

RIPE Policy Proposal 2007-01

Number:	2007-01
Policy Proposal Name:	Direct Internet Resource Assignments to End Users from the RIPE NCC
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Proposal Version:	1.0
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Current Phase :	Open for Discussion
Phase ends/ended:	17 May 2007
Latest Status:	Awaiting Documentation from Nick Hilliard
Suggested WG for Discussion and Publication:	Address Policy
Proposal Type:	New & Modify
Policy Term:	Renewable
Policy documents that will be affected:	<ul style="list-style-type: none">• ripe-256: IPv6 Address Space Policy for Internet Exchange Points• ripe-405: IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region• ripe-388 - IPv6 Address Allocation and Assignment Policy• ripe-389: Autonomous System (AS) Number Assignment Policies and Procedures

Summary of Proposal:

This proposal states that a contractual relationship between an End User and the RIPE NCC must be established before the End User receives Internet number resources (Autonomous System (AS) Number, Provider Independent (PI) IPv4 and IPv6 Internet Exchange Point (IXP) and

anycasting assignments) directly from the RIPE NCC. It also states that the text in the policy should mention more explicitly that PI assignments can't be sub-assigned.

Draft Policy Text

1. Modifications

Current:

(from ripe-405):

9.0 PA vs PI Address Space

In contrast, PI address space cannot be aggregated. It can remain assigned to a network as long as the criteria for the original assignment are met. However, PI addresses are expensive to route as no use of aggregation can be made. They might not be globally routable.

New:

In contrast, Provider Independent (PI) address space is assigned to End Users directly and it cannot be aggregated. PI address space cannot be re-assigned or further assigned to other parties. It can only remain assigned to a network as long as the criteria for the original assignment are being met. PI addresses are expensive to route as no use of aggregation can be made. Furthermore, they may not be globally routable.

PI space is assigned after a contractual relationship is realised between the RIPE NCC and the End User. If this contract is terminated, the resources must be returned to the RIPE NCC.

2. Additions

(to ripe-256):

3.0 Policy

Before an assignment can be made to an IXP, a contractual relationship

between this organisation and the RIPE NCC must be established. If this contract is terminated the assignment must be returned to the RIPE NCC.

(to ripe-405):

6.9 Anycasting TLD Name servers

If the TLD operator is not an LIR the prefix is assigned after a contractual relationship is realised between the RIPE NCC and the TLD operator. If this contract is terminated, the prefix must be returned to the RIPE NCC.

(to ripe-388):

7. Assignments for Anycasting TLD Nameservers

If the TLD operator is not an LIR, the prefix is assigned after a contractual relationship is realised between the RIPE NCC and the TLD operator. If this contract is terminated, the prefix must be returned to the RIPE NCC.

(to ripe-389):

1.7 Requesting an AS Number

Before an AS Number can be assigned to an End User, a contractual relationship between this End User and the RIPE NCC must be established. If this contract is terminated, the AS Number assigned must be returned to the RIPE NCC.

Rationale:

a. Arguments supporting the proposal

Requirement for Contractual Relationship

Currently, End Users receive direct assignments from the RIPE NCC via a request sent by an existing LIR. The resources allocated or assigned can be an ASN, an IPv4 PI prefix, an IPv6 IXP prefix or a prefix for an anycasting assignment. While an End User may or may not have a contract with the LIR sending the request to the RIPE NCC on behalf of the End User, the RIPE NCC itself does not have a contract with that End User.

The absence of a contract between the End User and the RIPE NCC is

not an ideal situation for several reasons:

1. The link between the RIPE NCC and the End User is broken when the End User moves from the LIR that requested the resources on behalf of the End User to another provider. This results in the RIPE NCC losing contact with the resources.
2. Such a situation creates a potential environment for resource hijacking to occur.
3. The process of reclaiming any resource is almost impossible without the existence of a contract between the RIPE NCC and the resource holder (in this case, the End User). In the near future, as IPv4 exhaustion progresses, reclamation of resources will be more important than it is currently.
4. All other receivers of resources are LIRs and have a contract with the RIPE NCC. End Users receive Internet number resources like the LIRs do from the RIPE NCC. Therefore, the End User should also be obliged to enter into an equivalent contract to avoid creating an unfair alternative for receiving resources. Some ISPs prefer to receive the Internet resources as an End User rather than becoming an LIR even though they provide services to their own customers and therefore sub-assign the address space assigned by the RIPE NCC. Such End User ISPs often receive several separate PI prefixes as this can be a cheaper alternative for them. This is also not good for overall aggregation.

If an End User uses address space from an LIR allocation, which is Provider Aggregatable (PA) address space, and decides to end the relationship with this LIR, the End User will normally need to return the address space to the LIR as their contract is no longer valid. When the RIPE NCC makes direct assignments of PI, ASN, IPv6 IXP and anycasting assignments to the End User, the RIPE NCC is the provider of the address space but no contract exists. However, a contract is necessary to promote responsible stewardship of Internet resources.

This proposal does not discuss any particular details of the contract that should be set up between the End User and the RIPE NCC. The RIPE NCC Executive Board will decide on the details of this contract. This proposal only suggests that the End Users that require direct assignments from the RIPE NCC should have a contractual relationship with the RIPE NCC and that if this contract is terminated, the resources must be returned to the RIPE NCC.

Overall, the proposal's intention is to make sure that the RIPE NCC, as the provider of PI, ASN, IPv6, IXP and anycasting assignments to the End Users, can confirm that the End User exists and continues to exist. This can be ensured by the presence of a contract between the End

User and the RIPE NCC.

Sub-assignment Clarification

Provider Independent (PI) Address space is assigned directly by the RIPE NCC for use in an End User's networks. It is not appropriate for such address space to contain any further hierarchy. Note that the current policy already mentions the following in regard to this:

"The creation of an inetnum object with a status of "ASSIGNED PA" or "ASSIGNED PI" is only possible if there is no less specific or more specific inetnum object with an "ASSIGNED" status."

This proposal states that this policy should be made more explicit and clearer in the policy document by adding: "PI address space cannot be re-assigned or further assigned to other parties." This clarification will help the non-hierarchical aspect of PI address space to be understood more clearly.

b. Arguments opposing the proposal

Some LIRs may believe that this proposal might affect their own agreements with End Users. Note that the proposal's intention is not to define such local contracts.