

Policy Implementation and Experience Report

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Policies Reviewed

- NRPM 4.1.8. ARIN Waitlist
- NRPM 4.10. Dedicated IPv4 Block to Facilitate IPv6 Deployment
 - NRPM 4.5 Multiple Discrete Networks
- Policy ARIN-2022-2: Remove Barrier to BGP Uptake in ASN Policy
 - NRPM Section 5. AS Numbers

NRPM 4.1.8. ARIN Waitlist



IPv4 Waitlist History



- **1/12/2011**: (ARIN-2010-1) Implemented initial waitlist policy; no restrictions on block size or the quantity of IPv4 addresses an organization already possessed.
- **2/7/2019**: Board suspended due to issues identified with large blocks ($>/17$) being transferred after holding for the minimum one-year requirement.
- **7/10/2019**: (ARIN-2019-16) Implemented, instituting a cap at $/22$ and restricting allocations to organizations holding no more than an equivalent of a $/20$ block and a 60-month holding period on transfers.

Current IPv4 Waitlist Status



- At present, we are receiving approximately 150 requests every quarter, with 30-50 requests typically being fulfilled.
- As of 11 October 2023, there are 705 pending requests.
- A new request added today is anticipated to face an extensive (>three years) waiting period.
- Is it time to adjust the policy?

IPv4 Waitlist Models



	If /23 minimum		If /24 minimum		
	/22 minimum (current)	Additional Count	Additional %	Additional Count	Additional %
2023 Q3	29	41	41%	72	148%
2023 Q2	63	101	60%	177	181%
2023 Q1	136	200	47%	343	152%
2022 Q4	40	63	58%	111	178%
Totals	268	405	51%	703	162%

- Last four quarters, we allocated IPv4 waitlist resources to **268** orgs.
- /23 maximum results in a **33%** reduction in wait time, **51%** more requests filled.
- /24 maximum results in a **62%** reduction in wait time, **162%** more requests filled.

Options for Community Discussion



Lower maximum size to reduce wait time:

- /23: Reduces wait time by approximately 33%.
- /24: Reduces wait time by approximately 62%.

Lower maximum holdings to further reduce wait time:

- /21: Approximately 8% of applicants would become ineligible.
- /22: Approximately 13% of applicants would become ineligible.
- /23: Approximately 20% of applicants would become ineligible.
- /24: Approximately 25% of applicants would become ineligible.

Further Discussion Points



- What is the purpose of the waitlist policy? Is it the same as the IPv6 Transition space policy, or does it serve some other purpose?
- If it is the same purpose as the IPv6 transition space policy, should the two be merged? (or aligned with a requirement for waitlist space only for organizations that have IPv6 and plans to deploy it)
- If it is a different purpose (such as providing IPv4 entry for new organizations), then should it be limited to maximize that purpose? (e.g., one /24 per organization and a one-time opportunity)

Questions for the community



- Should the waitlist policy be modified to either decrease wait time or adjust applicant eligibility?
- Should the waitlist policy be merged with the IPv6 transition policy?

NRPM 4.10. Dedicated IPv4 Block to Facilitate IPv6 Deployment

NRPM 4.5 Multiple Discrete Networks



Policy Clarification



- A growing number of organizations are requesting multiple /24s from the 4.10 reserve pool to provide services in geographically distanced data centers, invoking multiple discrete networks under section 4.5.
- ARIN staff has been using their discretion in accordance with the policy to deny these additional requests for 4.10 space, due to not having 'compelling criteria'.

NRPM 4.5 Multiple Discrete Networks



An organization must provide compelling criteria to justify the creation of discrete networks. Examples of such networks may be driven by:

- Regulatory restrictions on data transmission
- Significant geographic distance or diversity between networks
- The existence of autonomous, multi-homed discrete networks

Approval & Review Procedures



- Due to the volume and complexity of additional requests citing NRPM Section 4.5, the requests are referred to the Chief Customer Officer for review.
- These additional requests are typically declined because they are determined to not meet criteria for Multiple Discrete Networks.
- They simply geographically deployed servers.

Questions for the community



- Is a policy clarification necessary or is ARIN is making the correct decision for these type of requests?
- If clarification is needed, how should the definition of multiple discrete networks in section 4.5 be improved?
- Should there be a maximum number of /24s available under 4.10?

Implemented Policy ARIN-2022-2: Remove Barrier to BGP Uptake in ASN Policy NRPM Section 5. AS Numbers



Autonomous System Number (ASN) Policy



- ARIN-2022-2 was adopted by the Board on 18 July 2023, and implemented 13 September 2023
- Establishes single-ASN issuance as the standard procedure and no justification for an initial ASN
- This change has made it considerably easier for customers to receive an initial ASN

Thank You



Questions or Comments?