Assigned Numbers Authority (IANA) Policy for Allocation of IPv6 Blocks to Regional Internet Registries

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Abstract:

This document describes the policy governing the allocation of IPv6 address space from the IANA to the Regional Internet Registries (RIRs).

This document does not stipulate performance requirements in the provision of services by IANA to an RIR in accordance with this policy. Such requirements will be specified by appropriate agreements between ICANN and the NRO.

Contents:

1. Allocation Principles

The unit of IPv6 allocation (and therefore the minimum IPv6 allocation) from IANA to an RIR is a /12. The IANA will allocate sufficient IPv6 address space to the RIRs to support their registration needs for at least an 18 month period. The IANA will allow for the RIRs to apply their own respective chosen allocation and reservation strategies in order to ensure the efficiency and efficacy of their work.

2. Initial Allocations

On inception of this policy, each current RIR with less than a /12 unallocated address space, shall receive an IPv6 allocation from IANA. Any new RIR shall, on recognition by ICANN receive an IPv6 allocation from the IANA.

3. Additional Allocations

An RIR is eligible to receive additional IPv6 address space from the IANA when either of the following

conditions are met.

- The RIR's AVAILABLE SPACE of IPv6 addresses is less than 50% of a /12.

- The RIR's AVAILABLE SPACE of IPv6 addresses is less than its established NECESSARY SPACE for the following nine months.

In either case, IANA shall make a single IPv6 allocation, sufficient to satisfy the established NECESSARY SPACE of the RIR for an 18 month period.

3.1 Calculation of AVAILABLE SPACE

The AVAILABLE SPACE of IPv6 addresses of a RIR shall be determined as follows:

AVAILABLE SPACE = CURRENTLY FREE ADDRESSES + RESERVATIONS EXPIRING DURING THE FOLLOWING THREE MONTHS - FRAGMENTED SPACE

- FRAGMENTED SPACE is determined as the total amount of available blocks smaller than the RIR's minimum allocation size within the RIR's currently available stock.

3.2 Calculation of NECESSARY SPACE

If the applying Regional Internet Registry does not establish any special needs for the period concerned, NECESSARY SPACE shall be determined as follows:

*NECESSARY SPACE = AVERAGE NUMBER OF ADDRESSES ALLOCATED MONTHLY DURING THE PAST SIX MONTHS * LENGTH OF PERIOD IN MONTHS*

If the applying RIR anticipates that due to certain special needs the rate of allocation for the period concerned will be different from the previous six months, it may determine its NECESSARY SPACE as follows:

- Calculate NECESSARY SPACE as its total needs for that period according to its projection and based on the special facts that justify these needs.

- Submit a clear and detailed justification of the above mentioned projection (Item A).

If the justification is based on the allocation tendency prepared by the Regional Internet Registry, data explaining said tendency must be enclosed.

If the justification is based on the application of one or more of the Regional Internet Registry's new allocation policies, an impact analysis of the new policy/policies must be enclosed.

If the justification is based on external factors such as new infrastructure, new services within the region, technological advances or legal issues, the corresponding analysis must be enclosed together with references to information sources that will allow verification of the data.

If IANA does not have elements that clearly question the Regional Internet Registry's projection, the special needs projected for the following 18 months, indicated in Item A above, shall be considered valid.

4. Announcement of IANA allocations

The IANA, the NRO, and the RIRs will make announcements and update their respective websites regarding an allocation made by the IANA to an RIR. ICANN and the NRO will establish administrative procedures to manage this process.