Updating RFC 6890

Ron Bonica
Michelle Cotton
Brian Haberman
Leo Vegoda
Why Update 6890?

- Nebulous definition of "global" has caused implementation issues.
- Affects the view of Unique Local Addresses (RFC 4193).
- Pick up errata filed against 6890.
No Crisp Definition of *Global*

- RFC 4291 says most of the IPv6 address space is reserved for Global Unicast addresses.
- ULAs are drawn from the global unicast address space.
- RFC 4193 says:
  - ULAs are a globally unique prefix
  - In practice, applications may treat these addresses like global scoped addresses.
- 6890 says:
  - Global - A boolean value indicating whether an IP datagram whose destination address is drawn from the allocated special-purpose address block is forwardable beyond a specified administrative domain.
  - **Global = False**, Forwardable = **True** for ULAs
Errata Points Out Inconsistency

- Other address types affected as well...
  - Erratum 3921 points out related issue with TEREDO's value of *Global*.

- Primary issue is the subtle difference between globally unique and globally reachable.
Proposed Changes in 6890bis

❖ Change column name from Global to Globally Reachable
  ❖ Captures the intent of the column
  ❖ Avoids conflict with ULAs being drawn from global unicast space

❖ Mark TEREDO as Globally Reachable = N/A and add footnote for more details (matches 6to4)

❖ Mark ULAs as Globally Reachable = False and add footnote for more details (point to routing discussion in RFC 4193).
Next Steps

❖ Need review and discussion on these proposed changes.
❖ This draft is clearly of interest to 6man participants, but scope of 6890 spans many areas.
   ❖ RFC 6890 was AD-sponsored.
❖ Will probably ask intarea WG to host discussion.
❖ Solicit an INT AD to sponsor.

❖ Question?