



# Draft Policy ARIN-2026-2

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NRPM Section 6.5 Revision

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# Problem Statement

## Current Text (4 May 2026)

Current NRPM Section 6.5 contains allocation mechanisms that are complex and formula driven. These mechanisms include rigid sizing calculations, utilization-based thresholds, and IPv4-dependent qualification criteria.

IPv6 deployment is based on hierarchical planning, aggregation, and projected growth.

ARIN's IPv6 network planning guide emphasizes structured planning instead of mathematical formulas, including the use of hierarchical addressing, aggregation, and multi-year growth projections.

The current policy is complex, is difficult for applicants to interpret consistently and does not align with ARIN's published guidance.

# Policy Statement



Modify NRPM Section 6.5 (IPv6 Allocations) to simplify allocation criteria and align policy with IPv6 network planning practices.

The revised policy replaces formula-based and utilization-based allocation mechanisms with a planning-based evaluation model.

# Policy Statement



## Under this model:

Eligibility is based on demonstrated operational requirements for IPv6 address space, including service provider operations, multihoming, and internal infrastructure needs

All requests must include a network plan describing intended addressing use, hierarchical structure, and projected growth over defined time horizons

Allocation sizes are determined based on the documented network plan and need for aggregation and contiguous growth

Subsequent allocations are based on demonstrated implementation consistent with prior plans and updated growth projections

End-user allocations and LIR allocations are evaluated using consistent planning-based criteria appropriate to their operational context Section 6.5: IPv6 Allocations

# Policy Statement Continued



## 6.5 Policies for IPv6 Address Space

IPv6 address space is issued to support scalable, hierarchical network design, efficient aggregation, and long-term operational requirements.

IPv6 policy emphasizes minimizing fragmentation of the global routing table and supporting structured network growth.

# Policy Statement Continued



## 6.5.1 Eligibility

An organization is eligible to receive IPv6 address space if it meets one or more of the following criteria:

- a) It operates as a Local Internet Registry (LIR) or intends to make reallocations to downstream networks or customers; or
- b) It operates infrastructure or internal networks that require provider-independent IPv6 address space to meet operational or architectural requirements.

# Policy Statement Continued



## 6.5.2 Network Plan Requirements

Requests for IPv6 address space must include a documented network plan. Consistent with IPv6 network planning best practices, the plan must:

- a) Identify typical assignment sizes for your remote sites or customers (e.g., /48, /56, or /64);
- b) Describe the addressing hierarchy and logical structure of the network;
- c) Provide projected utilization of addressing units at approximately 1-year, 2-year, and 5-year intervals.

# Policy Statement Continued



## 6.5.3 Initial Allocation to LIRs

An organization acting as a Local Internet Registry (LIR) may receive an initial IPv6 allocation when it demonstrates a requirement to make assignments or reallocations to downstream networks or customers.

Initial allocation requests must include a network plan that:

- a) Identifies the intended customer or downstream assignment model, including typical prefix sizes;
- b) Describes how address space will be distributed across the network to support aggregation;
- c) Provides projected growth in the number of assignments or sites over approximately 1-year, 2-year, and 5-year intervals.

# Policy Statement Continued



In evaluating initial allocation requests, ARIN will consider:

- i. The anticipated number and type of downstream assignments;
- ii. The need to support hierarchical addressing and route aggregation;
- iii. The ability to accommodate growth through contiguous address space.

Initial allocations will be issued at sizes sufficient to support the documented plan and allow for efficient expansion. Assignments will be no smaller than a /48, unless the documented network plan justifies a different size.

# Policy Statement Continued



## 6.5.4 Subsequent Requests

To ensure scalable growth while maintaining registry integrity, additional IPv6 address space may be granted when an organization demonstrates:

- a) The organization has assigned or reallocated at least 75% of the prefix units defined in its current 2-year network plan;
- b) Documented evidence that the address space has been deployed according to the hierarchical structure previously submitted, or a technical justification for architectural changes;
- c) A revised network plan showing projected requirements for additional prefix units over a new 5-year horizon;
- d) The request supports the continued aggregation of prefixes. To minimize global routing table growth, ARIN will—whenever possible—issue additional space contiguously by extending the organization's existing allocation.

# Policy Statement Continued



## 6.5.5 Deployment Timeline

Organizations are expected to begin using issued IPv6 address space within 12 months of issuance.

# Policy Statement Continued



## 6.5.6 End-User Allocations (Provider-Independent)

End-user organizations may receive provider-independent (PI) IPv6 address space when they demonstrate a need for stable, non-provider-dependent addressing for internal infrastructure or operational continuity.

Requests must include a documented network plan that:

- a) Identifies the number of sites and associated addressing requirements;
- b) Describes the internal addressing structure, including segmentation of infrastructure, services, and end systems;
- c) Supports hierarchical addressing and aggregation within the organization;
- d) Includes projected growth in addressing requirements over approximately 1-year, 2-year, and 5-year intervals.

# Policy Statement Continued



Initial allocations will be issued on nibble boundaries and will be based on the organization's network plan and projected growth.

In evaluating requests, ARIN will consider:

- i. The number and type of sites or operational units;
- ii. The need to support internal hierarchy and segmentation;
- iii. The ability to accommodate growth without renumbering.

Allocations will be issued at sizes sufficient to support the documented plan and allow for efficient expansion.

# Policy Statement Continued



## 6.5.7 Registration (Whois/RDAP)

Organizations must maintain records sufficient to document their use of IPv6 address space.

Reassignments or reallocations to external entities of a /64 or larger must be registered in ARIN's directory services, in accordance with applicable requirements.

# History

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| Action       | Date         |
|--------------|--------------|
| Proposal     | 4 May 2026   |
| Draft Policy | 24 June 2026 |

## Policy Impact

The policy will generally simplify the rules for IPv6 allocation. Rather than a rigid, formula-based results, organizations will share network plans as the basis for justifying their requested IPv6 allocation.

Network plans include:

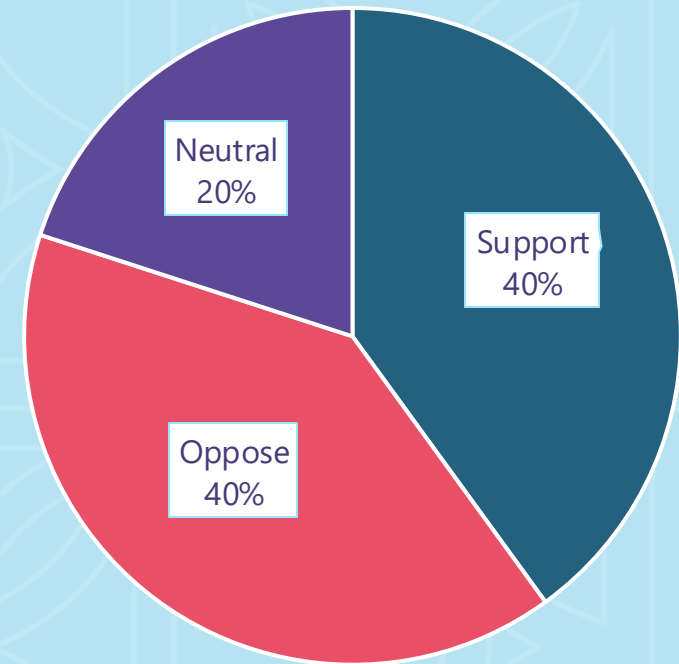
- Typical IPv6 subnet assignment size
- Network hierarchy and structure
- Projected utilization at 1, 2, and 5-year intervals

# Community Feedback

## Summary of survey results:

- Mix of support and opposition
- General support for rewrite of 6.5
- Uncertainty of whether requiring Network Plans is the right approach
- ARIN may need to define the Network Plan and offer guidance
- Policy might suggest prefix units for various ISP customer types

Do you support this policy in principle?



## Questions for the Community

Does the proposed text address all essential elements of IPv6 allocation policy?

Do you want ARIN to require Network Plans?

Are you in favor of this policy?