

ASN Assignment Policy

RIPE71 Routing Working Group

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i n e x
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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ASN Assignment Policy

current policy dates from 1996



19 years old



worked reasonably well
for 19 years

not perfect



people need asns even if
they don't multihome



we're going to run out
of asn16s



ASN Assignment Policy

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

DON'T PANIC



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

ASN Multihoming Requirement

how important is this?

current policy is broken

not very

sometimes people need
an asn anyway

but we don't want
people to lie





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

ASN16 Runout

how urgent is this?

no



hmmm



and they're the same,
right?



but we have lots of
asn32s?





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

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

PANIC





Should We Change ASN Assignment Policy?

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

not necessary



but if we do, let's fix these
problems

Lessons From RIPE-81



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

...an AS is only required
when exchanging routing
information with other ASes



Proposal - Subsequent ASN32 Assignments

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

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?



Proposal - ASN32 Assignment

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

subsequent asn32s can be
assigned if the end user
states a need



Proposal - ASN16 Assignment

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

an asn16 can be assigned if
the end user states a need
which cannot be satisfied by
an asn32



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

Proposal - ASN16 Runout Pool

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



PANIC