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

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draft-floyd-ccid4-00.txt

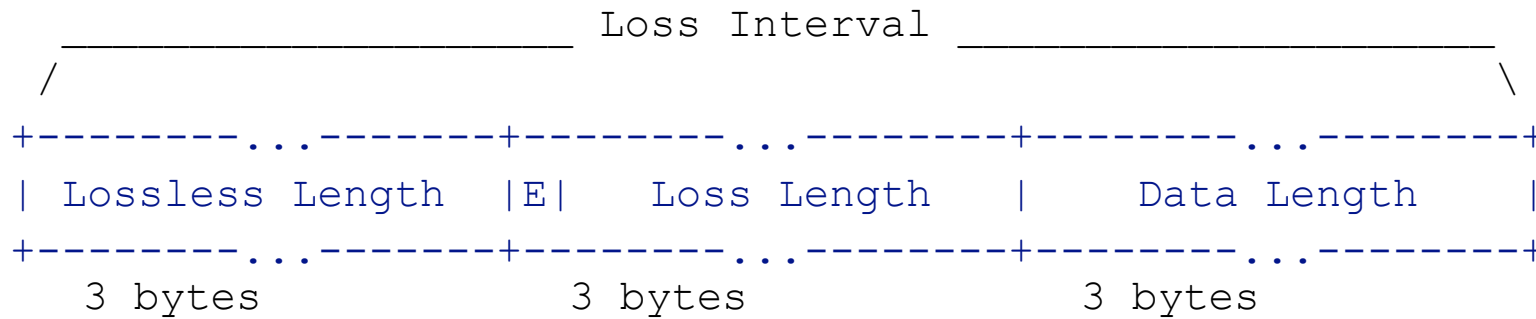November 2006

DCCP Working Group, IETF
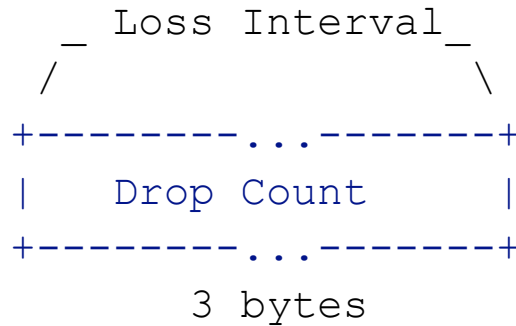
Slides: http://www.icir.org/floyd/talks.html

CCID 4 differences from CCID 3

- Header size:
  - The allowed transmit rate includes headers.

- Minimum sending rate:
  - A minimum interval of 10 ms. between packets.

- Loss rates for short loss intervals:
  - The computed loss rate takes into account the number of packets dropped.
  - If the most recent loss interval is short, it is not included in the calculation of the average loss interval size.

- The nominal segment size:
  - The nominal segment size used by the TCP throughput equation is set to 1460 bytes.

New: a CCID 3 Dropped Packets option

```
                _____ Loss Interval _____
               /                                                           \
      +-------...-------+-------...-------+-------...-------+
      | Lossless Length |E|   Loss Length  |    Data Length   |
      +-------...-------+-------...-------+-------...-------+
         3 bytes              3 bytes              3 bytes
```

The old CCID 3 Loss Intervals Option.

```
          _ Loss Interval_
         /               \                                    \
      +--------...-------+
      |    Drop Count    |
      +--------...-------+
            3 bytes
```

The new CCID 3 Dropped Packets Option.

The CCID 3 Dropped Packets Option

- Specified in draft-kohler-dccp-ccid3-drops-00.txt
  (available from http://www.read.cs.ucla.edu/dccp/).

- ```
  +--------+--------+-------...------+-------+------
  |11000011| Length |   Drop Count   | More Drop Counts...
  +--------+--------+-------...------+-------+------
  Type=195              3 bytes
  ```