draft-venaas-bier-mtud-00

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BIER MTU discovery

- It is useful for a BIER ingress router to know the BIER MTU
  - Respond with ICMP message to allow IP PMTUD.
  - Overlay signaling (Send PIM join or IGMP report for many groups (but within MTU))

- This draft defines how to find a sub-domain wide MTU
  - Independent of receiver set
  - Somewhat independent of re-routing

- draft-ietf-bier-path-mtu-discovery provides MTU discovery
  - But probe based and only gives MTU for current receiver set and paths
  - If anything changes, need new probe to find new MTU

- Idea is to find an MTU value that is mostly stable and can be used for all BIER packets in a sub-domain, rather than finding the optimal MTU per

Sub-domain MTUd

- Each router announces its "local" sub-domain MTU in a sub-TLV of the BIER TLV
    - A local interface is a BIER interface in a given sub-domain if there are neighbors in the sub-domain
    - The BIER MTU of a BIER interface is the largest BIER payload that can be sent with BIER encapsulation out that interface.
    - The local sub-domain MTU is the smallest BIER MTU of all local BIER interfaces in the sub-domain
- The sub-domain MTU is the minimum of all the MTUs announced in the sub-domain
    - A BIER TLV is for a given sub-domain, and the BIER MTU is sub-TLV of that