

# IPv6 Portable Assignment (PI) for End User Organizations

APNIC Policy Proposal 034-v001

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# Summary

- Intended as a solution for organizations that need IPv6 PI
  - Multihoming
  - Other reasons (avoid renumbering when changing ISP)
- Temporarily in order to address possible consequences of PI in routing tables
  - 3 Years after an alternative technical solutions becomes accepted by the community
  - Assignments to be reclaimed, or opt to become a LIR (if qualify for it)

# Qualification for IPv6 PI

- Must not be a LIR
- Must qualify for an IPv4 assignment
  - Even if not holds an IPv4 block
- Rationale:
  - Lack of IPv6 PI considered a deployment barrier
  - Organizations using PI not allowed to make further assignments
  - This policy allows a fair situation with other regions which already have a similar one or is under consideration
  - Is fair also to newcomers
- Against:
  - Routing table growth, that's why it is temporary ...

# IPv6 PI Assignment Size

- /32
- Larger block if justified
- Rationale:
  - A /32 is the regular routing filter practice
  - It allows becoming a LIR w/o renumbering
- Against:
  - A temporary /32 is now a waste of space

# Subsequent Assignments

- If justified
- Whenever possible from an adjacent block

# Assignment Super Block

- So LIRs can easily filter them, if required

# Expiry for Assignments

- Once a technically valid and deployable solution is accepted by the community
  - Then, 3 years expiry
- If qualify then for become a LIR, could opt to that one and keep the same prefix
- Rationale:
  - If you don't believe there is an alternative solution, this proposal will not be against your need for PI
  - You may not qualify for become a LIR now, but you don't know later
  - Making it temporary is fairer to the wider community
  - Is a long-term expiry: A solution in 3-4 years makes you happy for 6-7 years

# IPv6 PA/PI Comparison

|                        | IPv6 PA   | IPv6 PI   |
|------------------------|---|---|
| Minimum Size           | /32   | /32   |
| Maximum Size           | Duly Justified  | Duly Justified  |
| Qualifying Criteria    | Be an LIR<br>Not an End Site<br>Plan to assign 200+ /48s<br>Plan to aggregate | Not be an LIR<br>Be and End Site<br>Can't assign to others<br>Can't deaggregate |
| Initial Contract       | Standard  | To be defined   |
| Ongoing Contract       | Standard  | To be defined   |
| Fees                   | Yes   | Yes - to be defined   |
| Downstream assignments | Required  | Not   |
| Expiry                 | None  | 3 years after alternative technical solution is available                       |