IPv6 Tunnel MTU Configuration

draft-liu-6man-tunnel-mtu-config-00

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IETF 88th
Problem Statement

• Unspecific points of IPv6 Tunnel MTU [RFC2473]:
  • What’s tunnel MTU for point-to-multipoint tunnel?
    • Is Tunnel MTU a fixed value?
    • Change with exit-point?
• No non-PMTUD method defined
  • RFC2473 requires PMTUD to set tunnel MTU
  • DS-Lite and MAP-E suggest non-PMTUD, MTU managed by ISP conflict with RFC2473?
  • Each softwire method deals with MTU issues
Configure Tunnel MTU

- Two methods:
  - (1) Dynamic Configuration
    - Tunnel nodes maintain tunnel MTU table
    - Before encapsulating, look up the table for tunnel MTU value
    - Update the table through PMTUD
  - (2) Static Configuration
    - Operator manages MTU in whole domain
    - Set tunnel MTU to minimum “safe” value
    - When can’t decide: use 1280-40=1240

- (Update RFC2473)

<table>
<thead>
<tr>
<th>Exit-point</th>
<th>IPv6 PMTU</th>
<th>tunnel MTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addr::A</td>
<td>1492</td>
<td>1452</td>
</tr>
<tr>
<td>Addr::B</td>
<td>1480</td>
<td>1440</td>
</tr>
<tr>
<td>default</td>
<td>1500</td>
<td>1460</td>
</tr>
</tbody>
</table>

Tunnel MTU Table Example
Next Steps

• Comments are welcome
  • Do you think this is useful?
  • Should we make an update to RFC2473?