

Profile for DCCP Congestion
Control ID 4:
the Small-Packet Variant of
TFRC Congestion Control

draft-floyd-ccid4-00.txt

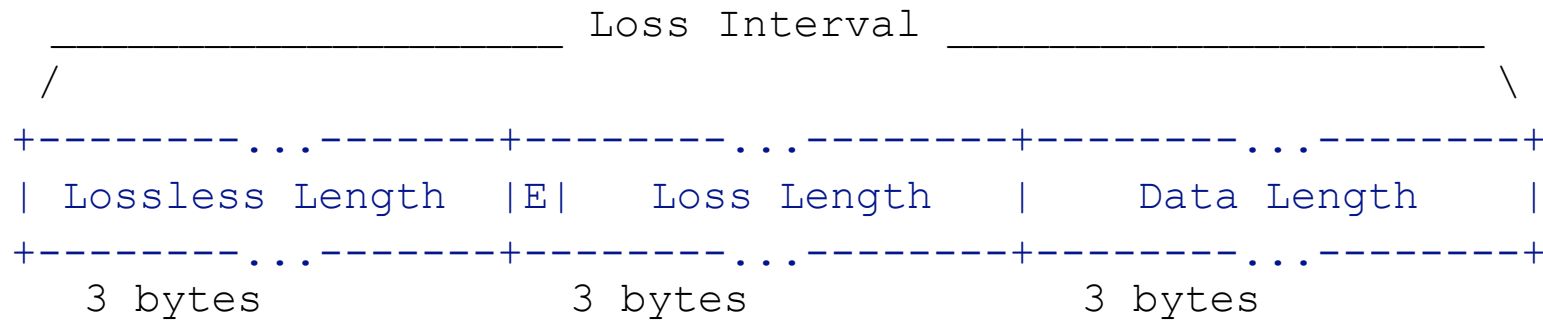
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July 2006, DCCP Working Group

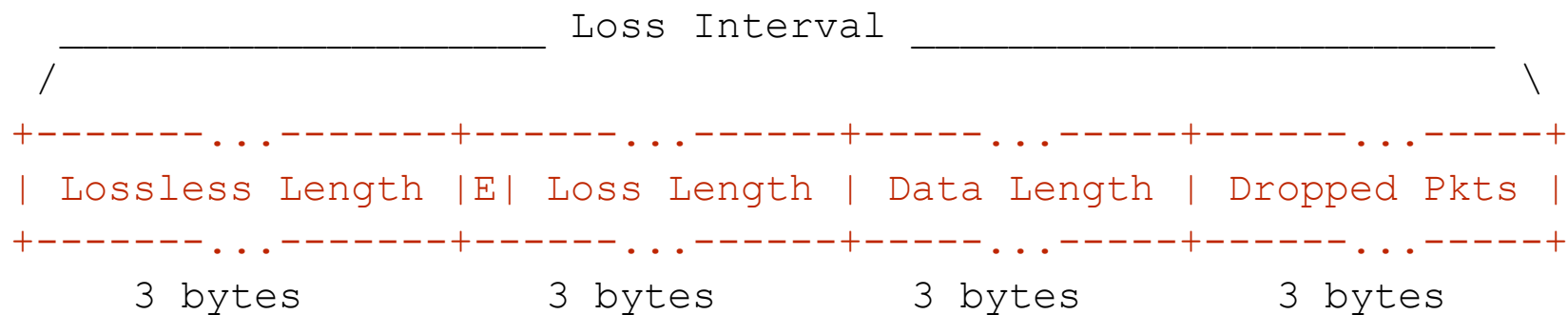
Differences between CCID 4 (for TFRC-SP) and CCID 3 (for TFRC)

- **Header size:** For TFRC-SP, the allowed transmit rate in bytes per second is reduced to account for the packet header size of 32 bytes.
- **Minimum sending rate:** TFRC-SP enforces a minimum interval of 10 ms. between data packets.
- **Loss rates for short loss intervals:** For short loss intervals of at most two round-trip times, the loss rate is computed by counting the actual number of packets lost or marked.
- **The nominal segment size:** In TFRC-SP, the nominal segment size used by the TCP throughput equation is set to 1460 bytes.

The Loss Interval option.



Loss Intervals in CCID 3.



Loss Intervals in CCID 4.

Fields in the Loss Intervals Option:

- **Lossless Length:**
 - Number of packets in lossless part.
 - Used for ECN Nonce Echo.
- **Loss Length:**
 - Number of packets in lossy part.
- **Data Length:**
 - Total number of packets excluding acknowledgements.
 - Used for calculating the loss event rate.
- **Dropped Pks:**
 - Number of dropped packets in lossy part.
 - Used by CCID 4 for calculating the loss event rate for small loss intervals.