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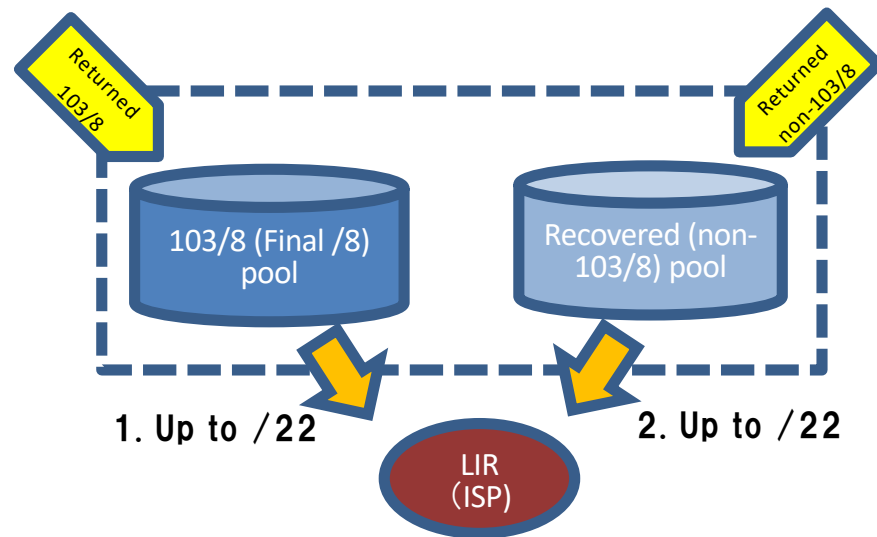
Final /8 (103/8) ブロック枯渇対応

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# Background: IPv4 distribution policy



- Current IPv4 distribution in APNIC region: (as of 6 June 2018)
  - Based on 'final /8' policy  
<https://www.apnic.net/community/policy/resources#Part%202:%20IPv4%20Policy>
  - Minimum distribution size: /24
  - Distribution from two pools
    1. 103/8 (Final /8) pool
    2. Recovered (non-103/8) pool
  - Returned address
    - 103/8 address are added to 103/8 pool.
    - Others are added recovered pool.
      - Returned from LIRs
      - Distributed from IANA
  - Address transfer
    - Transfer of 103/8 address are prohibited. (less than 5 years from distribution)



# Background: : Current IPv4 distribution status



- Status of two pools:
  1. 103/8 (Final /8) pool  
Distribution is ongoing.
  2. Recovered (non-103/8) pool  
Exhausted, and waiting list was created.
    - <https://www.apnic.net/get-ip/get-ip-addresses-asn/unmet-ipv4-requests/>
    - 520 organization are waiting for distribution! (as of 11 June 2018)

Current Waiting List for Unmet IPv4 Requests

| Position | Size | Date / Time (UTC +10) |
|----------|------|-----------------------|
| 1        | /24  | 2017-01-23 16:48:04   |
| 2        | /22  | 2017-01-23 19:42:02   |
| 3        | /22  | 2017-01-24 00:30:01   |
| 4        | /24  | 2017-01-24 16:45:22   |
| 5        | /22  | 2017-01-24 19:32:13   |
| 6        | /22  | 2017-01-25 10:33:02   |
| 7        | /22  | 2017-01-25 19:06:02   |
| 8        | /22  | 2017-01-27 10:31:34   |
| 9        | /22  | 2017-01-27 11:27:02   |
| 10       | /22  | 2017-01-27 13:57:02   |

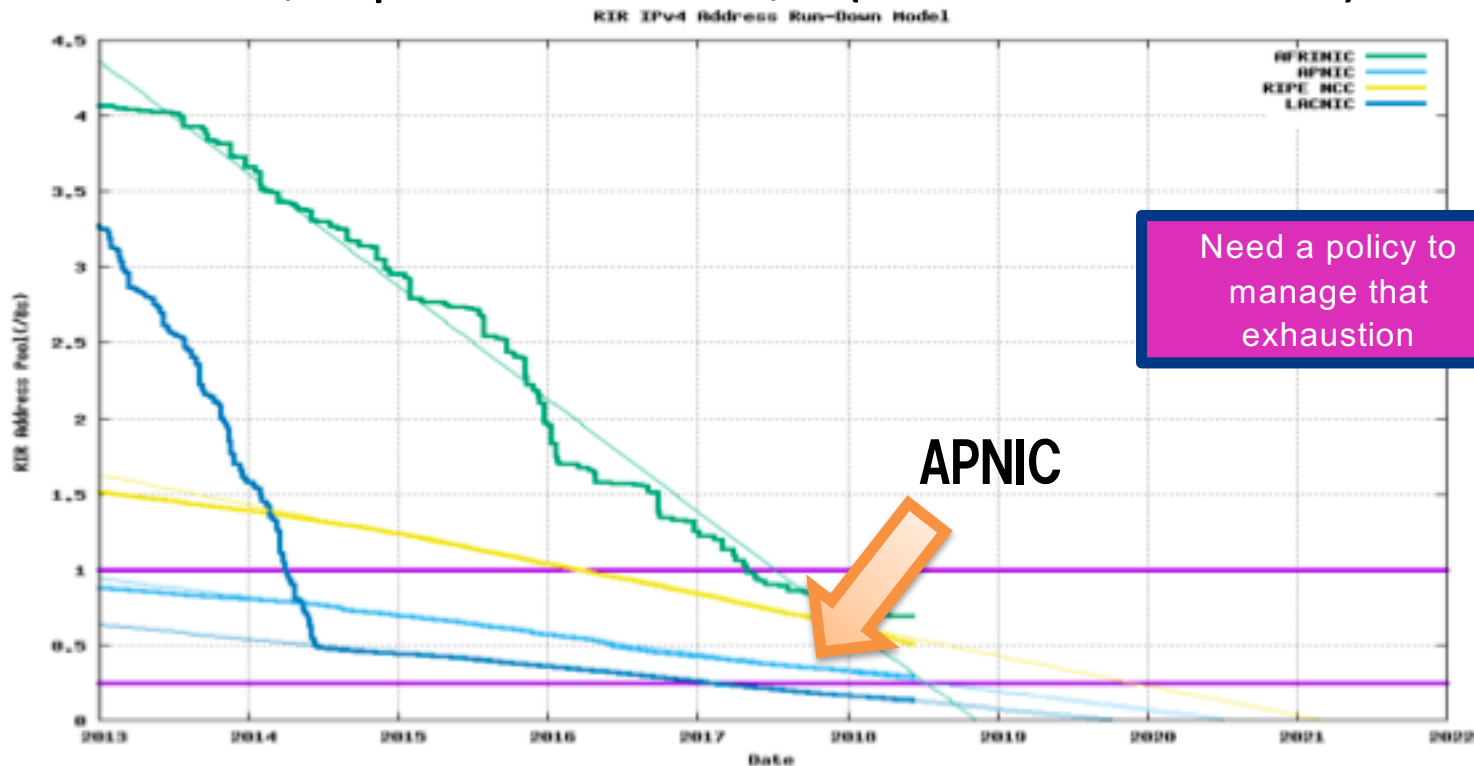
Showing 1 to 10 of 520 entries

Previous 1 2 3 4 5 ... 52 Next

# Background: When 103/8 pool run out?



- Status of 103/8 pool:  $0.2937 * /8$  (as of 11 June 2018)



From <http://www.potaroo.net/tools/ipv4/> as of 11 June 2018

# Objective of this proposal



- To give a guidance for final /8 address pool exhaustion

# Proposal history



|                   |  |
|-------------------|--|
| 8 August 2017     | Version 1 posted to the Policy SIG mailing list for discussion and community development.  |
| 14 September 2017 | Version 1 of the proposal was presented at the APNIC 44 Policy SIG and did not reach consensus. It was returned to the author for further consideration.               |
| 30 January 2018   | Version 2 posted to the Policy SIG mailing list for discussion and community development.  |
| 27 February 2018  | Version 2 of the proposal was presented at the APNIC 45 Policy SIG and did not reach consensus. It was returned to the Policy SIG mailing list for further discussion. |

From: <https://www.apnic.net/community/policy/proposals/prop-120/>

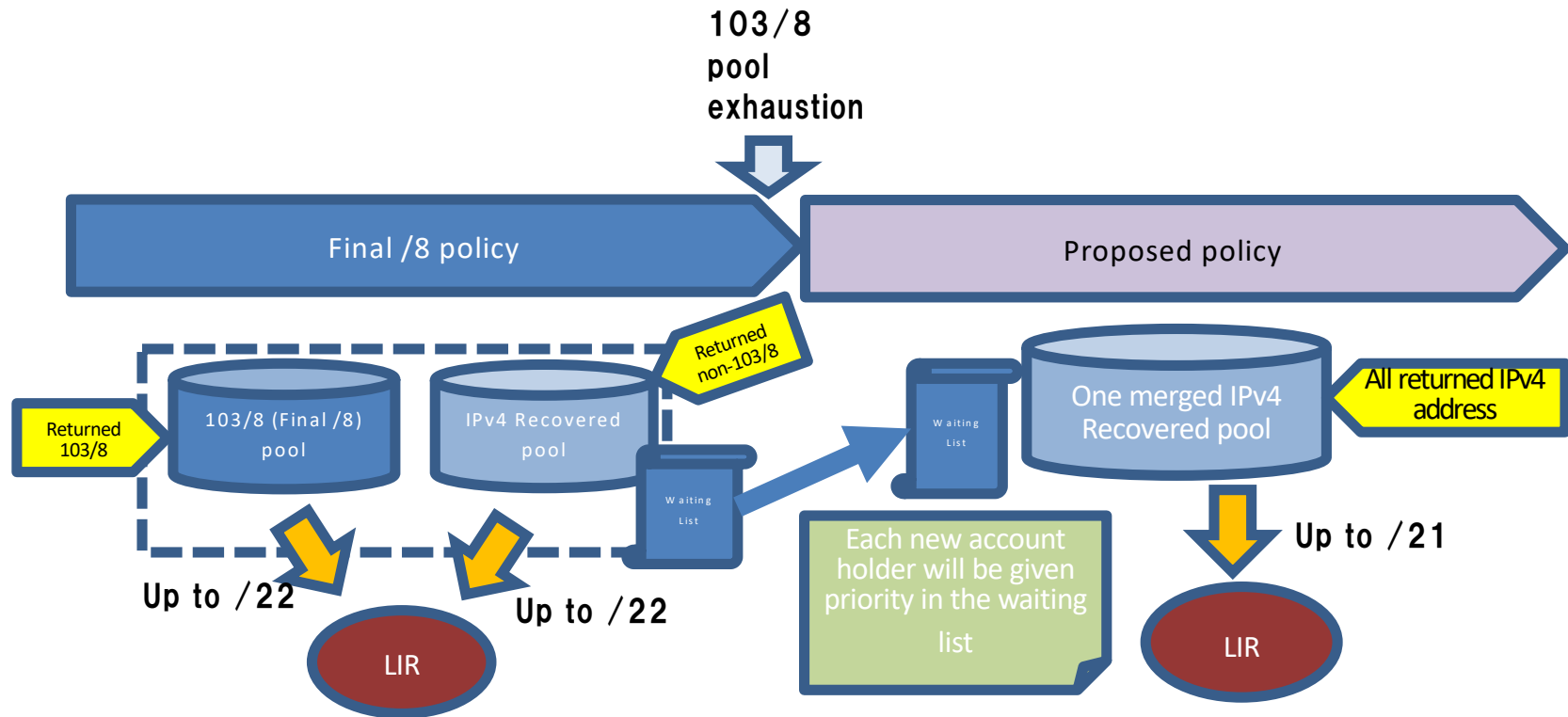
## Guidance for 103/8 pool exhaustion:

- The first time an approved request cannot be fulfilled from the 103/8 pool, Final /8 delegations will end.
- APNIC will begin to manage only one (Recovered) IPv4 pool containing any residual 103/8 space and all future returns, including 103/8 returns.
- Each new account holder can receive up to a /21 from the IPv4 Recovered pool.
- Existing account holders who have not yet received the maximum /21 from the two pools may continue to apply for space from the Recovered pool until they have received a maximum.
- A waiting list will be created if approved requests cannot be fulfilled. Each new account holder will be given priority in the waiting list.

# Proposed solution: version 1 (2/2)



## Guidance for 103/8 pool exhaustion:





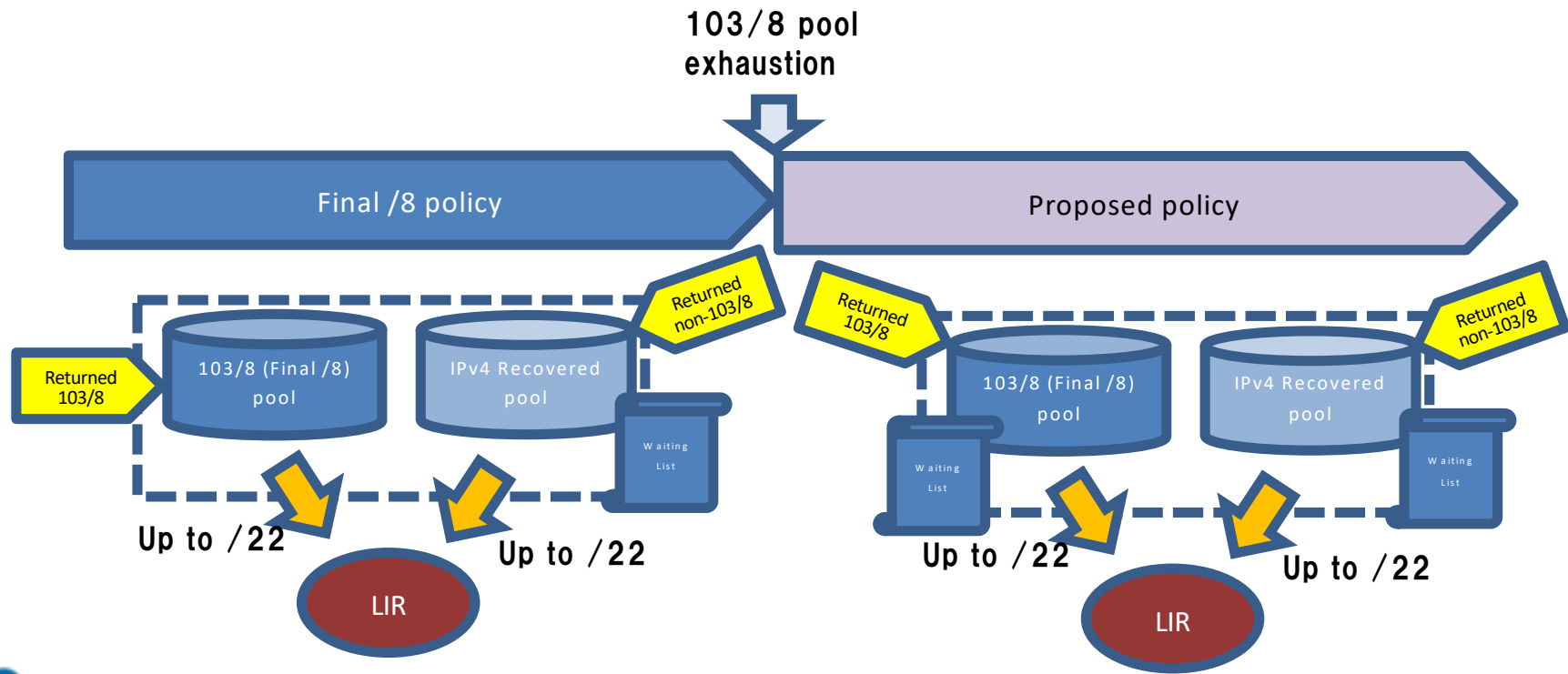
- There was strong support for the idea of a proposal for post-exhaustion arrangements after the Final /8.
- A number of issues that highlighted divergent points of view from the community were raised:
  - Should two separate pools and two waiting lists be maintained with the current policy for each maintained, or should there be only a single pool?
  - Should the existing Recovered Pool waiting list be retained after the Final /8 exhaustion, or not?
  - If the Recovered Pool waiting list is retained, should new accounts be given priority over those (existing Members) already on the list?
  - Distribution size from merged pool. /22 or /21?

## Guidance for 103/8 pool exhaustion:

- The first time an approved request cannot be fulfilled from the 103/8 pool, a waiting list will be created. That waiting list will be managed same as recovered pool waiting list.
- APNIC continue to manage two pools, the recovered pool and the 103/8 pool.
  - **Merging two pools will have lots of issues:**
    - Existing waiting list management
    - Returned address management
    - Prop-117 (Prohibit to transfer IPv4 addresses in the final /8 block) implementation
  - So many members are waiting on the waiting list.
    - Revoking the list will be unfair.

# Proposed solution: version 2 (2/2)

## Guidance for 103/8 pool exhaustion:



- More discussion...
  - One pool or two pools?
  - Existing Recovered Pool waiting list be retained or not?
  - Distribution size after 103/8 exhasution. /24?

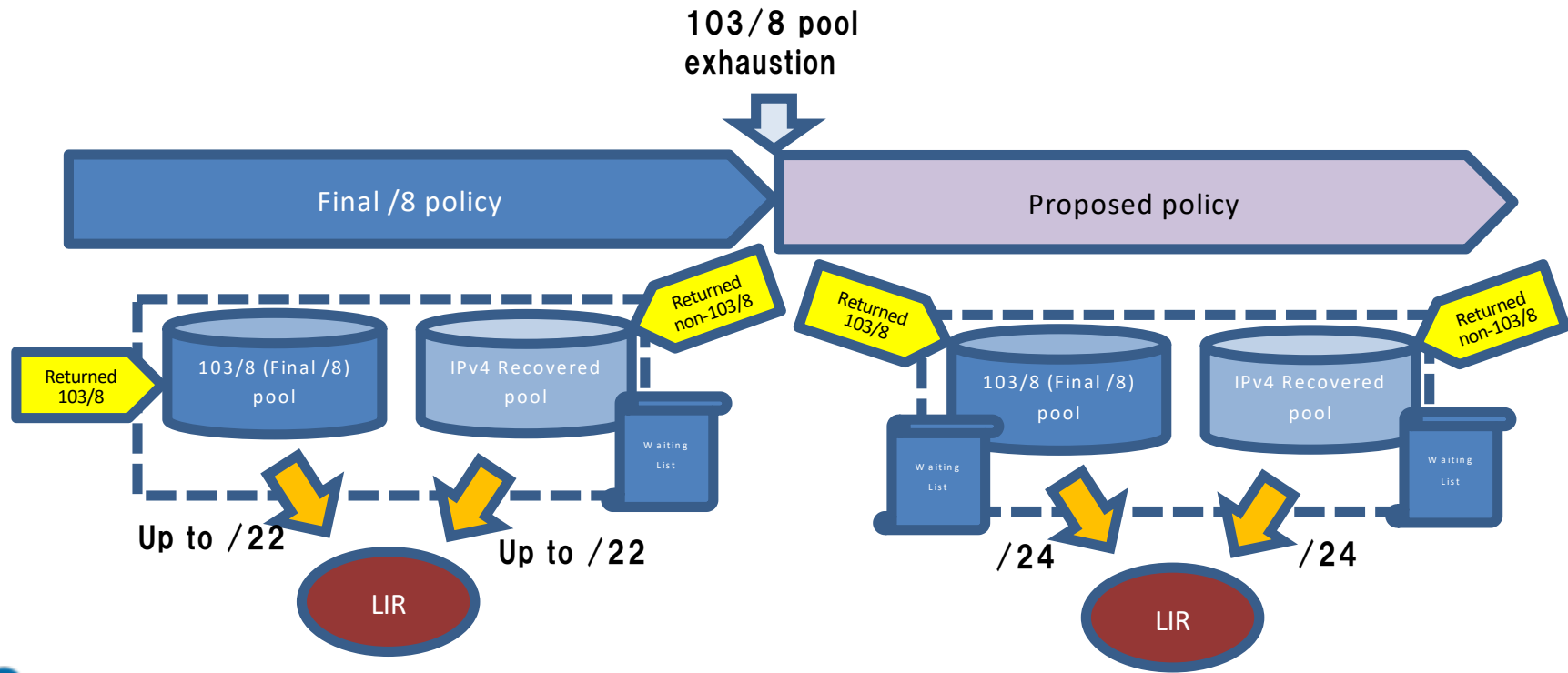
## Guidance for 103/8 pool exhaustion:

- The first time an approved request cannot be fulfilled from the 103/8 pool, a waiting list will be created. That waiting list will be managed same as recovered pool waiting list.
  - APNIC continue to manage two pools, the recovered pool and the 103/8 pool.
- Distribution size will be 'minimum IPv4 allocation size' (currently /24).
  - Policy should be simple. Merging two pools will have lots of issues:
    - Existing waiting list, returned address management.
    - Prop-117 (Prohibit to transfer IPv4 addresses in the final /8 block) implementation
  - Revoking the list will be unfair since so many members are on the waiting list.

# Proposed solution: version 3



## Guidance for 103/8 pool exhaustion:



- Proposal for managing Final /8 pool exhaustion
  - Create new waiting list the first time an approved request cannot be fulfilled from the 103/8 pool.
    - APNIC continue to manage two pools, the recovered pool and the 103/8 pool
  - Distribution size will be 'minimum IPv4 allocation size' (currently /24).

**Please give your input for this proposal!**