

Deprecate IP Fragmentation



(summary by Joe Touch)

- **draft-bonica-6man-frag-deprecate**
 - Deprecates the IPv6 frag header
- **Arguments in favor**
 - IPv6 requires MTU of 1280, and MRU of 1500
 - Fragmentation creates vulnerabilities, works only at source
- **Arguments against**
 - Impacts transport
 - PMTUD [RFC 1981] silently fails if ICMPs are blocked
 - PLMTUD [RFC4821] isn't widely deployed
 - Impacts tunneling – makes IP-in-IP tunneling difficult
 - Tunnels add headers
 - Original source MTU won't fit over tunnel MTU (to add IP, IPsec, GRE, etc.)
 - MRU-MTU is the tunnel support headroom
 - PMTUD requires ICMP inside tunnel and relay back to source
 - PLMTUD requires signaling *inside* tunnel (e.g., SEAL [RFC5320] AND between the (outer) endpoints