2024-01: IPv6 Assignment Policy Revision

I can't believe it's getting close to half a decade...

Tobias Fiebig[1]

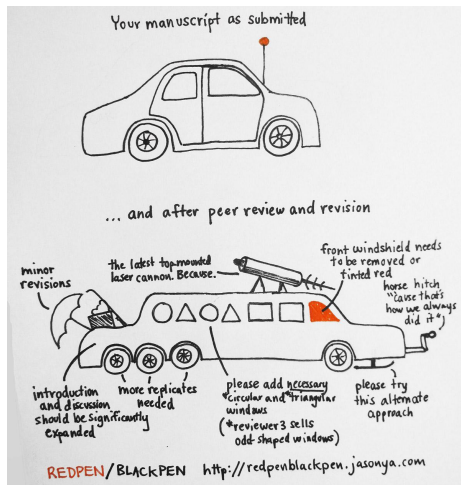[1] Max-Planck Institut für Informatik

The Plan

- Nibble Boundary
- Clarify Assignment & Limitations
- Allow more than a single /48 by routing reasons
- No *new* bugs

How it's going...

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The ~~Plan~~ Reality

- Nibble Boundary
  - What about 'legacy'?
  - Maximum size?
  - What about Anycast?
- Allow more than a single /48 by routing reasons
  - What about $cornercase?
  - Have you heard about IX prefixes assigned in /64?
  - How do we prevent things we currently do not prevent?
  - We *MUST* account for...
- Clarify Assignment & Limitations
  - Yeah, but the PA rules must hold (via the End-Site definition)
  - Yeah but if *that is changed...*
- ~~No *new*~~ bugs I'd been happy for a day without finding *old* bugs...

Policy Process so-far

Nibble Boundary or Assignment Rules First

cleaner		simpler
no added 'legacy'	vs.	new 'legacy'

Nibble Boundary

- What shall we do with 'legacy' networks?
- How do we prevent hoarding?
- How do we encourage one-block-per-EU
- What about transfers?
- Where can prefixes be split?
- What if you split a prefix?
- What rules should apply if you request 'more'; What if you already have assignments?

Maximum Size

- Should a /16 PI be fine?
- We currently limit PI to /48 ('smallest'), but what about /64 for IXes?
- Put restrictions in and make it more complex.

What about ...

- Anycast; What if somebody needs more blocks there?
- $my_fav_usecase

/48 by routing reason

- So, every CPE is an end-site?
- But we need to prevent ISP use of PI!
- 'So, wouldn't this prevent $usecase?'
- While we are at it, we could...

PI PA .oO(PO?)

- PI and PA have a joint end-site definition
- 'Assign' is woven into the end-site definition
- PI and PA are different
- "This will be a mess"...
- *"Generalizing means making things the same that necessarily are not."*

Next Steps / Discussion Points

- What shall we do?
- Co-Authors,... ~~please?~~ Found
- Anything to skip / change / adjust to make the tree red lines more swirly and blue?