Reservation for Private Use ASNs
draft-mitchell-idr-as-private-reservation-00

Jon Mitchell
(Jon.Mitchell@microsoft.com)
Purpose of Draft

• Provide Greatly Expanded Range of Private Use ASNs in “4 byte only” space
  – Current limit of 1023 ASNs is too small for many organizations

• Document both existing and new range in same document to prevent confusion
  – Clarify end of existing range – RFC 1930 does not match IANA current reservation
  – Update very old RFC 1930 (Guidelines for use/registration of ASNs) with a document just about the private use reservation
Closed Issues

• Clarify (fix) end of existing range
  – In -01 plan to end both ranges one before last available number
    \((2^{16}-2, 2^{32}-2)\) based on list feedback

• Private Use Cases versus registering Public ASNs
  – don’t plan on discussing today
    – Don’t feel private ASN use cases require justification
      • many more private ASNs in use (overlapping) than public
      • private use cases exist with no Internet connectivity requirements
    – Fairly large administrative and some financial burden to use a
      routing protocol if public ASN always required
    – Feel free to continue debate on the list – don’t think this time
      slot can do it justice
Open Issues

• Range Size – proposed ~1M ASNs
  – Existing range was 1.56% of original 2 byte space
  – New range(s) proposed would represent .02% of 4 byte space
  – Most feedback was size big enough
    • some said too big (don’t want people to have this many private ASNs as they may use them for inappropriate use cases)
    • some said too small (why not more, not much of total space, avoid updating range again)
  – Numbers to chew on – orders of magnitude
    – ~100K - physical servers quoted by some DC builders
    – ~37K - location for fast food chain
    – ~10-20K - number of ATMs for largest US banks
Open Issues

• Range Structure – currently proposed was decimal boundary, meant to be easily visible in asplain notation (4294XXXXXX+)
  – Alternative proposal was easily visible in asdot and when troubleshooting code
    • 1111 1111 1111 XXXX XXXX XXXX XXXX XXXX XXXX aka 65520.0 – 65535.65534
Questions?