

RIPE Policy Proposal 2006-02

Number:	2006-02
Policy Proposal Name:	IPv6 Address Allocation and Assignment Policy
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Proposal Version:	1.0
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Current Status :	Discussion Phase - Open for Discussion - Extended - Awaiting Decision from Proposer
Suggested WG for Discussion and Publication:	Address Policy
Proposal Type:	Modification
Policy Term:	Permanent
Policy Document to be Affected:	RIPE-267
Draft RIPE Document :	n/a

Summary of Proposal:

This policy modification is intended to provide a solution for the lengthy discussions that have taken place in the region regarding existing IPv6 Policies. It also takes account of the changes that have already taken place in other Regional Internet Registry (RIR) service regions.

It is an alternative solution to the existing proposal around IPv6 Provider Independent (PI) assignments.

It is clear that there are small Internet Service providers (ISPs) that do not currently have 200 customers, consequently is not feasible for them to make “at least 200 /48” assignments in two years. It is, however, unfair that these ISPs have no access to IPv6 address space.

Often, some organisations need to make internal assignments. Their networks may be made up of a number of sites that each has their own L2 infrastructure. In some cases, organisations may have a small number of sites, but still need their own block so that they can avoid future renumbering, if they change their upstream provider or identify a need to become Multihomed.

One example might be a large university that has several campuses and faculties, each requiring IPv6 addresses. It may have one or several upstream providers. The university will most likely need to be able to assign IPv6 addresses from the same block to its sites and, at the same time, be able to use one or several upstreams. The university network behaves like an internal university ISP to each of the End Sites.

Draft Policy Text:

Existing section 2.9. (ripe-267)

2.9. End Site

An End Site is defined as an End User (subscriber) who has a business relationship with a service provider that involves:

- that service provider assigning address space to the End User
- that service provider providing transit service for the End User to other sites
- that service provider carrying the End User's traffic
- that service provider advertising an aggregate prefix route that contains the End User's assignment

Proposed replacement text:

2.9. End Site

An End Site is defined as an End User (subscriber) who has a business or legal (same or associated entities) relationship with a service provider that involves:

- that service provider assigning address space to the End User
- that service provider providing transit service for the End User to other sites
- that service provider carrying the End User's traffic
- that service provider advertising an aggregate prefix route that contains the End User's assignment

Existing section 5.1.1. (ripe-267)

5.1.1. Initial allocation criteria

To qualify for an initial allocation of IPv6 address space, an organisation must:

- a) be an LIR

- b) not be an End Site
- c) plan to provide IPv6 connectivity to organisations to which it will assign /48s by advertising that connectivity through its single aggregated address allocation;

and

- d) have a plan for making at least 200 /48 assignments to other organisations within two years

Proposed replacement text:

5.1.1. Initial allocation criteria

To qualify for an initial allocation of IPv6 address space, an organisation must:

- a) be an LIR
- b) plan to provide IPv6 connectivity to other organisations or to its own/related departments/entities/sites to which it will assign /48s by advertising that connectivity through a single aggregated address allocation

and

- c) have a plan for making a reasonable number of /48 assignments within two years

Other text to be deleted from ripe-267:

5.4.2. Assignment of multiple /48s to a single End Site

When a single End Site requires an additional /48 address block, it must request the assignment with documentation or materials that justify the request. Requests for multiple or additional /48s will be processed and reviewed (i.e., evaluation of justification) at the RIR/NIR level.

Note: There is no experience at the present time with the assignment of multiple /48s to the same End Site. Having the RIR review all such assignments is intended to be a temporary measure until some experience has been gained and some common policies can be developed. In addition, additional work at defining policies in this space will likely be carried out in the near future.

Rationale:

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a. Arguments Supporting the Proposal

There have been already clear examples and discussions in the region about the need for this modification.

The difficulty encountered in receiving IPv6 address space by some big entities that have a need to use IPv6 is a clear barrier for its deployment.

By setting up this policy, we would avoid creating an unfair situation among different RIR service regions. Other RIRs have already modified the original IPv6 common policy to avoid these barriers.

We could possibly say that an arbitrary number of sites in order to qualify for an allocation could be considered illegal in some countries. The RIPE community cannot set policies that could prove unlawful as this could have important implications.

b. Arguments Opposing the Proposal

One possible effect of this proposal would be a growth of global routing tables. This is only to be expected when new allocations are made possible under this proposal.

Opposing arguments should avoid being unfair to smaller ISPs that could not justify a fixed number of assignments. Such a policy could be seen as irrational and might be comparable with imposing a similar requirement for IPv4 address space allocations, which the community would be unlikely to accept.

Acknowledgments:

I would like to acknowledge all those who have contributed during many years, to the discussion of the modifications to the existing policy suggested by this proposal.