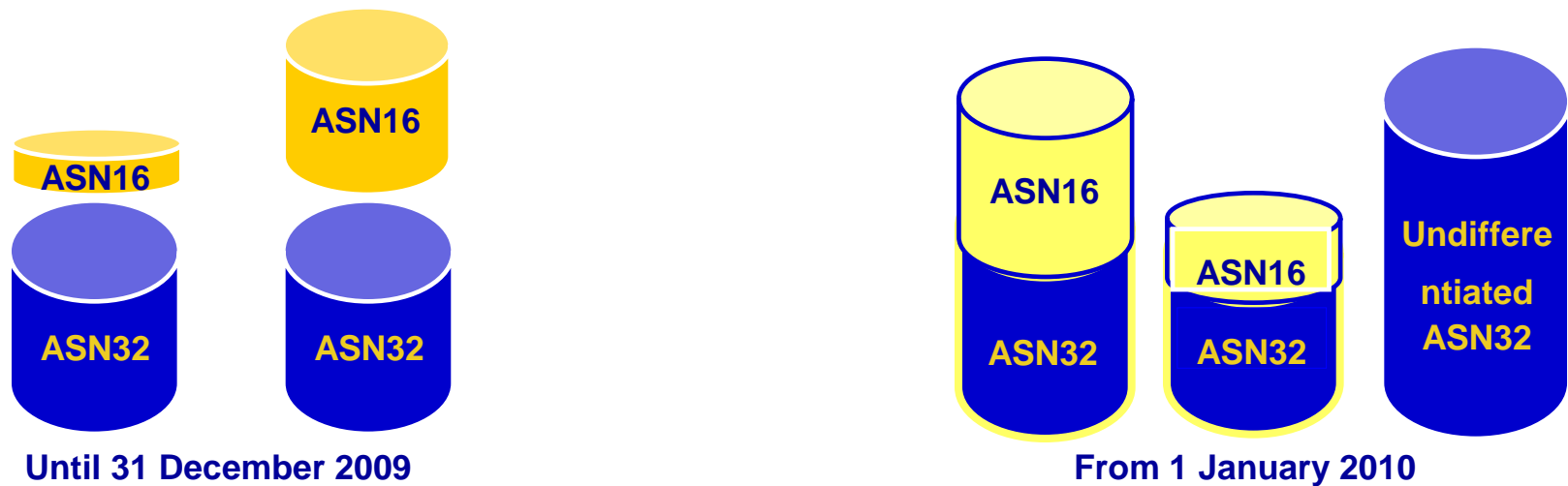# 32-bit ASN

Adjustment to Global Policy Proposal

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Current Policy Statement – Global (IANA to RIRs)

- Until 31 December 2009, RIRs can receive two <u>separate </u>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 <u>undifferentiated </u>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

ASN16

ASN16

ASN32

ASN32

Until 31 December 2009

ASN16

ASN16

ASN32

ASN32

Undifferentiated ASN32

From 1 January 2010

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- 45% - their network devices (or part of them) do not support 32-bit ASNs, hardware is outdated, no update is available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.

16-bit ASN Allocation History and Projections

RIR Allocation - Projections
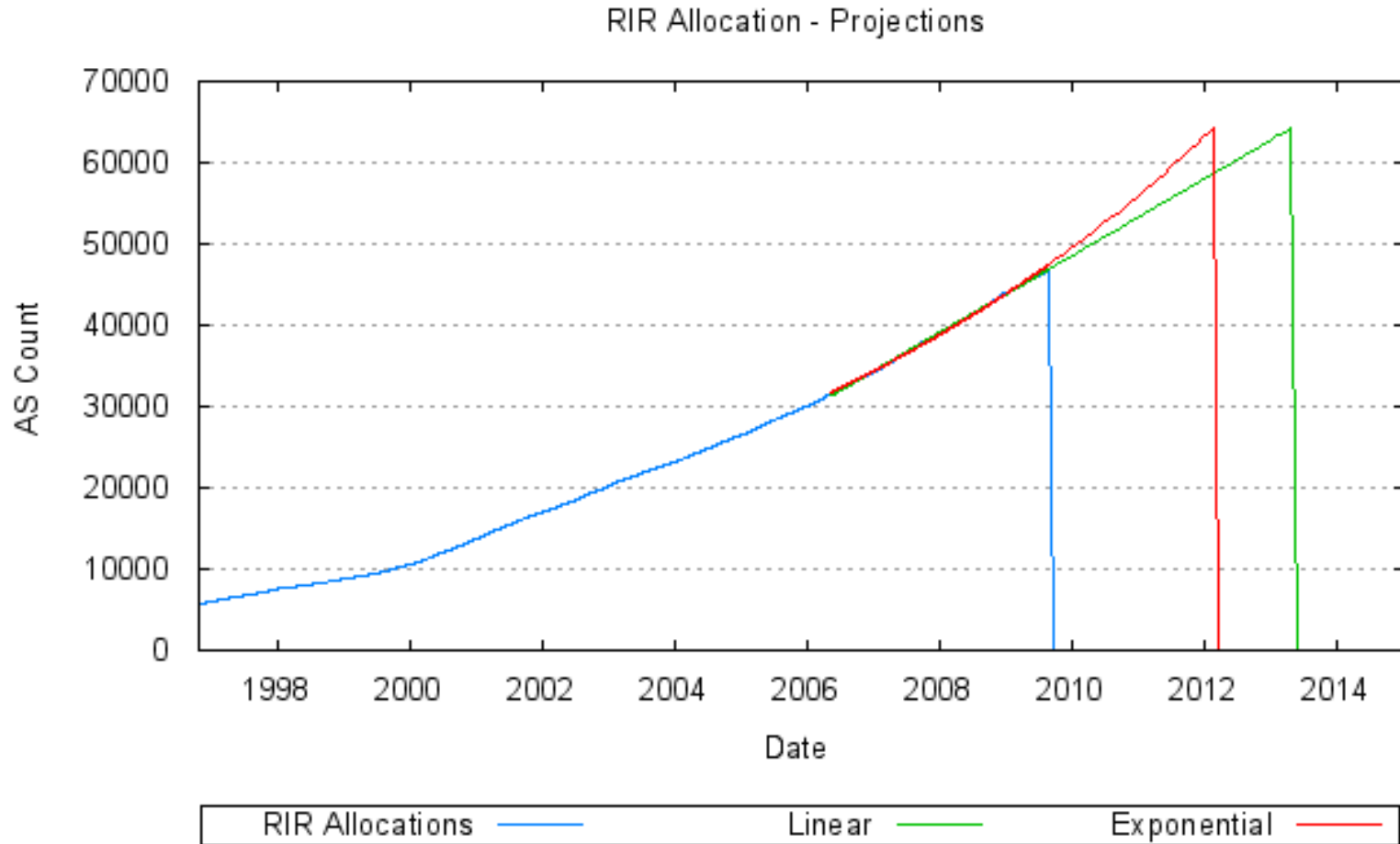
Source: www.apnic.net

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

(keeping differentiated pools)

Other Regions

- LACNIC

  - Global proposal: Under discussion (using the expedite process)

- AfriNIC

  - Global proposal: Under discussion

- APNIC

  - Global proposal: Last Call

- RIPE

  - Global proposal: Last Call

Questions?