

IANA Functions and Related Root Zone Management Transition Questions and Answers

Q. What is the Domain Name System?

A. The Domain Name System (DNS) is a critical component of the Internet infrastructure. It allows users to identify websites, mail servers and other Internet destinations using easy-to-understand names (e.g., www.ntia.doc.gov) rather than the numeric network addresses (e.g., 170.110.225.163) necessary to retrieve information on the Internet.

Q. What are the IANA functions?

A. The Internet Assigned Numbers Authority (IANA) functions are a set of interdependent technical functions that enable the continued efficient operation of the Internet. The IANA functions include: (1) the coordination of the assignment of technical Internet protocol parameters; (2) the processing of change requests to the authoritative root zone file of the DNS and root key signing key (KSK) management; (3) the allocation of Internet numbering resources; and (4) other services related to the management of the ARPA and INT top-level domains (TLDs).

Q. What are the related root zone management functions?

A. The related root zone management functions are the management of the root zone “zone signing key” (ZSK), as well as implementation of changes to and distribution of the DNS authoritative root zone file, which is the authoritative registry containing the lists of names and addresses for all top level domains, effectively the Internet’s phone book.

Q. Who performs the IANA functions?

A. The IANA functions are performed by the Internet Corporation for Assigned Names and Numbers (ICANN) pursuant to a contract administered by NTIA.

Q. Who performs the related root zone management functions?

A. VeriSign performs the related root zone management functions pursuant to a cooperative agreement with NTIA.

Q. What impact does this announcement have on the cooperative agreement with Verisign?

A. Aspects of the IANA functions contract are inextricably intertwined with the VeriSign cooperative agreement (i.e., authoritative root zone file management), which would require that NTIA coordinate a related and parallel transition in these responsibilities.

Q. What is NTIA’s role?

A. NTIA's role includes the procedural role of administering changes to the authoritative root zone file and serving as the historic steward of the DNS, a role that has helped provide confidence in the system. NTIA contracts with ICANN to carry out the IANA functions and has a cooperative agreement with VeriSign to perform the related root zone management functions. NTIA's role is largely symbolic. NTIA has no operational role and does not initiate changes to the authoritative root zone file, assignment of protocol numbers, or allocation of Internet numbering resources.

Q. How did NTIA get involved?

A. The IANA functions were initially performed under a series of contracts between the Department of Defense's Advanced Research Projects Agency (DARPA) and the University of Southern California (USC), as part of a research project known as the Terranode Network Technology (TNT). The role was delegated to NTIA when President Clinton issued a directive in 1997 to privatize and internationalize the coordination of the DNS.

Q. What was the purpose of NTIA's role?

A. NTIA's role has been to smooth the transition of the IANA functions to the global multistakeholder community. NTIA's role was always meant to be a temporary and transitional role only with the goal of completing the transition by 2000.

Q. Why is the United States initiating this transition now?

A. ICANN as an organization has matured and taken steps in recent years to improve its accountability and transparency and its technical competence. At the same time, international support continues to grow for the multistakeholder model of Internet governance as evidenced by the continued success of the Internet Governance Forum and the resilient stewardship of the various Internet institutions.

Q. Are the legacy top level domains associated with U.S. Government (e.g., .mil., .gov, .edu) part of this transition?

A. No, the operation of and responsibility for the three remaining legacy top level domains associated with the U.S. Government specifically .mil, .gov, and .edu are not impacted by this transition as they are not part of the IANA and related root zone management functions.

Q. What will be the role of governments in developing the transition proposal?

A. Like other stakeholders that are part of the ICANN multistakeholder model, we expect governments will have an opportunity to provide input either via ICANN's Governmental Advisory Committee (GAC) or as individual governments. NTIA will not accept a proposal that replaces the NTIA role with a government or an inter-governmental organization solution.

Q. What impact does this announcement have on NTIA's current role?

A. While stakeholders work through the ICANN-convened process to develop a transition proposal, NTIA's current role will remain unchanged. The current IANA functions contract expires September 30, 2015.

Q. Will the results of this process affect Verisign's agreement to operate the .com registry?

A. No. That is a separate agreement between Verisign and ICANN. For Verisign, the only potential change will be the maintenance and publication of the Root Zone, which Verisign has performed as a community service spanning three decades, and we thank them.