

2007-01 revisited

“What do we do next?”



*i n t e r n e t n e u t r a l e x c h a n g e*

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- Goals
  - Make PA more attractive than PI
  - Prevention of abuse, hijacking, etc
  - Tighten up on sub-assignment
  - “Responsible Stewardship”
- The current proposal can work...
  - ... but only if we want to turn RIPE into an administrative monster
  - we probably don't want to do this
  - RIPE NCC is a numbers registry, not a contract management and debt collection agency

## “What do we do next?”



i n t e r n e t n e u t r a l e x c h a n g e

- We're too late to fix new IPv4 PI assignments
  - mostly anyway - we're 12 years into an projected  $\pm 15$  year life-cycle
  - at the earliest, any policy change could only be implemented by 2008-05
  - ... leaving maybe 2 years of new assignments
  - Let's acknowledge that the horse bolted years ago
- The primary focus is on:
  - IPv6
  - AS numbers
  - Existing IPv4 assignments

“We are all going on an expedition”



i n t e r n e t n e u t r a l e x c h a n g e

- Propose the following modifications to 2007-01
  - Explicitly allow cost model for PI / ASNs, for end-user and LIR-based assignments, past and present
  - Allow end-user to maintain relationship with LIR of choice, or directly with RIPE
  - Make policy retroactive for all PI assignments since RIPE-127 (Note: not ERX and not older “allocations”)
  - Careful expiry of existing “lost” registrations, where registrant cannot be located

## Create cost model



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- Rationale
  - initial process for cleaning up PI allocation records is going to be long, hard and tedious
  - this is administrative talk for “expensive”
- But
  - applying a cost model creates a natural garbage collection system
  - RIPE NCC policy is to encourage PA assignments, not PI. Zero cost PI does not reflect this policy
  - The cost-free IPv4 PI assignment regime puts RIPE NCC funding burden solely on LIRs, which is not fair
  - we need fair
- So
  - so RIPE NCC needs to charge for number resources, including PI address space and ASNs

# Choice of end-user relationship



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## ● Rationale

- Clear that RIPE NCC cannot easily deal with expansion from 4k to 16k contractual relationships
- Nevertheless, there are situations where it is more appropriate for an end-user to have a direct relationship with RIPE NCC

## ● Process

- End-user can deal with RIPE NCC directly
  - envisage a web based auto-signup procedure
  - fully automated, no human interaction
  - registration expires unless bills are paid
- End-user can also use their LIR
  - LIR will bill end-user
  - RIPE NCC will bill LIR

# Choice of end-user relationship



- Consequences

- some increased overhead for LIRs
- more increased overhead for RIPE NCC
- careful transfer method required, to deal with:
  - friendly transfer from LIR to LIR
  - transfer from hostile LIR at end-users' request
  - transfer from LIR to RIPE NCC
  - transfer from RIPE NCC to LIR

- But

- creates onus on LIR to maintain good records for PI end-users
- or else, end-user is obliged to maintain relationship with RIPE NCC

# Make policy retroactive



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- Limitations
  - not included in original 2007-01 because it is controversial and has many consequences
  - does not include ERX ASNs or IPv4 PI space
  - does include IPv4 space marked as PI but assigned before RIPE-127 (Registry of last resort assignments)
- RIPE NCC obligations
  - chase up PI/ASN holders
  - liaise with LIRs about who gets billed for what
  - categorisation of lost registrations
  - all these things are long, hard and tedious

# Expiry of lost registrations



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- Problems
  - retroactive application of new policy - ouch!
  - some expiry will be caused by bad contact details
  - some expiry will apply to genuinely dead assignments
  - what does RIPE NCC do with expired registrations?
    - put into holding pool or recycled immediately?
  - in particular, what happens to registrations which are still used, but where RIPE NCC can get no response
    - routed on Internet vs never routed visibly, but still used
- On the other hand...
  - we are already familiar with the idea of expiry and re-use of resources (phone numbers, domain names, etc)
  - no expiry is also bad stewardship of resources
  - heresy: we require end-users also be responsible for their registrations

“And that’s that”, said Pooh\*



Soooo, let’s hear what you have to say...

- Cost model
- Choice of end-user relationship
- Make policy retroactive
- Expiry of lost registrations

\* Apologies to A.A. Milne