Organisation-LIR Clarification in IPv6 Policy

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Summary of Proposal

- This proposal aims to clarify the wording used in RIPE-699 regarding terms such as "organisation" and "LIR".

- The proposed text aligns the IPv6 policy with the IPv4 policy, which seems to have been the intent when the current IPv6 policy text was originally written.

- This means that an organisation, defined as a legal entity that can have several LIRs, will be able to receive IPv6 allocations per LIR, not per "organisation".

- The proposal also clarifies that it is against the policy for an LIR to repeatedly request and transfer IPv6 allocations (i.e. request an allocation and transfer it, request another and transfer it, and so on).

Proposed Changes (1)

5.1.1. Initial allocation criteria

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

  a) ~~be an LIR;~~

  b) have a plan for making sub-allocations to other organisations and/or End Site assignments within two years.

5.1.1. Initial allocation criteria for LIRs

To qualify for an initial allocation of IPv6 address space, an LIR must have a plan for making sub-allocations to other organisations and/or End Site assignments within two years.

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Proposed Changes (2)

5.1.2. Initial allocation size

~~Organisations~~ that meet the initial allocation criteria are eligible to receive an initial allocation of /32. For allocations up to /29 no additional documentation is necessary.

~~Organisations~~ may qualify for an initial allocation greater than /29 by submitting documentation that reasonably justifies the request. If so, the allocation size will be based on the number of users, the extent of the ~~organisation's~~ infrastructure, the hierarchical and geographical structuring of the ~~organisation~~, the segmentation of infrastructure for security and the planned longevity of the allocation.

5.1.2. Initial allocation size

LIRs that meet the initial allocation criteria are eligible to receive an initial allocation of /32 up to /29 without needing to supply any additional documentation.

LIRs may qualify for an initial allocation greater than /29 by submitting documentation that reasonably justifies the request. If so, the allocation size will be based on the number of users, the extent of the LIR infrastructure, the hierarchical and geographical structuring of the LIR, the segmentation of infrastructure for security and the planned longevity of the allocation.

Proposed Changes (3)

5.2. Subsequent allocation

~~Organisations~~ that ~~hold~~ an existing IPv6 allocation may receive a subsequent allocation in accordance with the following policies.

5.2.1. Subsequent allocation criteria

Subsequent allocation will be provided when an ~~organization (i.e. ISP/LIR)~~:

…

5.2. Subsequent allocation

LIRs that have received an IPv6 allocation may receive a subsequent allocation in accordance with the following policies.

5.2.1. Subsequent allocation criteria

Subsequent allocation will be provided when an LIR:

…

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Proposed Changes (4)

5.2.3. Subsequent allocation size

When an ~~organisation~~ meets the subsequent allocation criteria, it is immediately eligible to obtain an additional allocation that results in a doubling of the address space allocated to it. Where possible, the allocation will be made from an adjacent address block, meaning that its existing allocation is extended by one bit to the left.

If an ~~organisation~~ needs more address space, it must provide documentation justifying its new requirements, as described in section 5.1.2. The allocation made will be based on the relevant documentation.

5.2.3. Subsequent allocation size

When an LIR meets the subsequent allocation criteria, it is immediately eligible to obtain an additional allocation that results in a doubling of the address space allocated to it. Where possible, the allocation will be made from an adjacent address block, meaning that its existing allocation is extended by one bit to the left.

If an LIR needs more address space, it must provide documentation justifying its new requirements, as described in section 5.1.2. The allocation made will be based on the relevant documentation.

Proposed Changes (5)

5.3. LIR-to-ISP allocation

There is no specific policy for an ~~organisation~~ (LIR) ...

5.4.3. Assignment to operator's infrastructure

An ~~organisation (i.e. ISP/LIR)~~ ...

5.5 Registration

When an ~~organisation~~ ...

5.3.LIR-to-ISPallocation

There is no specific policy for an LIR ...

5.4.3. Assignment to operator's infrastructure

An LIR ...

5.5 Registration

When an LIR …

Proposed Changes (6)

5.6. Reverse lookup

When an RIR/NIR delegates IPv6 address space to an ~~organisation~~, it also delegates the responsibility to manage the reverse lookup zone that corresponds to the allocated IPv6 address space. Each ~~organisation~~ should properly manage its reverse lookup zone. When making an address assignment, the ~~organisation~~ must delegate to an assignee organisation, upon request, the responsibility to manage the reverse lookup zone that corresponds to the assigned address.

5.6. Reverse lookup

When an RIR/NIR delegates IPv6 address space to an LIR, it also delegates the responsibility to manage the reverse lookup zone that corresponds to the allocated IPv6 address space. Each LIR should properly manage its reverse lookup zone. When making an address assignment, the LIR must delegate to an assignee organisation, upon request, the responsibility to manage the reverse lookup zone that corresponds to the assigned address.

Rationale (1)

a. Arguments Supporting the Proposal

This proposal will simplify the RIPE NCC's process for evaluating IPv6 requests when a legal entity has multiple LIRs, and it will make life easier for LIRs.

We don't ask LIRs to return their IPv4 space when they want to merge LIRs or evaluate their usage – so why should we require this for IPv6? Allowing resource requests and LIR mergers to be the same for IPv4 and IPv6 will make things a lot easier.

Even worse is that LIRs may have their IP space in use and be forced to migrate or renumber because they might not be allowed to merge LIRs without returning their second IPv6 prefix.

An LIR should be able to receive a /22 of IPv4 (currently) and a /29 of IPv6. Merging LIRs at a later stage should not be a reason to reclaim already-allocated prefixes.

Rationale (2)

b. Arguments Opposing the Proposal

It could be argued that this proposal might consume the RIPE NCC's IPv6 pool faster, but this will only happen if there is repetitive abuse from legal entities with multiple LIRs. However, this has not been the case with AS Numbers which follow a similar policy.

In the event that abuse is detected by the RIPE NCC, it can be reported to the community to review the policy again in the future.