



32-bit ASN

Adjustment to Global Policy Proposal

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Slow Uptake of 32-bit ASN

2009 Statistics (RIPE NCC)

- Out of the 1346 assigned ASNs we know that:
 - 1130 were 16-bit* requested from start
 - * reasons were supplied during first request
 - 91 were 16-bit (swapped from 32-bit to 16-bit)
 - 125 were 32-bit assigned
 - 127 pending



Why 32-bit Was Exchanged For 16-bit: Hardware and software reasons

- 45% - their network devices (or part of them) do not support 32-bit ASNs, hardware is outdated, no update is available
- 22% - one (or more) of the peering partners do not support 32-bit ASNs



Why 32-bit Was Exchanged For 16-bit: Other reasons

- 16% - the upstream provider does not support 32-bit ASNs, device is not yet available
- 14% - the OS version on the router which will act as border router doesn't support 32-bit ASN yet
- 3%- the main transit provider does not support 32-bit ASNs

The merits of these considerations might be challenged.
In these instances, the RIPE NCC provides guidance.



Current Policy Statement – Regional

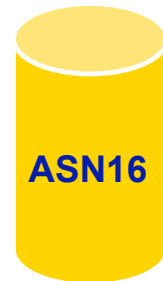
- As of 1 January 2009, all assignments will be 32-bit only ASN by default unless a 16-bit ASN is specifically requested
- From 1 January 2010, RIPE NCC starts using an undifferentiated pool (16-bit and 32-bit only)
- Policy is not specific on how to assign by January 1st 2010

Consensus has been reached in the RIPE region, to continue the current way of assigning after 1 January 2010

(All assignments will be 32-bit only ASN by default unless a 16-bit ASN is specifically requested)



“Undifferentiated Pools”

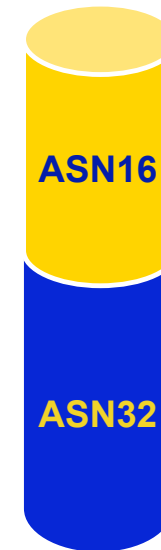


ASN16



ASN32

Until 31 December 2009

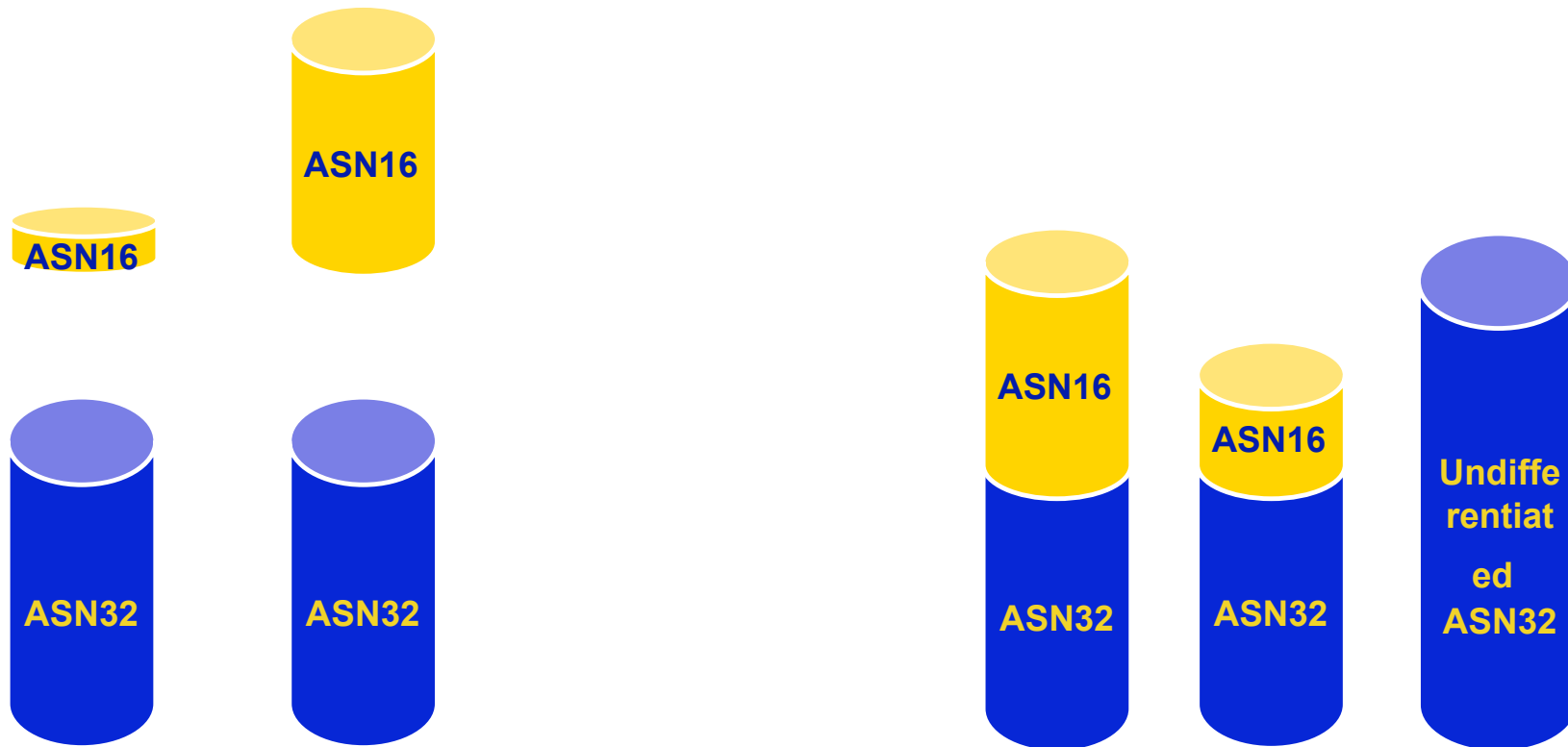


ASN16

ASN32

From 1 January 2010

Refilling “Pools”



Until 31 December 2009

From 1 January 2010

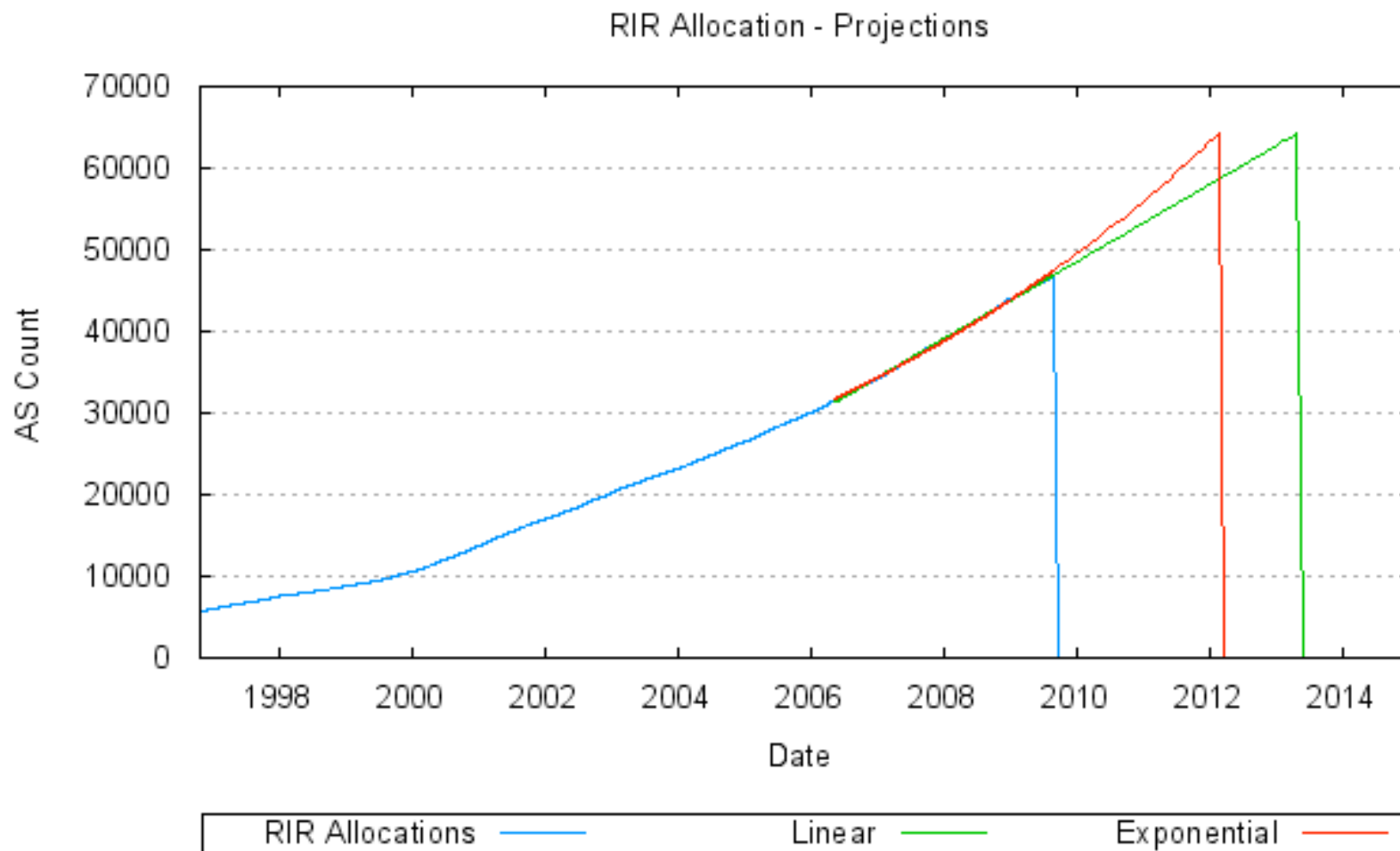


Current Policy Statement - Global

- Until 31 December 2009, RIRs can receive two separate ASN blocks from the IANA - one for 32-bit only ASNs and one for 16-bit ASNs
- As of 1 January 2010, the IANA will operate ASN allocations from an undifferentiated 32-bit only ASN allocation pool
- Risk: The RIR's will not qualify for new 16-bit ASN blocks due to the low usage rate of 32-bit only blocks



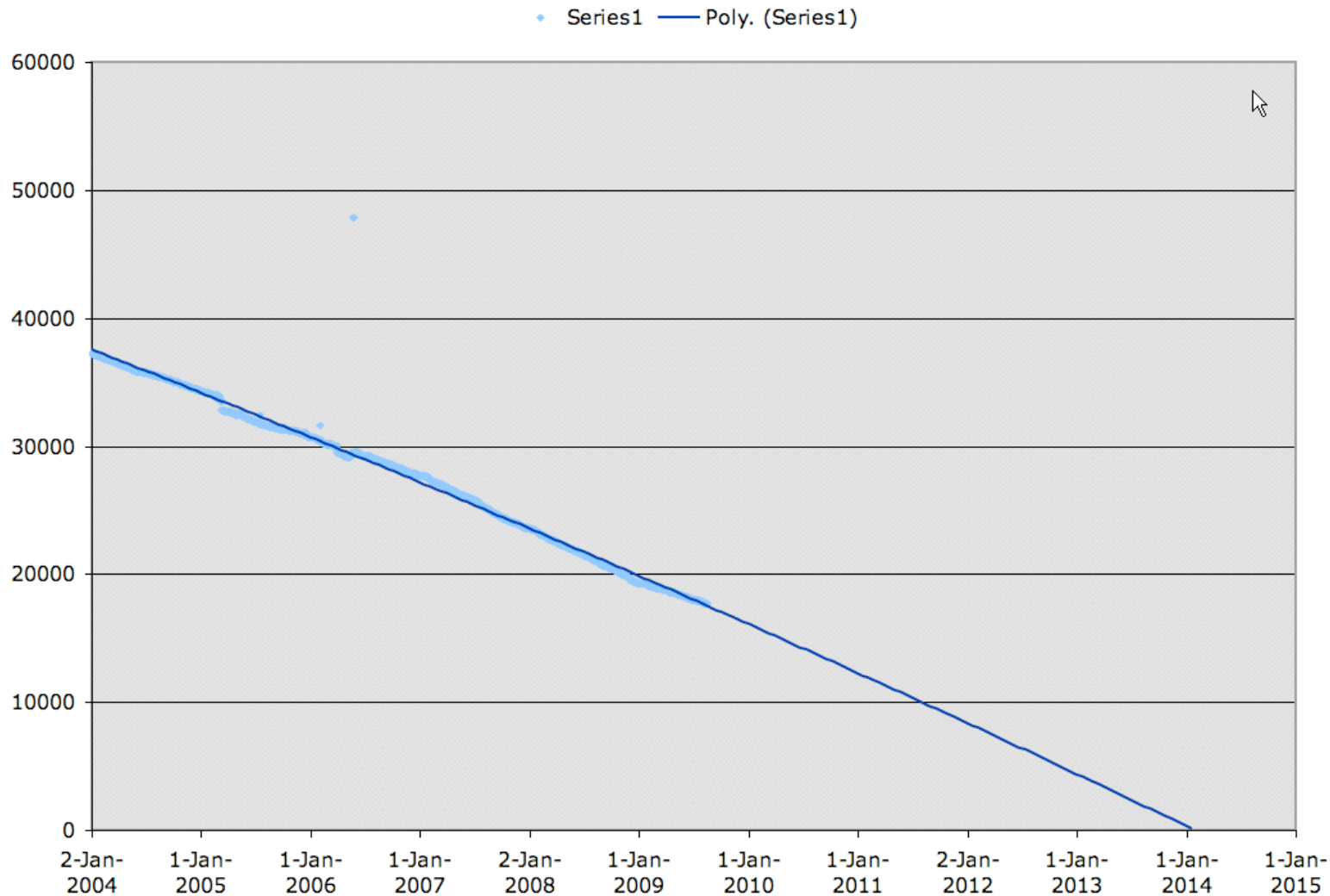
16-bit ASN Allocation History and Projections



Source: www.apnic.net



ASN Allocation History and Projections



Source: Science Group RIPE NCC



Summary So Far

- The current policy was crafted around operational incentive and an earlier run out date
 - Fact 1: Operationally our members don't seem to be ready
 - Fact 2: More 16-bit left than previously projected

Proposal to: Sync policy with current facts



Alternatives

1. Do nothing
2. Extend global policy by 12 months
3. Run out of 16-bit ASN globally



1. Do Nothing

- Pros
 - Easy
 - Large incentive to get ready for 32-bit only ASN
- Cons
 - Angry members
 - **Operational issues**
 - Holding back *a large amount* of 16-bit ASN could be perceived as artificial and a barrier for new entrants



2. Extend Global Policy by 12 Months

- Pros

- Addresses all cons on the previous slide for a year
- No substantial change to the policy, just change one date

- Cons

- Needs policy action by all RIRs
- Less incentive to get ready for 32-bit only ASN
- May end up here again in another 12 months



3. Run Out of 16-bit ASN Globally

- Pros
 - Address all issues
- Cons
 - More complex global policy change (may not converge)
 - Least incentive to get ready for 32-bit only ASN



Current Global Policy Proposal

Option 2:

Extend global policy by 12 months



Other Regions

- LACNIC
 - Global proposal: Under discussion, using the expedite process (ends 29 September)
- AfriNIC
 - Global proposal being submitted at the moment
- ARIN
 - Discussing global proposal. AC preparing draft policy in time for Dearborn in October
- RIPE
 - Global proposal in Last Call (Concluding Phase)

Questions?

