RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Feedback From RIPE NCC Registration Services

Andrea Cima | 24 October 2017 | RIPE 75

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- Outdated text references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Outdated Text References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 *

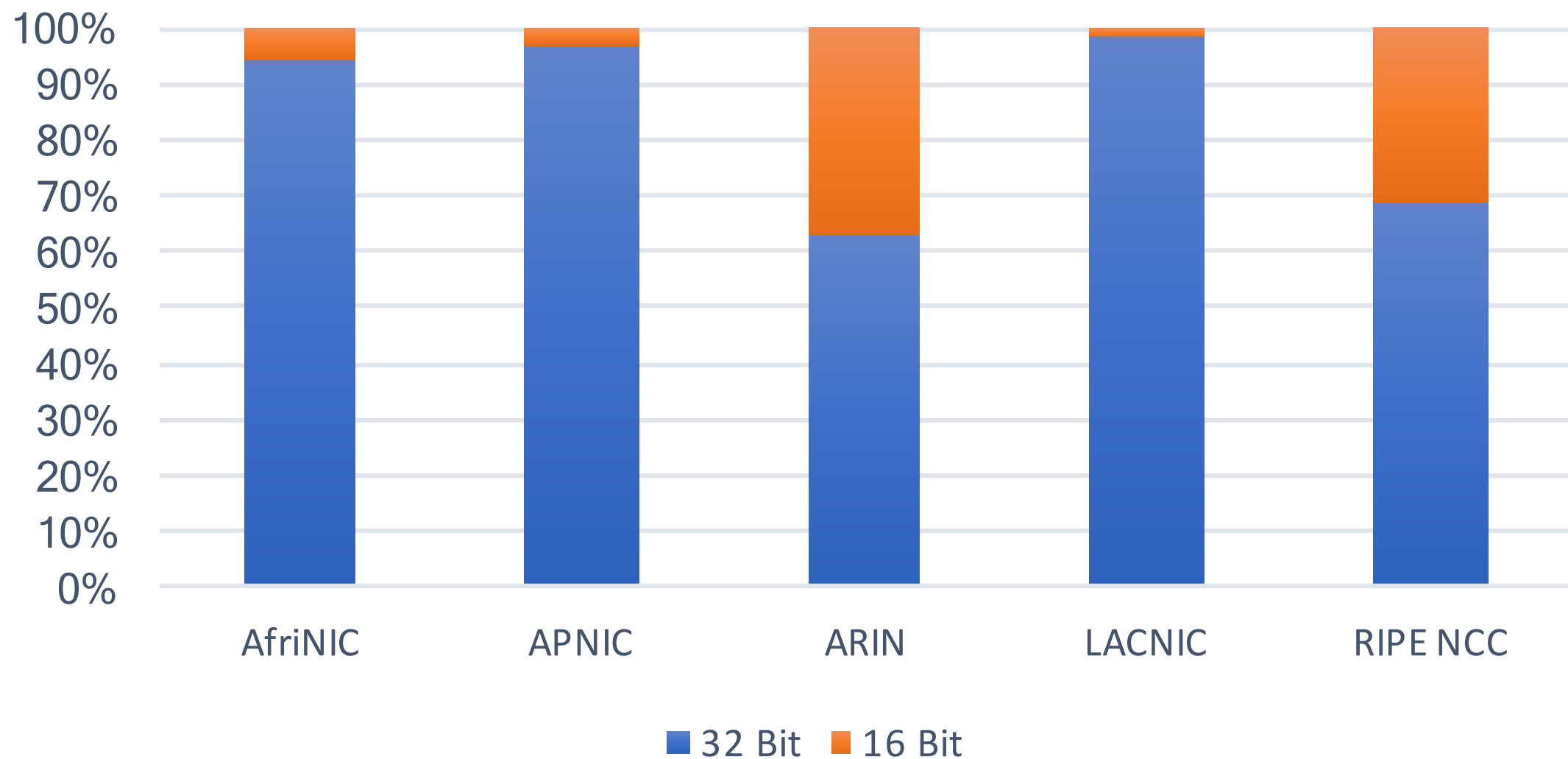**www.ripe.net/publications/docs/ripe-639** *

32-bit ASN Uptake

32 vs 16-bit ASN Assignments
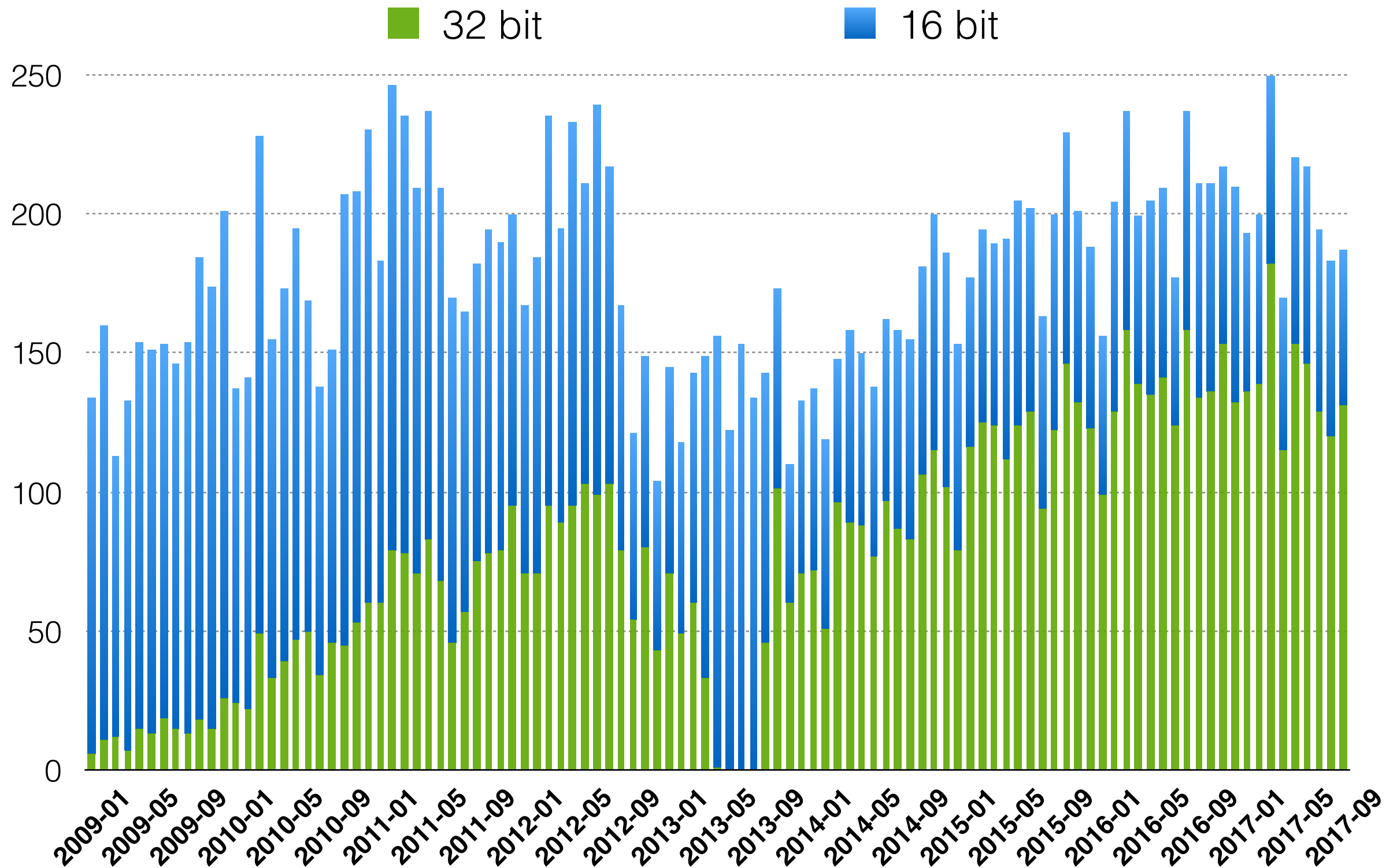
In Other Regions

2017 Global ASN Assignments

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

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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 **<u>initial</u>** allocation of IPv6 address space, an **<u>organisation</u>** must:*

*a) **<u>be an LIR</u>**;*

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 <u>run an IXP peering LAN</u>; 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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