is an intense focus on open standards and on interoperability among all its components and across all borders. That so many diverse systems, hardware and software constructs and institutions can co-exist and interact in the Internet's operational environment is a consequence of its design philosophy. For this reason, Rick Whitt has argued that "lawmakers should understand and, where appropriate, defer to the substance and processes imbued in the Internet's functional design."³¹ Thanks to practical, open standards protocols developed by rough consensus, and a layered approach to architecture, anyone is able to independently build pieces of Internet infrastructure and/or applications and have reasonable expectation for global interoperability. In addition, the Internet is fundamentally transnational in its character, introducing a cross-border dimensionality coloring any governance efforts.

²⁸ Larry Dignan, "Internet of Things: \$8.9 trillion market in 2020, 212 billion connected things" *ZD Net*, October 3, 2013, available at <http://goo.gl/PE8DS8>

²⁹ An extended example of criminal abuses can be found in "Internet Crime Report," Internet Crime Complaint Center (IC3), 2012, available at http://www.ic3.gov/media/annualreport/2012_IC3Report.pdf

³⁰ The World Wide Web is an application that uses the Internet for connectivity and transport. See "Brief History of the Internet," *Internet Society*, 2014, available at <http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet>

³¹ Richard S. Whitt, "A Deference to Protocol: Fashioning a Three-Dimensional Public Policy Framework for the Internet Age," *Cardozo Arts & Entertainment Law Journal*, Jul 12, 2013, available at <http://ssrn.com/abstract=2031186>.

c) Modeling the Internet and its Ecosystem

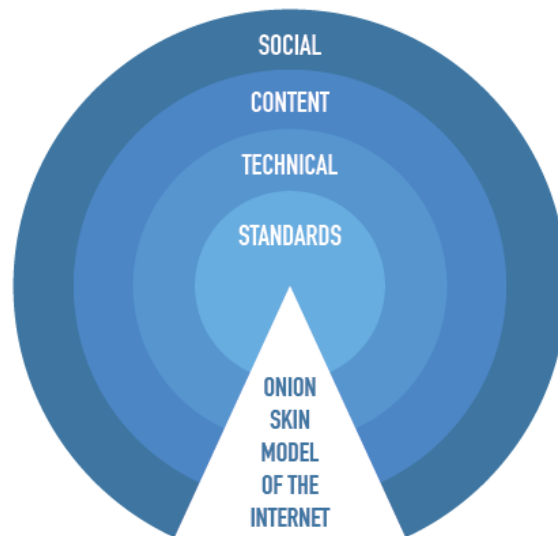


Figure 2: Onion Skin Perspective

Scholars have, for some time, been comfortable describing the Internet’s technical architecture with a layered model that segregates and characterizes different functions of the Internet and its applications.³² Although there are different ways to look at these layers, as shown in Figure 2, at the core are the technical standards that define the Internet’s functional operation. These standards form the building blocks for an *infrastructure layer*—the highway that enables the traffic, and that layer is closely accompanied with a *logical layer* using standards for the transfer of data packets, including the TCP/IP suite of protocols, and the management of the DNS. Together, the *infrastructure layer* and the *logical layer* form a *technical layer*. The binary digits (bits) that flow across the Internet are guided along the infrastructure layer with the aid of the logical layer, and the “loose coupling” between these two areas continues to evolve.

At or near the top of the layered model, most scholars agree that there is a *content layer* where technical operations matter less but other policies like intellectual property rights and content control are most directly implicated. As questions of trust, identity, freedom of expression and human rights gain the spotlight in Internet and information policy, we

³² Yochai Benkler, “From Consumers to Users: Shifting the Deeper Structures of Regulation Towards Sustainable Commons and User Access,” *Fed. Comm. L.J.*, Vol. 52, 561, 2000, available at <http://www.yale.edu/lawweb/jbalkin/telecom/benklerfromconsumerstousers.pdf>

support the addition of a *social layer*. This layer identifies and stratifies the relevant institutions that may have a mandate to deal with the steering of practices, continuous assessment and handling of emerging policy issues. The social layer deals with practices that define paramount rights and principles associated with “social conduct” online.³³ Our description, in Figure 2, of the “onion skin model” should be understood as a simplification, given that especially the “social” and “content” layers do have some dynamics that are not as strictly layered as the model suggests. Figures 3 and 4 illustrate the scope and variety of potential governance issues that may arise depending on the functional layer in which issues may arise.

In a more traditional perspective, Figure 3 below illustrates the nature, functionality and example issues associated with each layer in this model.



Figure 3: Layered Model of the Internet — Issues

³³ Vinton G. Cerf, Patrick Ryan, Max Senges, “Internet Governance is Our Shared Responsibility,” Forthcoming in *I/S: J. Law and Policy for the Information Society*, 10 ISJLP, 2014, available at <http://ssrn.com/abstract=2309772> [Hereinafter: Cerf, Shared Responsibility].

Finally, another way to view the Internet ecosystem is to segment it by function as is shown in Figure 4 below. While the figure does not and cannot list all interested parties, it captures the diversity of their interest and primary areas of responsibility. These organizations participate in the diverse web of relationships we discuss in Section 5. ICANN is one among many other organizations in the ecosystem to have developed a glossary for those not familiar with the alphabet soup of acronyms associated with the Internet’s diverse institutions.³⁴

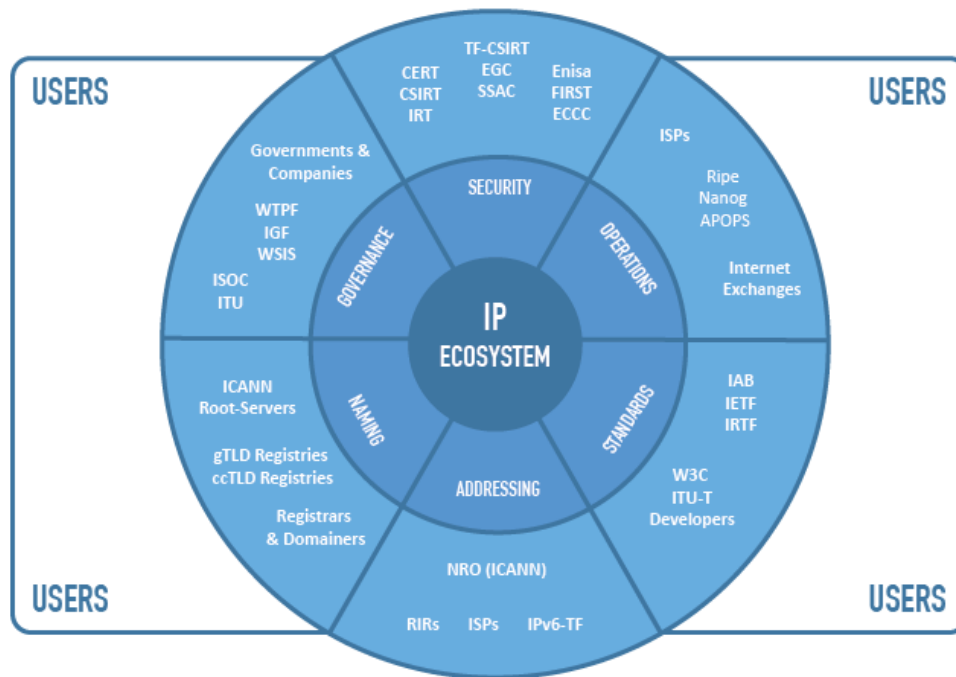


Figure 4: A Functional View of the Internet Ecosystem

In the end, there is a potentially infinite number of graphical ways to represent the various institutions and groups that deal with development of standards and the organizations that cover them. The proposals in this report provide some perspectives but are neither comprehensive nor authoritative in this sense, and the Panel emphasizes the admonition of Professor George Box, that “essentially, all models are wrong, but some are useful.”³⁵ We will now turn to a discussion on the meaning of “governance” within the ecosystem that we have described thus far.

³⁴ See ICANN Glossary, available at <http://www.icann.org/en/about/learning/glossary>

³⁵ George E. P. Box and Norman R. Draper, “Empirical Model-Building and Response Surfaces,” Wiley Books, 1987 at 424. The entities in Figure 4 are inspired from a chart that the Internet Society has previously used, and there are some entities that are missing: for example, ICANN itself is not in Figure 4, because ICANN is not a body (given its stewardship role), nor is the ITU, in spite of the ITU’s work in various aspects of the ecosystem.

3. Meaning of “Governance”

Governance is a potentially vast topic and its application to the Internet specifically does not reduce its scope very much. There have been, and will continue to be, arguments over what is meant by governance: What is the relevant scope? Who is affected? What rules apply? How are they enforced? Who makes the rules and why are they legitimate? How are disputes over rules or their violation resolved? How is the transnational nature of the Internet and its use accommodated?

Governance expresses what is *permitted, forbidden, required and/or accepted* with regard to practices in some context. A full rendering of governance would have to describe not only the individuals, entities (including institutions) and behaviors that are governed, but also by whom and by what means. It would also have to include some explanation of the means by which the governing rules are created, amended and adopted, as well as enforcement modalities.

The Panel chose to use the working definition of Internet governance that was proposed in 2005 at the close of the World Summit on the Information Society (WSIS) in the Tunis Agenda:

Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.³⁶

This definition, accepted by more than 180 governments, clarified many important issues, including that Internet governance: requires the involvement of all different types of stakeholders, even if significant ambiguity remains regarding their “respective roles”; covers both policy-making and implementation (“development and application”), which may or may not include dedicated institutions; is organized around the production of various governance systems; and covers both the Internet as system (its “evolution”) and the behavior of its users (the “use of the Internet”). The Panel recognized the possibility that there might be need to revise this text in the future to accommodate changing conditions.

As seen above, there are various institutions that provide opportunities for individuals, companies, corporations, academics, governments, and other stakeholders to plug into a governance ecosystem. Although this complex ecosystem provides ample opportunities for rapid growth and evolution of the technology, there has never been a “one stop shop” for Internet governance matters and it can be a challenge for any stakeholder group to correctly identify where it may make its own impact, in the areas that are important to it.

³⁶ “Report of the Working Group on Internet Governance,” WGIG, Jun 2005, *available at* <http://www.wgig.org/docs/WGIGREPORT.pdf>

a) Governance vs. Government

Governance should **not** be confused with *government*. Both governance and governments establish “regimes”³⁷ of activity or action, but in very different ways. As important and as influential as governments are in rulemaking, government is one among several possible modes of governance. Governments exercise considerable authority over what is permitted in national societies and act as a proxy for citizens. As a practical matter, governments often directly manage natural resources and national resources like taxpayer funded roads and highways. In the context of the Internet, governments provide a legal framework, exercise law enforcement, and cater to the common good of their citizens. Sometimes governments are co-investors in the infrastructure, as in the case of Australia, New Zealand and increasingly, a number of Latin American countries.³⁸ Government is typically layered at national, provincial and local levels. There may be multi-national regional arrangements as is the case for the European Union (EU). The United Nations (UN) and systems of bilateral and multilateral treaties represent examples of intergovernmental governance.

b) Examples of Governance Systems

Systems of rules may be adopted by entities other than governments to constrain and define the practices that are allowed in some context. Non-governmental organizations may also be formed by groups of actors to provide governance of their common activity. This kind of coordination is not unique to the Internet. As described in Text Box 1 below, governance exists in social and other non-technical activities.

³⁷ The Panel’s use of the term “regimes” refers to a combination of norms, rules and best practices, and can sometimes implicate the execution of managerial, administrative, or coordinating functions.

³⁸ See Benoit Felten, “Connectivity Models for Developing Economies,” *Diffraction Analysis*, Oct 21 2013, available at <http://ssrn.com/abstract=2343233>.

Text Box 1. Governance in Other Sectors

In 1899, the Royal and Ancient Golf Club of St. Andrews, Scotland convened with the United States Golf Association in order to come up with a uniform set of rules for the game. The agreement noted that the rules "*can only be kept uniform by mutual agreement not to alter it unilaterally. If Questions of alteration arise . . . [the parties in Scotland and the USA] will consult with each other and with the governing bodies in other countries, and will use all possible means to ensure the maintenance of uniformity.*"

In the private property context, what is permitted in a residential neighborhood may be governed, in part, by a private Home Owner's Association (e.g. through covenants), that spell out, among other things, rules for the appearance of the homes and gardens making up the neighborhood, and these covenants often differ from the local zoning and planning rules.

Likewise, the technical rules defining the functional operation of the Internet and the World Wide Web are defined by the relevant stakeholders, inter alia, through the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C).

The environment is also subject to numerous arrangements for its governance. Besides local, other subnational, and national mechanisms, bilateral, multilateral and global agreements are in place or being created for specific aspects of environmental governance. Among the most relevant for this study is the Intergovernmental Panel on Climate Change. Although limited to formal decision-making by governments, it involves stakeholders such as industry, civil-society organizations, and subject-matter experts organically. At more local levels, the formality of intergovernmental processes gives way to cooperative management of common resources, which often antedates formal mechanisms by many centuries.

In some systems of governance, the affected parties are uniform in nature. The citizens of a country are generally treated as a uniform set of individuals, whose permitted actions are governed by the laws of the land. In the Internet, however, widely diverse actors are drawn together to create, operate and use the Internet's network of networks and the interoperable devices they interconnect. These actors have varying structure, scale and interests and range from corporations and governments to individuals and institutions. Attempts to define a taxonomy of the myriad heterogeneous stakeholders with an interest in some aspects of the Internet yields results ranging from vastly oversimplified to impossibly detailed. The reality is that every entity or individual now has a stake in the well-functioning of the Internet and the innovation that drives its evolution.

Another example from the private sector helps illustrate the challenge. A company that offers Internet access may find itself subject to a wide range of governance rules. As a corporation, there may be national or regional laws that require certain rules for licensing and operation, incorporation and reporting, and these may come from the National Regulatory Authority, the Executive Branch or the Treasury. Through rules that are either formal (e.g., from the National Regulatory Authority) or informal (e.g., through the Internet Engineering Task Force (IETF), the Institute of Electrical and Electronics Engineers (IEEE), or the International Telecommunication Union (ITU)) the company will be asked to meet technical obligations for the sake of interoperability with the telephone network, with other providers, and to accommodate users that bring devices with them. Additionally, as with the development and deployment of any technology, the company may be subject to rules from the Ministry of the Environment that relate to the environment, and to the Ministry of Labor for management of human resources. Finally, in addition to rules from the National Regulatory Authorities, the company may be subject to telecommunications regulation, depending on the exact nature of its offerings,

and may need to comply with privacy rules set by Data Protection Authorities. If it also provides applications (e.g. email, cloud computing, software-as-a-service, mobile apps, etc.), it may be subject to various additional requirements regarding user privacy, enforcement requirements regarding copyright or trademark protection, and in some cases, the Ministry of Foreign Affairs passes rules on the export of certain kinds of information.

There are other examples as well from the academic and civil-society contexts that are useful to illustrate governance from other areas. In the academic context, there are, similarly, groups that affiliate to share information and to perform a certain level of self-regulation. For example, in engineering, the Accreditation Board for Engineering and Technology (ABET) provides accreditation to more than 3,100 programs in more than 24 countries.³⁹ Similarly, for the development of educational business curricula and related standards, the Association to Collegiate Schools of Business (AACSB) develops global accreditation standards, curricular advice, and quality verification for universities that choose to opt-in to their standard. Many countries around the globe that are involved in business education have universities that collaborate with the AACSB to make sure their business curricula have global relevance.⁴⁰ Although civil society is very diverse in its interests and work, since 1951 the One World Trust initiative has been working to provide voluntary cooperative engagement principles for effective engagement for civil society globally.⁴¹

The responsibility within *government* for engaging on these activities can often be found with the appropriate ministries or agencies, but they are not so clear in the general context of *governance*. Many distinct entities may be involved in applying and enforcing hypothesized governance constraints and it is even possible that there will be inconsistencies and conflicts among the rules put forth by distinct governance agents⁴². The processes by which governance rules are created and applied may also vary from regime to regime. In the case of Internet governance, it is important to have processes in place that can identify the conflicts, tensions and frictions between stakeholders, issues and models and to find mechanisms to resolve them over time.

c) Stewardship as primary guide

The Panel spent considerable time discussing the role of various actors within the Internet ecosystem as “stewards.” There are many players in the Internet ecosystem, some pursue academic and research interests, some focus on economic goals, some have political and societal objectives, some primarily care about the needs of individual users or their protection.⁴³ Given the increasingly ubiquitous nature of the Internet, all actors have a common interest in the well-functioning of the overall infrastructure and a

³⁹ ABET, available at <http://www.abet.org/about-abet/>

⁴⁰ AACSB, available at <http://goo.gl/JsTRFH>

⁴¹ One World Trust available at <http://www.oneworldtrust.org/>

⁴² It is far to say, however, that within governments, one can also find overlap and inconsistency.

⁴³ For example, law enforcement, privacy, security, data integrity and protection from harm.

common concern that it is not abused. Still, none of these actors on their own have the capacity to address all these issues, rather they have an interest in exercising responsibility for the matters for which they have stewardship. Furthermore, there is an inescapable, trans-border interdependence among actors: the action of one has potential impact on the others. They have therefore a *shared or entangled responsibility* to organize the governance of this common infrastructure.⁴⁴ It is fair to describe the ensemble as a ‘grand collaboration.’⁴⁵

Our discussion of the governance ecosystem yielded three terms to describe the nature of the roles that different actors take: stewardship, coordination and contribution through informed participation. Each are described below:

i) Stewardship

Stewardship is a form of leadership. As the concept developed in the environmental field and the theory of collective action it describes the management of common resources or spaces for the optimal benefit of all concerned through shared sets of rules.⁴⁶ This can include entrusting specific entities to help develop and – potentially enforce such rules. In the context of Internet governance, the term applies to the specific public interest responsibilities of each structure, for instance: the development of standards by the IETF or the World Wide Web Consortium (W3C) or the management of IP addresses by the Number Resource Organisation (NRO) through the Regional Internet Registries (RIRs).

Stewardship means caring more for the good management, use and evolution of a shared resource than for any individual stake in it. In many ways, this is like a guardianship role protecting a resource such as the domain name space, recognizing and providing for the range of stakeholders involved. It includes providing principles and purpose for how we manage, develop and protect such a space, while ensuring we prevent harms or activities that may result in persistent imbalances. We need to assure that decisions we make regarding what is or is not appropriate for ICANN reflect those principles. In other words, stewardship requires a very broad, flexible view of the world: at times, it may mean that ICANN may need to put the interests of the ecosystem first and step aside, while in other cases, ICANN may need to actively fill a void or vacuum in the ecosystem, while having the sense and humility to step back if and when other stakeholders fill the void.

The stewardship concept we use stems largely from the management of common-pool resources. The Internet has long ago ceased being such a resource, given the introduction of markets, property rights, and other features. However, the Panel found it necessary to emphasize that most if not all Internet governance must be imbued with this principle as a way to emphasize that win-lose or lose-lose games are suboptimal, and

⁴⁴ Cerf, Shared Responsibility, cited *supra*

⁴⁵ Cerf, Internet Governance, cited *supra*

⁴⁶ See in particular the work of Elinor Ostrom, Nobel prize Laureate in Economics in 2009

the health of the Internet as a whole needs a vision that is above the specific interests of particular players.

A sense of stewardship and awareness of surroundings must guide all organizations involved in Internet governance. Note that stewardship does not and need not imply scope creep. As such, the advice that Ira Magaziner⁴⁷ gave to the ICANN CEO and Board in 2011 is helpful. Magaziner said that ICANN's "leaders must avoid trying to build an empire. I think you will be best served by doing what you need to be doing, to be focused on but not build something that's too big an empire because a bigger empire becomes a bigger target."⁴⁸

For these reasons, checks and balances, and transparency and accountability, are not only principles in themselves, but also serve to ensure that actors stay true to this stewardship principle, and more generally, to take measures to assure that guiding principles of all kinds are real and do not hang in empty space. Indeed we observe that the essence of careful stewardship predates current Internet governance discussions by several decades, albeit in simpler times under Jon Postel,⁴⁹ and enabled the Internet to evolve to what it is today. We believe that careful stewardship will continue to be valued by the global Internet community as the Internet governance discussion itself evolves and that stewardship should feed into all of ICANN's thinking.

ii) Coordination, Coordination & Coordination

Any distributed institutional system requires coordination to deal with potential mandate overlaps, to facilitate joint actions and to ensure that no responsibility "falls into the cracks" between structures. ICANN's bylaws and mission sets it up at the core of some of the most fundamental coordination issues.⁵⁰ The bylaws lay out ICANN's "coordination" role very clearly in Article 1, Section 1 as follows, setting ICANN up to:

- **Coordinate** the allocation and assignment of the three sets of unique identifiers for the Internet;
- **Coordinate** the operation and evolution of the DNS root name server system;
- **Coordinate** policy development reasonably and appropriately related to these technical functions.

⁴⁷ Ira Magaziner served as senior policy advisor during the Clinton Administration and facilitated the creation of ICANN. This was in conformance with the general Clinton-Gore initiative to expand access to the Internet to the private sector.

⁴⁸ Comments of Ira Magaziner at ICANN Meeting Welcome Session, Mar 24, 2011, *available at* <http://svsf40.icann.org/meetings/siliconvalley2011/transcript-welcome-14mar11-en.txt>

⁴⁹ Jon Postel was a computer scientist who contributed to developing many of the technologies that form the Internet. He was the editor of the Request for Comment series and created (and manually operated) IANA out of the University of Southern California/Information Sciences Institute. He was trusted by all for his fairness and expertise. Internet Hall of Fame, *available at* <http://internethalloffame.org/inductees/jon-postel>

⁵⁰ Bylaws for Internet Corporation for Assigned Names and Numbers, *available at* <http://www.icann.org/en/about/governance/bylaws#>

In the Internet governance landscape, this coordination is particularly important in the “logical layer” described in section 2(d) Figure 3, among the so-called I* community.⁵¹ Counter-intuitively the coordination that has proved most effective is *not* a clockwork-like coordination, which assumes strict, rigid or mechanistic linkages between the parts and a central coordination engine, but rather a flexible, loosely-coupled approach which will be described further in Section 6.

iii) Contribution through Informed Participation

Beyond the two dimensions above, each process or institution benefits from the interactions with, contributions from and participation in the activities of entities dealing with issues distinct from theirs but whose decisions could impact them or which could benefit from their experience. In the Internet governance realm, this applies in particular to interactions between informed participants and entities dealing with the different layers, as the separation between them is not strict but somewhat fluid and porous: for instance, technical decisions have policy implications and vice versa.

d) Characteristics and Values of Multistakeholder Governance

What are the characteristics of an open, participatory policy development process? This question is being analyzed within the context of the Strategy Panel on Multistakeholder Innovation chaired by Beth Noveck.⁵² However, for readers that may not be familiar with the standards-setting processes of the IETF or with the models for development of open-source software, the Panel thought it would be valuable to introduce the concept of openness and loose coupling through the essay of programmer Eric Raymond, who penned the essay “Cathedral and the Bazaar” in 1997. Raymond’s article addressed different approaches to software engineering methods.⁵³ The article is used in many educational fora to describe processes that are “open” and those that are “closed,” and the description provides a good conceptual model for the kinds of processes that have helped inspire innovation in the Internet.

Raymond described the “cathedral model” to software development, where the software code’s viewing is restricted to a defined hierarchical group of software developers. He contrasted the cathedral model to the “bazaar model,” where code is shared openly over the Internet and with the public, subject to comment by all. He takes the development of the Linux operating system as an example and describes its philosophy.

⁵¹ The I* community includes ICANN, IAB, IETF, ISOC, W3C, and the 5 RIRs (AFRINIC, APNIC, ARIN, LACNIC, RIPE NCC).

⁵² See Strategy Panel on ICANN Multistakeholder Innovation, *available at* <http://goo.gl/o8oN90>, tasked to propose “new models for broad, inclusive engagement, consensus-based policymaking and institutional structures to support such enhanced functions; and Designing processes, tools and platforms that enable a global ICANN community to engage in these new forms of participatory decision-making.”

⁵³ Eric S. Raymond, “The Cathedral and the Bazaar, v. 3.0,” *CatB.org*, Sep 11, 2000, *available at* <http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/>.

Before cheap Internet, there were some geographically compact communities where the culture encouraged Weinberg's "egoless" programming, and a developer could easily attract a lot of skilled kibitzers and co-developers. Bell Labs, the MIT AI and LCS labs, UC Berkeley—these became the home of innovations that are legendary and still potent. . . . Linux was the first project for which a conscious and successful effort to use the entire world as its talent pool was made. I don't think it's a coincidence that the gestation period of Linux coincided with the birth of the World Wide Web, and that Linux left its infancy during the same period in 1993–1994 that saw the takeoff of the ISP industry and the explosion of mainstream interest in the Internet.⁵⁴

According to Raymond, the "bazaar" method is synonymous with the philosophy of the Internet's development as compared to older telecom industries. In essence, the "bazaar" method for software writing is not unlike the model for Wikipedia's work: the system is open, exposed, subject to comment by anyone who has an opinion.⁵⁵ Raymond's central claim is that "given enough eyeballs, all bugs are shallow." Essentially, this means that broad dissemination and discussion of coding provides better products.⁵⁶

The equivalent of the bazaar in standard-setting organizations is the IETF—an open, volunteer-based standards-setting environment without any formal corporate "personality," where engineers have developed the core functionality that enables packets to transfer throughout the Internet. All IETF designs are freely accessible, and all IETF processes are published in their entirety on the Internet.⁵⁷ If anything, reading the IETF website can be a bit onerous if only because it might feel like there's too much information available. Notably, the publications are all available and readable in any format, and it's expected that anyone, anywhere, can participate in the IETF process. As Harald Alvestrand describes, the IETF depends on an entirely open process, which means that

any interested person can participate in the work, know what is being decided, and make his or her voice heard on the issue. Part of this principle is our commitment to making our documents, our WG [working group] mailing lists, our attendance lists, and our meeting minutes publicly available on the Internet.⁵⁸

Drawing from analogies throughout the open-standards space, the IETF is a true meritocracy: If members of the IETF community determine that an engineer's ideas have value, those ideas are adopted and incorporated into the Internet's suite of standards.

⁵⁴ *Id.*, at 18.

⁵⁵ See "The free-knowledge fundamentalist," *The Economist*, Jun 5, 2008, available at <http://www.economist.com/node/1148406>.

⁵⁶ *Id.*, at 8.

⁵⁷ Harald Alvestrand, "A Mission Statement for the IETF", IETF RFC 3935, available at <http://www.ietf.org/rfc/rfc3935.txt>.

⁵⁸ *Id.*

Ideas that are dated or counterproductive, on the other hand, fester and fail. As famously stated by David Clark of the Massachusetts Institute of Technology (formerly Chief Internet Architect after 1982): “We reject kings, presidents and voting. We believe in rough consensus and running code.”⁵⁹ While the characteristics of good practices in open and closed processes are being developed in separate projects, the Panel wishes to emphasize its preference towards the philosophy and practice of openness that is used in the IETF. Open participation, regardless of specific interest, perspectives or background, provides the flexibility to engage all parties who wish to be engaged and also the transparency to decide not to be. The legitimacy of the IETF is vested in the communities that choose to recognise it, through their participation in its processes, or recognize its output, by implementation or use of the open standards it develops.

4. Perspectives on Internet Governance

Historically the Internet Assigned Numbers Authority (IANA) functions include coordination of protocol parameters, management of the DNS root zone, allocation of numbering resources (ie. Internet Protocol addresses and Autonomous System Numbers),⁶⁰ and servicing the .ARPA and .INT domains.⁶¹ In 1998, in its Statement of Policy (the “White Paper”), the U.S. government committed to transitioning the management of the IANA functions to a private sector entity that would operate in a bottom-up, consensus-based manner.⁶² A primary objective behind the U.S. government’s policy to privatize the Domain Name System (DNS) was to facilitate “global participation in the management of Internet names and addresses.”⁶³ The U.S. government stated its belief that “neither national governments acting as sovereigns nor intergovernmental organizations acting as representatives of governments should participate in management of Internet names and addresses.”⁶⁴

The U.S. government’s National Telecommunications and Information Administration (NTIA), a division of the US Department of Commerce (DOC) recognized ICANN as the private sector entity charged with the management of these functions and executed the first IANA functions contract with ICANN. It was anticipated that ICANN would perform the IANA functions and that a short-term transitional contract with NTIA would be used

⁵⁹ “The Tao of IETF: A Novice’s Guide to the Internet Engineering Task Force,” *IETF Website*, available at <http://www.ietf.org/tao.html>.

⁶⁰ As RFC 7020 explains, “[t]he Internet Assigned Numbers Authority (IANA) is a role, not an organization. For the Internet Numbers Registry System, the IANA role manages the top of the IP address and AS number allocation hierarchies.” See “RFC 7020: The Internet Numbers Registry System” *IETF*, RFC 7020, Aug 2013, available at <http://tools.ietf.org/html/rfc7020>

⁶¹ The IANA Functions Contract is publicly available on the NTIA website. IANA Functions Contract, NTIA Website, available at <http://www.ntia.doc.gov/page/iana-functions-purchase-order>

⁶² Management of Internet Names and Addresses, ICANN Statement of Policy, Jun 10, 1998, available at <http://www.icann.org/en/about/agreements/white-paper> [Hereinafter: White Paper]

⁶³ *Id.* “The U.S. Government is committed to a transition that will allow the private sector to take leadership for DNS management.”

⁶⁴ *Id.*

only to ensure the security and stability of this vital part of the Internet. In Annex A, we provide further details on the historical relationship between ICANN and the NTIA. Once ICANN was firmly established, the NTIA set out to transfer the management of these functions to the private sector. NTIA set out a relatively short transition period by stating that it “would prefer that this transition be complete before the year 2000. To the extent that the new corporation is established and operationally stable, September 30, 2000 is intended to be, and remains, an ‘outside’ date.”⁶⁵

ICANN’s relationship with NTIA has evolved in parallel to the globalization of the Internet. On September 30, 2009, ICANN and NTIA executed an Affirmation of Commitments (AOC),⁶⁶ moderating the NTIA’s exclusive involvement with ICANN and further institutionalizing ICANN’s accountability to the global Internet community. In paragraph 4 of the AOC, NTIA affirmed “its commitment to a multi-stakeholder, private sector led, bottom-up policy development model for DNS technical coordination that acts for the benefit of global Internet users.” As Mawaki Chango has observed, previous arrangement “between ICANN and the DOC was replaced by a so-called Affirmation of Commitments that transferred responsibility to monitor ICANN from the U.S. government to a global review process.”⁶⁷ In the words of the AOC, this is “a private coordinating process, the outcomes of which reflect the public interest, is best able to flexibly meet the changing needs of the Internet and of Internet users.”⁶⁸ The transfer represents a case of evolving stewardship.

⁶⁵ *Id.* Regarding the need for a transitional period prior to the full transfer of the IANA functions, the U.S. Government stated its belief that “it would be irresponsible to withdraw from its existing management role without taking steps to ensure the stability of the Internet during its transition to private sector management.”

⁶⁶ Affirmation Of Commitments by the United States Department Of Commerce and the Internet Corporation For Assigned Names And Numbers, Sep 30, 2009, *available at* http://www.ntia.doc.gov/files/ntia/publications/affirmation_of_commitments_2009.pdf [Hereinafter, Affirmation of Commitments].

⁶⁷ Mawaki Chango, “Accountability in private global governance: ICANN and civil society,” published in the compendium by Jan Aart Scholte (Ed.), “Building Global Democracy?: Civil Society and Accountable Global Governance,” Cambridge University Press, 2011, at 270-71.

⁶⁸ Affirmation of Commitments, cited *supra*, at 4.

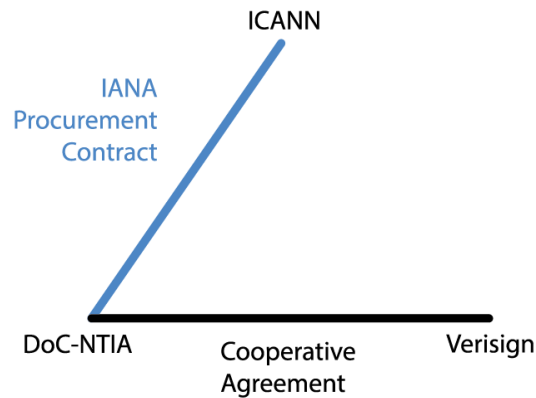


Figure 1: Description of Root Zone Management Process Through IANA Functions

In Figure 1, we provide an overview of the root-zone management process through the IANA functions. The DoC-NTIA’s (Administrator) current agreements with ICANN (IANA Functions Operator) and Verisign (Root Zone Maintainer) describe the root zone management process as follows:⁶⁹

1. TLD operator submits change request to the IANA Functions Operator;
2. the IANA Functions Operator processes the request;
3. the IANA Functions Operator sends a request to the Administrator for verification/ authorization;
4. the Administrator sends verification/authorization to the Root Zone Maintainer to make the change;
5. the Root Zone Maintainer edits and generates the new root zone file; and
6. the Root Zone Maintainer distributes the new root zone file to the 13 root server operators.

NTIA maintains separate agreements with ICANN and Verisign, Inc. All three organizations cooperate daily to carry out their responsibilities. ICANN is the IANA Functions Operator, which means it also services a no-cost procurement contract with NTIA to perform the IANA functions. NTIA also has a Cooperative Agreement with Verisign, Inc., the Root Zone Maintainer, related to the performance of its functions: Verisign edits, publishes, and distributes the root zone file. ICANN and Verisign also have procedural agreements that relate to the IANA functions.

a) /1net Views on Root-Zone Management

The topic of root-zone management was taken up recently within the /1net listserv, and the discussion led to the presentation of a cogent problem set to describe the issues with root zone management.⁷⁰ The following is the presentation of the issues as proposed by

⁶⁹ “Notice of Inquiry on DNSSEC implementation at root zone level” Department of Commerce, Federal Register, Vol. 73, No. 197 (October 2008), available at http://www.ntia.doc.gov/legacy/fmotices/2008/FR_DNSSEC_081009.pdf

⁷⁰ The purpose of /1net as stated on the website, www.1net.org, is to “provide an inclusive and open venue supporting discussion of Internet governance matters for all those interested (individuals,

George Sadowsky and amended through the discussion with the community:⁷¹

Text Box 2. Contribution by /1net

The topic of root-zone management was taken up recently within the /1net listserv, and the discussion led to the presentation of a cogent problem set to describe the issues of the root zone. The following is the presentation of the issues as proposed by George Sadowsky and amended through the discussion with the community:

i) IANA's Role in Vetting Changes to the Root Zone

The Internet Assigned Names and Numbers Authority (IANA) has as one of its functions the vetting of changes in the Internet root zone file. The members of the team that performs the IANA functions are employed by ICANN, the Internet Corporation for Assigned Names and Numbers.

ii) Relationship between US government and ICANN

ICANN has a zero-cost contract with the US government to perform the IANA functions. The US government authorizes changes made to the root zone by verifying that ICANN abides by publicly documented policies prior to the changes being submitted for implementation.

iii) Requirement for US venue for IANA functions contract

It has been a requirement for the contractor providing the IANA function to be a US organization, resulting in the provision of the IANA function being subject to US law and the decisions of the US judiciary.

iv) Objections to U.S. government involvement

Objections have been raised to US government involvement in this process on several grounds, including exclusivity and concerns of trust. Objections have equally been raised to movement of the function to several international organizations.

b) Technical Community

The technical community has recently assembled to make their position clear through the Montevideo Statement on October 7, 2013. At the meeting, ICANN met with the members of the technical community who called for the “accelerating the globalization of ICANN and IANA functions, towards an environment in which all stakeholders, including

governments, civil societies, technicians, etc.) and to deliver the results of those discussions to the agendas of established and developing Internet governance institutions. It is vital that the voices of all contributors be heard and carried forward to help shape the future of the Internet's governance.”

⁷¹ Taken from George Sadowsky's points in “Definition 1, Version 5,” on the 1net listserv and commented upon by numerous members of the community, Jan 21, 2014, *available at* <http://goo.gl/mgfRbh>.

governments, participate on an equal footing.”⁷² In making this statement, available in its entirety in Text Box 3 below, the technical community joined the statements of many governments regarding the future of the IANA functions.

Text Box 3. Montevideo Statement on the Future of Internet Cooperation (October 7, 2013)

Montevideo, Uruguay – The leaders of organizations responsible for coordination of the Internet technical infrastructure globally have met in Montevideo, Uruguay, to consider current issues affecting the future of the Internet.

The Internet and World Wide Web have brought major benefits in social and economic development worldwide. Both have been built and governed in the public interest through unique mechanisms for global multistakeholder Internet cooperation, which have been intrinsic to their success. The leaders discussed the clear need to continually strengthen and evolve these mechanisms, in truly substantial ways, to be able to address emerging issues faced by stakeholders in the Internet.

In this sense:

- They reinforced the importance of globally coherent Internet operations, and warned against Internet fragmentation at a national level. They expressed strong concern over the undermining of the trust and confidence of Internet users globally due to recent revelations of pervasive monitoring and surveillance.
- They identified the need for ongoing effort to address Internet Governance challenges, and agreed to catalyze community-wide efforts towards the evolution of global multistakeholder Internet cooperation.
- They called for accelerating the globalization of ICANN and IANA functions, towards an environment in which all stakeholders, including all governments, participate on an equal footing.
- They also called for the transition to IPv6 to remain a top priority globally. In particular Internet content providers must serve content with both IPv4 and IPv6 services, in order to be fully reachable on the global Internet.

c) Government Perspectives

It is undeniable that some governments around the world have been dissatisfied with the unique role that the U.S. government has in the DNS root-zone management system that is described in the previous section and in Figure 1. Although governments use the Internet, they represent only one class of the many stakeholders with interest in the Internet. Understanding these governmental perspectives has been a crucial level-setting component in the Panel’s work, because it is the Panel’s opinion that countries will continue to express similar kinds of dissatisfaction, and if unaddressed, this could lead to the *splintering* of the Internet into potentially disconnected or non-interoperable pieces.⁷³

⁷² Montevideo Statement on the Future of Internet Cooperation, Oct 7, 2013, *available at* <http://goo.gl/dwGcuG>

⁷³ Some have referred to the result as “Splinternet.”

The following examples illustrate the dissatisfaction that some governments have with the current arrangement that span multiple political perspectives. The calls for change are broad, and they come from all areas of the political spectrum. We'll first look at the Brazil, Russia, India, China and South Africa (BRICS), then Europe, and then the emerging Internet world:

i) The BRICS

In 2011, the countries of India, Brazil and South Africa joined forces to make a proposal for a new UN agency to take over many of the governance roles that ICANN currently manages to “integrate and oversee the bodies responsible for technical and operational functioning of the Internet, including global standards setting.”⁷⁴ Although this proposal has not continued in the past couple years, these countries have continued to be vocal in the press and in other fora about their dissatisfaction with the status quo.

Brazil. Although Brazil has openly encouraged the adoption of an inclusive multistakeholder model, it is also making calls for increased government voices in governance matters. For example, President Dilma Rousseff's opening statement for the 68th Session of the UN General Assembly stating that “[t]he United Nations must play a leading role to regulate the conduct of states with regard to these technologies.”⁷⁵ President Rousseff's declaration received almost immediate support from more than 50 endorsements from international civil society organizations and numerous law and technology professors and users.⁷⁶ Although President Rousseff's statement is anchored mostly in the context of surveillance, her position is also consistent with other statements that Brazilian officials have made about the ability of their government to influence matters of Internet governance, for example, in the public statements that Brazil made with its submission to the World Telecommunication/ICT Policy Forum in 2013, lamenting that “governments so far only had a limited advisory role in international Internet governance, and no actual decision making process.”⁷⁷

Russia. The position of Russia has been consistent, emphatic, and public about moving the responsibility for the allocation of names and numbers to a state-based mechanism. Russian President Vladimir Putin famously set the stage for this by calling for “establishing international control over the Internet using the monitoring and supervisory capabilities of the International Telecommunication Union.”⁷⁸ This was the

⁷⁴ Milton Muller, “India Brazil and South Africa Call for Creation of ‘New Global Body’ to Control the Internet”, *IGP Blog*, Sep 27, 2011, available at <http://goo.gl/UqJdHV>.

⁷⁵ Statement by H.E. Dilma Rousseff at the Opening of the General Debate of the 68th Session of the United Nations General Assembly, Sep 24, 2013, available at <http://goo.gl/1NWf7f>.

⁷⁶ Letter from International Civil Society Organizations to President Dilma Rousseff in Support of Her Statement at the 68th Session of the UNGA, Sep 26, 2013, available at <http://goo.gl/ans6JT>.

⁷⁷ Daniel Cvalcanti, “Operationalizing the Role of Governments in Internet Governance,” *ITU Blog*, Jun 5, 2013, available at <http://goo.gl/ECT2vG>.

⁷⁸ Leo Kelion, “US resists control of internet passing to UN agency,” *BBC News*, Aug 2, 2012, available at <http://www.bbc.co.uk/news/technology-19106420>.

core of a proposal that Russia made in 2012 at the World Conference on International Telecommunications (WCIT) together with several other countries.⁷⁹ Although the proposal was not accepted in Dubai, as has been pointed out, it is likely that proposals of this kind will continue to be made.⁸⁰ In December 2013, Russian Foreign Minister said “we can’t understand why radio frequencies are distributed by the International Telecommunication Union, while world Internet domain names are assigned by the California-based corporation ICANN controlled by the U.S. Department of Commerce.”⁸¹

India. In December 2013, *The Hindu* reported on an internal document drafted by the Indian National Security Council Secretariat that called for Indian say in the root-zone management system, stating the problem as follows: “[t]he control of Internet was in the hands of the U.S. government and the key levers relating to its management was dominated by its security agencies... Mere location of root servers in India would not serve any purpose unless we were also allowed a role in their control and management.”⁸²

China. The Chinese government signed on to the same proposal with Russia to change control of Internet addressing.⁸³ An article in 2012 summarizes what is often believed to be the Chinese view. The article first asserts that the DOC claims to want to “indefinitely retain oversight of the Internet’s 13 root servers,” the article goes on to say that the U.S. does not wish to globalize and that “this refusal reflects [the United States] hegemonic mentality and double standards.”⁸⁴

South Africa. Although South Africa has not been vocal in the last couple of years, it was earlier one of the leaders in the “IBSA Proposal,” a coalition between India, Brazil and South Africa. The IBSA parties carried this process forward from about 2009 through 2011 and recommended guidelines for a “new global body” that would “be located within the UN system.”⁸⁵ Widely discussed at the IGF in Nairobi in 2011, this proposal built on the joint statement about ICANN that IBSA made at the United Nations:

Although there is a positive movement towards improving transparency and

⁷⁹ Document DT-X, Proposal by Russia, UAE, China, Saudi Arabia, Algeria, Sudan and Egypt, Dec. 5, 2012 at §3A.2, available at <http://files.wcitleaks.org/public/Merged%20UAE%20081212.pdf>. This provision also appears elsewhere. See Document 47-E, Proposal by Algeria, Saudi Arabia, Bahrain, China, UAE, Russia, Iraq and Sudan, at §3A.2, Dec 11, 2012, available at <http://files.wcitleaks.org/public/S12-WCIT12-C-0047!!MSW-E.pdf>

⁸⁰ See Cerf et. al., Shared Responsibility, cited *supra* at 12-13.

⁸¹ “Moscow backs idea of Internet’s int’l regulation,” *Voice of Russia*, Dec 5, 2013, available at <http://goo.gl/qQUJnq>

⁸² Sandeep Joshi, “India to push for freeing Internet from U.S. control,” *The Hindu*, Dec 7, 2013, available at <http://goo.gl/zGPofR>

⁸³ See Document DT-X, cited *supra*.

⁸⁴ “US must hand over Internet control to the world,” *People Daily*, Aug 18, 2012, available at <http://english.peopledaily.com.cn/90777/7915248.html>

⁸⁵ IBSA Multistakeholder meeting on Internet Governance, Recommendations, Sep 1-2, 2011, available at <http://goo.gl/W5qpt>

accountability in the activities of the Internet Corporation for Assigned Names and Numbers (ICANN), its legal status remains problematic. The fact that only one country, instead of the international community of States, is the provider and guarantor of the management of names and numbers of the Internet in all countries contravenes established UN principles and universally accepted tenets of multilateralism.

ii) Europe

One of the greatest set of political allies for the U.S. government is found in Europe. Although perspectives between the U.S. and Europe on globalization of ICANN are increasingly aligning, this is a recent phenomenon. In a report about the Internet and international politics, Lars-Erik Forsberg, Deputy Head of the International Unit of the European Commission said that “ICANN is still a show for the few,” and that Europe’s position on the IANA functions aligns with Brazil and India: “How can the EU take on this challenge? . . . We need a firm commitment from the member states to work together on this issue and to continue to work with the United States. We also should bring in like-minded countries like Brazil and India.”⁸⁶

On February 12, 2014, the European Commission issued a position paper and a press release related to the globalization of ICANN and on Internet governance generally. In the press release, entitled “Commission to pursue role as honest broker in future of global negotiations on Internet governance,” Vice President Neelie Kroes said that “Europe must contribute to a credible way forward for global internet governance. Europe must play a strong role in defining what the net of the future looks like.”⁸⁷

The European Commission paper called for further work to “identify how to globalize the IANA functions, whilst safeguarding the continued stability and security of the domain-name system.”⁸⁸ In response, the U.S. government weighed in with a swift confirmation:

The U.S. government welcomes the strong and continued commitment of the European Commission to the multistakeholder model of Internet governance. We will work with the Commission and other Internet stakeholders to make multistakeholder governance more inclusive, especially to support the engagement of countries in the developing world. We have long encouraged the further globalization of ICANN as reflected in our work the last five years to improve the accountability and transparency of ICANN to all nations and stakeholders.⁸⁹

⁸⁶ Erin Baggot (Rapporteur), “The Internet and International Politics: Implications for the United States and Europe,” Jun 16, 2013 at 30 available at <http://goo.gl/OS16t5>

⁸⁷ European Commission Press Release, “Commission to pursue role as honest broker in future global negotiations on Internet Governance,” Feb 12, 2014, available at http://europa.eu/rapid/press-release_IP-14-142_en.htm

⁸⁸ *Id.*

⁸⁹ Statement of Assistant Secretary Strickling on the European Commission Statement on Internet Governance, Feb 12, 2014, available at <http://goo.gl/OaeW4G>

The European Commission announcement arose from a consultation with stakeholders that it opened in October, 2013.⁹⁰ The consultation attracted responses from governments, associations, and the private sector.⁹¹ The Panel has summarized selected examples of responses in the table below. Although the excerpts below are from private-sector actors, we note many of them have significant ownership from European governments, indicating that the perspectives carry broader influence than they may have from a purely private-sector context.

Organization/ Government	Statement on Oversight of IANA Functions
Nominet (.UK Registry)	"We would not welcome inter-governmental oversight of the IANA function: we believe that this would lead to politicisation of a process that should solely be a national matter. Any further internationalisation of the IANA should be through developing direct accountability"
Orange <i>(27% owned by the government of France)</i>	"While the AoC [...] is a fundamental step towards ICANN independency from the historical management by the US Government, the operational part of the ICANN mission, named IANA function [...] remains covered by a contract with the US Government Department of Commerce. This situation is not satisfactory and true internationalization of the structure including its operational mission is essential."
Telecom Italia (TI)	"TI supports the effort from the new ICANN President Fadi Chehade to make ICANN a truly international organization rebalancing the role that historically the US had in assigning the IANA contract for allocating addresses and managing the DNS root."
European Telecommunications Network Operators' Association (ETNO)	"A central part of that debate between all relevant stakeholders needs to be the question around whether the IANA functions should continue to be subject to an US Government procurement contract."
Denmark	"We believe that a new framework for ICANN and IANA must be discussed in an open process with global stakeholders"
Deutsche Telekom <i>(32% owned by government of Germany)</i>	"Unilateral national prerogatives like the IANA functions which are still subject to an US Government procurement contract are not compatible with what is today a multilateral issue."

Many of the responses to the European Commission consultation were in favor of the multistakeholder model of Internet governance and supported the Montevideo Statement (see Text Box 3), especially in its call for IANA globalization. The Panel notes that, while many responses were in favor of IANA globalization, they had different ideas as to how the process would be replaced.

⁹⁰ Neelie Kroes, "Internet Governance: I want your views!," *EC Blog on the Digital Agenda*, Oct 9, 2013, available at <http://goo.gl/PnJwkd>.

⁹¹ "Europe and the Internet in a Global Context" European Commission, Nov 2013, available at <http://ec.europa.eu/digital-agenda/en/content/europe-internet-global-context>

iii) Countries in Early Stages of Adoption

In countries where the Internet is still in early stages of adoption and where private-sector investment is new, it has proven difficult for local Internet community members and their government representatives to navigate and participate fully in the multistakeholder processes of ICANN, IETF, W3C, the RIRs and other standards and policy development organizations. Here the complexity of the interrelationships between the various loosely coupled institutions works against such new Internet adopters, who are isolated when their policy priorities do not resonate with whatever the pressing policy issue of the day happens to be.

In these countries, the private sector and civil society stakeholders cannot yet play the same role that these stakeholders would in countries where the infrastructure and multistakeholder philosophy are more developed. This lack of capacity is replaced by more government involvement, and the limited resources these countries have are geared towards government-based careers. Additionally, although there are scholarship opportunities for budding members of the technical community from emerging economies to join events at the IETF, the IETF has not historically reached out to work in emerging markets directly. A review of its future plans demonstrates that most all of its planned meetings are in highly industrialized locations. We note that APNIC has a robust outreach program,⁹² and the Asia Pacific Regional Internet Conference on Operational Technologies (APRICOT), similarly, engages in effective outreach. These activities can be further bolstered and expanded with additional resources.⁹³ The managers of country-code Top Level Domains (ccTLDs)⁹⁴ and the RIRs (AFRINIC, APNIC, ARIN, LACNIC and RIPE) all play an important role with the stakeholders in their regions.

The work of the IETF, the RIRs and others are showing progress, however, there is another explanation for the lack of participation by countries in Internet governance from countries that are in the early stages of Internet adoption. In many cases, there is much more of a custom and tradition for representatives to justify attendance and involvement in the umbrella of UN-based organizations than private sector entities that make up most of the technical Internet governance apparatus. The ITU is a specialized agency of the UN and has developed a “Human Capacity Building Division” that actively conducts outreach to participants in developing economies.⁹⁵ This has produced investment in several “Centers of Excellence” where the ITU, together with various government

⁹² See APNIC, Community Activities, available at <https://www.apnic.net/community/support>

⁹³ See APRICOT website, available at <https://www.apricot.net/about.html>

⁹⁴ One example of collaboration between ccTLDs and RIRs to address specific needs in emerging markets is AYITIC, a capacity-building project designed specifically for Haiti. The outreach program has been implemented together by the ccTLD for Haiti, LACNIC and by several sponsors and benefactors. See Ayitic, available at <http://www.ayitic.net/en/about.html>

⁹⁵ ITU, Human Capacity Building Programme, available at <http://www.itu.int/ITU-D/hcb/>

officials, engage in a regular program of training and outreach in the region.⁹⁶ The ITU first opened Centres of Excellence in Dakar and in Nairobi in 2007: these Centres have even become revenue-generating, with revenues from its training rising up to \$2.7 Million in 2007.⁹⁷ Additionally, the ITU complements this with many “Internet training centers” including 7 academies in the Arab Region, 21 academies in Asia Pacific, 17 academies in Africa, and 9 academies in Latin America.⁹⁸ Moreover, the ITU offers travel fellowships to come to Geneva or to travel to meetings that occur globally and has pre-approved the eligibility of participants from 64 countries for the program.⁹⁹ Thus, a canon of offerings (and indeed, an educational and networking superstructure) is available to experts in emerging economies that is hosted by the UN.

It is thus understandable that participants from countries in early stages of Internet adoption come to the table with a natural predisposition to think about the Internet both in telecom-centric terms and in the context of multilateralism. This is how the public officials are regularly trained and exposed to technology policy and this also serves as an attractive career path. For this reason, education, outreach, private-sector investment and capacity building initiatives are essential to address the deficiency in multistakeholder participation from these countries. The telecommunications sector has been relatively successful in developing policy makers by offering training in specialized programs and schools of telecommunication. These programs often exist through public-private partnerships. While some initiatives exist presently through organizations such as the Diplo Foundation, United States Telecommunications Training Institute (USTTI), ISOC, and ICANN, the breadth is smaller than the ITU and individuals attending these trainings have a relatively mixed level of institutional impact in their respective countries. This may be because many attend in the context of personal interest rather than as a part of an institutional and governmental strategy. Also, many of current initiatives involve international travel which further limits the capacity building aspect of outreach: providing more individuals to get exposure locally is truly what *outreach (reaching out)* entails. The Panel sees remediation of education and capacity deficiency to be an important objective for improving the multistakeholder processes of Internet governance.

5. Mapping the Internet Governance Ecosystem

In its most general sense, the governance of the Internet is characterized by a ***web of***

⁹⁶ ITU, Information on the Creation of Centres of Excellence in Africa, *available at* <http://www.itu.int/en/ITU-D/Capacity-Building/Pages/coe-afr.aspx>

⁹⁷ *Id.*

⁹⁸ ITU, Internet Training Centers, *available at* [http://www.itu.int/en/ITU-D/Capacity-Building/Pages/ITUInternetTrainingCentres\(ITC\).aspx](http://www.itu.int/en/ITU-D/Capacity-Building/Pages/ITUInternetTrainingCentres(ITC).aspx)

⁹⁹ “Countries eligible for fellowships and reduced fees”, ITU, *available at* <http://www.itu.int/en/ITU-T/membership/Pages/fellowships-reduced-fees.aspx>

relationships among institutions that have roles affecting the operation and use of the Internet across all the layers that comprise its functions. These relationships reflect and recognize the responsibilities, roles and dependencies among various institutions and organizations. It is the ensemble of this collaborative and loosely-coupled environment that has allowed the Internet to evolve, expand and support an increasingly diverse set of applications. That there are mutual dependencies is a feature and respect for them has been and continues to be a fundamental characteristic of the governance of the Internet. Figure 5 illustrates this in a notional way. Readers should *not* read any more into the figure than its representational sense of the richness and diversity of these cooperatively interacting institutions. In the real Internet world, some of linkages in the figure (i.e., the relationships) are documented and some are more informal. There are many more organizations in the space than can be shown in one diagram.

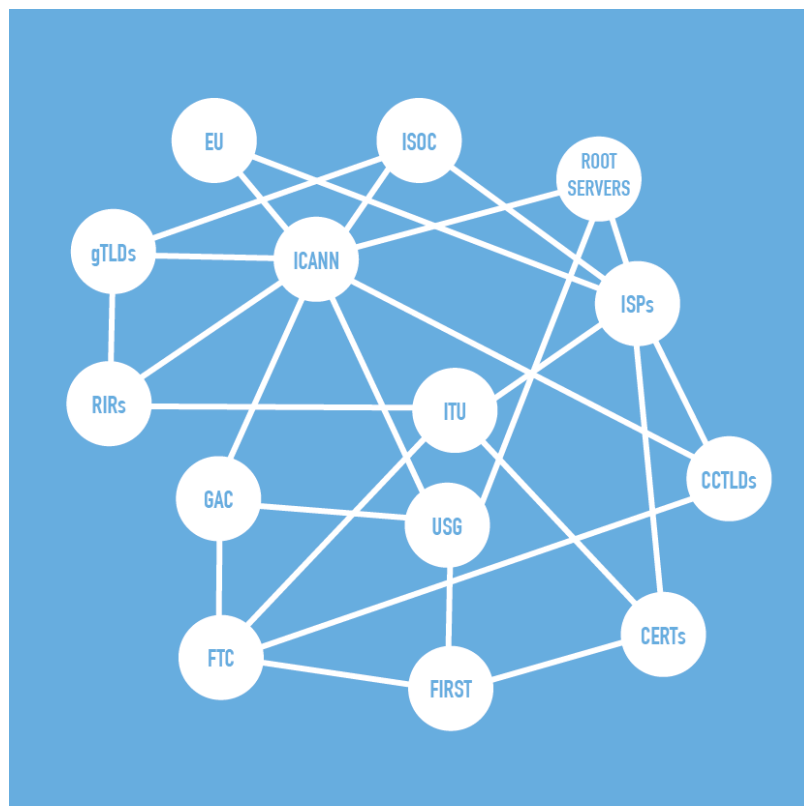


Figure 5: A Web of Relationships

How does ICANN partake in this web? In Figure 6, we illustrate the nature of its relationships. Within ICANN itself are closely-coupled elements in the form of supporting organizations and advisory committees, including the Government Advisory Committee (GAC), that partake of ICANN's *stewardship* role for managing Internet identifiers and protocol parameters. To satisfy its responsibilities, ICANN *coordinates* closely with other organizations that have a direct role in managing these technical elements of the Internet architecture. More generally, ICANN has *participatory* relationships with many international or global institutions that have interest in and responsibilities for other

aspects of governance. Further, as described elsewhere in the text, the organizations and mechanisms for Internet governance have their own ebb and flow. Some problems appear, then rise to prominence, are at least partially solved, then fade away either because of a solution that is underway, or because new problems gain prominence. The ecosystem changes dynamically over time.

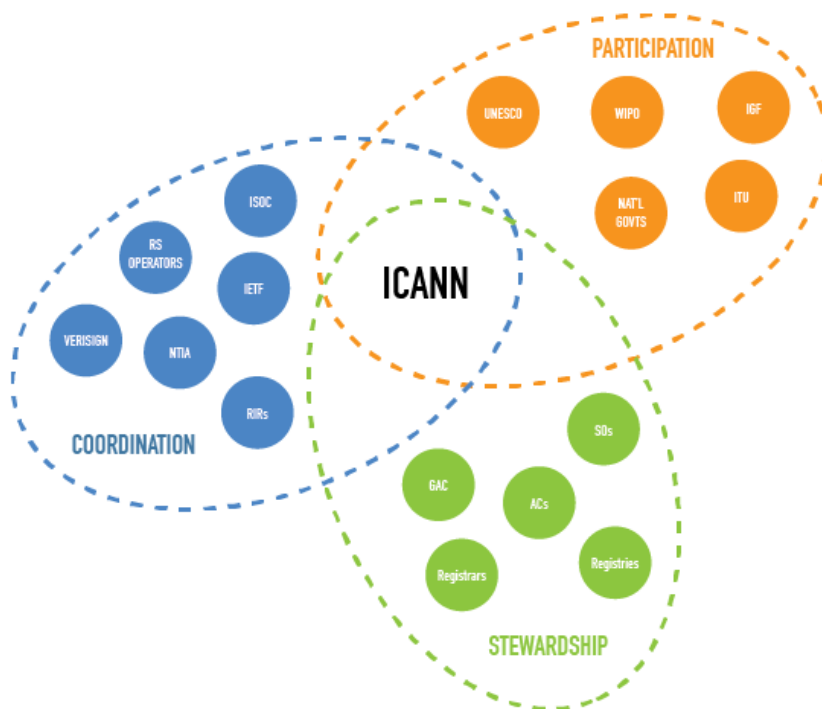


Figure 6: Expanding Web of ICANN Relationships

b) Mapping ICANN Relationships within Layered Model

How do the actors in the Internet ecosystem relate to the Layered Model? Under the current multi-stakeholder Internet governance ecosystem, no single institution, stakeholder or influencer (with the historical exception of the U.S. government) plays a unique role in governance. Instead, each stakeholder participates as a representative of its respective constituency or in accordance to its particular responsibilities, either through local policymaking and regulatory fora or through participation in government-focused bodies like the ITU. Governments maintain a uniquely important role in Internet governance, of course, as they ultimately issue rules in the public interest and develop mandates for law enforcement, competition, consumer protection agencies, data protection authorities, and other governmental and intergovernmental agencies. It is important to remember that governments are also participants in many other fora besides the ITU: for example, they have a special place to express their views in ICANN through

the GAC, and they regularly sponsor discussions on economic policy issues at the Organization for Economic Co-operation and Development (OECD).

In Figure 7, we provide an illustration of how some of these organizations form part of the Internet's layered model. Note that our illustration is not a comprehensive view, it is intended to characterize some of the institutions, as well as some of the interactions, but there are many more.¹⁰⁰ This particular illustration focuses on ICANN although similar illustrations exist for many of the different actors in the ecosystem.

¹⁰⁰ Examples of ICANN relationships to other organizations in the ecosystem include: NTIA, GAC observers (ITU, WTO, OECD, UNESCO, and WIPO); IETF works with ICANN on the protocol parameter registry service of the IANA functions; ITU, W3C, and IAB advise the ICANN Board through Technical Liaison Group (TLG); WIPO is Uniform Domain-Name Dispute Resolution Policy (UDRP) provider for gTLDs; UNESCO works with ICANN on IDNs (Internationalized Domain Names) for new gTLD program; ICANN relies on ISO regarding for ccTLD designations; and ICANN is a member of WEF. ICANN has no specific relationship with the UN Human Rights Council; WPEC; WBU; GNI; IEEE. Note that we only represent governmental organizations that have more than one government, although ICANN also has relationships with single agencies like the NTIA or single companies like Verisign.

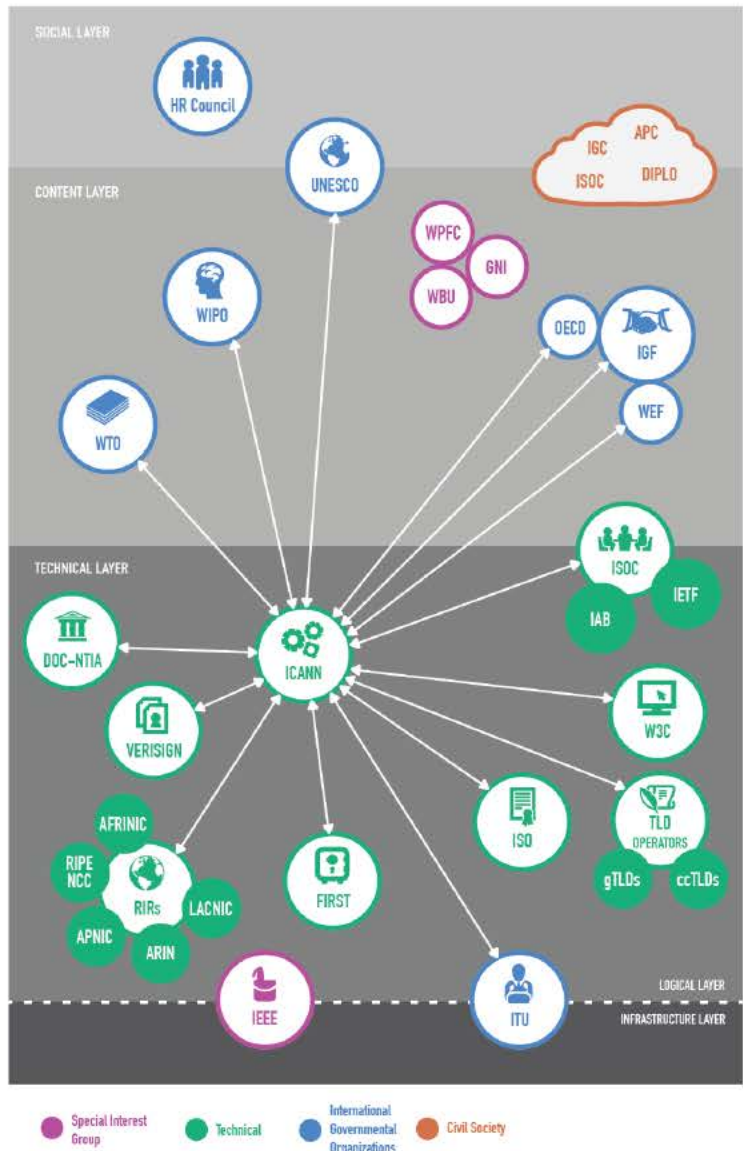


Figure 7: Layered Model of the Internet – Organizations

In this context, governance structures and mechanisms for the Internet have emerged progressively and largely out of necessity, on an issue-by-issue basis. The Panel found resonance in the phrase “form follows function” because many of the institutions associated with the Internet have emerged out of need (see Section 2). ARPANET, the predecessor to the Internet,¹⁰¹ fostered the creation of a Network Working Group (NWG) to coordinate the distributed development of protocols for implementing and using the network. The historical cooperative atmosphere and effectiveness of this group then successively contributed to the formation of the International Network Working Group (INWG), the Internet Architecture Board (IAB), the IETF, the Internet Research Task

¹⁰¹ Sponsored by the U.S. Defense Advanced Projects Agency (DARPA) starting in 1968 as an experiment for computer resource sharing.

Force (IRTF), ISOC and the RIRs among many other bodies associated with the Internet today.

It is vital to note further that governance relationships vary strongly and widely according to the issue or problem one is dealing with. The Working Group on Internet Governance (WGIG) identified some 40 issues of Internet governance, and recently Laura DeNardis has made a list of many of the complex coordination tasks in Internet governance.¹⁰² For several of these tasks, organizations in the figure play central roles and need to coordinate closely; for others they are barely relevant or not at all. For example, ICANN plays a central role in coordination of the DNS; a significant role in some aspects of cybersecurity that concern the DNS but do not affect it directly; and barely a role, if any, in the provision of direct access to the Internet, according to ICANN's own clearly bounded remit.

Indeed, the Internet has seen a constant set of challenges arise, and, to address these challenges,¹⁰³ both formal and informal institutions and relationships have arisen (and some, already, have gone away).¹⁰⁴ The Panel expects this trend to continue as the Internet globalizes. True to this tradition, ICANN was created to give a dedicated home to the function of coordinating the system of unique identifiers of the Internet after the Internet itself was open for commercial activity in the mid 1990s. ICANN, along with many other institutions closely associated with the Internet, emerged from multi-stakeholder discussions and initiatives driven by the growth and adoption of the Internet and its technology and, especially, its use in the private sector and by individuals. The latest and prime example of emergence based on need is the IGF that was created out of the extensive debates of the WSIS and WGIG, in order to allow the continuation of a multi-stakeholder dialogue on the various public policy issues related to the Internet and in particular its use – and misuse.

If one had to select one word to characterize the Internet governance ecosystem it would have to be *diversity*. The system is populated by individuals, small or large formal and informal groupings, organizations and institutions drawn from the private sector, academia, civil society and governments, as well as intergovernmental and non-governmental organizations across the globe. As depicted in Figure 8, this array of actors and institutions helps produce tensions—but also opportunity. Such actors find some utility from connection to the global Internet and create a positive feedback loop, a

¹⁰² Laura DeNardis, "The Global War for Internet Governance" *Yale University Press*, 2014, at 45.

¹⁰³ See Andrew L. Russell, "'Rough Consensus and Running Code' and the Internet-OSI Standards War," *IEEE Annals of the History of Computing*, 2006, available at <http://doi.ieeecomputersociety.org/10.1109/MAHC.2006.42>; and Andrew L. Russell, "OSI: The Internet that Wasn't," *IEEE Spectrum* (July 30, 2013), available at <http://spectrum.ieee.org/computing/networks/osi-the-internet-that-wasnt>

¹⁰⁴ For example, the Commercial Internet Exchange (CIX) was the center of the commercial Internet universe in 1995, but it expired in 2001. The National Science Foundation Network (NSFNET) was retired in 1995. ARPANET was terminated in 1990. The Internet Configuration Control Board (ICCB) became the Internet Activities Board that then became the Internet Architecture Board (IAB). Most of the NSF-sponsored intermediate level networks have long since expired or been acquired by larger ISPs.

network effect, for others to connect that further popularizes its adoption. In this case, as RFC 1958 points out, “connectivity is its own reward” and drives demand for the adoption of the open standards that simultaneously encourage both interoperability and competition.¹⁰⁵ This diversity of interests, not all of which may be aligned and which may also change over time - have evolving needs and wants that generate the symptomatic ‘tension and friction’ associated with successful ‘permissionless innovation’. Any kind of sustainable Internet governance regime is going to have to take into account the diversity of these entities in the ecosystem and the interests that motivate their actions.

The actors in the Internet’s ecosystem may also have overlapping interests and authorities, just as in any complex ecosystem. The rapid flux and movement of technology and policies may create a *dynamic friction* among the actors resulting from real or perceived overlaps. There may also be *static tensions* between actors should their issues find no clear resolution or manifest in diametrically opposed directions. This friction and tension is good, in so far as it helps drive the need for further innovation. A functioning governance regime should not seek to eliminate all these ‘tussles’¹⁰⁶, but instead, to moderate them in productive way so as to help identify the problems and then, as a concrete next step, to help reduce the problem to workable pieces and resolve them. In other words: good engineering.

A well-functioning forum can convene actors of different interests, promote discussion between and among the actors, and then reduce the negative effects that arise from conflicts. The panel found it useful to visualize some of the tensions among actors with a triangular diagram shown in Figure 8 below.

¹⁰⁵ Brian Carpenter, “Architectural Principles of the Internet” *IETF RFC 1958*, Jun 1996, available at <http://www.ietf.org/rfc/rfc1958.txt>

¹⁰⁶ David D. Clark, *et al.*, “Tussle in Cyberspace: Defining Tomorrow’s Internet” *IEEE/ACM Transactions on Networking*, Vol. 13, No. 3, Jun 2005, available at <http://groups.csail.mit.edu/ana/Publications/PubPDFs/Tussle%20in%20Cyberspace%20Defining%20Tomorrow%20Internet%202005%27s%20Internet.pdf>

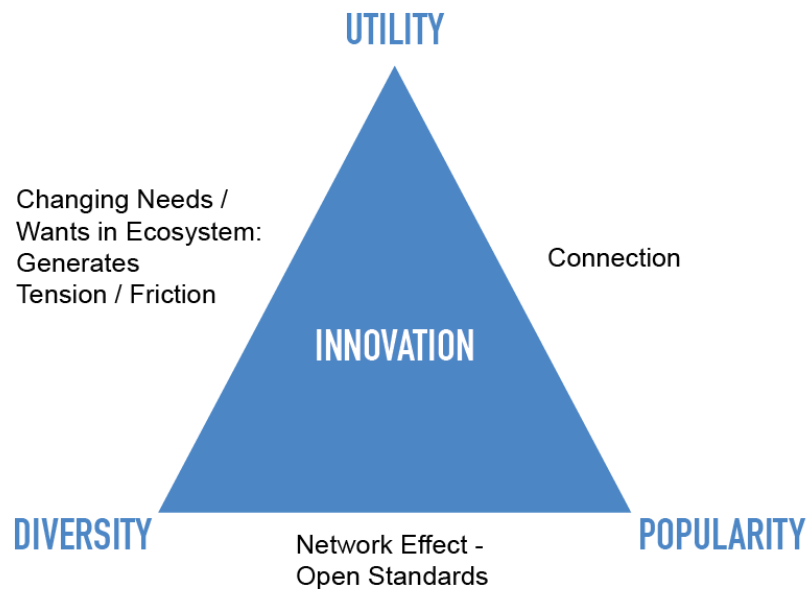


Figure 8: Tensions Among Actors in the Ecosystem

An important aspect of the Internet governance ecosystem is therefore the way in which authority and responsibility for the governance of the Internet is distributed among numerous actors and structures and understanding them within their complex network of interests. The distribution of responsibility among institutions in the ecosystem creates resilience for the Internet’s governance in the same way that the Internet itself is resilient because of its distributed architecture. Navigating the ecosystem is difficult, and for this reasons, actors within it must adhere to a strong sense of principle-based leadership. We turn to some of these suggested principles in the next section.

6. Principles for ICANN in this Ecosystem

There may never be and perhaps never should be a single “constitutional moment” for the Internet, or for ICANN. In Annex B, below, we outline some of the efforts that have taken place in the past 15 years, including some of the principles that have been proposed within the context of the current ICANN Strategy Panels. The Panel set out to identify principles to guide ICANN in its evolution within the Internet ecosystem, as one of the most important tasks in our charge. To achieve this goal, the Panel analyzed exhaustively the bewildering number and diversity of sets of principles proposed over the recent years for ICANN, for Internet governance as a whole, and for subsets of it such as Internet freedoms or human rights. We also examined thoroughly the principles and values established in the ICANN foundational statements and Bylaws.

From this study we identified a set of proposed principles that would apply generally to Internet governance organizations and mechanisms, and the form in which they would apply specifically to ICANN.

In the following paragraphs we state and describe these principles. In some cases, where there is a significant further differentiation for the application of a principle specific to ICANN this is stated explicitly. The Panel proposes a set of principles in the context of “5 Rs.” These are: (a) Reciprocity, (b) Respect, (c) Robustness, (d) Reasonableness and (e) Reality. Each are described below.

a) Reciprocity: Do no harm nor threaten to harm

The Internet and its governance mechanisms are characterized not by a top-down hierarchical model, but instead, by a web of complex relationships between and among different stakeholders. The ecosystem is in a constant state of flux and the actors within should always keep in mind the objective of constantly enhancing the stability, security and resilience of the Internet. And they must do so in a way that anticipates and expects reciprocity from other actors. In Figure 5 we present a view of the “web of relationships” that exist in the Internet ecosystem. The figure is merely illustrative; it does not include all of the actors in the Internet ecosystem. However, all organizations involved in Internet governance should be focused on the objective of improving the stability, security and resilience of the Internet, by proactive, thoughtful action, and, reflexively, by avoiding damaging omission. They may go about their approaches in different ways, but a principle of **reciprocity** will help assure that actors behave and take actions with others in the same way that they, themselves, would expect to be treated in the ecosystem.¹⁰⁷

b) Respect: Honor freedom of choice and diversity

As we’ve described above, the complex web of relationships in the ecosystem requires that all actors engage with each other in a respectful way. As David Clark famously articulated in 1992, “We reject kings, presidents and voting.” The absence of formal hierarchies and titles, then, implicates a profound need for inclusion, cooperation and collaboration.

Inclusion. All organizations involved in Internet governance must be inclusive, to the extent possible and which does not conflict with their mission. Inclusiveness is the ability to bring into the policy-development process (PDP) affected participants from all geographies, professions, fields of commerce and industry, ages, genders, ethnicities,

¹⁰⁷ See Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions, National Telecommunications and Information Administration, Docket No. 110207099–1099–01, available at <http://goo.gl/dGbByp>. The RFC describes the shared responsibility as follows: “Given the importance of the Internet as a global medium supporting economic growth and innovation, continuing to preserve the security and stability of the Internet DNS remains a top priority for NTIA. This is a shared responsibility among all stakeholders in the Internet community.”

disabilities,¹⁰⁸ etc. Inclusion and diversity must be managed with honesty and transparency, avoiding simulations and deliberate deceit and making false representations.¹⁰⁹

Cooperation and collaboration. Organizations involved in Internet governance should act guided by the will to cooperate above the drive to compete among themselves. Internally they must incentivize cooperation and collaboration while promoting an environment that encourages competition among ideas, technology and business cases so that the best survive. The stakeholders must be granted a level field for competition, and cooperate in order to keep the ecosystem healthy and the total market expansive. Cooperation in this case has a hard boundary in the avoidance of oligopolies, collusion and other anti-competitive market practices.

For ICANN we believe that this means putting in place incentives for cooperation across all stakeholders, including the supporting organizations, advisory councils, board, and staff. The expansion of one group's participation must not occur at the expense of another's diminution.

c) Robustness: *Send conservatively and accept liberally*

The Internet and its governance mechanisms are very complex. Where possible, ICANN should borrow from the principles that have worked at the IETF in this context and adapt them. In particular, the "Postel Principle" suggests that actors in the ecosystem should be "be conservative in what you send, and liberal in what you accept."¹¹⁰ In the context of the IETF, this has become known as the "Robustness principle."¹¹¹ It is by this methodology that the interactions between users, the various aspects of the technical community, and the issues within it are addressed. The Panel understands robustness as the ability of a system to continue to operate under wide variations of the prevailing conditions and recommend that this definition be tested for all Internet governance mechanisms and organizations.

We find that ICANN has been able to evolve continuously in the face of large variations in the number of participants, levels of stakeholder (including government) exchanges, dispute readiness, litigation, growth in the number of TLD registries, re-delegations, and

¹⁰⁸ Added as per European Commission report (p.6): "In this context, the needs of persons with disabilities must also be taken into account," available at http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4453.

¹⁰⁹ One example of this that is prevalent in many areas is the concept of "astroturfing." This is the practice of hiring a third-party group to advocate for an issue, falsely giving the impression that the effort is a "grassroots," bottom-up initiative.

¹¹⁰ Proposed by Internet pioneer Jon Postel, this concept is referred to variously as the "Postel Principle" or "Postel's Law" or the "Robustness principle." See §2, Paul Hoffman "Tao of IETF: A Novice's Guide to the Internet Engineering Task Force" *IETF*, Nov 2, 2012, available at <http://www.ietf.org/tao.html> [Hereinafter: Tao of IETF].

¹¹¹ "Robustness Principle" Wikipedia, Nov 8, 2013, available at http://en.wikipedia.org/wiki/Robustness_principle.

many other externally-determined variables. The Panel recommends that future variations be planned to pass this strenuous test and that ICANN prefer to engage with others in such a way as to increase robustness.

As we note above, the robustness principle as articulated by Jon Postel in 1981 has withstood the test of time, in spite of valid criticisms about its limitations.¹¹² ICANN should hold itself to the highest standards while being as forgiving as possible of the failures of others to do the same. While striving to iterate, validate and simplify, ICANN's policy-making work can also embrace the Robustness principle and to avoid top-down mandates. The elements of the Robustness principle can be further seen through the lenses of technical rationality, the concept of "loose coupling," evolvability, simplicity and scaling, all briefly described below.

Technical rationality. All aspects of Internet governance must be firmly rooted in the technical rationality of the Internet, from its core design principles and standards, through their evolution, and into the operational aspects of scalability, efficiency, and SSR (Security, Stability and Resilience). The Internet is completely a man-made medium whose properties cannot simply be taken for granted. Its stewardship and governance determines its evolution; therefore it is a form of engineering that must be undertaken with the same care, subjected to the same constraints, and managed according to the same principles as any other Internet engineering project.

Loose coupling. The term "loose coupling" means that interactions among the components of the Internet governance ecosystem are based on knowledge of relevant information stemming from different components as well as foresight for their impact, but not in a strictly mandated coordination except when and where indispensable. By loosely coupling the relationships, robustness is more likely because the actors are not bound by any artificial constraints. Loose coupling embraces complexity and provides better tools for response to complexity and for adaptation to changes than a top-heavy, inflexible and strictly mandated construct. Organizations and mechanisms for Internet governance should use this principle for flexibility, strength and resilience. We illustrate some examples of loose coupling in Figure 7, which demonstrates the relationships that ICANN has with many other actors in the ecosystem. Note that many of these relationships are not based on any firm contractual obligation, but instead based on memoranda of understanding and collaborative practice.

Evolvability and Business Excellence. All Internet governance mechanisms must be prepared for the Internet's own evolution, the evolution of the subject matter of their action, and the mechanism and corresponding organizations' own capacity to adapt and evolve in a timely fashion. This may even mean that ICANN may need to be prepared for

¹¹² Note that the Postel Principle is not perfect for all uses, and as Steve Crocker has pointed out, it is not a good principle for many security-related topics. The Panel believes that it is, however, a valid principle in the context of human engagement within the ecosystem. For another view, see Eric Allman, "The Robustness Principle Reconsidered" *ACM Queue*, Jun 22, 2011, available at <http://queue.acm.org/detail.cfm?id=1999945>

the possibility that its function and business model may become unnecessary at some point in the future. Evolution is not synonymous with mission creep; instead, it should be viewed in the context of a systematic effort to develop a culture of operational and organizational *business excellence* allowing ICANN and its related constituencies to adapt to changing conditions and requirements in the Internet ecosystem.¹¹³ This focus should be on the long-term stability and responsibility for the IANA functions based on successful and established ‘Business Excellence’ criteria. ICANN should prepare for the possibility that itself—as well as other organizations in the ecosystem—will split into component parts, spawn new organizations, or, in the opposite direction, merge totally or partially, or dissolve and disappear. In a sense, certain aspects of ICANN may be in perpetual “beta” stage and never fully baked, reflecting the nature of the Internet itself.¹¹⁴

Simplicity. Internet governance is concerned with the governance of a complex system and is therefore bound to become complex in itself. Further complexity arises from the multiple problem spaces it comprises and the corresponding multiple, interacting loci of governance. In so far as is possible, Internet governance mechanisms must seek the minimal addition of complexity to this system. Yet, ICANN should not be satisfied with the complexity and ICANN should constantly and proactively iterate, validate, simplify its own processes—particularly as a mechanism to encourage the participation of others that aren’t within the ecosystem. Nothing should be considered to be sacrosanct, and the organization should seek to iterate and validate its own evolution. As the system becomes more complex, the organization should constantly seek simpler solutions so long as they comply with all other principles. ICANN should constantly strive to remove artificial barriers for participation and engagement in the community. Some of the key actions in this regard should include work towards minimizing the many acronyms that represent various functions, and to make the history of ICANN (and the 40,000 documents for which it is the custodian) more easily searchable and accessible externally.

Scaling. The Internet’s impressive scalability is based and reflected in the scalability of many of its components and must be preserved and enhanced. The scale factors for each aspect of Internet governance must be determined in advance, as far as possible. Among these are the number of connected points affected.¹¹⁵ Alternative mechanisms to substitute for the original plans must be instituted in advance, with all characteristics of good Internet governance (for example, the evolution of manual processing to automation). ICANN must monitor and adjust its internal procedures and structures for scaling with respect to scale factors such as the number of new gTLDs placed in the

¹¹³ There are many ways to accomplish the objective of business excellence, through the application of various best practices that should be explored. See “Business Excellence”, *Wikipedia*, Jan 16, 2014, available at http://en.wikipedia.org/wiki/Business_excellence

¹¹⁴ Tim O’Reilly, “What is Web 2.0,” *O’Reilly.com*, Sep 30, 2005, available at <http://goo.gl/ognr>. The author describes the perpetual beta as follows: “The open source dictum, ‘release early and release often’ in fact has morphed into an even more radical position, ‘the perpetual beta,’ in which the product is developed in the open, with new features slipstreamed in on a monthly, weekly, or even daily basis.”

¹¹⁵ Examples include individual users, computers, devices, “things” (as in the “Internet of Things”), parties in contention, bandwidth, layers, etc.

root, the number of disputes including lawsuits, failures at compliance, reorganization of constituencies (both disaggregations and regroupings), attacks on the DNS to which ICANN can contribute a response, staff size, number of offices, etc. Scaling must also occur across stakeholders, geographic boundaries, and cultural values.

d) Reasonableness: Avoidance of capricious or arbitrary decisions

The legitimacy of any governance system depends on the trust that the participants place in the process, the decisions, and the outcome. It would be rare to achieve unanimous support of any action, the hallmark of a trusted system is one where reasonable people can have different opinions. In order for reason to prevail, the Panel believes that stakeholders must have faith in ICANN's transparency, accountability, subsidiarity, and fairness. Each are described below.

Transparency. Internet governance demands transparency for the sake of the principle itself, as a universal one, and for the functions it serves, such as evaluation of compliance with other principles and to be commensurate with the transparency that the Internet has engendered elsewhere. All Internet governance mechanisms and organizations must comply with this principle. ICANN must continue to evolve and adapt its mechanisms for transparency and to demand increasing transparency from the individuals and organizations that shape its decisions. Transparency and effectiveness may be at odds at times since transparency often is interpreted to demand extensive documentation *ex-ante* and *ex-post*. A balance that does not sacrifice effectiveness is a dynamically changing goal to be pursued.

Accountability. All organizations and mechanisms involved in Internet governance must be held accountable to stakeholders on a regular basis. The diversity of problem spaces and mechanisms of Internet governance necessitates a large diversity of mechanisms of accountability. The accountability mechanisms must be strong enough to be able to mandate change in the organization. Accountability refers to, among others, the ability to explain the rationale behind decisions, particularly to affected parties. Although we note that the accountability does not mean that there are multiple levels of recourse to the point where every decision has layers upon layers of appeal. It does, however, mean that any group within ICANN that issues a decision should have a clear path for recourse. Additionally, in order to satisfy the goal of transparency, decisions that are reconsidered, appealed, or stalled should be reported through a public set of metrics.

Accountability and transparency should, of course, be understood as cutting two-ways, thus obligating accountability and transparency on the parties demanding them. Equally, the ability to influence policies in an Internet governance organization or mechanism must be proportional to either the solidity of the principles espoused or the commitment of the parties to the outcome of the change. This reinforces and expresses in action the reciprocity principle recommended above.

Subsidiarity. All Internet governance decisions must be made at the right locus: one where the relevant stakeholders converge on an equal basis, that is relevant for the problem to be solved by the decision, that is sustainable, and that can have the maximum effect possible. To this end, subsidiarity is an organising principle of decentralisation--that matters ought to be handled by the smallest, lowest, or least centralised authority capable of addressing that matter effectively. In Internet governance, subsidiarity is closely related to the layered architecture of the Internet already discussed above. As much as possible, decisions must be confined to a single layer, or the least contiguous layers possible. ICANN's decisions are concerned with the central coordination of the DNS and the IP address allocation system, and the repository of IETF protocol parameters. For the purposes of subsidiarity, "policy" in ICANN means the removal or reduction in possible arbitrariness (or perception thereof) or discretion as its work relates to the DNS. Governance and enforcement should be applied as close as possible to the layer(s) in which problems requiring governance arise. In the case of user-centric problems, in particular, the solutions should be addressed as close to the user as possible.

Fairness. Organizations involved in Internet governance must operate and act with fairness for all parties which take part in their decision-making and operation, as well as vis-à-vis other organizations. To the maximum extent possible they must work with reciprocity; an organization that invites another one into its processes, or is open to its participation on an equal footing to other participants, should be entitled to similar reception in the other organization. On the other hand, repeated refusal to cooperate, failures on fairness, and lack of reciprocity should not be rewarded. ICANN should operate with fairness -- as established in section 2.8 of its Bylaws,¹¹⁶ "making decisions by applying documented policies neutrally and objectively, with integrity and fairness,"-- and seek collaboration and openness in other Internet governance stewards. If this cooperation is denied, ICANN should be entitled to adjust the conditions of the relationship with such parties.

e) Reality: Persistent Testing of Theories in Practice

Internet governance has been developed through a heuristic approach (i.e., experience-based techniques for problem solving, learning, and discovery) and should continue to evolve this way in the future. History shows that there is no clear way to create a single, one-size-fits-all mechanism for any industry, and Internet governance is no exception. Even if it were possible to create a single Internet governance mechanism, it is not clear that it is necessary to do so. The distributed nature of the Internet's implementation and the communication among many bodies contributing the Internet's operation demonstrate the feasibility of a flexible collaborative model, even knowing that mistakes will be made. This is the nature of a "beta" system that is constantly evolving, improving, and "running code." This means that global, multistakeholder governance

¹¹⁶ "Making decisions by applying documented policies neutrally and objectively, with integrity and fairness." See Article 1, Section 2.8, Bylaws for the Internet Corporation for Assigned Names and Numbers, available at <http://www.icann.org/en/about/governance/bylaws>

does not always need to result in a rule or decision, so long as there is a clear heuristic process for reaching a conclusion. Some topics may need some time to be defined, or be so broadly agreed that the need to be specific is important, but secondary. ICANN's internal governance decisions must be made according to documented procedures; this includes changes in said procedures.

Form follows function. Internet governance mechanisms and institutions must be oriented to facilitate the operation and evolution of the Internet as an interoperable 'network of networks' based on the IP protocol or an eventual successor to it, "based on the full participation of all stakeholders," per the Tunis Agenda.¹¹⁷ The organizational structure, mechanisms for action, decision-shaping, -making, -review, and -recourse must follow the function of the mechanism or organization. ICANN was designed for its mission and, in the constellation of Internet governance related organizations, is shaped following function. Further changes must follow the principle.

Effectiveness. Internet governance mechanisms and organizations must be effective in achieving their declared mission. They must be able to reach decisions and enact them efficiently, with enough foresight that major side effects which could be foreseen by themselves or others are avoided and the ability to reverse decisions that have undesired, negative consequences in a graceful manner, *i.e.* without leaving a wake of irreversible damage. The Panel believes that one of the things that ICANN can do to maintain its effectiveness is to engage in the governance ecosystem in the areas where it is relevant, while exercising deference to others for their topics. In other words, stick to the mission and avoid mission creep. For more details on the Panel's view of ICANN's location in the ecosystem, see Section 4.

Learn from history. The history of Internet governance is brief (the term itself continues to be disputed), yet intense. Notwithstanding the relatively short time that Internet governance has existed as a discipline, there are important related subjects whose history is relevant for Internet governance, both as lessons on what not to do and what to do. These topics include broad areas of network economics, international relations, the doctrine of essential facilities, intellectual property policy and the study of the commons. Recourse to these histories is mandatory in order to avoid repeating known mistakes. Within this context, Internet governance actors must also move forward and innovate where this is called for. In Annex A, we have outlined the historical engagement of ICANN and the U.S. government in the governance space. This historical background demonstrates the trend toward globalization.

¹¹⁷ Tunis Agenda, cited *supra*.

7. Roadmap towards Globalization of ICANN

ICANN's role as a steward for specific functions means that it can not and should not address all of the Internet's issues. Like all institutions in the governance ecosystem, it is crucial that ICANN understand its role, where it sits within the layered model, and strive to optimize its effectiveness in that place. Like any organization, ICANN has a number of interests that are immediately linked to its work, as well as others that find themselves at different places within its circle of interests.

a) Globalize, not Internationalize

ICANN has responsibility for the administration of key components and registries of the transnational Internet. Despite its U.S. government origins, the Internet's design, implementation and operation had primary roots in the academic and private sectors. Its architecture and usage are largely non-national in character and this has yielded institutions that reflect a global but not necessarily international (ie. inter-nation state) governance model. Countries are stakeholders, to be sure, but the structure of ICANN and its associated or related institutions are now and should become increasingly global or regional in scope. We are reminded once again that form follows function.

b) Consolidation and Simplification of DNS Root-Zone Management

The globalization of Internet's critical resources continues, and ICANN is facing one of the critical next steps: the stability of the DNS root zone. It has also become apparent that the current structure of IANA functions contract, with its exclusive involvement of NTIA, has become inconsistent with the global multistakeholder governance model that the Panel and the U.S. government endorse.¹¹⁸ The Panel sees the issues related to the protection of the root-zone system and the IANA functions contract as matters that should be addressed holistically. Transparency and accountability principles should dictate a high degree of public visibility for this process.

The multistakeholder community has been working on this question as well. Although the /1net group has not yet made a specific set of recommendations, as of January 31, 2014, the /1net participants observed that in the past past "[a] number of potential solutions have been proposed; however, there has been no consensus that any of them are broadly acceptable."¹¹⁹ The /1net discussions also resulted in the production of several "criteria" that could be used to measure acceptable solutions. The criteria

¹¹⁸ NTIA White Paper, cited *supra* at Note 17 *et seq.*

¹¹⁹ /1net listserv, cited *supra*.

outlined are as follows:

1. Support of a single, unified root zone
2. Integrity, stability, continuity, security and robustness of the administration of the root zone
3. Protection of the root zone from political or other improper interference
4. Widespread trust by Internet users in the administration of this function
5. Agreement regarding an accountability mechanism for this function that is broadly accepted as being in the global public interest¹²⁰

The Panel found the articulations noted above to be insightful and consistent with points that were raised during the two public consultations that the Panel held in the preparation of this report. Although the development of a consolidation plan may take some time, ICANN could adopt and make public the criteria by which it will evaluate the development of a plan for the consolidation and simplification of root-zone management.

c) A Web of Affirmations of Commitments

Among the most important concepts discussed in the panel was the use of bilateral and possibly multilateral affirmations of mutual commitments to document the relationships among the players in the Internet governance ecosystem (see Section 5, Figure 5). The proposal was discussed at the IGF in Nairobi in 2011.¹²¹ These affirmations cement and document mutual understandings and recognitions of roles and responsibilities. Fundamental to all such affirmations should be a commitment to stewardship as a guiding principle for all agreements.

The resulting web of documented relationships will create a flexible, resilient and defensible structure that can evolve over time and that has no central point of brittle control. The structure permits the creation and exit of ecosystem entities and variations of pairwise commitments without requiring wholesale agreement to changes by all ecosystem parties at once. This form of agreement could also create the means for achieving accountability among the committed parties.

AOCs with Non-Governmental Ecosystem Partners

It is vital that ICANN, the I* organizations, the Root Server Operators, the TLD operators (especially the ccTLD operators) and others document mutual commitments and respect for one another's roles in the Internet governance ecosystem.

The Panel recommends generally that ICANN develop tailored AOC texts to be used to

¹²⁰ /1net Listserv, cited *supra*.

¹²¹ See Bill Drake (moderator), "Institutional Choice in Global Internet Governance Media Change & Innovation Division," IGF Workshop hosted by IPMZ University of Zurich, Sep 29, 2011, available at <http://www.friendsoftheigf.org/transcript/81>. IN the Workshop, John Curran states: "And I guess so I would say the things I would take away is the fact that [the Affirmation of Commitments] is an open model. People can see it and in theory I believe others could enter into a similar agreement, that is a possibility."

establish bilateral or multilateral, documented relationships between and among ICANN and ecosystem partners that wish to participate.¹²²

There are existing documents that can serve at least as a conceptual basis for these bilateral affirmations. The following IETF documents, known as Requests for Comments (RFCs)¹²³ represent a foundation from which the proposed affirmation of commitments might be drawn: RFC 2860 and its partial successor RFC 7020;¹²⁴ the Memorandum of Understanding among the RIRs and ICANN; the establishment of the Numbers Resource Organization through mutual agreements among the RIRs and ccTLD operators; and the ICANN/NTIA AOC.

ICANN AOCs with Governments

In the case of ICANN relationships with governments, it is recommended that a common Affirmation text be established so as to achieve egalitarian treatment. It is possible that the GAC can be of assistance in helping to craft the text of such a common document.

The Panel notes that there have been 31 Congressional hearings on the DNS and ICANN in the U.S. since 1997, and with all of this lawmaker interest, there has been no legislation to require any exclusive management or oversight by the U.S. government.¹²⁵ At the time the AOC was signed, the government stated the rationale as follows:

NTIA and ICANN co-signed an [AOC] that completes the transition of the technical management of the DNS to a multi-stakeholder, private-sector-led model. The [AOC] ensures accountability and transparency in ICANN's decision-making with the goal of protecting the interests of global Internet users. The [AOC] also establishes mechanisms to address the security, stability, and resiliency of the Internet DNS as well as promote competition, consumer trust, and consumer choice.¹²⁶

¹²² Note that the Panel refers to these as AOCs, but they need not explicitly be AOCs, but could be an AOC-like commitment.

¹²³ See IETF, "Request for Comments", available at <https://www.ietf.org/rfc.html>.

¹²⁴ "Memorandum of Understanding Concerning the Technical Work of the Internet Assigned Numbers Authority," *IETF RFC 2860*, Jun 2000, available at <http://tools.ietf.org/search/rfc2860> and "The Internet Numbers Registry System," *IETF RFC 7020*, Aug 2013, available at <http://tools.ietf.org/html/rfc7020>.

¹²⁵ Leonard Kruger, "Internet Governance and the Domain Name System: Issues for Congress," *Congressional Research Service*, Nov 13, 2013 at 19, available at <https://www.fas.org/sqp/crs/misc/R42351.pdf>.

¹²⁶ Press Release, "U.S. Dep't of Commerce, NTIA, Commerce's NTIA and ICANN Establish a Long-Lasting Framework for the Technical Coordination of the Internet's Domain Name and Addressing System," Sep 30, 2009, available at <http://www.ntia.doc.gov/press-release/2009/commerces-ntia-and-icann-establish-long-lasting-framework-technical-coordination-0>.

d) Globalize the Process for Accountability within a Web of Relationships

The Panel has recommended in Section 5 that ICANN continue to see itself in the evolving Internet ecosystem as part of a web of relationships. Similarly, the Panel recommends enabling more opportunities for all stakeholders to join the web of relationships through mechanisms like mutual AOCs. The question of how to address accountability within this web of relationships is a complex one, and each of the parties to an AOC may have different preferences for accountability.

We posit the idea of *accountability panels* whose membership and processes are agreed by parties to an AOC. The purpose of a panel is to provide recourse should a party to an AOC believe that another party has failed in some way that must be accounted for and that all other resolution mechanisms implied or explicit within the AOC have not yielded satisfaction. One of the challenges of an accountability panel may be the natural asymmetry of power between governments and ICANN (and the power asymmetry that governments have over most all stakeholders). For this reason, the implementation of accountability panels might be studied further to see if they could be set up in an internationally binding way, for example, in the way that arbitration matters are enforceable globally via the New York Convention of 1958.¹²⁷ As the web of affirmations becomes documented, another challenge arises from third-party beneficiaries who may not be parties to any particular documented arrangement. The resolution of these interests will similarly need to be analyzed in the context of further studies.

The term accountability panel should not be misunderstood as a necessarily *sui generis* creation. It might be a recognized arbitration entity, an agreed legal jurisdiction and litigation system, an existing recourse mechanism available to the AOC parties, or it might actually be a body created in consequence of the development of the AOC. What is important to emphasize is that this formulation allows for flexibility, experimentation, and choice of accountability enforcement. The Panel has observed that Mutual Legal Assistance Treaties (MLATs) are currently the main mechanism for addressing jurisdictional questions. There are many issues related to Internet governance that do not fit within the framework of MLATs, although this is an area that merits further study.¹²⁸

In the case of the proposed common AOC between ICANN and governments, it is thought that a common choice would be preferable and that it might rely on a body or bodies with recognized skill in international arbitration. This choice might also satisfy the important task of assuring that ICANN's actions stay within the public interest. Charged with protecting public interest, governments could exercise international arbitration to resolve concerns about ICANN's decisions and the public interest, bearing in mind that

¹²⁷ Convention on the Recognition and Enforcement of Foreign Arbitral Awards, UN Conference on International Commercial Arbitration, 1958, also known as the "New York Convention of 1958," available at <http://goo.gl/hS3IQ6>.

¹²⁸ See the Internet and Jurisdiction Project 2013 White Paper, available at <http://www.internetjurisdiction.net/2013-white-paper/>

the scope of ICANN's responsibility is confined by the descriptive language in the AOC.

Under its current AOC with the U.S. government, ICANN makes commitments for “accountability, transparency and the interests of global Internet users,”¹²⁹ to assure that ICANN is “[p]reserving security, stability and resiliency”¹³⁰ and for matters of “[p]romoting competition, consumer trust, and consumer choice.”¹³¹ The Panel recommends that ICANN undertake further analysis of accountability options.

8. Conclusions

The Panel believes that ICANN has a critical but confined role in the Internet ecosystem that is strongly bounded by its responsibility to manage the Root Zone of the DNS and delegation to top-level domain name registries, top-level assignment of Internet address space primarily to Internet Service Providers (ISPs), and parameter registries in accordance to advice given to the IANA from the work of the IETF and IAB.

ICANN has an obligation to make progress documenting mutual relationships with and commitments to other entities in the Internet ecosystem; refining its internal practices in the pursuit of its excellence in operation and ensuring that it carries out its responsibilities in the global public interest.

The Panel believes that the actions found in the Roadmap (section 7) of this report represent concrete steps towards realizing the principles outlined in section 6. We recognize the evolving nature of ICANN's tasks and hope that this report will contribute to ICANN's ability to fulfill its obligations and the vision that created it in 1998.

¹²⁹ Affirmation of Commitments, cited *supra* at §9.1.

¹³⁰ *Id.*, at §9.2.

¹³¹ *Id.* at 9.3

ANNEX A: History Of ICANN And The Department Of Commerce (DOC)

Development of ICANN and its Relationship with DOC

The U.S. government has played a significant role in managing the DNS since the earliest days of the Internet. It became the early *de facto* controller of the DNS primarily due to its investment and innovation in packet-switching technology and payment of the costs associated with DNS management through government contracts.¹³² DNS management was generally an *ad hoc* process performed by volunteers, the National Science Foundation (“NSF”), and government contractors.¹³³ IANA was managed by the Information Sciences Institute of the University of Southern California (USC), under a contract with the U.S. Department of Defense.¹³⁴ IANA was responsible for coordinating the assignment of IP addresses by allocating blocks of numerical addresses to regional IP registries.¹³⁵ IANA also had responsibility for assigning and maintaining a registry of the unique protocol assignments (e.g., protocol numbers, port numbers, autonomous system numbers, and management information base object identifiers).¹³⁶ Another private government contractor, Network Solutions, Inc. (NSI), signed a cooperative agreement with NSF to manage the system of registering names for Internet users and maintained the .com, .org, and .net domains.¹³⁷ NSI, in consultation with IANA, was also responsible for control of the root system.¹³⁸

As use of the Internet grew exponentially in the mid-1990s, DNS management became more complicated and businesses and foreign governments pressured the U.S. government to increase competition and privatize control over the DNS.¹³⁹ On July 1, 1997, as part of the Clinton Administration’s Framework for Global Electronic Commerce, the President directed the Secretary of Commerce to privatize, increase competition in, and promote international participation in the DNS.¹⁴⁰ In response, in June 1997, the National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce (DOC), issued a Request for Comments (RFC) on “the current and future system(s) for the registration of Internet domain names.”¹⁴¹ Noting the central role the U.S. government played in the “initial development,

¹³² U.S. Gov’t Accountability Office, OGC-00-33R, Department of Commerce: Relationship with the Internet Corporation for Assigned Names and Numbers (2000), at 35, available at <http://www.gao.gov/new.items/og00033r.pdf> [Hereinafter: “GAO Report”].

¹³³ “ICANN: The Debate over Governing the Internet”, *Duke L. & Tech. Rev. Iss. No. 2*, 2001, at 5.

¹³⁴ GAO Report, at 17-18.

¹³⁵ *Id.*, at 3.

¹³⁶ *Id.*, at 5-6.

¹³⁷ *ICANN: The Debate over Governing the Internet*, *supra* note 2, at 5.

¹³⁸ *Id.*

¹³⁹ *Id.*, at 6.

¹⁴⁰ Management of Internet Names and Addresses, 63 Fed. Reg. 31, 741, Jun 10, 1998, available at http://www.ntia.doc.gov/files/ntia/publications/6_5_98dns.pdf

¹⁴¹ Request for Comments on the Registration and Administration of Internet Domain Names, 62 Fed. Reg. 35,896, Jul 2, 1998, available at <http://www.ntia.doc.gov/files/ntia/publications/dn5notic.pdf>

deployment, and operation of domain name registration systems,” the RFC stated that “Internet expansion has been driven primarily by the private sector. The Internet has operated by consensus rather than by government regulation. Many believe that the Internet’s decentralized structure accounts at least in part for its rapid growth.”¹⁴²

Following the RFC, the NTIA released “The Green Paper” in January 1998 seeking comment on a proposal to privatize the DNS management and “facilitate [the government’s] withdrawal from DNS management.”¹⁴³ According to the NTIA,

The Green Paper proposed certain actions designed to privatize the management of Internet names and addresses in a manner that allows for the development of robust competition and facilitates global participation in Internet management. The Green Paper proposed for discussion a variety of issues relating to DNS management including private sector creation of a new not-for-profit corporation (the “new corporation”) managed by a globally and functionally representative Board of Directors.¹⁴⁴

NTIA received more than 430 comments to the RFC¹⁴⁵ and 650 comments to The Green Paper.¹⁴⁶ In response to the public feedback, NTIA released a Statement of Policy “White Paper” in June 1998 which called on the Internet community to form a private, not-for-profit corporation to manage DNS and the IANA function.¹⁴⁷ The Federal Register publication of the White Paper identified several statutory sources to support NTIA’s authority for creating such an organization for DNS management. First, it cited a statutory section of Title 15 that authorizes the DOC to “foster, promote, and develop foreign and domestic commerce.”¹⁴⁸ It also referenced several sections of the Telecommunications Authorization Act of 1992 that authorizes NTIA “to provide for the coordination of the telecommunications activities of the executive branch and assist in the formulation of policies and standards for those activities,” “to develop and set forth telecommunications policies pertaining to the Nation’s economic and technological advancement and to the regulation of the telecommunications industry,” and “to conduct studies and make recommendations concerning the impact of the convergence of computer and

¹⁴² *Id.*

¹⁴³ Improvement of Technical Management of Internet Names and Addresses, 63 Fed. Reg. 8826 Feb 20, 1998.

¹⁴⁴ See Mgmt. of Internet Names & Addresses, 63 Fed. Reg. 31,741, 43, Jun 10, 1998, available at http://www.ntia.doc.gov/files/ntia/publications/6_5_98dns.pdf

¹⁴⁵ *Id.* at 31,742.

¹⁴⁶ Registration and Administration of Internet Domain Names – Summary of Comments, Docket No. 97061337-7137-01, Aug. 18, 1997, available at <http://www.ntia.doc.gov/other-%20publication/1997/registration-and-administration-internet-domain-names-summary-comments-docket>. The International Ad Hoc Committee organized by IANA, the Internet Society and other groups was among the private sector groups that submitted proposals. It proposed that a not-for-profit international consortium of competing registrars run a new registry out of Switzerland. Also see Establishment of a Memorandum of Understanding on the Generic Top-Level Domain Name Space of the Internet Domain Name System, Feb 28, 1997, available at <http://www.itu.int/net-itu/gtld-mou/gTLD-MoU.htm>

¹⁴⁷ See NTIA White Paper, cited *supra*.

¹⁴⁸ 15 U.S.C. at 1512.

communications technology.”¹⁴⁹

On November 25, 1998, DOC entered a Memorandum of Understanding (“MOU”) with ICANN that formally recognized ICANN as the private, non-profit organization for which the White Paper called. The MOU also established a joint project (the “DNS Joint Project”) under which ICANN and DOC agreed to design, develop, and test the mechanisms, methods, and procedures that should be in place and the steps necessary to transfer the U.S. government’s technical management responsibilities to ICANN.¹⁵⁰ The parties amended the MOU (later referred to as the Joint Project Agreement (“JPA”)) several times to refine the scope of the DNS Joint Project and to extend the term of the agreement.¹⁵¹

In 2009, ICANN and NTIA entered into an Affirmation of Commitments (“AOC”),¹⁵² which served to replace the MOU/JPA as the overarching document reflecting the relationship between the U.S. government and ICANN.¹⁵³ In the AOC, DOC affirmed its commitment to “a multi-stakeholder, private sector led, bottom-up policy development model for DNS technical coordination that acts for the benefit of global Internet users,”¹⁵⁴ and ICANN committed, among other things,

to adhere to transparent and accountable budgeting processes, fact-based policy development, cross-community deliberations, and responsive consultation procedures that provide detailed explanations of the basis for decisions, including how comments have influenced the development of policy consideration [;] . . . to provide a thorough and reasoned explanation of decisions taken, the rationale thereof and the sources of data and information on which ICANN relied[;] . . . [to] remain a not for profit corporation, headquartered in the United States of America with offices around the world to meet the needs of a global community; . . . to operate as a multi-stakeholder, private sector led organization with input from the public, for whose benefit ICANN shall in all events act[;] . . . [and] to maintain and improve robust mechanisms for public input, accountability, and transparency so as to ensure that the outcomes of its decision-making will reflect the public interest and be accountable to all stakeholders¹⁵⁵

¹⁴⁹ 47 U.S.C. 902(b)(2)(H)-(I), (M).

¹⁵⁰ Memorandum of Understanding Between the U.S. Department of Commerce and Internet Corporation for Assigned Names and Numbersm Nov 25, 1998, *available at* <http://www.ntia.doc.gov/page/1998/memorandum-understanding-between-us-department-commerce-and-internet-corporation-assigned->

¹⁵¹ See DOC/ICANN Agreements: ICANN Memorandum of Understanding/Joint Project Agreement, *available at* <http://www.ntia.doc.gov/page/docicann-agreements>. The MOU, which was renamed the Joint Project Agreement in 2006, was replaced in 2009 by the Affirmation of Commitments. *See infra*.

¹⁵² Affirmation of Commitments, cited *supra*.

¹⁵³ See A. Michael Froomkin, “Almost Free: An Analysis of ICANN’s ‘Affirmation of Commitments,’” *J. Telecomm. & High Tech. L.*, Volume 9, 2001, at 187, 198, 203, 206-07.

¹⁵⁴ Affirmation of Commitments, cited *supra*, at 4.

¹⁵⁵ Froomkin, cited *supra*, at 200. The author quotes the Affirmation of Commitments, cited *supra*.

ICANN also made commitments on “preserving security, stability and resiliency” in the DNS,¹⁵⁶ and on “promoting competition, consumer trust, and consumer choice.”¹⁵⁷

Separate from the AOC (and the MOU/JPA before it), DOC and ICANN entered into a sole-source contract for ICANN to perform the technical IANA functions described above (the “IANA Contract”). The parties entered into the IANA Contract initially in February 2000,¹⁵⁸ and subsequently extended it several times.¹⁵⁹ The most recent contract award followed a Notice of Inquiry and Further Notice of Inquiry and a formal competition.¹⁶⁰ The current IANA Contract extension runs through September 2015.¹⁶¹ DOC has the unilateral option to extend the contract through September 2017, and again through September 2019.

Trends Towards Government Divestiture of IANA Functions

In 1998, the White Paper set forth “the U.S. government’s policy regarding the privatization of the domain name system in a manner that allows for the development of robust competition and that facilitates global participation in the management of Internet names and addresses,” and indicated that DOC wished to pursue the privatization of DNS management.¹⁶² Despite the aspirations expressed in the White Paper, DOC has not been able to relinquish its involvement in the IANA functions, owing in part to conditions in the Internet ecosystem mitigating against disengagement. Instead, DOC has continued to award procurement contracts for IANA management to ICANN, and its most recent request for comments through NTIA prior to the current contract does not reflect a clear desire for further privatization.¹⁶³ DOC has not made any recent formal statement regarding its intent to relinquish its formal role fully vis-à-vis the IANA Contract. For its part, NTIA held a public meeting in 2006¹⁶⁴ and solicited comments

¹⁵⁶ Affirmation of Commitments, cited *supra*, at 9.2.

¹⁵⁷ *Id.* at 9.3

¹⁵⁸ IANA Functions Contract, Feb 9, 2000, available at <http://www.ntia.doc.gov/files/ntia/publications/ianacontract.pdf>.

¹⁵⁹ See IANA Functions Contract, Mar. 21, 2001, available at <http://www.ntia.doc.gov/files/ntia/publications/sb1335-01-w-0650.pdf>; Also see IANA Functions Contract, Mar 13, 2003, available at http://www.ntia.doc.gov/files/ntia/publications/ianaorder_03142003.pdf; Also see IANA Functions Contract, Aug. 11, 2006, available at http://www.ntia.doc.gov/files/ntia/publications/ianacontract_081406.pdf.

¹⁶⁰ Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions, National Telecommunications and Information Administration, Docket No. 110207099–1099–01, available at <http://goo.gl/dGbByp>.

¹⁶¹ See IANA Functions Contract (July 2, 2012), at F.1, available at http://www.ntia.doc.gov/files/ntia/publications/sf_26_pg_1-2-final_award_and_sacs.pdf.

¹⁶² See White Paper, cited *supra*. The White Paper was published “in order to facilitate [the government’s] withdrawal from DNS management”).

¹⁶³ See Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions, 76 Fed. Reg. 10,569, Feb 25, 2011, The RFC states: “Given the [impending expiration] of this contract, NTIA is seeking public comment to enhance the performance of the IANA functions in the development and award of a new IANA functions contract.” available at <http://www.gpo.gov/fdsys/pkg/FR-2011-02-25/pdf2011-4240.pdf>.

¹⁶⁴ U.S. Dep’t of Commerce, NTIA, Commerce’s NTIA To Hold Public Meeting On Transition Of The

regarding transitioning DNS management to the private sector,¹⁶⁵ and continues to reiterate that it is committed to a multi-stakeholder approach in deciding what terms to require in each subsequent IANA contract,¹⁶⁶ particularly with regard to security.¹⁶⁷

The AOC signed by NTIA and ICANN in September 2009 could represent the most significant development in the trend toward divestiture.¹⁶⁸ At a minimum, the AOC is symbolically important given how the parties characterized it at the time it was signed:

NTIA and ICANN co-signed an [AOC] that completes the transition of the technical management of the DNS to a multi-stakeholder, private-sector-led model. The [AOC] ensures accountability and transparency in ICANN's decision-making with the goal of protecting the interests of global Internet users. The [AOC] also establishes mechanisms to address the security, stability, and resiliency of the Internet DNS as well as promote competition, consumer trust, and consumer choice.¹⁶⁹

The AOC does not replace the IANA Contract. Instead, the two documents exist simultaneously—while the AOC was signed in 2009, the IANA Contract was again renewed in 2012. As such, an active procurement contract between the U.S. government and ICANN remains in force, despite the parties' stated intent that the AOC govern the technical management of the DNS.¹⁷⁰

Internet DNS To Private Sector, Press Release, Jul 25, 2006, *available at* http://www.ntic.gov/legacy/ntiahome/press/2006/dnstransition_072506.htm.

¹⁶⁵ The Continued Transition of the Technical Coordination and Mgmt. of the Internet Domain and Addressing Sys., 71 Fed Reg. 30,388, May 25, 2006, *available at* <http://www.ntia.doc.gov/legacy/ntiahome/domainname/dnstransition.html>.

¹⁶⁶ See Request for Comments, cited *supra*, at 10570 The RFC states: "NTIA recognizes that the IANA Functions Operator [i.e., ICANN], in the performance of its duties, requires close constructive working relationships."

¹⁶⁷ *Id.* Explaining as follows: "Given the importance of the Internet as a global medium supporting economic growth and innovation, continuing to preserve the security and stability of the Internet DNS remains a top priority for NTIA. This is a shared responsibility among all stakeholders in the Internet community."

¹⁶⁸ Affirmation of Commitments, cited *supra*.

¹⁶⁹ "U.S. Dep't of Commerce, NTIA, Commerce's NTIA and ICANN Establish a Long-Lasting Framework for the Technical Coordination of the Internet's Domain Name and Addressing System," Press Release, Sep 30, 2009, *available at* <http://www.ntia.doc.gov/press-release/2009/commerces-ntia-and-icann-establish-long-lasting-framework-technical-coordination-0>.

¹⁷⁰ Froomkin, cited *supra*, at 206-07.

ANNEX B: There May Never Be a Single “Constitutional Moment”

In developing the principles that the Panel has proposed, the Panel formed a subgroup to review Internet governance principles broadly, and the subgroup offers this supplementary observation about the calls for a “Constitutional Moment” for the Internet. As is well known, the many processes started by or around the World Summit on the Information Society (WSIS) and the Internet Governance Forum (IGF) have given rise to numerous attempts to codify principles to norm Internet governance, mostly globally. Up to now, none have been adopted universally. However, 2014 may be the year where the community makes progress on alignment, even if the alignment is only loosely coupled. To this, the Panel asks: how are principles developed in Internet governance, and will there ever be a single “constitutional moment?” Should the Internet community push for such a moment?

In short, the Panel’s observation on this point is both yes and no. Yes, the Internet community should continue to strive for principles and to the extent possible, to extend those principles as universally as possible within the governance ecosystem. But no, the community should not consider this effort to culminate in a single *constitutional* event and the community should not wait for any particular *moment*. Progress in the Internet governance ecosystem need not to be defined by a single constitutional moment, but by the smaller instances in which actors contribute principles to the ecosystem. For now, the Panel is content with this “good enough governance.”¹⁷¹ As we describe below, the process of establishing, testing and working with principles should be an ongoing one that is always being improved. A study of constitutional practice, amendments and rewrites has helped us to reach this conclusion.

a) Principles and Constitutions

The process of proposing and gaining consensus on Internet principles is one of the most complicated ongoing efforts in Internet governance—it has not yet resulted in consensus and it may never do so. This doesn’t mean that the effort is futile; to the contrary, discussions on principles is crucial to any participatory governance process. However, because of the philosophical nature of principles, the many valiant efforts to develop global principles is ongoing and unlikely to resolve anytime soon. It may never

¹⁷¹ Stewart Patrick, “Unruled World: the case for good enough global governance,” *Foreign Affairs*, Jan/Feb 2014, available at <http://www.foreignaffairs.com/articles/140343/stewart-patrick/the-unruled-world>. The author explains as follows:

A decade ago, the Harvard scholar Merilee Grindle launched a broadside against the lengthy list of domestic good-governance reforms that the World Bank [...]. She implored international donors to put their long, well-intentioned checklists aside and focus instead on “good enough governance.” Rather than try to tackle all problems at once, she suggested, aid agencies should focus on achieving the minimal institutional requirements for progress. This advice to lower expectations and start with the necessary and possible is even more applicable in the international sphere, given all the obstacles in the way of sweeping institutional reform there.

be resolved. Indeed, if we analyze the idea of principle drafting with constitutions, we see that their setting and resetting happens all the time. Like the real world, perhaps the virtual world – the Internet – can have multiple sets of principles, and an ongoing, always-evolving set of constitutions?

In many occasions, the Internet community has made analogies between the need to set principles and have called for a “constitutional moment.” David Post made a relatively famous call for this in 1998.¹⁷² Ten years later, Susan Crawford declared that “[t]his year, 2008, is a constitutional moment for ICANN.”¹⁷³ At the IGF in Nairobi, the Council of Europe held a workshop that also looked at the need for a Constitutional moment.¹⁷⁴ And now, in 2014, the ICANN Strategy Panels are looking at principles and it has been announced as one of the top agenda items for the Global Multistakeholder Meeting on the Future of Internet Governance in Brazil. In fact, codes of ethics and principles have been a permanent feature of the Internet’s evolution.

Many very large countries have never finalized their constitutions (e.g., the United Kingdom and Israel), and every year, there are 5-6 complete rewrites of constitutions around the globe. Other countries like France seem to be in a constant state of rewriting. At the University of Chicago, Thomas Ginsburg, Zachary Elkins and James Melton have said that constitutions are “fragile mechanisms.” They point to the following joke: “a patron goes into a library and asks for a copy of the French Constitution, only to be told that the library does not stock periodicals.”¹⁷⁵ After studying world’s constitutions, Ginsberg and his co-authors determined that the mean lifespan of constitutions since 1789 is 17 years. In fact, the time is shorter in some regions: “Our current analysis suggests that the mean lifespan in Latin America (source of almost a third of all constitutions) and Africa is 12.4 and 10.2 years, respectively, with 15 percent of constitutions from these regions perishing in their first year of existence.”¹⁷⁶

If the development of Internet principles is anything like constitutions, then there may never be a magical “moment” where the constitution is written. Alternatively, the principles may be in a permanent draft phase and never reach full consensus, but still be workable (a “beta phase” for principles). Or, a constitutional moment may have in fact already happened at WSIS in 2005. It is possible that, in spite of the many calls for a singular constitutional moment, the development of the Internet’s constitution has been ongoing for decades (long before the Internet was conceived), and it may continue for the next several decades. As constitutional scholar Lawrence Tribe points out, a

¹⁷² David G. Post, “Cyberspace’s Constitutional Moment” *The American Lawyer*, Nov 1998, available at <http://www.temple.edu/lawschool/dpost/DNSGovernance.htm>

¹⁷³ Susan Crawford, “ICANN’s Constitutional Moment,” *Publius*, May 20, 2008, available at http://publius.cc/icanns_constitutional_moment.

¹⁷⁴ Council of Europe, “Human Rights come first – a ‘constitutional moment’ for Internet governance?” *IGF Report for Workshop 144*, Sep. 27, 2011, available at <http://goo.gl/yQi08A>

¹⁷⁵ Thomas Ginsburg, Zachary Elkins, and James Melton, “The Lifespan of Written Constitutions,” *The Record Online* Spring 2009, available at <http://www.law.uchicago.edu/alumni/magazine/lifespan>

¹⁷⁶ *Id.*

constitution should be designed in a way that it “protects people, not places.”¹⁷⁷ Thus, the process of drafting principles itself, could be just as valuable (or more valuable) as reaching a time when things are permanently written into a single universally agreed document.

Recognizing the lack of permanence Constitutions and the ever-changing “perpetual beta” nature of the Internet would be consistent with the Panel’s recommendation in Section 6 of the main report regarding *evolvability and business excellence*. The setting of guiding principles embraces the value of loosely coupled arrangements, where ambiguity and informality can be desirable qualities, even if this informality can create discomfort. In any case, the reality is that constitutions and the principles within them are often made anew, changed, discussed, or maybe never addressed. Thus, the Country of Bhutan may have been inhabited as early as 4,000 years ago, but wrote its first Constitution only in 2008.¹⁷⁸ In the United States, there have been 11,539 attempts to amend the Constitution and only 27 have passed.¹⁷⁹ The Snowden revelations also revealed to the world that the United Kingdom does not provide a constitutional guarantee of press freedom.¹⁸⁰

b) Trends in Principles Drafting

The principles that the Panel have proposed are in many ways a compilation of other principles that come from scholars that have studied the principle-setting effort in governance. Some of the key sources include: the study from Jeonghyun Baak and Carolina Rossini,¹⁸¹ a comparison table created by Wolfgang Kleinwächter,¹⁸² and the principles recommended by the OECD,¹⁸³ Internet NZ,¹⁸⁴ and CGI Brazil¹⁸⁵ (these last two are of national reach only). Several companies from private sector has recently weighed in (AOL, Facebook, Google, LinkedIn, Microsoft, Twitter and Yahoo!) with a

¹⁷⁷ Laurence H. Tribe, “The Constitution in Cyberspace,” *Proceedings from the Conference on Computers, Freedom & Privacy*, Mar 1991, available at <http://goo.gl/Gnlsw3>.

¹⁷⁸ Neil Fraser, Anima Bhattacharya, and Bimalendu Bhattacharya, *Geography of a Himalayan Kingdom: Bhutan*, Concept Publishing, 2001. Also see “Mix and Match: Countries Change their Constitutions Often. There’s an App for That,” *The Economist*, Nov 9, 2013, available at <http://goo.gl/expV6Z>

¹⁷⁹ U.S. Senate, *Measures Proposed to Amend the Constitution*, available at <http://goo.gl/oYi9vy>.

¹⁸⁰ NYT Editorial Board, “British Press Freedom Under Threat,” *New York Times*, Nov 14, 2013, available at <http://goo.gl/DyuaAB>.

¹⁸¹ Jeonghyun Baak and Carolina Rossini, “Issue Comparison of Major Declarations on Internet Freedom,” Summer 2013, available at <http://goo.gl/PNcnkV>

¹⁸² Wolfgang Kleinwächter, “Internet Governance Outlook 2014: Good News, Bad News, No News?” *CircleID*, Dec 31, 2013, available at http://www.circleid.com/posts/20131231_internet_governance_outlook_2014_good_news_bad_news_no_news/

¹⁸³ Recommendation of the Council on Principles for Internet Policy Making, *OECD*, Dec 13, 2011, available at <http://goo.gl/2dUJhG> [Hereinafter: OECD Principles]

¹⁸⁴ “Principles,” *InternetNZ*, available at <https://internetnz.net.nz/principles>

¹⁸⁵ “Principles for the Governance and Use of the Internet, Resolution,” CGI.br RES/2009/003/P, available at <http://www.cgi.br/regulamentacao/pdf/resolucao-2009-003-pt-en-es.pdf>

proposal of five principles,¹⁸⁶ and as the Panel finalized its report, another set of principles has been proposed by the Strategy Panel chaired by Beth Noveck.¹⁸⁷

Independent researchers lead the way in the analysis. The work of Baak/Rossini and Kleinwächter are particularly notable because they capture, within their analysis, most all of the other principles that have been proposed. This reduces the need for us to select specific examples to highlight, and allows the researchers who have done this work to continue their analysis.

Although independent researchers are doing good work to analyze the trends and to propose consensus items, there are at least three notable exceptions that we make to the observation above. The first is the OECD, because the recommendation represents a consensus of more than 30 countries (although we note that the OECD view is not reflective of developing economies).¹⁸⁸ The second exception are the principles from CGI Brazil, which we include because of their time-tested nature and application in the country, and the likely discussion of them in months to come. Further, some of the principles of CGI Brazil have been transported to the “Marco Civil” legislation which is being discussed in the legislature of that country. The third exception is the entry of the private sector into the discussion with the collaboration proposed in December 2013 by Google, AOL, Apple, Facebook, LinkedIn, Microsoft, Twitter, and Yahoo.¹⁸⁹

The work of Baak/Rossini and Kleinwächter demonstrate that it is exceedingly difficult to extract a single set of principles from the superset of all proposals that they studied. No such set can be reflected in a comprehensive view of principles for Internet governance in general that attracts widespread agreement. There are vast contradictions, differences in priorities, and linguistic preferences. While the taxonomy of Baak/Rossini (e.g., the “issue trees”), demonstrates that there is some alignment on core issues, it also demonstrates that considerable additional work is required in order to take the next step and propose a set of principles from these sources that would be universally accepted. The effort to harmonize these efforts (if ever harmonized) will take more time to accomplish. Below, the Panel analyzes trends in Principles drafting that are important per our criteria set out in the report:

i) Baak/Rossini

This project summarizes a total of 18 declarations, including 7 from civil society, 4 from business organizations, 4 from government coalitions and 3 from international organizations. Baak/Rossini categorize these principles into several “issue families” and

¹⁸⁶ See Reform Government Surveillance website, *available at* <http://www.reformgovernmentsurveillance.com/>

¹⁸⁷ “Quest for a 21st Century ICANN: A Blueprint,” *The GovLab*, Jan 31, 2014, *available at* <http://thegovlab.org/the-quest-for-a-21st-century-icann-a-blueprint/> [Hereinafter: GovLab Blueprint]

¹⁸⁸ OECD Principles, cited *supra*.

¹⁸⁹ Internet Association, “Reform Government Surveillance,” *available at* <http://reformgovernmentsurveillance.com/>

an "issue tree." The authors were "astonished and challenged by how random the issue families are" and noted that different stakeholders have wildly strong opinions about choice of words, such as "openness," "freedom of expression" and the like.

ii) Wolfgang Kleinwächter

The work of Wolfgang Kleinwächter provides another independent set of analysis of different proposals. In a recent article of his, Kleinwächter says, "a rough analysis shows that more than 80 per cent of the principles in those documents are the same."¹⁹⁰ While we have noted that it is exceedingly difficult to extract a single set of principles, Kleinwächter's observation merits further study.

iii) OECD

The OECD provided a Recommendation of the Council on Principles for Internet Policymaking in 2011.¹⁹¹ These principles represent the consensus view of the 34 member countries that participated. Notably missing from the OECD makeup, of course, is representation from the developing world.

iv) CGI Brazil

The principles adopted by CGI Brazil are useful references because they were established by a multistakeholder community and are regularly used by all stakeholders in Brazil for Internet policy making. The principles are enunciated and maintained by CGI.BR both for the organization's primary operational function of managing the .BR ccTLD as well as for the role of CGI.BR in advising on Internet policy issues in that country.¹⁹²

v) InternetNZ

The principles used by InternetNZ are divided into two subsets, one for policy and one for the top-level domain (TLD) environment. Both sets form short lists, set out below.¹⁹³

Policy Principles

1. The Internet should be open and uncapturable.
2. Internet markets should be competitive.
3. Internet governance should be determined by open, multi-stakeholder processes.
4. Laws and policies should work with the architecture of the Internet, not against it.
5. Human rights should apply online.
6. The Internet should be accessible by and inclusive of everyone.
7. Technology changes quickly, so laws and policies should focus on activity.

¹⁹⁰ Kleinwächter, cited *supra*.

¹⁹¹ OECD Principles, cited *supra*

¹⁹² CGI Principles, cited *supra*.

¹⁹³ InternetNZ Principles, cited *supra*.

8. The Internet is nationally important infrastructure, so it should be protected.

Top Level Domain Principles

1. Domain name markets should be competitive.
2. Choice for registrants should be maintained and expanded.
3. Domain registrations should be first come, first served.
4. Parties to domain registrations should be on a level playing field.
5. Registrant data should be public.
6. Registry / Registrar operations within a TLD should be split.
7. TLD policy should be determined by open multi-stakeholder processes.

In both cases we can see that there are seeds that can translate to guide ICANN as a whole -- internally and in its work in the ecosystem -- but while satisfactory at a national level they are insufficient for ICANN.

vi) Internet Rights & Principles Coalition

The Internet Rights & Principles Coalition (IRP Coalition) is a “dynamic coalition” as used in the parlance of the IGF.¹⁹⁴ The IRP began its work in promoting rights-based principles in 2008.¹⁹⁵ Discussions with global stakeholders gained momentum after the IGF in Vilnius in 2010, and rolled out at the IGF in Nairobi in 2011: the IRP Coalition has since hosted various workshops to develop a Charter of Human Rights and Principles.¹⁹⁶ Additionally, the IRP Coalition discussion has been brought to the European Dialogue on Internet Governance (EuroDIG).¹⁹⁷ The IRP Charter offers 10 Rights and Principles for Internet governance. (The information within the Charter and accompanying background is so complete that we won’t reproduce the Charter here.)¹⁹⁸ The Charter presents a set of Internet-wide principles as opposed to the ICANN-focused principles that the Strategy Panel on Multistakeholder Innovation and the Ecosystem Panel have suggested.

vii) Strategy Panel on Multistakeholder Innovation

As this Ecosystem Panel wrapped up its work, the concurrent Strategy Panel on Multistakeholder Innovation (MSI), chaired by Beth Noveck, released its report. The work of the MSI Panel presents further evidence that a flexible, loosely-coupled approach can produce alignment in unexpected ways. The MSI Panel suggests several proposals, of which three key principles align nicely with the work of the Ecosystem

¹⁹⁴ IGF Website, “Dynamic Coalitions,” available at <http://www.intgovforum.org/cms/dynamiccoalitions>

¹⁹⁵ Charter of Human Rights and Principles for the Internet (Version 2.0), available at <http://goo.gl/j8yTzh>

¹⁹⁶ Friends of the IGF Website, available at <http://goo.gl/yRRmKU>. Search term used: “IRP Coalition”.

¹⁹⁷ EuroDIG Website, “Towards a Human Internet? Rules, Rights, and Responsibilities for Our Online Future,” available at <http://goo.gl/GiF9h>

¹⁹⁸ IRP Charter Website, available at <http://internetrightsandprinciples.org/wpcharter/>

Panel. These are: *effectiveness, legitimacy, evolutionary*.¹⁹⁹ A brief description of the work of each panel in this regard:

Effectiveness. The MSI Panel's definition of effectiveness proposes the development of expert networks, using open data and open contracting tools and encouraging collaborative online drafting. The Ecosystem Panel's description of effectiveness (as a subset of the Reality Principle) suggests that governance mechanisms must be able to reach decisions and to enact them efficiently. These two definitions are complementary.

Legitimacy. The MSI Panel suggested that legitimacy includes an inclusive approach through crowd sourcing at each level of decision making, having citizen juries, and innovating voting and public forum protocols. This resonates with the ideas expressed in the Ecosystem Panel's Reasonableness principle which includes accountability, transparency and fairness as primary foci for legitimacy. The legitimacy of any system depends of the trust that participants place in the process.

Evolutionary. In developing their evolutionary principle, the MSI Panel suggested experimental learning through games and embracing evidence generated by data. In the Ecosystem Panel's report, we highlight the importance of the Reality principle: one must evaluate what works and what doesn't. We note that this is the nature of an evolving ecosystem.

c) Review of ICANN's Existing Principles

Like many organizations ICANN has developed principles that are enshrined in different parts of its documentation and organizational history (e.g. amended bylaws,²⁰⁰ mission statements, etc). Our recommendation is that ICANN make an attempt to consolidate its principles into a single, short document that is easily referenceable. By taking this approach, ICANN's principles can be clearly accessed by anyone in the community. If the principles are in need of modification, only one document will need to be updated, and the references to it will therefore automatically be incorporated by reference.

This, however, does not preclude constituencies from developing their own guiding principles as they may see fit for their operation or perspective. In fact, all institutions involved in Internet governance should clearly formulate the processes by which decisions are made; these processes should include clear rules, checks and balances among sufficiently independent parts of the organization, due-process definitions, and opportunities for review and, if necessary, reversal of decisions..

¹⁹⁹ GovLab blueprint, cited *supra*

²⁰⁰ "Bylaws for the Internet Corporation for Assigned Names and Numbers", *ICANN*, Apr 11, 2013, available at <http://www.icann.org/en/about/governance/bylaws>

Text Box 4. ICANN Bylaws --- Section 2. Core Values

In performing its mission, the following core values should guide the decisions and actions of ICANN:

1. Preserving and enhancing the operational stability, reliability, security, and global interoperability of the Internet.
2. Respecting the creativity, innovation, and flow of information made possible by the Internet by limiting ICANN's activities to those matters within ICANN's mission requiring or significantly benefiting from global coordination.
3. To the extent feasible and appropriate, delegating coordination functions to or recognizing the policy role of other responsible entities that reflect the interests of affected parties.
4. Seeking and supporting broad, informed participation reflecting the functional, geographic, and cultural diversity of the Internet at all levels of policy development and decision-making.
5. Where feasible and appropriate, depending on market mechanisms to promote and sustain a competitive environment.
6. Introducing and promoting competition in the registration of domain names where practicable and beneficial in the public interest.
7. Employing open and transparent policy development mechanisms that (i) promote well-informed decisions based on expert advice, and (ii) ensure that those entities most affected can assist in the policy development process.
8. Making decisions by applying documented policies neutrally and objectively, with integrity and fairness.
9. Acting with a speed that is responsive to the needs of the Internet while, as part of the decision-making process, obtaining informed input from those entities most affected.
10. Remaining accountable to the Internet community through mechanisms that enhance ICANN's effectiveness.
11. While remaining rooted in the private sector, recognizing that governments and public authorities are responsible for public policy and duly taking into account governments' or public authorities' recommendations.

These core values are deliberately expressed in very general terms, so that they may provide useful and relevant guidance in the broadest possible range of circumstances. Because they are not narrowly prescriptive, the specific way in which they apply, individually and collectively, to each new situation will necessarily depend on many factors that cannot be fully anticipated or enumerated. Also, because they are statements of principle rather than practice, situations will inevitably arise in which perfect fidelity to all eleven core values simultaneously is not possible. Any ICANN body making a recommendation or decision shall exercise its judgment to determine which core values are most relevant and how they apply to the specific circumstances of the case at hand, and to determine, if necessary, an appropriate and defensible balance among competing values.

d) Conclusion

The Internet community should continue to propose, discuss, debate, tweak, modify, amend, and establish principles for its governance. While 2014 may be a year of intense drafting and discussion of principles in various fora, the “constitutional moment” may never happen. This outcome may be perfectly acceptable so long as there is consistent movement towards establishing a common set of principles. Each and every organization developing its own principles is a positive step towards commonality

because it expresses the desire to reflect on principles. For now, having principles in development among different Internet ecosystem actors is “good enough governance.”²⁰¹

* * *

ANNEX C: List of Figures and Text Boxes

Figure 1: Description of Root Zone Management Process Through IANA Functions

Figure 2: Onion Skin Perspective

Figure 3: Layered Model of the Internet -- Issues

Figure 4: A Functional View of the Internet Ecosystem

Figure 5: A Web of Relationships

Figure 6: Expanding Web of ICANN Relationships

Figure 7: Layered Model of the Internet -- Organizations

Figure 8: Tensions Among Actors in the Ecosystem

Text Box 1: Governance in Other Sectors

Text Box 2: Contribution by /1net

Text Box 3: Montevideo Statement on the Future of Internet Cooperation

Text Box 4: ICANN Bylaws, Section 2, Core Values

²⁰¹ Stewart Patrick, “Unruled World: the case for good enough global governance” *Foreign Affairs* (January/February 2014), available at <http://www.foreignaffairs.com/articles/140343/stewart-patrick/the-unruled-world>.

From: [Angela Simpson](#)
To: [Larry Strickling](#); [Fiona Alexander](#)
Subject: iana
Date: Friday, March 07, 2014 7:53:11 PM
Attachments: [Not Responsive](#)

Per a convo w/ les, attached are some thoughts re the decision memo that hopefully will be useful either in the memo or the separate Q&A thought process.

Thanks-angie

Angela M. Simpson

Deputy Assistant Secretary

National Telecommunications and Information Administration

U.S. Department of Commerce

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4 Pages

Withheld in their entirety as
Not Responsive to the Request.

From: [Suzanne Radell](#)
To: [Fiona Alexander](#); [Ashley Heineman](#); [Elizabeth Bacon](#); [Evelyn Remaley](#); [John Morris](#); [Stacy Cheney](#); [Vernita D. Harris](#); [Jade Nester](#)
Subject: Phil Corwin article
Date: Monday, March 17, 2014 7:31:38 AM

Fyi if you hadn't already seen it:

http://www.circleid.com/posts/20140316_if_the_stakeholders_already_control_the_internet_netmundial_iana/

Suzanne Murray Radell
Senior Policy Advisor
NTIA/Office of International Affairs
PH: 202-482-3167
FX: 202-482-1865

From: [Vernita D. Harris](#)
To: [Evelyn Remaley](#); [John Morris](#)
Subject: FW: [governance] Roadmap for globalizing IANA
Date: Thursday, March 20, 2014 10:49:51 AM
Attachments: [message-footer.txt](#)

From: governance-request@lists.igcaucus.org [mailto:governance-request@lists.igcaucus.org] **On Behalf Of** Suresh Ramasubramanian
Sent: Monday, March 03, 2014 9:37 AM
To: governance@lists.igcaucus.org; Milton L Mueller
Subject: Re: [governance] Roadmap for globalizing IANA

I am sure you can find broad consensus for this Milton and am glad to +1 it, but there are too many devils in the details here.

If you end all political oversight that is a tough sell beyond that power abhors a vacuum. So I am afraid this won't get as much traction as it should.

On 3 March 2014 7:33:21 PM Milton L Mueller <mueller@syr.edu> wrote:

Dear all:

Today IGP released an innovative proposal to resolve the 15-year controversy over the United States government's special relationship to the Internet Corporation for Assigned Names and Numbers (ICANN). <http://www.internetgovernance.org/wordpress/wp-content/uploads/ICANNreformglobalizingIANAFinal.pdf>

The proposal, which involves removing root zone management functions from ICANN and creating an independent and neutral private sector consortium to take them over, will be presented at the Singapore ICANN meeting March 21, and has also been submitted to the "NETMundial" Global Multistakeholder Meeting on the Future of Internet Governance in São Paulo, Brazil, April 23 and 24.

We propose four basic principles to guide the reform of the IANA functions: 1. Keep the IANA function clerical; separate it from policy; 2. Don't internationalize political oversight: end it; 3. Align incentives to ensure the accuracy and security of root zone maintenance; 4. De-link globalization of the IANA function from broader ICANN policy process reforms. Even if there are quibbles about the details of the proposal, we look forward to gaining agreement on those principles, and are willing to entertain any proposals that embody them.

Milton Mueller
Professor, Syracuse University School of Information Studies
<http://faculty.ischool.syr.edu/mueller/>

|

From: [Vernita D. Harris](#)
To: [Heather Phillips](#); [Jade Nester](#); [Joelle Tessler](#); [Jim Wasilewski](#); [Juliana Gruenwald](#)
Subject: Myth v Reality
Date: Friday, March 21, 2014 11:50:02 AM
Attachments: [Not Responsive](#).

Here is an initial draft started by the WH. I will provide edits but wanted to send to everyone now.

3 Pages

Withheld in their entirety as
Not Responsive to the Request.