

Explained: IANA Transition

On 14 March 2014, the U.S. Commerce Department's National Telecommunications & Information Administration (NTIA) announced it would commence a process to transition its oversight of "key Internet functions" to the global multistakeholder Internet community. Those functions are the IANA functions.



What is IANA?

The Internet Assigned Numbers Authority (IANA) is responsible for coordinating some of the Internet's technical functions – specifically, allocating and maintaining the unique codes and numbering systems that allow the Internet to operate smoothly.

IANA's activities can be grouped into three categories:

- **Domain Names** - IANA manages the Domain Name System (DNS) Root, and the .int and .arpa domains.
- **Number Resources** - IANA coordinates the global pool of Internet Protocol (IP) addresses (IPv4 and IPv6) and Autonomous System Numbers (ASNs), providing them to Regional Internet Registries (RIRs).
- **Protocol Assignments** - Internet protocols' numbering systems are managed by IANA in conjunction with standards bodies.

The NTIA has a contract with the Internet Corporation for Assigned Names and Numbers (ICANN) to perform the IANA functions on its behalf.

IANA and Numbers

IANA is responsible for the global coordination of the IP address systems, as well as the ASNs used for routing Internet traffic. IANA allocates IP addresses from the pool of unallocated addresses to the RIRs according to their needs and global policy. IANA also maintains a registry of all IP address blocks and AS Numbers that have been allocated to each RIR.

- Each RIR makes their own requests for IP addresses and ASNs based on regional needs, and the allocations are made directly from IANA to the RIRs.
- The RIRs then assign IP addresses to their Members, such as Internet Service Providers, or to National Internet Registries (NIRs) in the economies where they exist.
- It is important to note there is no US Government authorization

required for the allocation of IP addresses and ASNs by IANA.

IANA and Names

IANA verifies all changes to the DNS Root Zone. The Root Zone, operated by Verisign, lists the names and addresses for all top-level domains (TLDs) such as .com, .org, .net, .cn, .de and so on.

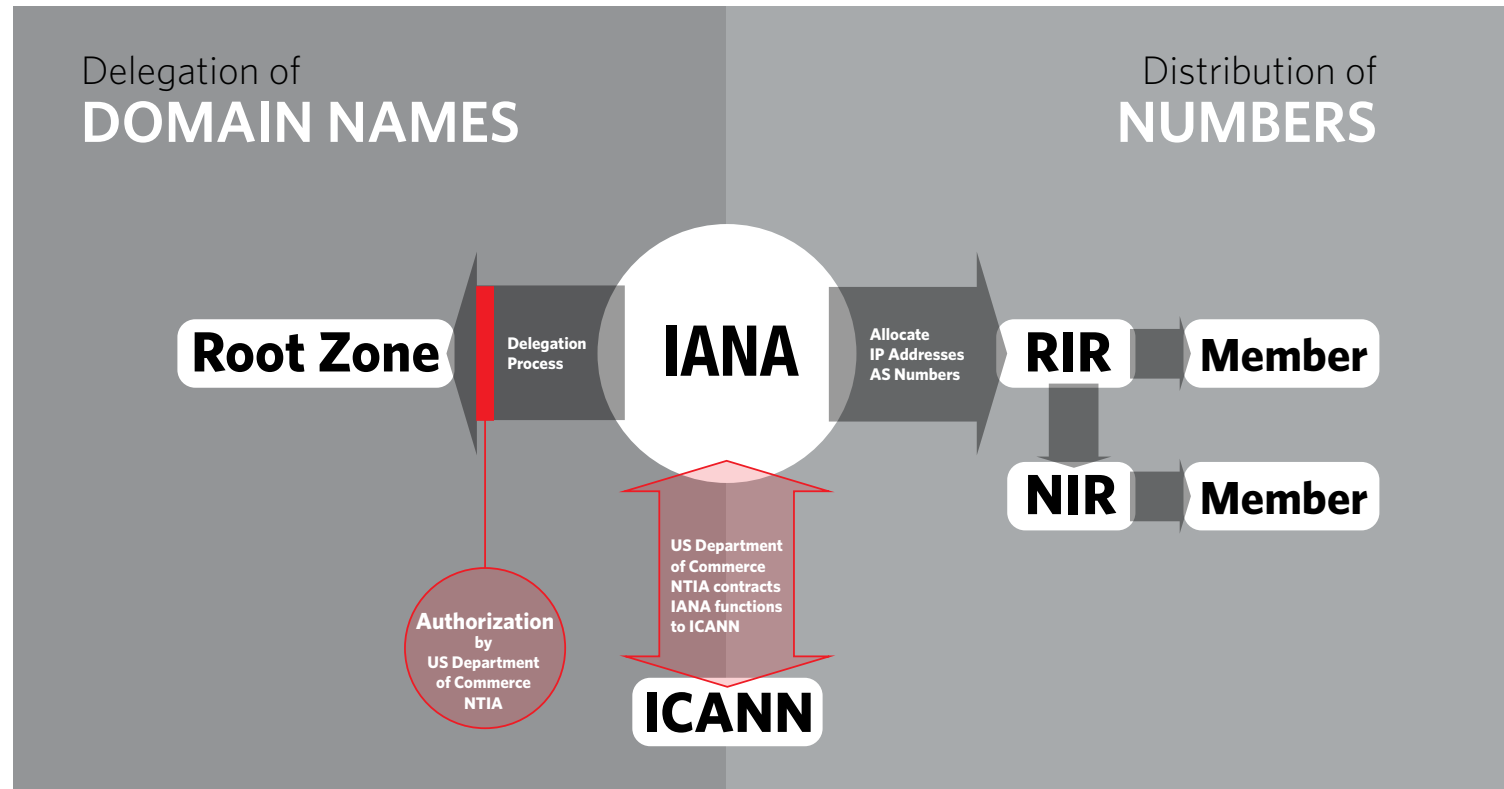
All requests to make changes to the Root Zone, whether to add new or update existing TLDs, are sent to IANA for review and testing against technical and regulatory requirements. When testing and evaluation is complete, IANA sends the details of the request to the NTIA for authorization. Following NTIA authorization, the changes are implemented in the Root Zone and its database.

The involvement of the US Government in the IANA functions is highlighted in this diagram. These two areas, marked in red, are the areas of oversight which the NTIA is proposing to transition to the global Internet community. No other changes to the way Internet names and numbers are managed are being proposed by the NTIA.

Why are the RIRs involved in the IANA transition discussions?

Any discussion about potential changes to the oversight of IANA is of great importance to the RIRs and their Member communities because the RIRs are dependent on IANA's numbering functions, including IPv4, IPv6 and ASN registry services. The stability and accountability of these functions is of prime importance to the RIRs and the numbering services which they provide their communities.

How the US Government is involved with Internet names and numbers



HOW CAN I FIND OUT MORE AND GET INVOLVED?



APNIC has created an [information page](#) with background resources and the latest news. You can also join the [mailing list](#) to discuss your views with the APNIC community.



ICANN's [information page](#) is a very useful resource.

