Global policy proposal for the allocation of IPv4 blocks to Regional Internet Registries

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Authors & Disclaimer

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Problem Statement

- Current global policy on IPv4 does not cover reclaimed address space
- RIRs have no mechanism / policy to transfer address space among themselves

Introduction

 This is a Global Policy Proposal to govern allocation from the IANA to the RIRs

 Performance requirements to be defined separately after ratification

Definitions

- Recovered address space
 - Reclaimed space
 - Returned space
 - Excluding freshly reclaimed space after termination of contracts
- IPv4 address holdings
 - <unallocated space> minus <reserved space>

Implementation

- Phase 1: Pre-Depletion
 - IANA sets up "recovered IPv4 pool"
 - Recovery of IPv4 address space by RIRs
 - Return to IANA every 3 months
 - In aggregated blocks of /24 or larger
- Phase 2: Post-Depletion
 - After ratification and announcement of IANA depletion
 - Rescind ASO-001-02
 - Allocation by IANA under this global policy commences

IANA Allocations in Phase 2

- Definition "Allocation Period"
 - 6 months following 1 March & 1 September
- Determination of "IPv4 Allocation Unit"
 - 1/10 of IANA IPv4 address pool, rounded down to the next CIDR (power-of-2) boundary
- Allocation to RIRs
 - One allocation per RIR per allocation period, if RIR is eligible
 - One allocation unit (smallest number of blocks)

Eligibility

- RIR must not yet have received an allocation during the current allocation period
- RIR holdings are less than 50 % of current allocation unit

 New RIRs: One allocation unit on RIR recognition, or asap

Reporting

- IANA keeps
 - Log of returned IPv4 address space
 - Log of allocated IPv4 address space
 - Public registry of all IPv4 address space
- IANA may make public announcements of transactions under this policy

Odds & Ends

- Timeline
 - Implementation immediately after ratification
- Advantages
 - Defines mechanism for distribution of reclaimed address space
- Disadvantages?
- No change to allocation relationships between APNIC and members or NIRs

Status in other RIRs' regions

Proposal will be submitted in all RIRs' regions in order to become global policy according to ASO MoU.

Questions / Discussion