

# IPv6 PI Sub-assignment Clarification

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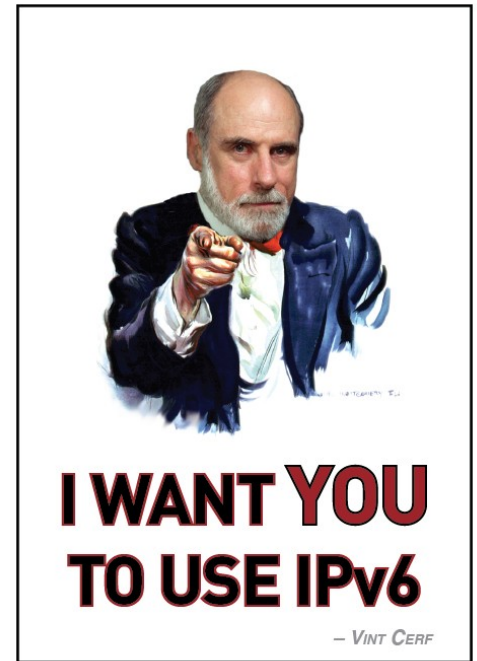
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26.10.2016

#RIPE73

# Problem

- People want to deploy IPv6 PI
  - Already have IPv4 PI
  - Independent / Multi-homed for IPv6
- Today networks usually contain
  - (Public) WIFI / Guest network
  - VPN-PTP link (e.g. to customers)
- Within these 3<sup>rd</sup> parties get assigned IPs
  - SLAAC
  - Privacy Extensions
  - Statically (VPN)



# Problematic Policy part

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- Ripe-637 (Contractual Requirements for PI holders) states:

“Notice that none of the provider independent resources may be sub-assigned to a third party.”
- RIPE NCC interpretation:

Users using one IP (/128) from a /64 prefix (e.g. on in a public wifi, VPN-PTP-link, ...) is a sub-allocation.
- Therefore IPv6 PI is declined.

# Proposed Policy Change

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- Ripe-655 (IPv6 Address Allocation and Assignment Policy)

## 7. IPv6 Provider Independent (PI) Assignments

Add:

»Within the context of these policies, a sub-assignment is an assignment of a length of /64 or shorter.«

# Why?

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- Close room for interpretation and give guidance to RIPE NCC
- /64 is meaningful prefix length
  - Delegations longer aren't useful really
- Resolve current policy violations
- Help deploy this v6 thing
- Save address space (/29 vs /48)

# Why not?

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- People could delegate /80 (e.g.) to customers
  - Who would do that to paying customers?
- Increase in global table size?
  - PI space => 1 more entry each
  - Part of PA space => at least 2 entries each
    - Aggregate
    - Sub-Assignment
    - Maybe some /36 for TE?
  - Own PA => At least 1 more entry each
  - Basically same difference

# Status Quo

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- Published on AP-WG list at October 21<sup>st</sup>
- Some supporters
- Some questions
  - Arbitrary limit at /64
    - Seemed to be the simplest way to close room for interpretation
  - What does the RIPE NCC say?
    - Marco? :)