draft-moreiras-v6ops-rfc3849bis

{Antonio Moreiras, Edwin Cordeiro, Rodrigo Santos} @ NIC.br
Arturo Servin @ LACNIC
Alejandro Acosta @ Universidad Nueva Esparta

What?

- **2001:db8::/32** is reserved for use in examples in RFCs, books, documentation, and the like.
- The authors would like to use this address block to write didactic materials, and didactic laboratories usage, but it is **too small**.
- We (and other groups) are using other prefixes in these situations.
- We would like to have a **shorter prefix for documentation** or **more documentation prefixes.**

Examples

- A document, or didactic lab showing 2 or more Autonomous Systems, each one with a minimal allocation size block (/32), peering with each other. It is impossible to use 2001:db8::/32.
- Documentation involving some transition techniques, such as 6rd, 464XLAT or MAP-E. In some configurations a /32 IPv4 is embedded in the IPv6 prefix. If we use a subnet of the 2001:db8::/32 as the transition technique prefix, the user prefix will be bigger than /64, breaking SLAAC.

ULA

- It is **possible** to use ULAs in these situations, but **didactically it is not advised**.
  - It's very difficult to explain to people learning IPv6, that IPv6 ULA != (RFC 1918 + NAT IPv4). It would not be good to use ULA to represent a GUA in the documentation, or didactic labs.
- After discussing in the list, in version -01 of the draft we are asking also the reservation of a dedicated ULA prefix for documentation.

Possibilities discussed in the list

- **2001:db8::/29**
  - We would need to ask APNIC
  - Too small
  - Need to modify filters
- **0200:db8::/NN** or **0201:db8::/NN**
  - From OSI NSAP-mapped prefix set (deprecated)
  - No need to modify filters
- **3ffe:db8::/NN** or **5f00:db8::/NN**
  - From 6bone (deprecated)
  - No need to modify filters
  - 3ffe:: is in 2000::/3 (GUA space)
- **4D0C::/NN** or **2D0C::/NN**
  - Easy to remember and identify
  - 4DOC::/NN is not in GUA space
  - 2DOC::/NN is in GUA space
  - Need to modify filters
- others?

- **fc00:db8::/MM**
- others?

- **/NN = /24** ?
  - Ex: **3ffe:d00::/24**
  - Authors use a /28 in trainings today
  - RFC 5398 reserves 32 ASNs for documentation
    - At least a /27 ?
    - /24 (4 bit boundary) ?
  - 4 x /29 ?

- **/MM = /40 ?**
  - Ex: **fc00:db8::/40**

What are we asking here?

- Feedback
  - Can we proceed?
  - Any ideas about the best approach?
- RFC 3849 originated in 6man, and next versio of this draft should go there...