



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Feedback From RIPE NCC Registration Services

The Aim of this Update



- To report back to the RIPE community:
 - The feedback that we receive from LIRs
 - Highlighting potential problem areas
- Requesting guidance on these topics
- Providing input to the community for policy discussions

What I'll Cover



- Update on previous action items
 - ALLOCATED PI and UNSPECIFIED cleanup
- Outdated text references
- Uptake of 32-bit ASNs
- Use of the term “organisation” in IPv6 policy
- Assignments from dedicated IXP IPv4 pool



**ALLOCATED PI /
UNSPECIFIED**

The Starting Point



- 38 LIRs holding 93 ALLOCATED PI/
UNSPECIFIED blocks
 - This was inconsistent with current policies
 - The status of these resources was unclear to LIRs and End Users
- At RIPE 72, community gave us a mandate to follow up with LIRs to identify and correct status

Current Status



- 58 of 93 Allocated PI/UNSPECIFIED converted to PA
- ~2500 PI assignments converted to PA
- ~500 NOT-SET assignments converted to PI/PA
- ~200 Assignment have been deleted
- ~1500 assignments still ongoing



Outdated Text References

Types of Address Space



- Statuses are described in section 7 of *“IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region”*
- RIPE Database object statuses and the policy are out of sync
 - ALLOCATED PI and NOT-SET are listed in the policy but will soon be obsolete
 - EARLY-REGISTRATION is listed in policy but obsolete
 - LEGACY is not described in the policy but IS a current resource status



We Recommend

- Remove the following statuses from this section:
 - ALLOCATED PI
 - NOT-SET
 - EARLY-REGISTRATION
- Add to definitions
 - LEGACY

Status: LEGACY



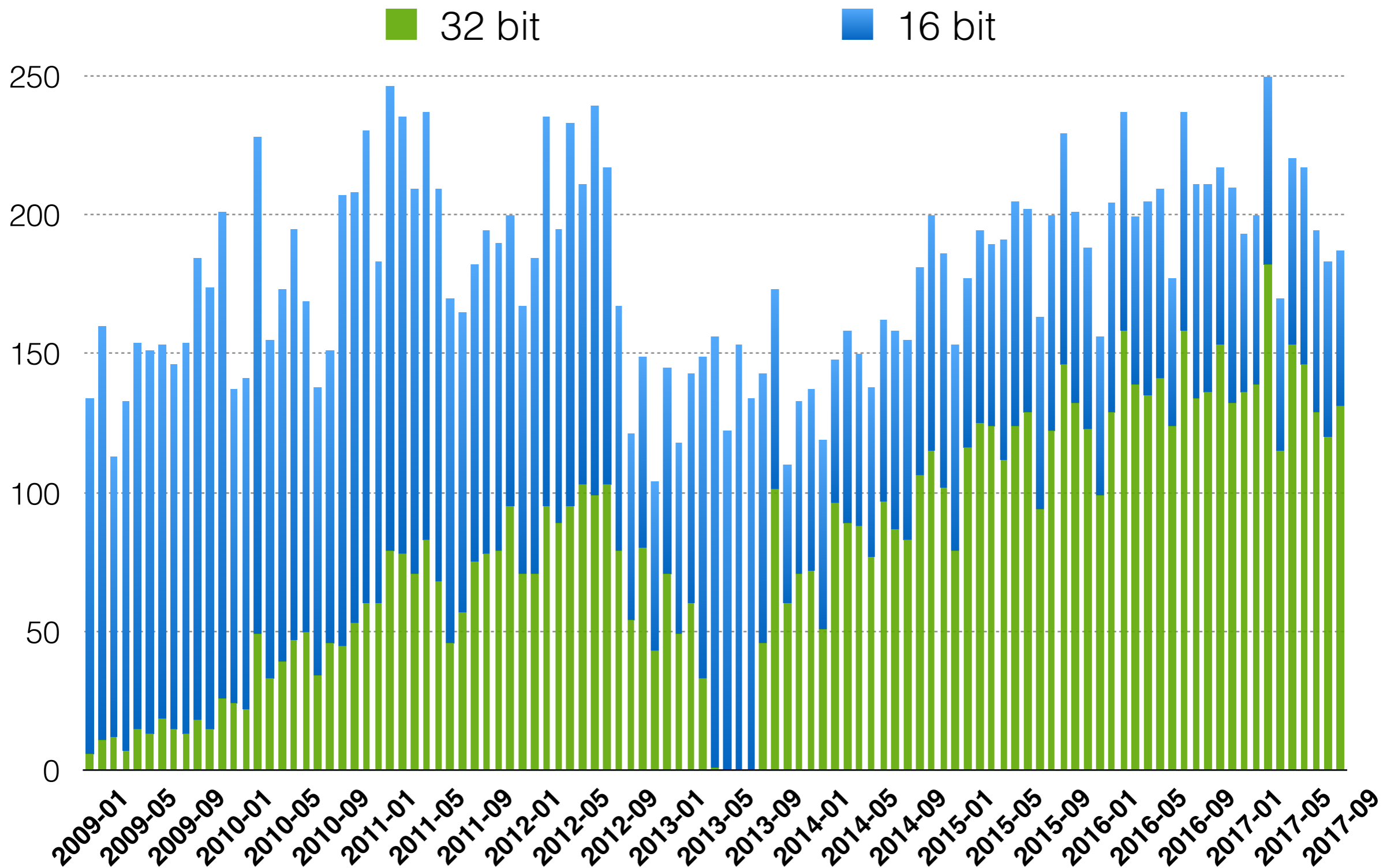
- Potential definition for LEGACY status
 - LEGACY: This indicates the Internet number resource was obtained prior to or otherwise outside the current system of hierarchical distribution (by allocation or assignment) through the Regional Internet Registries *

www.ripe.net/publications/docs/ripe-639 *

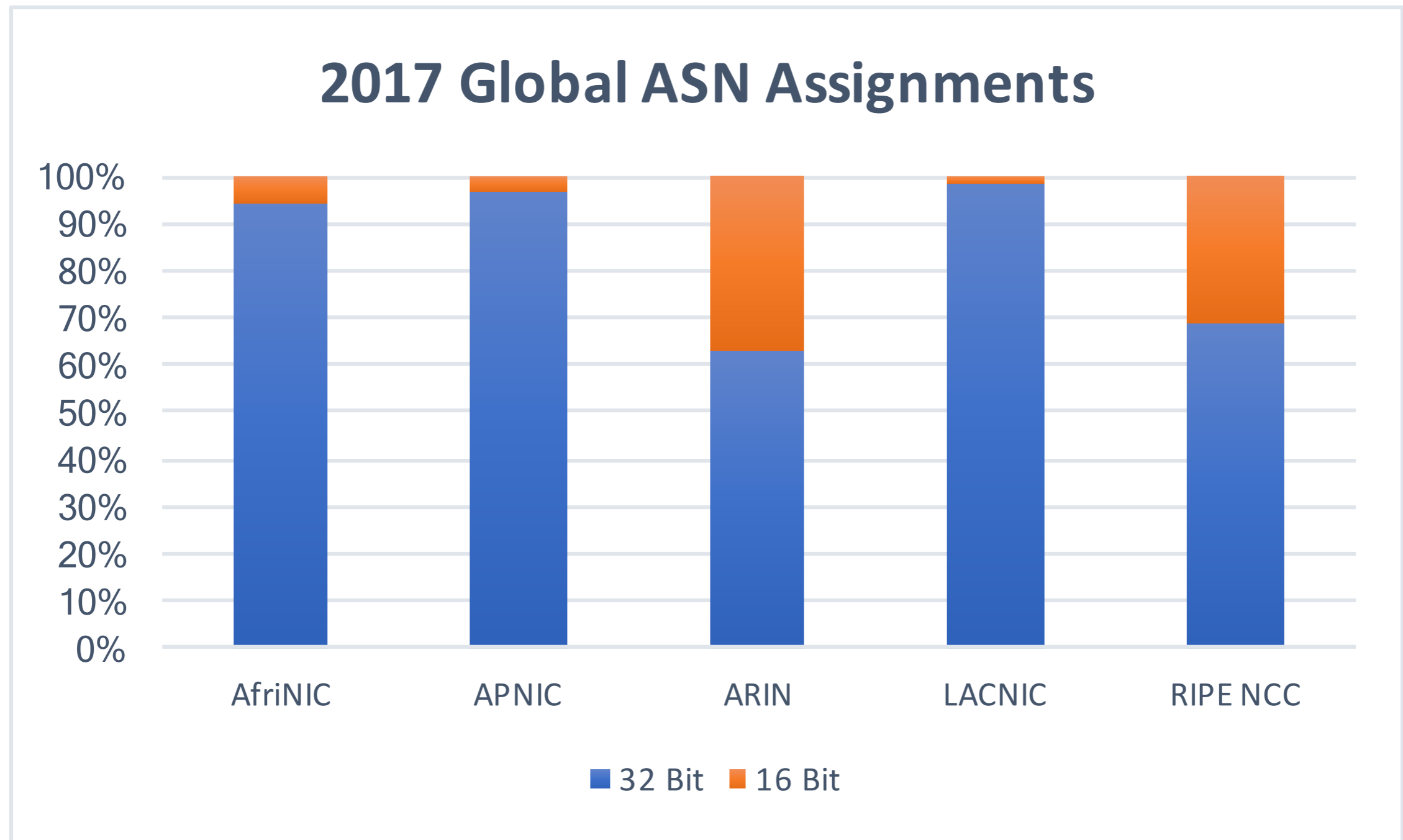


32-bit ASN Uptake

32 vs 16-bit ASN Assignments



In Other Regions



Current ASN Policy



*From 1 January 2010 the RIPE NCC will cease to make any distinction between 16-bit AS Numbers and 32-bit only AS Numbers, and it will operate AS Number assignments from an undifferentiated 32-bit AS Number allocation pool **

www.ripe.net/publications/docs/ripe-679#ASnumbers*

Current Process



- My (customers) equipment does not support 32-bit ASNs

Please explain why you need a 16-bit AS Number



Continue



Where to From Here?

- Is there a concern about 32-bit ASN adoption?
- If so, should the RIPE NCC ask for more justification for 16-bit ASNs?



“Organisation” in IPv6

IPv6 Policy



To qualify for an initial allocation of IPv6 address space, an organisation must:

a) be an LIR;

b) have a plan for making sub-allocations to other organisations and/or End Site assignments within two years



Members with Multiple LIRs

- “Organisation”, “member” and “LIR” used interchangeably
- Increase of multiple LIRs per RIPE NCC member (organisation)
- Several requesting IPv6 allocations for each of these LIRs, resulting in multiple IPv6 allocations per organisation
 - ~450 RIPE NCC members
 - ~670 LIR accounts
 - ~800 IPv6 allocations

Our Current Process



- We ask why they need multiple IPv6 allocations:
 - By mistake
 - Because I can
 - To avoid having to justify a larger IPv6 allocation
 - Stockpiling (IPv6 may become as valuable as IPv4)

“Organisation” as “LIR”?



- Advantages
 - Policy Alignment between IPv4 and IPv6 allocation practices
 - Clear and straightforward allocation rules
- Disadvantages
 - Potential to receive large amount of IPv6 without justification

...or “Organisation” as “Member”?



- Advantages

- Ensures that larger allocations must be justified
- Avoids wasteful stockpiling of IPv6 allocations

- Disadvantages

- Difference between IPv4 and IPv6 policies remains
- More administrative overhead



IPv4 IXP Assignments

IPv4 IXP Assignment Status



- A /16 is reserved for exclusive use by IXPs
- IP space returned by IXPs will be added to the reserved pool for IXP use
 - 96 x /24 assignments made under this policy
 - 160 x /24 blocks of the reserved /16 are still available

IPv4 IXP Assignment Policy



“This space will be used to run an IXP peering LAN; other uses are forbidden” (ripe-680)

- Our interpretation
 - Peering LAN only, no visibility in global routing tables
 - Reduces the risk of abusing the IXP policy
- 12 IXP assignments issued have been visible in global routing tables
 - Most stopped announcing the address space

Debating Our Interpretation



- What is needed to run an IXP peering LAN?
 - Announcing address space for problem diagnosis (ping/traceroute)?
 - Running route servers peering LAN?
 - Web servers for IXP website and other services?
 - Office network?
- Where do we draw the line?



Questions



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