

# Provider Independent (PI) IPv6 Assignments to End User Organizations

AfriNIC Policy Proposal afpol-v60604

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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 could have a similar one
  - 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 Not be an End Site Plan to assign /48s Plan to aggregate	Not be an LIR Be and End Site Can't assign to others Can't deaggregate
Initial Contract	Standard	To be defined
Ongoing Contract	Standard	To be defined
Fees	Yes (waived at this time)	Yes - to be defined
Downstream assignments	Required	Not
Expiry	None	3 years after alternative technical solution is available

# The Questions

1. Prefix size:
  - a) Existing text, /32
  - b) Prefixes from /44 to /32 or whatever is justified to AfriNIC staff
  - c) Assign /44, but reserve /32 in case is needed in the future
  - d) Any other choice (input from participants) ?
  
2. Temporary or Permanent policy ?