

Global Policy for post exhaustion IPv4 allocation mechanisms by the IANA

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Abstract

Upon adoption of this IPv4 address policy by the ICANN Board of Directors, the IANA shall establish a Recovered IPv4 Pool to be utilized post RIR IPv4 exhaustion as defined in Section 1. The Recovered IPv4 Pool will initially contain any fragments that may be left over in the IANA. It will also hold any space returned to the IANA by any other means.

Contents

- 1.0 Recovered IPv4 Pool
- 2.0 Allocation of returned IPv4 address space by the IANA
- 3.0 Reporting
- 4.0 References
- 5.0 Attribution

1.0 Recovered IPv4 Pool

The Recovered IPv4 Pool will be administered by the IANA. It will contain:

1. Any fragments left over in the IANA inventory after the last /8s of IPv4 space are delegated to the RIRs
 - The IANA inventory excludes "Special use IPv4 addresses" as defined in BCP 153 and any addresses allocated by the IANA for experimental use.
2. Any IPv4 space returned to the IANA by any means.

The Recovered IPv4 Pool will stay inactive until the first RIR has less than a total of a /9 in its inventory of IPv4 address space.

When one of the RIRs declares it has less than a total of a /9 in its inventory, the Recovered IPv4 pool will be declared active, and IP addresses from the Recovered IPv4 Pool will be allocated as stated in Section 2.0 below.

2.0 Allocation of returned IPv4 address space by the IANA

1. Allocations from the IANA may begin once the pool is declared active.
2. In each "IPv4 allocation period", each RIR will receive a single "IPv4 allocation unit" from the IANA.

3. An "IPv4 allocation period" is defined as a 6-month period following 1 March or 1 September in each year
4. The IANA will calculate the size of the "IPv4 allocation unit" at the following times:
 - When the Recovered IPv4 Pool is first activated
 - At the beginning of each IPv4 allocation period

To calculate the "IPv4 allocation unit" at these times, the IANA will use the following formula:

IPv4 allocation unit = 1/5 of Recovered IPv4 pool,
rounded down to the next CIDR (power-of-2) boundary.

No RIR may get more than this calculation used to determine the IPv4 allocation unit even when they can justify a need for it.

The minimum "IPv4 allocation unit" size will be a /24. If the calculation used to determine the IPv4 allocation unit results in a block smaller than a /24, the IANA will not distribute any addresses in that IPv4 allocation period.

3.0 Reporting

The IANA may make public announcements of IPv4 address transactions that occur under this policy. The IANA will make appropriate modifications to the "Internet Protocol V4 Address Space" page of the IANA website [1] and may make announcements to its own appropriate announcement lists. The IANA announcements will be limited to which address ranges, the time of allocation, and to which Registry they have been allocated.

4.0 References

[1] "IANA IPv4 Address Space Registry", February 2011
<http://www.iana.org/assignments/ipv4-address-space/ipv4-address-space.xml>

5.0 Attribution

This document is compiled from policies developed by the RIPE community. The following people actively contributed by making proposals through the RIPE Policy Development Process:

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