IPv6 Addresses for Internet Root Servers in the RIPE Region

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Abstract

This document describes the special case assignment policy for Internet DNS root servers in the RIPE region

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DNS resolvers and resolving name servers need to be pre-configured with the network addresses of the root name servers. This makes these addresses special and not easy to change.

Although it is undesirable to give special status to any IP (IPv4 or IPv6) address block, it was agreed by the community that the particular need defined in this document is the only justifiable exception to that general principle.

Under this policy, each (current or future) Internet DNS root server (as listed in the root-servers.net zone) in the RIPE region will be assigned a block of IPv6 address space for purposes of root server operations. The size of the block shall be the same as the size of the minimum allocation to Local Internet Registries (LIRs) valid at the time of the root server assignment.

The assigned prefix is only for root server operations and support functions related directly to the operations, such as monitoring, statistics, etc., and is bound to the root server service itself.

It is not associated with the organisation(s) that operate the root server at a particular point in time and these organisations should not use the address space to provide any services not related to the root server.

Should the operational responsibility for a DNS root server move to a new organisation, the IPv6 address space associated with the server will be returned to the RIPE NCC with possible reassignment to the new organisation. If the new location of the root name server is outside the RIPE region, the address space must be returned to the RIPE NCC and a new assignment must be requested from the appropriate Regional Internet Registry (RIR).

If a root server stops operating within the RIPE region, the address space will be returned to the RIPE NCC and marked as "reserved" for a suitably long period of time.