Policy Implementation and Experience Report

John Sweeting
Chief Experience Officer

ARIN 56
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Policies Reviewed

- 4.10. Dedicated IPv4 Allocation to Facilitate IPv6 Deployment
- 4.2.2 Initial Allocation to ISPs and 4.3.2 Minimum Assignment
- Inter-RIR Transfer Policies

4.10. Dedicated IPv4 Allocation to Facilitate IPv6 Deployment

Policy Topic

4.10. Dedicated IPv4 Allocation to Facilitate IPv6 Deployment

- Allocations and assignments from this block must be justified by immediate IPv6 deployment requirements. Examples of such needs include: IPv4 addresses for key dual stack DNS servers, and NAT-PT or NAT464 translators. ARIN staff will use their discretion when evaluating justifications.

Current Staff Practice and Experience

- Staff ensures the requester has IPv6 allocated, reassigned, or reallocated to their Organization Identifier (Org ID).
- An organization will be approved if they hold IPv6 in their organizational account and meet the other policy requirements.
  - Current approval practices includes direct allocations, reallocations, and reassignments
- If customer has an IPv6 direct allocation from ARIN and returns the IPv6 block, ARIN will reclaim the 4.10 IPv4 address block.

Current Staff Practice and Experience Cont'd

- If a customer has an IPv6 reallocation/reassignment, ARIN has no way of knowing if that IPv6 space is removed from their account.
- On several occasions, ARIN has observed organizations with 4.10 space that no longer have their reallocations/ reassignments of IPv6 space.
- On these occasions, ARIN must initiate a Section 12 audit for investigating non-compliance with ARIN 4.10 policy.
    - Section 12 audits are resource intensive.

Questions for the Community

1. Is current practice consistent with the intent of the policy?

2. Should staff continue to issue 4.10 space to organizations that only have a reassignment or reallocation of IPv6?

3. Should the policy be updated to provide greater clarity for the community?

    1. Specify type of allocation

    2. Requirement to maintain IPv6 in the organizational account

4.2.2 Initial Allocation to ISPs
4.3.2 Minimum Assignment

Policy Topic

4.2.2 Initial Allocation to ISPs

- All ISP organizations without any IPv4 addresses from ARIN automatically qualify for an initial allocation of a /24.
- ISPs providing a 24-month utilization plan for the request size specified may receive up to a /22.

4.3.2 Minimum Assignment

- ARIN's minimum assignment for end-user organizations is a /24.
- End-user organizations without an IPv4 allocation from ARIN qualify for an initial allocation of ARIN's minimum allocation size.

Current Staff Practice and Experience

Current policy language allows for a /24 allocations for organizations with no direct allocations from ARIN.

- Policy does not state in-region use only.
- Current policy language has been broadly interpreted as allowing any organization to qualify.

Section 9 states that an organization must be using at least a /22 within the ARIN region prior to acquiring space for out of region-use.

Staff Observations and Suggestions

- To address the observed lack of clarity regarding in-region use in sections 4.2.2 and 4.3.2, staff suggests that the community may wish to explicitly write this requirement into these policies to ensure understanding of out-of-region IPv4 address use.

- Suggested policy clarification for community consideration:
  - "All organizations in the ARIN region not holding direct allocations of IPv4 addresses automatically qualify for an initial allocation of a /24, which must be used within the ARIN region."

Additional Review Items

Inter-RIR Transfers Policies

Are Inter-RIR Transfer Policies Working as Intended?

- Inter-RIR transfers were created to support efficient IPv4 resource movement between regions.
- Over time, regional policy differences have influenced how and where transfers occur.
- Current data shows uneven transfer activity between RIRs.
- If the community feels these outcomes may not reflect the intended policy goals, further review of inter-RIR transfer data may help clarify whether adjustments are needed.
- Review of transfer trends to and from all RIRs can help clarify the picture.

Inter-RIR Transfer Data (/24s)

Year	ARIN to RIPE NCC	RIPE NCC to ARIN	ARIN to APNIC	APNIC to ARIN	ARIN to LACNIC	LACNIC to ARIN
2020	3,317	635	3,541	204	1	54
2021	7,308	598	1,445	250	91	99
2022	25,133	8,530	1,453	3,518	22	56
2023	30,221	7,841	209	597	30	56
2024	30,747	16,293	754	1,657	17	64
2025 YTD	29,600	4,279	3,036	2,483	65*	28*
2020-2025 Total	**126,326**	**38,176**	**10,438**	**8,709**	**226**	**357**

Staff Observations

- A large broker has transferred 1,792 /24s for the purpose of "network operational needs" into the RIPE NCC region. Staff has observed the majority of these are currently being leased.
- Variation in regional policy frameworks (e.g., needs-based approaches, legacy resources).
- Different policies affecting the treatment of leasing or third-party use.
- Possible variances in validation, reporting, and transfer approval processes.
- Market and demand factors affecting IPv4 availability and pricing.

Staff Observations Cont'd

RIR	Needs-Based Test (Recipient)	Policy Stance on Leasing	Key Consequence on Transfers
ARIN	Requires a plan for 50% usage utilization within two years for operational networks or connected customers.	Leases do not qualify as efficient utilization for the purpose of justifying a transfer. Direct allocations are strictly for use on operational networks and/or connected customers.	Transfers must be compatible and reciprocal with ARIN's needs-based policy.
LACNIC	Requires full needs justification (identical to an initial allocation).	Leasing is effectively prohibited.	Transfers are limited based on policies.
APNIC	Requires justification, must demonstrate a detailed plan to use the transferred resources within 24 months.	LIRs must only delegate addresses to customers who will be using those addresses in relation to network connectivity services provided by the LIR.	Recipient RIRS must have a suitable Inter-RIR policy. Transfers are limited based on policies.
RIPE NCC	Requires a plan for 50% usage utilization within five years.	RIPE has permissive policies, including a temporary transfer policy explicitly intended to facilitate leasing.	Attracts inbound transfers/leasing activity due to highly flexible resource management rules.

Questions for the Community

1. Does current inter-RIR transfer activity and volume align with the community's intended policy outcomes?
2. Is ARIN interpreting reciprocal compatible needs-based policies correctly?
3. If not, would additional policy alignment or guidance help improve consistency across regions?
4. Are there areas where further community clarification or input is needed to ensure expectations are clear and applied uniformly?

Questions and Comments?

Thank You

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