

Reporting IP Performance Metrics to Users

draft-ietf-ippm-reporting-02.txt

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Motivation

- Have many metrics
- Richly parametrized
- Very general-purpose
- What should an app like a game report to its users?
- Statistics actually reported are not robust

Status

- On the charter
- Skipped a few meetings
- Draft was expired, now resurrected

Metrics

- Median delay
- Loss ratio
- Delay spread
- Duplication
- Reordering

Median delay

- The reported median delay is the median of all delays in the sample.
- When a packet is lost, its delay is to be considered $+\infty$
- therefore, if more than half of all packets are lost, the delay is $+\infty$.

Loss ratio

- Fraction of packets that didn't arrive intact within timeout, %
- timeout **MUST** be 2 seconds by default

Delay spread

- 75th percentile - 25th percentile
- a metric to represent what is commonly referred to as "jitter"

Duplication

- fraction of transmitted packets for which more than a single copy of the packet was received within the timeout
- can't exceed 100% even if more packets are received than sent
- draft-ietf-ippm-duplicate-04.txt: does it fit?

Reordering

- fraction of sent packets for which the sequence number of the packet received immediately before the first copy of the given packet is not the decrement of the sequence number of the given packet
- needs reference

Open issues

- References
- Do we need to block on duplication?
- Sliding window?
- Exclude “network down” periods?
 - The metrics are short-term
- What else?