

# ICANN's Transition Proposal

David Opderbeck

*New Jersey Law Journal*, June 20, 2016

You may have heard of ICANN in connection with procedures for resolving domain name disputes. What you may not realize is that ICANN is at the heart of "Internet governance," and that even today there is a heated dispute about whether the United States government should retain any ongoing oversight of ICANN's functions.

"ICANN" stands for the Internet Corporation for Assigned Names and Numbers. Every device connected to the Internet is assigned a unique Internet protocol (IP) address. Under a standard first developed in 1983 (called the Internet Protocol Version 4, or IPv4)—long before the Internet was commercially available, and long before there was a World Wide Web—an IP address consists of a 32-bit (4-byte) number comprised of four blocks (1 byte per block). Because the available number space was becoming exhausted, a newer standard, IPv6, was adopted, which increased the address to 128 bits comprised of 16 blocks, but IPv4 is still the most widely used protocol.

The following graphic shows a typical IPv4 address, with both binary and dotted-decimal notation:

(Graphic source: Public Domain, <https://commons.wikimedia.org/w/index.php?curid=2868206>)  
In general, the first two blocks specify a network (the network identifier) and the last two blocks specify a host or machine (the host identifier). In the example above, the network identifier 172.16 would indicate a private network such as an intranet, and the host identifier 254.1 would identify a computer or device connected to that local network. If you have ever had to fiddle with your home or office computer network, you have probably seen IP addresses in the dotted-decimal notation representing the addresses of your printers and other devices.

Numeric addresses are difficult for most humans to remember. This is not a problem for things like the printer on your home network—you simply configure the network server to remember such things for you. It *is* a problem on the World Wide Web, if we want to remember, or conduct searches for, the content that interests us. This is where "domain names" come into play. The

Domain Name System, or DNS, establishes the hierarchy of words and symbols that relate to numeric IP addresses. For example, the domain name "Google.com" brings you to Google's home page. It is much easier to remember "Google.com" than the site's IP address (172.217.1.206, as identified through a "Whois" IP lookup). Obviously, if "Google.com" does not consistently resolve to the IP address 172.217.1.206, the web will cease to function. The DNS is a vital part of how people and organizations identify their "space" in cyberspace.

With over one billion pages on the web today (according to <http://www.internetlivestats.com>), the administration and security of the system for registering, recording, transferring and protecting domain names obviously is complex. The question of whether to approve new "top level domains" (TLDs)—that is, the part of a domain name to the right of the last dot, such as .com or .gov—can be contentious because such domains can be used to stake out a new "location" in cyberspace. Until 2012, ICANN strictly restricted the issuance of new "generic" top level domains (gTLDs), but under ICANN's present rules, new gTLDs are much easier to obtain, with about 1,300 new gTLDs now approved and more to come. (For an amusing ICANN video describing this process, see <https://www.youtube.com/watch?v=1kFcx8KAjq>.)

These administrative and oversight functions are ICANN's role. It is fair to say, then, that ICANN oversees a core system of protocols that makes the Internet possible. The global information and communication system that underpins every aspect of our global society depends on the governance functions ICANN performs.

But ICANN is not an agency of any national government or international treaty body. ICANN is *not* an arm of the United Nations, the World Trade Organization, the World Intellectual Property Organization, or any other transnational organization established by agreement of various nation-states. Instead, ICANN is a California non-profit corporation first established in 1998. It operates under a "multi-stakeholder" model that includes input from volunteers serving on numerous working groups, overseen by a board of directors comprised of 16 individual voting members. <https://www.icann.org/en/system/files/files/quick-look-icann-01nov13-en.pdf>.

Why is this vital Internet governance function run by a California non-profit corporation? The name and number functions we have been discussing (referred to as the Internet Assigned Numbers, or IANA, functions) originally were managed by a single individual, John Postel, who

was a computer science researcher at UCLA and USC. Postel helped create an early packet switching network, the Advanced Research Projects Agency Network, or ARPANET, funded by the U.S. Defense Department, which was a forerunner to today's Internet. ARPANET may have been funded by the DOD in part over concerns about maintaining military communications in the event of nuclear war. Although the connection to fears of nuclear war is debated, there is no doubt that the ARPANET was a cold-war era defense project. The U.S. federal government, therefore, had a vital role in the early development of the Internet.

When Postel decided he could no longer handle the domain name functions himself, the U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) instituted a rulemaking for this function that led to the creation of ICANN. From its inception, ICANN operated under a contractual arrangement with the U.S. Department of Commerce. ICANN therefore derives its legal authority from California corporate law and its contract with the U.S. Department of Commerce.

To many participants, particularly outside the U.S., this historical arrangement suggests that ultimately the U.S. government holds too much power over the DNS without adequate checks and balances. In response to these concerns, the Obama administration announced in March, 2014 that it would relinquish control of the DNS to the global multi-stakeholder Internet community. A plan for this transition was developed by ICANN and was submitted to the NTIA on March 10, 2016. The full plan is available online here: <https://www.icann.org/en/system/files/files/iana-stewardship-transition-proposal-10mar16-en.pdf>.

The planning process was coordinated by a group "comprised of 30 individuals representing 13 communities." *Id.*, ¶ X002. That should be an astonishing statement: 30 people were in charge of planning this core function of Internet governance! This group included executives from companies such as Oracle, Cisco, Verisign and GoDaddy, academics, entrepreneurs and representatives of country domain registries. *Id.*, n. 2 and <http://www.ianacg.org/coordination-group/icg-members/>.

The ICANN plan runs to 210 pages of single-spaced type and 3,115 numbered paragraphs, with an Executive Summary that loosely ties together separately drafted proposals from the "Domain Names Community," the "Internet Number Community" and the "Protocol Parameters Registry

Community." It contains many paragraphs that read like this: "Following exhaustion of the foregoing escalation mechanisms, the ccNSO and GNSO will be responsible for determining whether or not a Special IFR is necessary." See ICANN Plan, ¶¶ 1303. If all of this sounds like a proposal put together by engineers rather than lawyers—it is. Perhaps that is a good thing, but many questions about representation and accountability remain.

The ICANN Plan did include some new accountability mechanisms to address concerns about the openness of ICANN's processes. For example, paragraph 1106 of the Domain Names Community's part of the proposal states that the multi-stakeholder community would have the ability to appoint and remove ICANN board members, to oversee key board decisions, and to approve amendments to ICANN's fundamental bylaws. This part of the proposal was consistent with an Accountability Report released by a different ICANN working group in February 2016 (available here: <https://www.icann.org/en/system/files/files/ccwg-accountability-supp-proposal-work-stream-1-recs-23feb16-en.pdf>). But, of course, none of this is analogous to a citizen's rights in a constitutional government. It is more analogous to how shareholders might have some say in the governance of a private membership organization. The ICANN proposal does not contemplate that any governmental or inter-governmental organization will take on the role previously played by the U.S. Commerce Department. See ICANN Plan, ¶ X028.

On June 9, 2016, the NTIA released an Assessment Report finding that the ICANN plan met the NTIA's criteria for a working transition plan. See NTIA Assessment Report, available at <https://www.ntia.doc.gov/report/2016/iana-stewardship-transition-proposal-assessment-report>. In particular, the NTIA Assessment found that the transition plan would satisfy the following requirements:

- (1) Support and enhance the multi-stakeholder model;
- (2) Maintain the security, stability and resiliency of the Internet DNS;
- (3) Meet the needs and expectations of the global customers and partners of the IANA services; and
- (4) Maintain the openness of the Internet.

Most technology industry players also support ICANN's plan. At the same time, some commentators and U.S. lawmakers are not as willing as President Obama or the NTIA to cede U.S. control over the DNS. On June 8, 2016, Representative Sean Duffy (R-WI) and Senator Ted Cruz (R-TX) introduced the "Protecting Internet Freedom Act," which would prohibit the

## ICANN's Transition Proposal

David Opderbeck, *New Jersey Law Journal*

NTIA from allowing its contract with ICANN to expire. See S. 3034 and H.R. 5418, 114th Cong., 2d Sess., June 8, 2016. This bill would also require the Commerce Department to secure permanent U.S. ownership of the .gov and .mil domain top-level domains. *Id.*, sec 4. This bill echoes concerns by commentators such as Kristian Stout, associate director for innovation policy with the International Center for Law and Economics, stated that under the ICANN plan, "several fundamental governance issues remain outstanding, including ICANN's ability to thwart threats of foreign government intrusion, its willingness and ability to ensure a basic level of contractual compliance and respect for property rights among registrars and registries, and its avoidance of antitrust risk." See Ted Cruz Press Release, June 8, 2016.

Unless some legislative or executive action is taken, which seems unlikely, the NTIA contract with ICAAN will expire according to its own terms on Sept. 30, 2016. This will mark another milestone, for better or worse, along the path toward the creation of a global critical infrastructure resource that is managed primarily by consensus (social norms) and contracts (private law) rather than by national and international public law.