Prop-105:
Distribution of returned IPv4 address (Modification of prop-088)

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Introduction

This policy proposes to define a separate distribution policy for all non-103 IPv4 address blocks in the APNIC pool, to start the distributions once "Global policy for post exhaustion IPv4 allocation mechanisms by the IANA" is activated.

Brief summary of proposal 1/2: Current IPv4 address allocation

- Currently, 'final /8 policy' is applied to allocate IPv4 address.
  - Maximum /22 for one LIR from the reserved /8 for this purpose (103/8)
    - http://www.apnic.net/policy/add-manage-policy#delegations

- The same policy applies for distributions of:
  - returned IPv4 address to APNIC
 - re-allocations to APNIC from IANA

Prop-088

Brief summary of proposal 2/2

- Modify prop-088 to distribute non-103 IPv4 address blocks to APNIC account holders.

- How to distribute:
  - If APNIC account holder, who was allocated an /22 from the final /8 pool, needs an additional IPv4 address block, they are eligible to receive another distribution of IPv4 block.
  - Same policy as the final /8 policy will be applied in terms of the criteria and the size of the distribution given the requestor has utilized a total of /22 block from 103/8.
  - This policy will be effective after allocation of returned IPv4 address blocks from IANA.

Proposal Summary

APNIC IPv4 pool

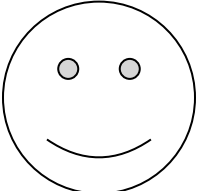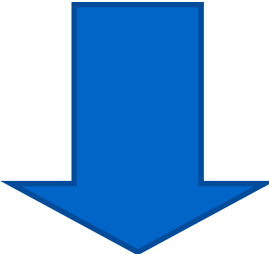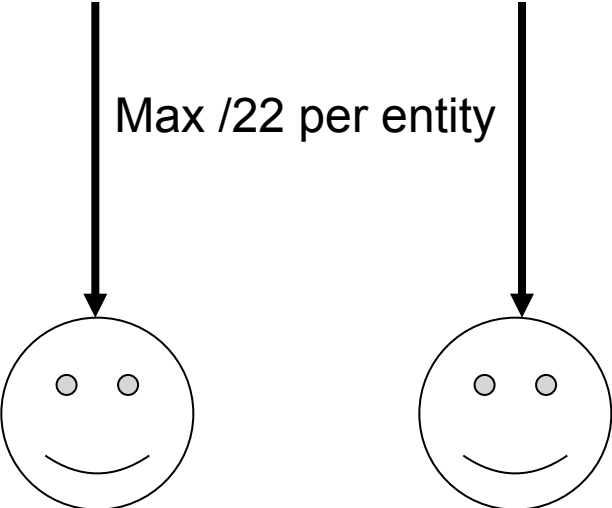| 103/8	IPv4 returned	Re-allocations from IANA
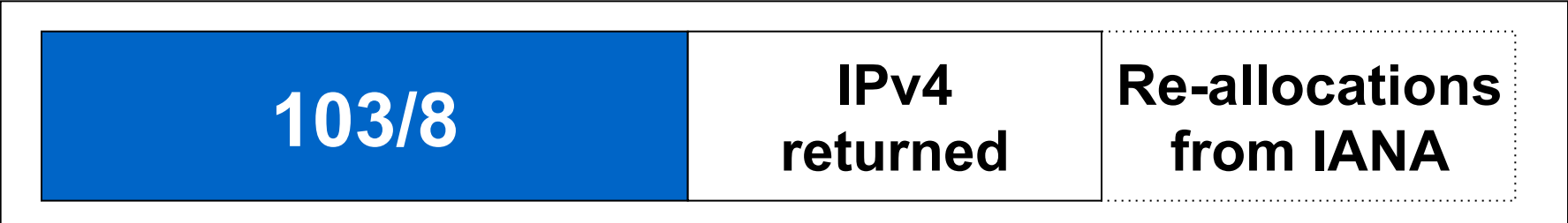
Roughly /8 remaining

Roughly /10+

Max /22 per entity

Max /22 per entity

Distribute to APNIC account holders

Proposal history

- Informational presentation at APNIC 34@Phnom Penh
  - Brought in a survey for need to this policy in Japan community
  - No string objection and support
  - http://conference.apnic.net/34/policy

- Propose as prop-105 at APNIC35@Singapore
  - General consensus of the policy itself, but need more work for distribution size and additional returned block
  - http://conference.apnic.net/35/policy

Modified proposal: distribution address size

- APNIC is expected to receive 3,640,883 from IANA

- APNIC has a pool recovered directly from its account holders, with the total of 60 x /16 (max)*.
  - 14 x /16 can be distributed at this point.

- APNIC is estimated to have:
  - Maximum: 7,573,043 (7,395 x /22)
  - Minimum: 4,558,387 (4,451 x /22)

  - Current APNIC account holders: about 3,800 (about 4,800 if NIR members are included)

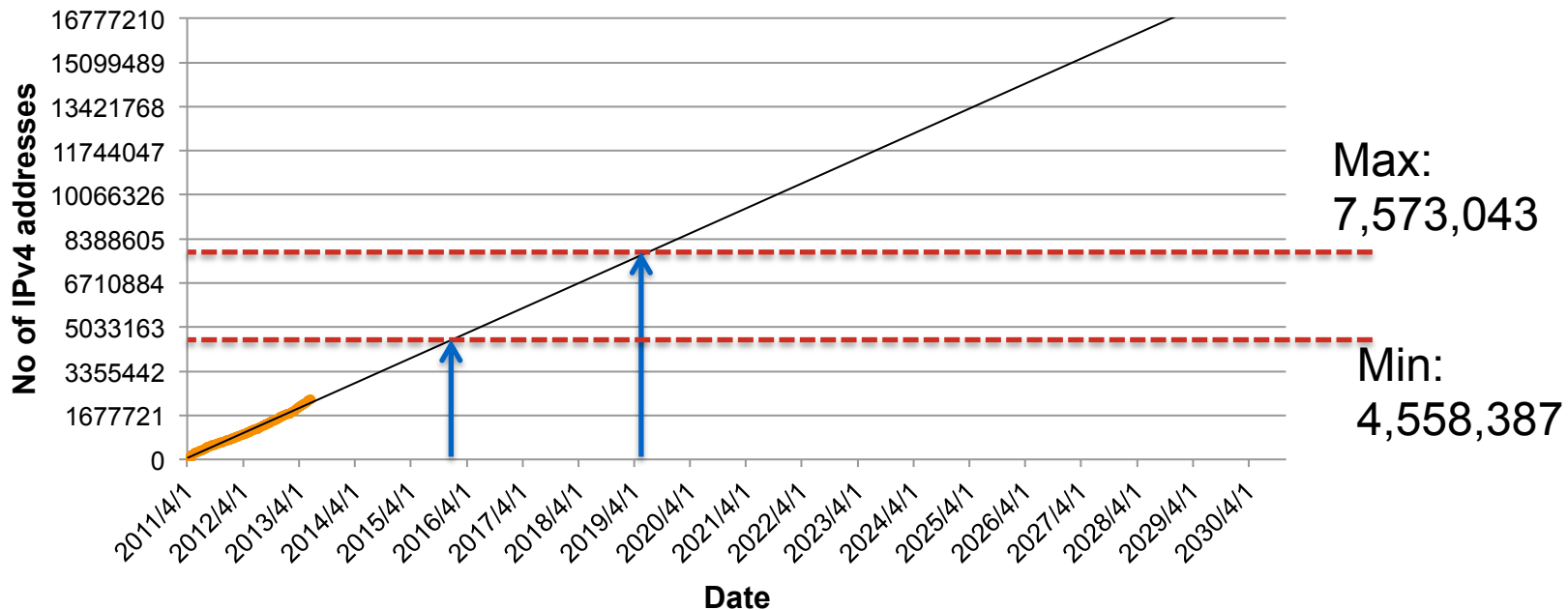* Address blocks in ERX range need some coordination to distribute.

Consideration from 103/8 delegation trend

LIRs who have received 103/22 to receive an additional /22 under this policy until:
2015-2016 (min)
2017-2018 (max)

103/8 delegation trend

Max:
7,573,043

Min:
4,558,387

Modified proposal: Consideration for additional IPv4

- If there are subsequent IPv4 address re-allocated from IANA/returned to APNIC from its account holders, such IPv4 address space will be pooled until:
  - Total IPv4 address size in APNIC pool will reach enough size which can distribute the maximum distribution size at at time (currently, /22 to a member) to all APNIC members.
  - After the APNIC pool reaches the size sufficient to distribute to all APNIC members at that point in time, additional IPv4 address distribution will start from that pool.

Implementation consideration

From APNIC Secretariat:

- As this proposal will create a separate pool from the existing APNIC resource pool. The software development to implement this policy will take 6 months or more.

Summary

- Propose to modify prop-088 to distribute:
  - returned IPv4 address to APNIC
  - re-allocations to APNIC from IANA

- If APNIC account holder, who was allocated an /22 from the final /8 pool, needs an additional IPv4 address block, they are eligible to receive another distribution of IPv4 block.

- Same policy as the final /8 policy will be applied in terms of the criteria and the size of the distribution given the requestor has utilized a total of /22 block from 103/8.

Reference

- Survey results for need of this policy in APNIC region:
  - http://conference.apnic.net/__data/assets/pdf_file/0007/58939/20130228_policy_sig_1362006096.pdf

- IANA recovered pool size:
  - http://www.icann.org/en/news/public-comment/report-comments-implementing-ipv4-post-17dec12-en.pdf