IPv6 Subsequent Allocation Criteria Change Informal Proposal

Piotr Strzyżewski, Jakub Jermak, Adam Osuchowski Silesian University of Technology, Poland

Problem description

There are LIRs with more than 1 ASN.

Having only one initial allocation of IPv6 (/32), before reaching proper HD-ratio, those LIRs cannot get another IPv6 prefixes to advertise under their other AS to implement their routing policies.

Having only one initial allocation of IPv6 (> /32), those LIRs cannot legally deaggregate it to smaller ones (up to /32) to advertise under their other AS to implement their routing policies

Current Alternatives

- advertising parts of initial allocation under different AS and risking being filtered out (filtering based on /32 or at least on published Longest Prefix Tables; See RIPE-404 - it exists ;-))
- setting up new LIR and requesting initial allocation, then advertising it under another AS (doesn't make sense to artificially create new LIRs only to get new addresses)

Proposal

Change IPv6 Assignment and Utilisation Requirement Policy to allow LIRs having more than 1 AS:

- to get more than one IPv6 prefix before reaching proper HD-ratio (total number of IPv6 prefixes equals number of AS allocated to that LIR)
- to deaggregate their allocation(s) legally to smaller ones (still >=/32)

Advantages of proposal

- much easier for LIRs to implement their routing policies based on different AS
- promoting IPv6
- conservation is not a (primary) goal anymore (comment from the floor on RIPE-53)
- eliminates policy workarounds

Disadvantages of proposal

- routing reason
- quicker growth of the routing tables
- possible abuse

Questions, ideas, feedback?

Piotr.Strzyzewski@polsl.pl Jakub.Jermak@polsl.pl Adam.Osuchowski@polsl.pl