

RIPE Policy Proposal 2006-02

Number:	2006-02
Policy Proposal Name:	IPv6 Address Allocation and Assignment Policy
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Proposal Version:	2.0
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Current Status :	Discussion Phase - Open for Discussion - Extended
Suggested WG for Discussion and Publication:	Address Policy
Proposal Type:	Modification
Policy Term:	Permanent
Policy Document to be Affected:	ripe-388 IPv6 Address Allocation and Assignment Policy
Draft RIPE Document :	n/a

Summary of Proposal:

This policy modification is intended to provide a solution to the discussions that have taken place over recent years regarding the IPv6 Policy in the RIPE region. It also takes into account changes that have already been adopted in other RIR regions.

Furthermore, in some cases, it is also an alternative valid solution to the existing proposal regarding IPv6 Provider Independent (PI) assignments.

It is clear that there are cases of small ISPs that do not currently have 200 customers, and that it is therefore not feasible for them to make “at least 200 /48” assignments in two years. It is unfair, however, that ISPs with only a small number of customers not have access to IPv6 address space.

There are even well known cases where organisations need to make assignments to the same organisation, which is frequently composed of many sites, and may even have its own L2 infrastructure. In other cases, an organisation may have a small number of sites but still require their own block, in order to avoid renumbering when changing upstream provider or because they require to be

multihomed.

An example of this situation may be a big university with one or several upstream providers, and many campuses and faculties requiring IPv6 addresses. The university needs to be able to assign IPv6 addresses from the same block to many sites and at the same time to be able to use one or several upstream providers. The university network behaves as an internal university ISP to each of the End Sites.

Draft Policy Text:

Existing section 2.9. (ripe-388)

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 relationship (same or associated entities) 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-388)

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 make assignments. The assigned prefixes must be longer than the one allocated by RIPE NCC. The LIR must advertise the allocated address block through a single aggregated prefix. This prefix must be advertised within one year of the allocation being made;
- c. have a plan for making assignments within two years.

Rationale:

a. Arguments Supporting the Proposal

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

The inability to obtain IPv6 address space by some big entities which require it is a clear barrier to the deployment of IPv6.

By adopting this policy, we avoid creating an unfair situation among different regions, many of which have already modified the original IPv6 common policy to avoid these barriers, based on experience which was not available initially.

Possibly we could even say that requiring an arbitrary number of sites in order to qualify for an allocation might be considered against law in many countries. We must understand that the community can't set policies that might easily be considered illegal by courts, as this could have severe implications.

b. Arguments Opposing the Proposal

The possible effect of this proposal is a growth of global routing tables, as naturally can be expected, because new allocations will be possible according to the suggested modifications.

However, this is the right thing to do and the right thing to happen.

Moreover, the actual opposition arguments should be against being unfair to smaller ISPs, which could not justify a fixed number of assignments, which is quite irrational and could be compared to a similar requirement for allocating IPv4 space, which would never be accepted by the community.

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.