



Tunnels in the Internet Architecture

draft-ietf-intarea-tunnels-04/05

IETF 98 - Chicago



Joe Touch, USC/ISI
Mark Townsley, Cisco



Status

- **Major revision (04)**
 - Complete text revision
 - Updates summarized on next page
 - (05) catches some typos (posted Monday AM)
- **Impact**
 - NVO3 tunnel, PMTU/1981bis, et al.
- **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 (RFC1122)
 - **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)

LEGEND:

- Blue** = link payload (MTU)
- Red** = phy layer payload (MFS)
- Green** = copy style (add “tunnel”)
- Purple** = new terms