Tunnels in the Internet Architecture

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Status

• Major revision (04)
  – Complete text revision
  – Updates summarized on next page
  – (05) catches some typos (posted Monday AM)

• Impact

• Need to decide path forward
  – BCP (preferred by authors) vs. informational
  – If BCP, recommendations in section 5 will be completed
04/05 Update Summary

• Changes
  – Complete terminology scrub, using existing terms where possible (see next slide)
  – Clarifications throughout
  – Sec. 4 reorganized (grouped subsections)
  – Fleshed-out existing protocols issue list (5.2)

• Additions
  – Load balancing considerations (4.3.4)
  – Summary of recommendations (5.1)
Terminology resolution

- Use existing terms where possible
  - **MTU** is *link payload* (RFC 1122, 1812)
  - **EMTU_S** is *link payload* sender limit (may or may not avoid src frag, RFC 1122)
  - **EMTU_R** is *link payload receiver* (reassembly) limit (RFC 1122)
  - **PMTU** is max(MTU), defines largest atomic packet or fragment
  - **Link packet** (to be added to 06 - link layer message)
  - **Atomic packet (“atom”)** is not (source) frag’d and not frag-able (on path) (RFC 6864)

- Add new terms in the style of old ones
  - Tunnel **MTU** = MTU of tunnel as a link
  - Tunnel **link packet** = link packet of tunnel as a link
  - Tunnel **atom** = atomic packet of a tunnel
  - **MFS** = link equivalent of MTU
  - **EMFS_S** = link equivalent of EMTU_S
  - **EMFS_R** = link equivalent of EMTU_R
  - Path **MFS (PMFS)** = link equivalent of PMTU

- And only a few that don’t have a corresponding style
  - Tunnel **transit** packet = IP that transits a tunnel
  - **Inner/outer** fragmentation (as commonly used)