

Draft Policy ARIN-2024-7: Addition of Definitions for General and Special Purpose IP Addresses

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Problem Statement

Current Text (25 June 2024)

The Number Resource Policy Manual (NRPM) often treats general purpose and special purpose IP addresses differently. Unfortunately, we don't have a convenient to use term to describe these categories, so policy often becomes either excessively wordy or does not correctly capture the intent. Examples of this can be found in section 4.1.8 of the NRPM, and in (currently pending) Draft Policies ARIN-2023-8 (where the fact that 4.4 and 4.10 space isn't counted against an organization is repeated numerous times) and ARIN-2022-12 (where the text does not exclude 4.4 and 4.10 allocations from being counted against an organization, but it is the intent that those allocations should be ignored). Additionally, temporary allocations under section 11 are rarely carved out, even when 4.4 and 4.10 are, even though it is likely the policy's intent that these too should be ignored.

Policy Statement

Add the following definitions to Section 2

Special Purpose IPv4 Address - An IPv4 address that the NRPM makes available for specific purposes including maintaining critical Internet infrastructure (Section 4.4), facilitating IPv6 deployment (Section 4.10), or temporarily for experimental purposes as approved by ARIN (Section 11).

General Purpose IPv4 Address - Any IPv4 address issued by ARIN that is not issued solely for the purposes stated under Special Purpose IPv4 Addresses.

Special Purpose IPv6 Address - An IPv6 address that the NRPM makes available for specific purposes such as maintaining critical Internet infrastructure (Section 6.10) or temporarily for experimental purposes as approved by ARIN (Section 11).

General Purpose IPv6 Address - Any IPv6 address issued by ARIN that is not issued solely for the purposes stated under Special Purpose IPv6 Addresses.

Timetable for Implementation: Immediate.



Proposed Changes

Add the following language to Section 2 of the Number Resource Policy Manual:

2.18. Special Purpose IP Addresses

Special Purpose IPv4 Address - An IPv4 address that the NRPM makes available for specific purposes including maintaining critical Internet infrastructure (Section 4.4), facilitating IPv6 deployment (Section 4.10), or temporarily for experimental purposes as approved by ARIN (Section 11).

General Purpose IPv4 Address - Any IPv4 address issued by ARIN that is not issued solely for the purposes stated under Special Purpose IPv4 Addresses.

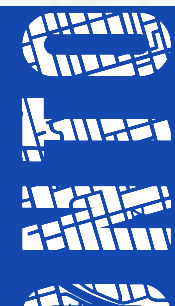
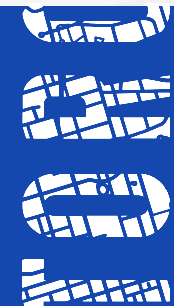
Special Purpose IPv6 Address - An IPv6 address that the NRPM makes available for specific purposes such as maintaining critical Internet infrastructure (Section 6.10) or temporarily for experimental purposes as approved by ARIN (Section 11).

General Purpose IPv6 Address - Any IPv6 address issued by ARIN that is not issued solely for the purposes stated under Special Purpose IPv6 Addresses.



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Action	Date
Proposal	19 April 2024
Draft Policy	25 June 2024



Community Feedback

Feedback has been neutral to against this policy thus far. Based on discussion on the Public Policy Mailing List, at minimum, these definitions require wordsmithing:

- *"To avoid problems or gaming, why not just define special purpose exclusively and exhaustively as the three listed purposes (critical infra, v6 transition, experimental)?" (ARIN PPML)*
- *"Special-Purpose IP addresses are reserved by the IETF, designated by the IETF for specific purposes, and placed in the IANA IPv4 or IPv6 Registry designated by RFC7249. ARIN Policy defining this term differently would be both confusing and inappropriate. Section 4.1.7 refers to the addresses in question as **Reserved Pool Resources**. If a defined term is necessary, this seems the most appropriate. If a different term is chosen, this text must be updated with the new term."*
- *"I like your idea but this could use some wordsmithing...special/general concept has the same meaning in IPv4 and IPv6 so breaking them out separately seems awkward."*



Policy Impact

The intention of this policy is to simplify language in the NRPM as it pertains to IP addresses that are designated for specific usage.

By clarifying the differences between general purpose IP addresses and IP addresses that are allocated for a specific purpose (such as IPv6 deployment or critical infrastructure), the NRPM would be more concise, and the intention of these allocations would be more explicit.



Questions for the Community

- Is "Reserved Pool Addresses" better terminology than "Special Purpose IP Addresses"?
- Are there unforeseen consequences that could arise from adding these definitions to the policy? (Please be specific)
- Is it necessary to define General Purpose IP Addresses as well, or is it clear from defining Special Purpose IP Addresses that any allocations outside of the scope fall into the General Purpose category?
 - Could the separate definitions for IPv4 and IPv6 allocations be combined into a single definition for simplicity and clarity?