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