ASN Assignment Policy

RIPE71 Routing Working Group

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Nick Hilliard
CTO

nick@inex.ie
ASN Assignment Policy

- The current policy dates from 1996.
- It is 19 years old and has worked reasonably well for 19 years.
- It is not perfect, but people still need ASNs even if they don’t multihome.
- We’re going to run out of ASN16s.
ASN Assignment Policy

DON’T PANIC
ASN Multihoming Requirement

how important is this?

not very

but we don’t want people to lie

current policy is broken

sometimes people need an asn anyway
how urgent is this?

hmmm

but we have lots of asn32s?

and they’re the same, right?

no
ASN32 Limitations

- Variable vendor support, particularly on older software
- No support for 32b:32b communities due to BGP specification limitations
- This doesn’t matter to many organisations
- Unless you plan to export policy with communities
Should We Change ASN Assignment Policy?

not necessary

but if we do, let’s fix these problems
Lessons From RIPE-81

...an AS is only required when exchanging routing information with other ASes
80% of asn assignees have only a single asn

most end users know when they need an asn

no shortage of asn32

if an end user wants a single asn32, why not just give it to them?
subsequent asn32s can be assigned if the end user states a need
an asn16 can be assigned if the end user states a need which cannot be satisfied by an asn32
after the pool of asn16s drops to a certain size, an end user can only be assigned a single asn16 from it, if needed
Proposal Summary

- "need" → exchanging routes with other ASN
- first ASN32 → entitlement
- next ASN32s → need
- ASN16 before runout → need
- ASN16 after runout → single assignment