draft-ietf-v6ops-rfc3849-update-00 Expanding the IPv6 Documentation Space

Geoff Huston, APNIC

Nick Buraglio, ESnet

Current Situation

2001:db8::/32 reserved by RFC 3849 in 2004

A /32 cannot describe many existing network scenarios as its too small

Documentation either "borrows" from other space to use examples with realistic prefix lengths or uses smaller prefix lengths to make the example network fit into a /32

Proposal

- Add <TBD>::/20 to the IANA Special Purpose IPv6 Address Registry as an additional documentation prefix
- It's a prefix size comparable to the larger IPv6 deployments to date
- It is 4,096 /32s out of a total pool in 2000::/3 of 536,870,912 /32's or 0.00076% of the IPv6 Global Unicast address space

Will someone be back again in 20 years time asking for more?

Nothing is impossible, but it's unlikely!

"The four largest assignments made to end users have been /19s, but these allocations were made before the RIRs' address allocation policies moved away from the use of a fixed /48 site address prefix IPv6 address assignment policies, and in the foreseeable future it's unlikely that individual networks require more than a /20. It is believed that a reservation of a /20 would cover the documentation needs as they relate the broad range of realistic network deployments."