How many root domain name servers are?

There are a total of 13 DNS servers, there are a couple of reasons the internet Domain Name System uses exactly 13 DNS servers at the root of its hierarchy. The number 13 is a compromise between network reliability and performance. It's also based on a constraint of Internet Protocol version 4 (ipv4), which most networks use.

Where are they?

There are more than 1300 root servers instances around the world, on all six populated continents. They are reachable using 13 numeric IP adresses – one per operating organisation, except for Verisign, which operates two root servers. Most of those addresses are assigned to multiple servers around the world, so DNS queries sent to those addresses get fast responses from local servers. This was not always the case. Before 2004, there were root server instances in only 13 locations – one per IP address – and all but three were in the United States. However, significant efforts by several of the root server operators, including Netnod, have expanded the global root server footprint since then.

Because there are only 13 root server IP addresses, only 13 root servers can be seen from any single location at any given time. Different servers (using the same IP addresses) will be seen from different locations.

The 13 DNS Root Servers are the following:

- VeriSign Global Registry, **Virginia.**
- DISA, University of Southern California, **California.**
- PSI, **Virginia**
- University of Maryland, **Maryland.**
- NASA Ames Research Center, **California.**
- Internet Software Consortium, **California.**
- Department of Defense, **Virginia.**
- Army Research Lab, **Maryland.**
- Autonomica, Stockholm, **Sweden.**
- VeriSign Global Resistry, **Virginia.**
- RIPE, **London.**
- WIDE, Project, **Tokyo.**