RIPE NCC
RIPE NETWORK COORDINATION CENTER

Policy Update

Angela Dall'Ara| RIPE 90 Adress Policy | 14 May 2025

In this Talk

1. RIPE Policy Development since RIPE 89

2. Policy Development in other regions since RIPE 89

3. Policy Documentation Review

RIPE Policy Development since RIPE 89

Current RIPE Policy Proposals

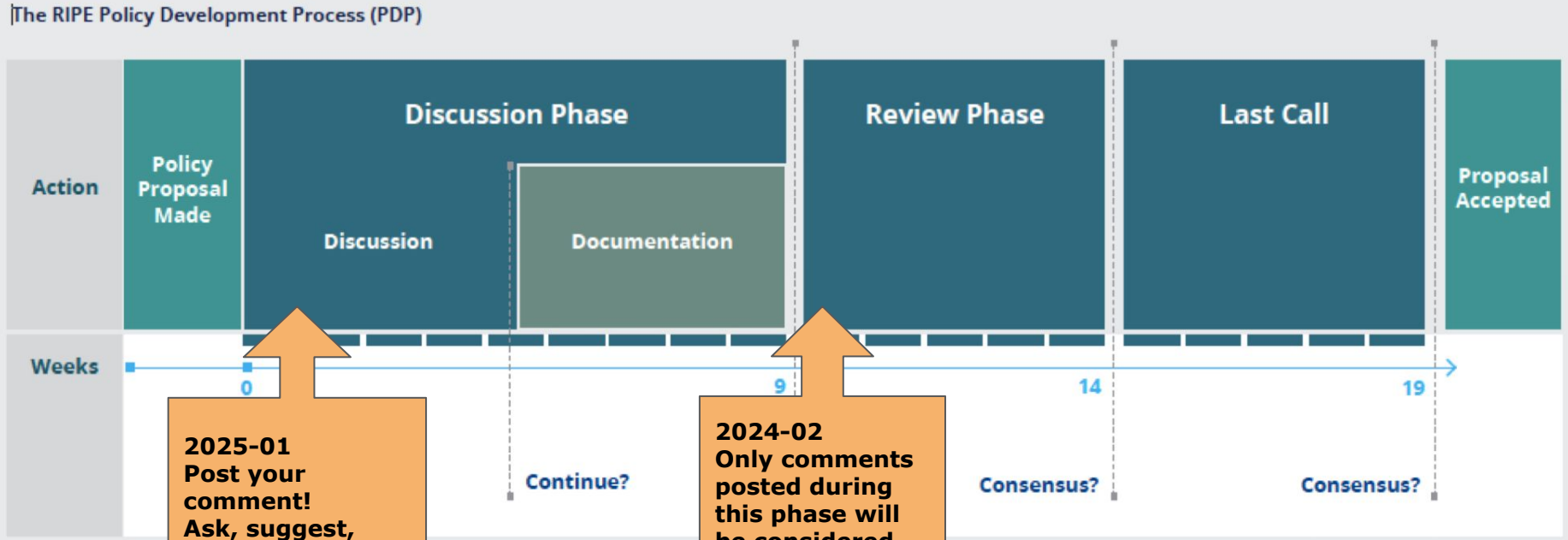
Current policy proposals:
https://www.ripe.net/community/policies/current-proposals/

- **2024-01: Revised IPv6 PI Assignment Policy**
  Awaiting new version.
  Affected Policy Document: ripe-738: IPv6 Address Allocation and Assignment Policy

- **2024-02: IPv6 Initial Allocations /28**
  Review Phase ends 11 June 2025
  Affected Policy Document: ripe-738: IPv6 Address Allocation and Assignment Policy

- **2025-01: ASN assignment criteria revisited**
  Discussion Phase ends 4 June 2025
  Affected Policy Document: ripe-679: Autonomous System (AS) Number Assignment Policies

PDP Timeframe



Policy Development in Other Regions since RIPE 89

Awaiting Implementation

- AFPUB-2019-GEN-006: RPKI ROAs for Unallocated and Unassigned AFRINIC Address Space

Awaiting Ratification

- AFPUB-2020-GEN-006: AFRINIC Number Resources Transfer Policy
- AFPUB-2021-GEN-003: Policy Compliance Dashboard
- AFPUB-2018-GEN-001: Abuse Contact Policy Update

Implemented

- prop-154-v002: Resizing of IPv4 assignment for the IXPs
- prop-156-v002: Assignment of Temporary IP Resources

Implemented

- ARIN-2022-12: Direct Assignment Language Update
- ARIN-2023-7: Clarification of NRPM Sections 4.5 and 6.11 Multiple Discrete Networks
- ARIN-2024-2: Whois Data Requirements Policy for NonPersonal Information
- ARIN-2024-9: Remove Outdated Carveout for Community Networks

Draft Policies Under Advisory Council Evaluation

- ARIN-2023-8: Reduce 4.1.8 Maximum Allocation
- ARIN-2024-5: Rewrite of NRPM Section 4.4 Micro-Allocation
- ARIN-2024-10: Registration Requirements and Timing of Requirements With Retirement of Section 4.2.3.7.2
- ARIN-2024-11: IPv4 Transition Efficiency Reallocation Policy (ITERP)
- ARIN-2025-1: Clarify ISP and LIR Definitions and References to Address Ambiguity in NRPM Text
- ARIN-2025-2: Clarify 8.5.1 Registration Services Agreement
- ARIN-2025-3: Change Section 9 Out Of Region Use Minimum Criteria

Implemented

- LAC-2023-6: Special exception for global critical infrastructure providers
- LAC-2024-4: Log of Allocations from the Pool of IPv4 Addresses Reserved for Critical Infrastructure

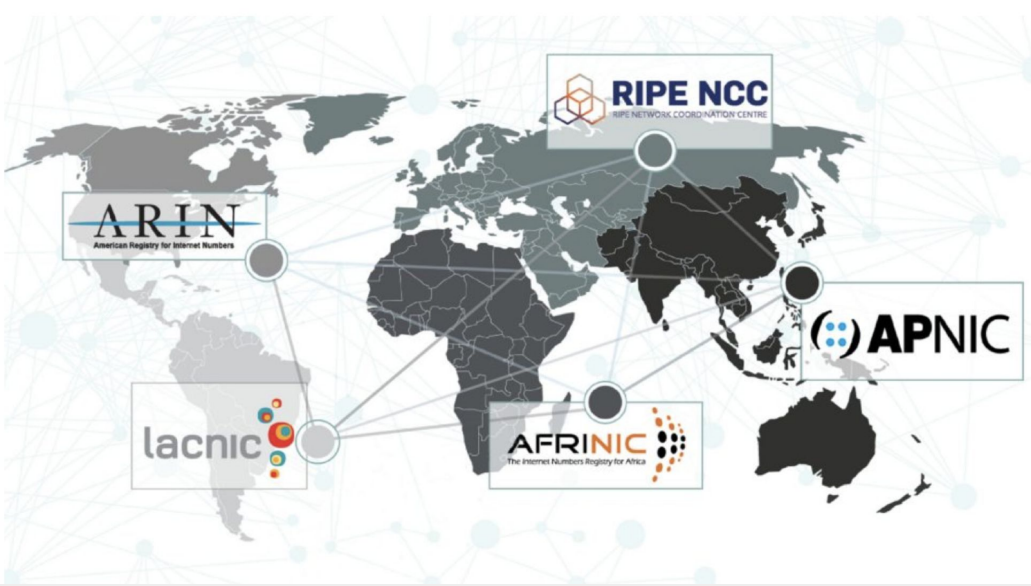
Under Discussion

- LAC-2023-4: Legacy Resources Management
- LAC-2023-7: Temporary Transfers
- LAC-2025-1: Resources Distribution to Natural Persons

Other RIRs' Useful Links

RIR Comparative Policy Overview

https://www.nro.net/policy/regional/rir-comparative-policy-overview/



AFRINIC
https://afrinic.net/policy/proposals
https://afrinic.net/policy/manual

APNIC
https://www.apnic.net/community/policy/proposals
https://www.apnic.net/community/policy/resources

ARIN
https://www.arin.net/participate/policy/drafts/
https://www.arin.net/participate/policy/nrpm/

LACNIC
https://politicas.lacnic.net/politicas/list
https://www.lacnic.net/543/1/lacnic/

RIPE Policy Documentation Review

RIPE Policies - Current Overview

https://www.ripe.net/publications/docs/ripe-policies/

16 Regional Policies + 6 Global Policies (listed by update date)

ripe-826: IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region
ripe-807: RIPE Resource Transfer Policies
ripe-806: Voluntary Transfer Lock
ripe-801: Temporary Internet Number Assignment Policies
ripe-738: IPv6 Address Allocation and Assignment Policy
ripe-731: RIPE NCC IRR Database Non-Authoritative Route Object Clean-up
ripe-705: Abuse Contact Management in the RIPE Database
ripe-679: Autonomous System (AS) Number Assignment Policies
ripe-639: RIPE NCC Services to Legacy Internet Resource Holders
ripe-637: Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region
ripe-636: IPv6 Addresses for Internet Root Servers in the RIPE Region
ripe-635: Allocating/Assigning Resources to the RIPE NCC
ripe-603: Publication of Sponsoring LIR for Independent Resources
ripe-596: Policy for Resource Certification for non-RIPE NCC Members
ripe-581: Policy For Reverse Address Delegation of IPv4 and IPv6 Address Space in the RIPE NCC Service Region
ripe-529: Global Policy for post exhaustion IPv4 allocation mechanisms by the IANA
ripe-497: Global Policy for the Allocation of IPv4 Blocks To Regional Internet Registries
ripe-480: Internet Assigned Numbers Authority (IANA) Policy for Allocation of ASN Blocks to Regional Internet Registries
ripe-451: IPv6 Address Space Policy For Internet Exchange Points
ripe-436: Global Policy For The Allocation Of The Remaining IPv4 Address Space
ripe-376: Assigned Numbers Authority (IANA) Policy For Allocation of IPv6 Blocks To Regional Internet Registries
ripe-344: Internet Assigned Numbers Authority (IANA) Policies For Allocation of IPv4 Blocks to Regional Internet Registries

RIPE Regional Policies per Topic

IPv4
ripe-826: IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region

IPv6*
ripe-738: IPv6 Address Allocation and Assignment Policy
ripe-451: IPv6 Address Space Policy For Internet Exchange Points
ripe-636: IPv6 Addresses for Internet Root Servers in the RIPE Region

ASNs
ripe-679: Autonomous System (AS) Number Assignment Policies

Independent Resources Holders*
ripe-637: Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region
ripe-603: Publication of Sponsoring LIR for Independent Resources

Resources Distribution
ripe-801: Temporary Internet Number Assignment Policies
ripe-635: Allocating/Assigning Resources to the RIPE NCC

Resource Transfers*
ripe-806: Voluntary Transfer Lock
ripe-807: RIPE Resource Transfer Policies

RIPE Database Registration
ripe-731: RIPE NCC IRR Database Non-Authoritative Route Object Clean-up
ripe-705: Abuse Contact Management in the RIPE Database

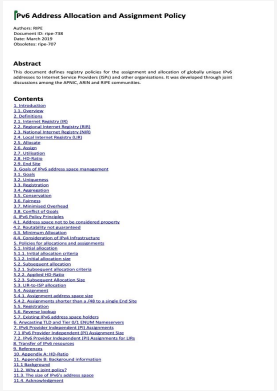
RIPE NCC Services
ripe-581: Policy For Reverse Address Delegation of IPv4 and IPv6 Address Space in the RIPE NCC Service Region
ripe-596: Policy for Resource Certification for non-RIPE NCC Members
ripe-639: RIPE NCC Services to Legacy Internet Resource Holders

***Would you like to consolidate these into a single policy document?**

Example - IPv6

ripe-738: IPv6 Address Allocation and Assignment Policy
ripe-451: IPv6 Address Space Policy For Internet Exchange Points
ripe-636: IPv6 Addresses for Internet Root Servers in the RIPE Region

ripe-738 + ripe-451 + ripe-636 > ripe-???


IPv6 Address Allocation and Assignment Policy

Authors: RIPE
Document ID: ripe-738
Date: March 2018
Obsoletes: ripe-707

Abstract

This document defines registry policies for the assignment and allocation of globally unique IPv6 addresses to Internet Service Providers (ISPs) and other organisations. It was developed through joint discussions among the APNIC, ARIN and RIPE communities.

Contents

1. Introduction
1.1. Overview
2. Definitions
2.1. Internet Registry (IR)
2.2. Regional Internet Registry (RIR)
2.3. National Internet Registry (NIR)
2.4. Local Internet Registry (LIR)
2.5. Utilisation
2.6. Assign
2.7. Utilisation
2.8. Initial Size
2.9. End Site
3. Goals of IPv6 address space management
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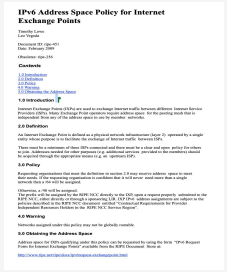
3.2. Uniqueness
3.3. Registration
3.4. Aggregation
3.5. Conservation
3.6. Routability
3.7. Minimized Overhead
3.8. Conflict of Goals
4. IPv6 Policy Principles
4.1. Address space not to be considered property
4.2. Minimum Allocation Unit
4.3. Minimum Allocation
4.4. Consideration of IPv4 Infrastructure
5. IPv6 initial allocations and assignments
5.1. Initial allocation
5.1.1. Initial allocation criteria
5.1.2. Initial allocation size
5.2. Subsequent allocation
5.2.1. Subsequent allocation criteria
5.2.2. Applied HD Ratio
5.2.3. Subsequent Allocation Size
5.3. Multiple Allocations
5.4. Assignment
5.4.1. Assignment address space size
5.4.2. Assignments shorter than a /48 to a single End Site
5.5. Registration
5.6. Reverse Lookup
5.7. Creating IPv6 address space holders
6. Announcing TLD and ToI: 6/4 ENUM Nameservers
7. IPv6 Provider Independent (PI) Assignments
7.1 IPv6 Provider Independent (PI) Assignment Size
7.2. IPv6 Provider Independent (PI) Assignments for LIRs
8. Transfer of IPv6 resources
9. References
10. Appendix A: HD-Ratio
11. Appendix B: Background information
11.1.Background
11.2. Why a /48 policy?
11.3. The size of IPv6's address space
11.5. Acknowledgement


IPv6 Address Space Policy for Internet Exchange Points

Timothy Lynn
Leo Vegoda

Document ID: ripe-451
Date: February 2009

Obsoletes: ripe-256

Contents

1.0 Introduction
2.0 Definition
3.0 Policy
4.0 Warning
5.0 Obtaining the Address Space

1.0 Introduction

Internet Exchange Points (IXPs) are used to exchange Internet traffic between different Internet Service Providers (ISPs). Usually, the IXP will provide a switching service that allows each peering South that is independent from any of the address space it is use by member networks.

2.0 Definition

An Internet Exchange Point is defined as a physical network infrastructure (layer 2) operated by a single entity whose purpose is to facilitate the exchange of Internet traffic between ISPs.

There must be a minimum of three ISPs connected and there must be a clear and open policy for others to join. Addresses needed for other purposes (e.g. additional services provided to the members) should be acquired through the appropriate means (e.g. an upstream ISP).

3.0 Policy

Requesting organisations that meet the definition in section 2.0 may receive address space to meet their needs. If the requesting organisation is confident that it will never need more than a single assignment from the RIPE NCC.

Otherwise, a /48 will be assigned.
The prefix will be assigned by the RIPE NCC directly to the IXP, upon a request properly submitted to the RIPE NCC. The assignment will be registered in the RIPE NCC Database, and is subject to the policies described in the RIPE NCC document entitled "Additional Requirements for Provider Independent Resources Holders in the RIPE NCC Service Region".

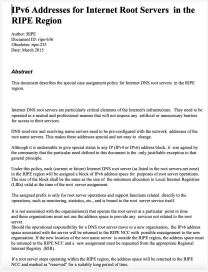
4.0 Warning

Networks assigned under this policy may not be globally routable.

5.0 Obtaining the Address Space

Address space for IXPs qualifying under this policy can be requested by using the form "IPv6 Request Form for Internet Exchange Points" available from the RIPE Document Store at:

http://www.ripe.net/ripe/docs/ipv6request-exchangepoint.html


IPv6 Addresses for Internet Root Servers in the RIPE Region

Author: RIPE
Document ID: ripe-636
Obsoletes: ripe-233
Date: March 2015

Abstract

This document describes the special case assignment policy for Internet DNS root servers in the RIPE region.

Internet DNS root servers are particularly critical elements of the Internet's infrastructure. They need to be operated in a neutral and professional manner that will not impose any artificial or unnecessary barriers for access to their services.

DNS resolvers and resolving name servers need to be pre-configured with the network addresses of the root name servers. This makes those addresses special and not easy to change.

Although it is undesirable to give special status to any IP (IPv4 or IPv6) address block, it was agreed by the community that the particular need defined in this document is the only justifiable exception to that general principle.

Under this policy, each (current or future) Internet DNS root server can listed in the root servers.net zone in the RIPE region will be assigned a block of IPv6 address space for purposes of root server operations. The size of the block shall be the same as the size of the minimum allocation to Local Internet Registries (LIRs) valid at the time of the root server assignment.

The assigned prefix is only for root server operations and support functions related directly to the operation, such as monitoring, statistics, etc., and is bound to the root server service itself.

It is not associated with the organisation(s) that operate the root server at a particular point in time and those organisations must not use the address space to provide any services not related to the root server.

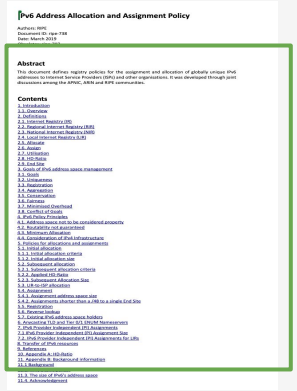
If, when the operational responsibility for a DNS root server moves to a new organisation, the IPv6 address space associated with the server will be returned to the RIPE NCC with possible reassignment to the new organisation. If the new location of the root name server is outside the RIPE region, the address space must be returned to the RIPE NCC and a new assignment must be requested from the appropriate Regional Internet Registry (RIR).

If a root name server operating within the RIPE region, the address space will be returned to the RIPE NCC and marked as "reserved" for a suitably long period of time.

Example - IPv6

ripe-738: IPv6 Address Allocation and Assignment Policy
ripe-451: IPv6 Address Space Policy For Internet Exchange Points
ripe-636: IPv6 Addresses for Internet Root Servers in the RIPE Region

[ripe-738](#)


IPv6 Address Allocation and Assignment Policy

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Contents

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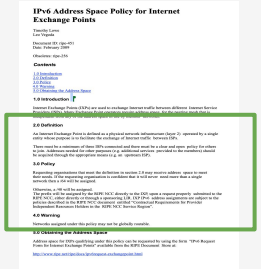
[ripe-451](#)


IPv6 Address Space Policy for Internet Exchange Points

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2.0 Definition

3.0 Policy

4.0 Warning

5.0 Obtaining the Address Space

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[ripe-636](#)

IPv6 Addresses for Internet Root Servers in the RIPE Region

Abstract

This document describes the special case assignment policy for Internet DNS root servers in the RIPE region.

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ripe-???

In the new policy document:

- Would the **Abstract, Introduction** and **Policy Text** from each document be enough?
- Could each document's **Rationale, Attribution and Acknowledgements** be **referenced with a footnote**?
- Could the **Definitions** and **Goals** be published in a separate document?

Questions to the APWG Mailing List on the way forward

Option 1

Should the RIPE community set up a **Task Force** to redact new documents?

Option 2

Should the **RIPE community** propose new documents for discussion in the PDP?

Option 3

Should the **RIPE NCC** propose new documents for discussion in the PDP?

Option 4

Any other idea?

Please share your opinion!

To subscribe:

https://mailman.ripe.net/mailman3/lists/address-policy-wg.ripe.net/

Questions & Comments

pdo@ripe.net