

prop-116:

Prohibit to transfer IPv4
addresses in the final /8 block

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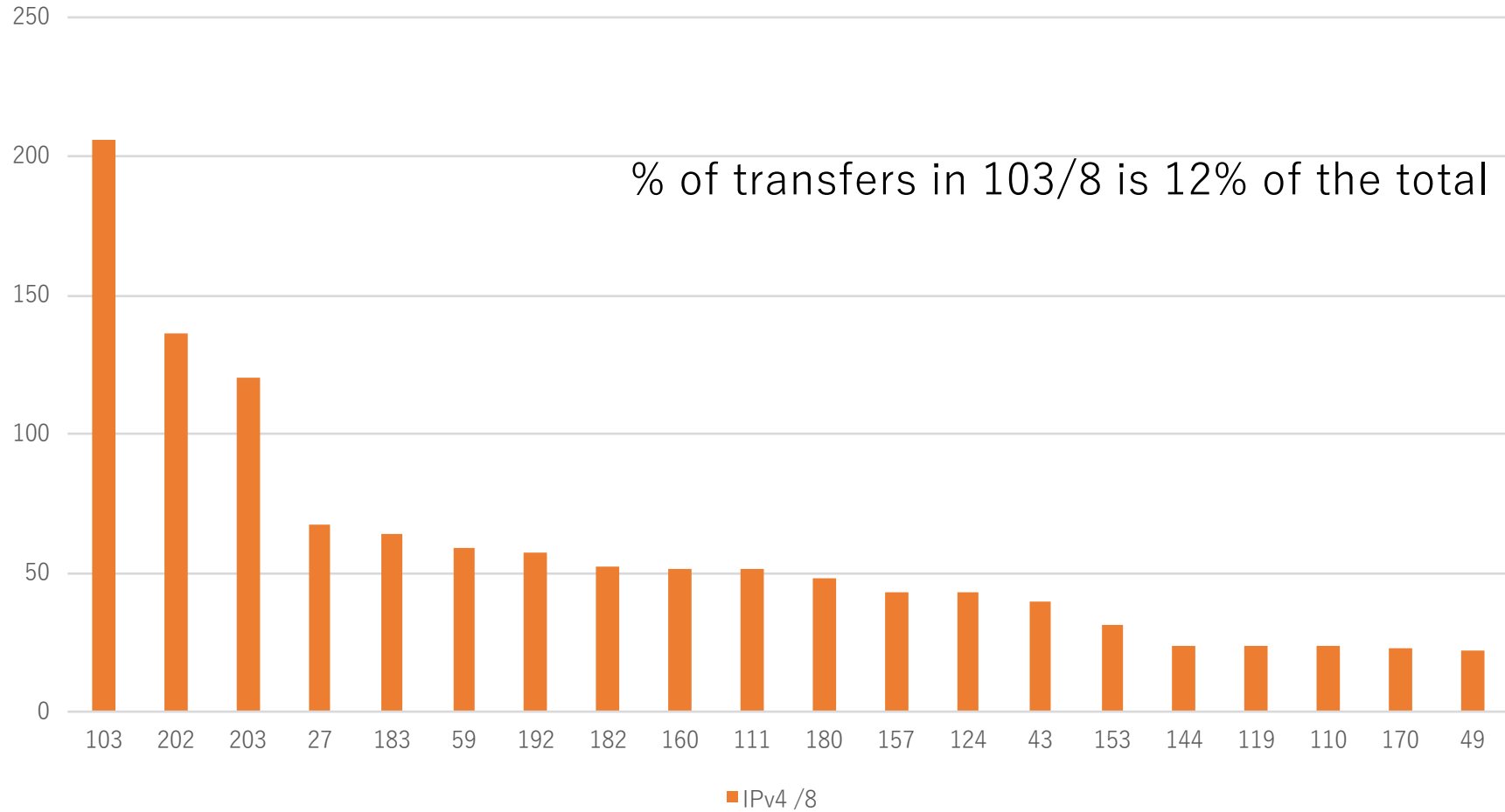
Wednesday, 5 October 2016

Problem statement

- There are a lot of transfers of IPv4 address blocks from 103/8 happening, both within the APNIC region and among RIRs.
 - Then number of transfer from 103/8 block are about 200, which is about 12% of the total number of transfers. This looks so high, since APNIC manages about 40/8.
 - Based on the information provided by APNIC secretariat, number of transfers from the 103/8 block are increasing year by year.

Top 20 number of transfers in /8 blocks

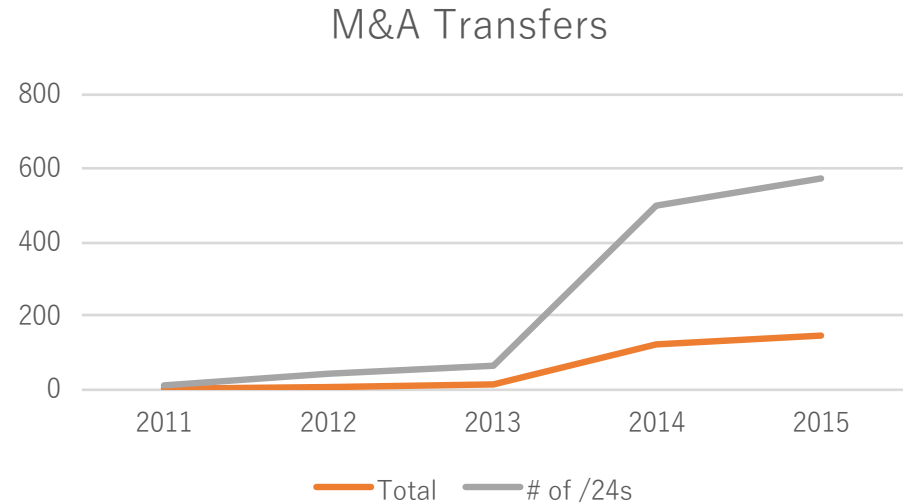
of transfers



Transfer statistics

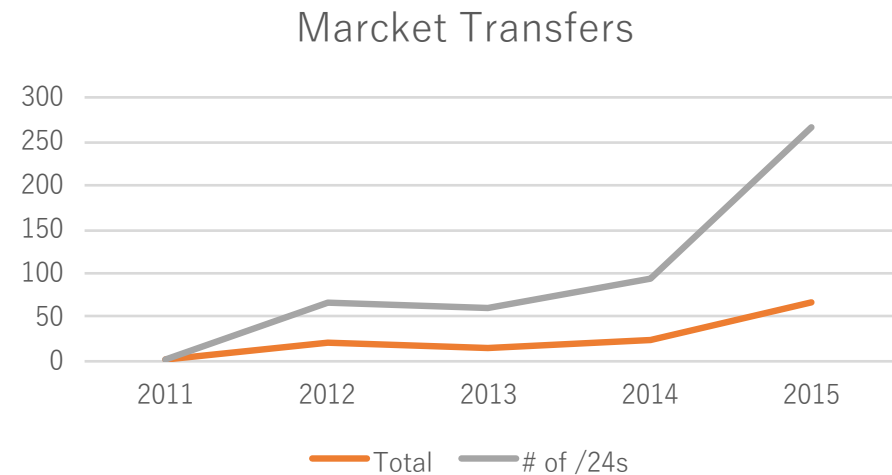
1) M&A transfers containing 103/8 space

Year	Total Transfers	Number of /24s
2011	3	12
2012	10	46
2013	18	66
2014	126	498
2015	147	573
2016	45	177



2) Market transfers containing 103/8 space

Year	Total Transfers	Number of /24s
2011	2	2
2012	21	68
2013	16	61
2014	25	95
2015	67	266
2016	56	206



Provided by George Kuo on the sig-policy ML at 8th September 2016

Problem statement (cont.)

- Transfers from the 103/8 block include:
 - Take place within 1 year of distribution, or
 - Multiple blocks to a single organization in case of beyond 1 year.
 - There is a case where a single organization have received 12 blocks transfers from 103 range.
- see: <https://www.apnic.net/transfer-resources/transfer-logs>
- It is quite likely that substantial number of 103/8 blocks are being used for transfer purpose. This conflicts with the concept of distribution of 103/8 block (prop-062), which is intended to accommodate minimum IPv4 address blocks for new comers.
 - prop-062: Use of final /8

<https://www.apnic.net/policy/proposals/prop-062>

Objective of policy change

When stated problem is solved, distribution from 103/8 block will be consistent with its original purpose, for distribution for new entrants to the industry. Without the policy change, substantial portion of 103/8 blocks will be consumed for transfer purpose.

Situation in other regions

- RIPE-NCC has been discussing to prohibit transfer under the final /8 address block.
 - <https://www.ripe.net/participate/policies/proposals/2016-03>

Locking Down the Final /8 Policy

Summary of proposal

(..)

- Bans transfers of final /22 allocations
- (..)

Proposed policy solution

- Prohibit transfer IPv4 address under /8 address block (103/8). If the address block allocated to a LIR is not needed any more, it have to return to APNIC to allocate to another organization with the final /8 policy.
- In the case of transfers due to M&A, merged organization can have up to /22 IPv4 address in the 103/8 block. The 103/8 IPv4 address more than /22 have to return to APNIC to allocate to another organization with the final /8 policy.

Advantages / Disadvantages

- **Advantages**

- It makes 103/8 blocks available according to the original purpose, as distribution for new entrants (rather than being consumed for transfer purpose)
- IPv4 addresses under final /8 are not transferred to outside APNIC.
- By prohibiting transfer them, it is possible to keep one /22 for each LIRs state, which is fair for all LIRs.

- **Disadvantages**

- None.

Impact on APNIC/LIR

- LIRs cannot transfer address blocks under 103/8. No big impact while they use it.
- Organizations which needs to receive transferred IPv4 can continue to do so, outside 103/8 blocks (which should be made available for new entrants)

Summary

- Propose to prohibit transfer IPv4 address under /8 address block (103/8).
- In the case of transfers due to M&A, merged organization can have up to /22 IPv4 address in the 103/8 block.
- Distribution from 103/8 block will be consistent with its original purpose:
 - Distribution for new entrants to the industry.
 - Fair distribution, one /22 from final /8 block to each LIRs.

Questions?