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End Policy for IANA IPv4 allocations to RIRs

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Introduction

- This proposal is intended to avoid confusion at the time of IPv4 address exhaustion by;
 - Defining distribution policy of the last piece of IPv4 address block
 - Keeping the community well informed of the situation

*** Operational issue is out of scope of this presentation**

Issues at the Time of Exhaustion

(From address distribution perspective)

- No clear agreement on handling of the last piece of IPv4
 - For neither IANA nor RIR's IPv4 blocks
- No official information on IPv4 request deadline
 - No official information for LIRs on how long they can receive IPv4 addresses from respective RIRs
- The level of IPv4 and IPv6 internet vary by region, therefore policy requirements for exhaustion differ by region
 - Policy to encourage IPv6 deployment may receive strong support in a region with wide IPv4 deployment
 - A region with rooms for IPv4 development may have stronger needs to for a policy to give priority to new comers to IPv4
 - Etc, etc...

Basic Principles of this proposal

- Ensure all blocks to be used until the last piece
- Separately define IANA -> RIR and RIR ->LIR distribution
- Tolerance of regional policy diversity on distribution of last piece(s) of RIR pool
- Keep community informed when they can receive allocations under the current criteria

Note: We recognize “recovery of IPv4” as an important issue, but would like to treat it as a separate topic

Proposal

1. Distribute the last pieces of IANA pool equally to each RIR
 - Distribute a single /8 to each RIR at the point when new IANA free pool hits 5 */8. This date is defined as "IANA Exhaustion Date“(IED)
2. RIRs should maintain the current address distribution criteria until IED
3. It should be completely left up to each RIR communities to define a regional policy after IED
4. RIRs should provide an official projection of IED
 - through websites, at Policy Meetings and other effective means

How would this help?

- Help define distribution of last pieces of IANA blocks to RIRs
- Allows each RIR community to define the policy which matches the requirements of the region at the time of exhaustion
- LIRs will be informed on how long they can request for IPv4 under the current criteria

Summary

| Issues at the time of exhaustion | Proposal |
|--|--|
| No clear agreement on handling of the last IPv4 | Distribute IANA pool equally (single /8) to each RIR when the remaining pool hits 5*/8 |
| No official information on IPv4 request deadline | Define above date as "IANA Exhaustion Date" |
| | Maintain current criteria until IED |
| | RIRs provide official projection of IED |
| Major Issues vary by region | Diversity of regional policy allowed after IED |

Reference

- Possible Measures after IED for RIR → LIR allocations
 - Give priority to initial allocations
 - Give priority to translators
 - Give priority to those with IPv6 deployment plan
 - Give priority to those with efficient use
 - Explicitly do nothing

