TCB Control Block Sharing: 2140bis

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Changes from -00

• Changes
  – Added TCP option state
    • TFO state – TCP Fast Open Cookie or a negative Fast Open Response in case of failure
  – More discussion of problems related to sharing
  – Relevant references related to ssthresh and RTT sharing issues added
  – Current implementation status for TCB sharing now includes Windows (Thanks Praveen) and TFO
  – Moved T/TCP text to the appendix

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## Deployment summary

<table>
<thead>
<tr>
<th>TCB data</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>old_MSS</td>
<td>Cached and shared in Linux</td>
</tr>
<tr>
<td>old_RTT</td>
<td>Cached and shared in FreeBSD</td>
</tr>
<tr>
<td>old_RTTvar</td>
<td>Cached and shared in FreeBSD</td>
</tr>
<tr>
<td>old_PMTU</td>
<td>Cached and shared in FreeBSD and Windows</td>
</tr>
<tr>
<td>old_TFOinfo</td>
<td>Cached and shared in Linux and Windows</td>
</tr>
<tr>
<td>old_snd_cwnd</td>
<td>Not shared</td>
</tr>
<tr>
<td>old_ssthresh</td>
<td>Cached and shared in FreeBSD and Linux</td>
</tr>
</tbody>
</table>
WG work after adoption

• Proposed algs update
  – TCP control block variables
  – Details for specific TCP options

• Use case recommendations (only if BCP)
  – Recommended do’s and don’ts for deployment
Issues for WG

• Request for TCPM WG adoption
  – WG informational (2140 was informational)
  – WG BCP (to support recommendations – see below)

• Details resolved in the WG after adoption
  – Extended use case discussion
  – Safer TCP control block info sharing equations
  – Safe sharing related to specific options
  – Recommendation “do’s and don’ts” (if BCP)