2011-9 Global Policy for post exhaustion IPv4 allocation mechanisms by the IANA

Advisory Council Shepherds:

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Introduction

- Proposal describes the process that IANA will follow to allocate IPv4 resources to Regional Internet Registries (RIRs) after the central pool of addresses is exhausted

Problem Statement

- IANA has now exhausted its pool of /8 blocks, but has some bits a pieces left

- Also, there is a possibility that IPv4 address will be returned to the IANA

- There is currently no policy for what IANA does with these addresses

What happened to the other Global Policies?

- 2009-3 did not get approved with common text in all three RIRs

  - **We changed to voluntary return of addresses to IANA**

- 2010-10 was abandoned or withdrawn in the other RIRs

Situation in other RIRs

- AfriNIC – Concluded Last Call
- APNIC – Approved
- LACNIC – Approved
- RIPE – Concluded Last Call

Details of the Proposal

- IANA will establish a Recovered IPv4 Pool
    - **It will contain any fragments of IPv4 remaining in the IANA pool and any IPv4 addresses returned to IANA by any means**
        - **(Excluding special use IPv4 addresses)**
- The Recovered IPv4 Pool stays inactive until the first RIR has less than a total of a /9 in its inventory

Details of the Proposal

- Once the pool is active, each RIR will receive one fifth of the Recovered IPv4 Pool (rounded down to nearest CIDR boundary)
  - This will be done every 6 months
  - Smallest allocation to an RIR will be /24

Reporting

- The IANA may make public announcements of IPv4 address transactions that occur under this policy

- The IANA will make appropriate modifications to the "IPv4 Address Space" page of the IANA website and may make announcements to its own appropriate announcement lists

Reporting

- The IANA announcements will be limited to which address ranges, the time of allocation, and to which Registry they have been allocated

Summary of IANA staff impact analysis

- Not clear if this is intended to supersede IETF's right to make IPv4 assignments for "specialised address blocks" per section 4.3 of RFC 2860

- Will replace current procedure for Updating legacy Class A IPv4 allocations

Summary of IANA staff impact analysis

- Allocations will not necessarily be a single block but probably made up of multiple blocks

- Will inflate the size of the IANA IPv4 registry

- Details available at: http://www.ripe.net/ripe/maillists/archives/address-policy-wg/2011/msg00803.html

Implementation Guidance added to Rational

The NRO must clarify that this Global Policy is not intended to supersede the IETF's right to make IPv4 assignments for "specialised address blocks (such as multicast or anycast blocks)" as documented in section 4.3 of RFC 2860.

Implementation Guidance added to Rational

The NRO and IANA should coordinate with the IETF to make such assignments as necessary, and honor any reservations made for works currently in progress.

Other Relevant Information

- APNIC is restoring "Needs Basis" to its transfer policy
  - This eliminates a major objection raised to previous versions of this global policy

Advantages

- Removes two areas of policy that failed to reach consensus across all regions in previous attempts
  - **How to return addresses to Recovered IPv4 Pool**
  - **References to transfers and how they should or should not take place**

Disadvantages

- The proposal does not provide details of how address space may be returned to the IANA IPv4 Recovered Pool
  - But that is what we (the ARIN region) wanted

Questions and Discussion

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