

TCP User Timeout Option

draft-eggert-gont-tcpm-tcp-uto-option-00

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TCP User Timeout

- ▶ controls how long sent data may remain unacknowledged before a connection aborts
- ▶ usually system-wide constant
 - ▶ O(minutes)
- ▶ **issue: intermittent connectivity**
 - ▶ connections abort if period of disconnection > user timeout

TCP User Timeout Option

- ▶ use per-connection user timeouts
 - ▶ exchange per-connection user timeout with peer through a **new TCP option**
 - ▶ adapt local user timeout accordingly
- ▶ longer timeouts = tolerate longer periods of disconnection
- ▶ draft describes **TCP mod, not policy** for picking appropriate user timeouts

History

- ▶ 2 proposed drafts
 - ▶ draft-eggert-tcpm-abort-timeout-option-00
 - ▶ draft-gont-tcpm-auto-option-00
- ▶ mailing list consensus
 1. area interesting + in scope
 2. drafts similar, merge them
 3. then propose result as WG item
- ▶ this is the first merged version,
but the merge isn't complete

Issue 1: SYN Inclusion

▶ **Fernando**

- ▶ MUST always include UTO if you grok it
- ▶ consistent with other options

▶ **Lars**

- ▶ MUST only include UTO if you're planning to use/accept it for the connection
- ▶ save option space

Issue 2: Timeout Calculation

- ▶ after timeout information is exchanged, how do you then pick a local user timeout value?
- ▶ **Fernando**
 - ▶ use the larger of the two
- ▶ **Lars**
 - ▶ use the smaller of the two
 - ▶ chances are that whoever offered the smaller value had reasons

Issue 3: Affected States

▶ **Fernando**

- ▶ ESTABLISHED, FIN-WAIT-1, FIN-WAIT-2, CLOSE-WAIT, CLOSING, LAST-ACK, TIME-WAIT

▶ **Lars**

- ▶ TIME-WAIT has mandated minimum
- ▶ like to extend to SYN-SENT + SYN-RECEIVED
- ▶ maybe through per-state upper/lower limits for the equation in section 3.2

Shameless Plug

- ▶ **TCP Extensions for Immediate Retransmissions**
- ▶ draft-eggert-tcpm-tcp-retransmit-now-00
- ▶ would appreciate WG feedback

Questions

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