ARIN 51
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Policy Implementation and Experience Report

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Policies Reviewed

- **4.2** ("Allocations to ISPs") and **4.3** ("Assignments to End-users")
- **6.5.2** ("Initial Allocation to LIRs") and **6.5.8** ("Direct Assignments from ARIN to End-user Organizations")
- **8.3** ("Transfers Between Specified Recipients Within the ARIN Region") and **8.4** ("Inter-RIR Transfers to Specified Recipients")
- **8.5.6** ("Efficient Utilization of Previous Blocks")

NRPM 4.2 (ISPs) and 4.3 (End-users)

- Number Resource Policy Manual (NRPM) Sections **4.2** (ISPs) and **4.3** (End-users) establish the requirements to get IPv4 addresses from the IPv4 Waiting List
- Separate policies made sense in the past
  - Internet Service Providers (ISPs) received space based on demonstrated customer growth
  - End-users received space based on immediate equipment numbering

Policy Similarities

- Both can automatically qualify the minimum block size of a /24
- Both have a maximum /22 from the IPv4 Waiting List
- Both require 50% projected utilization within 24 months
- Both require existing allocations to have 80% overall utilization and 50% of each block to receive additional addresses

Policy Differences

ISPs are required to create reassignment records for static reassignments of /29 or more to their downstream customers

Question for the community

Given the minor differences, does it make sense to consolidate 4.2 and 4.3 into a single IPv4 policy?

NRPM 6.5.2 (ISPs) and 6.5.8 (End-users)

6.5.2 ("Initial Allocation to LIRs") and **6.5.8** ("Direct Assignments from ARIN to End-user Organizations") establish the requirements for IPv6 addresses

Policy Similarities

- Both can get an initial IPv6 block by being able to qualify for IPv4
- Current policy allows everyone to qualify for an initial IPv4 /24
- That means everyone qualifies for an initial IPv6 block

Policy Differences

An End-user qualifies for a subsequent allocation when their total utilization exceeds 75% across all of their IPv6 allocations

Policy Differences

An ISP qualifies for a subsequent allocation if they meet any of the following criteria:

- Shows utilization of 75% or more of their total IPv6 address space
- Shows utilization of more than 90% of any serving site
- Has allocated more than 90% of their total address space to serving sites, with the block size allocated to each serving site being justified based on the criteria specified in section 6.5.2

Policy Differences

The smallest IPv6 block size that can be issued to an End-user is an IPv6 /48. The smallest for an ISP is an IPv6 /40

Question for the community

Given the minor differences, does it make sense to consolidate 6.5.2 and 6.5.8 into a single IPv6 policy?

8.3 Specified Recipient and 8.4 Inter-RIR

Both policies state:

"With the exception of M&A transfers under section 8.2, the source entity must not have received a transfer, allocation, or assignment from ARIN for the past 12 months."

Items for consideration

If an organization received an IPv4 block or Autonomous System Number via an 8.3/8.4 transfer, and then wishes to transfer resources out as a Source, they will have:

- Qualified to receive the resource transfer
- Paid ARIN the Transfer Processing Fee
- Paid the Source organization and/or Facilitator
- Agreed to pay the Source Transfer Request Fee

Related Policies

- Address space distributed from the IPv4 Waiting List will not be eligible for transfer, except Section 8.2 transfers, for a period of 60 months
- Address resources from a reserved pool (including those designated in Section 4.4 and 4.10) are not eligible for transfer

Question for the community

Is there still rationale for a 12-month waiting period before transfer?

8.5.6 ("Efficient Utilization of Previous Blocks")

- Organizations with direct assignments or allocations from ARIN must have efficiently utilized at least 50% of their cumulative IPv4 address blocks in order to receive additional IPv4 addresses [via need-based transfer]

Policy History

- Before February 2017, transfers used the existing IPv4 policy requirement (80% overall, 50% of each block)
- Policy 2016-5 (implemented 21 February 2017) deprecated the requirement for 50% utilization for each block, and lowered the overall utilization requirement from 80% to 50%

Issues Created

- An organization at the 4X-Large level can have a /8 or more unused and still qualify for more
- This greatly impacts the transfer market
  - Smaller organizations with an immediate need for IPv4 are competing with large organizations that may not have an immediate need
  - More competition equals higher prices

Questions for the community

- Is this a feature or a bug?
- If it is a bug, what's the fix?
  - Raise the utilization percentage?
  - Tier the utilization percentage to increase as an organization's aggregate holdings increases?

Thank You