RFC1323bis – TCP Extensions for High Performance
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RFC1323bis – since IETF84

- Only one new comment
  - security implications of TS

- Discussed open points at IETF84
  - no change of text
Open in draft-ietf-tcpm-1323bis-03

- Finalize RFC2119 BCP wording
- Reviews of full document
Changes since draft-ietf-tcpm-1323bis-01

- Changed format from noff to xml2rfc
  - addressed some nits around indentation
  - new citation and TOC style
  - removed references to historic RFC1072
  - Caret ^ instead of C-style ** for exponential notation
Changes since draft-ietf-tcpm-1323bis-01

- Content:
  - Window Scale (WS):
    - sec 2.4 window retraction – M. Mathis
  - Timestamp (TS):
    - sec 3.2 removed text to allow potential in-session negotiation of TS – M. Mathis
    - sec. 3.3 explicitly excluding ACKs with selective acknowledgements (SACK) for round trip-time measurement (RTTM) processing – R. Scheffenegger

- Lots of typos and inconsistencies

Thanks to A. Hoenes, A. Zimmermann
Thank you
Backup
Window Scale Retraction

- Expanded text to dedicated section 2.4
- Explicitly quoted section 4.2.2.16 of RFC1122 to describe the expected behavior.
Timestamp negotiation

- Allow late negotiation:

**Old:**

A TCP may send the Timestamps option (TSopt) in an initial <SYN> segment (i.e., a segment containing a SYN bit and no ACK bit), and may send a TSopt in other segments only if it received a TSopt in the initial <SYN> or <SYN,ACK> segment for the connection.

**New:**

A TCP may send the Timestamps option (TSopt) in an initial <SYN> segment (i.e., a segment containing a SYN bit and no ACK bit).
Timestamp RTTM processing

- Only reflect timestamp from last in-sequence data packet.
- Only process timestamp when new data is acknowledged.
- However, ACK loss may lead to increased RTT (first ACK in a series of duplicates lost)
- Presence of SACK option indicates that reordering/loss was present at the receiver, sender SHOULD ignore that RTT update.