

Network Performance Measurement for Periodic Streams (npmps)

`<draft-ietf-ippm-npmps-00.txt>`

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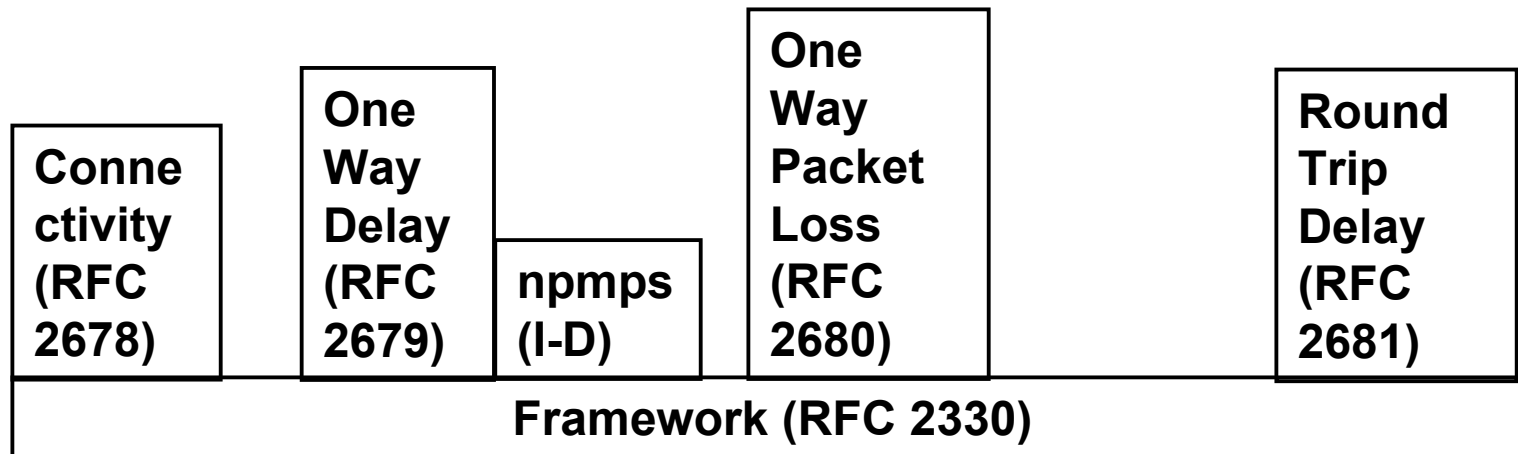
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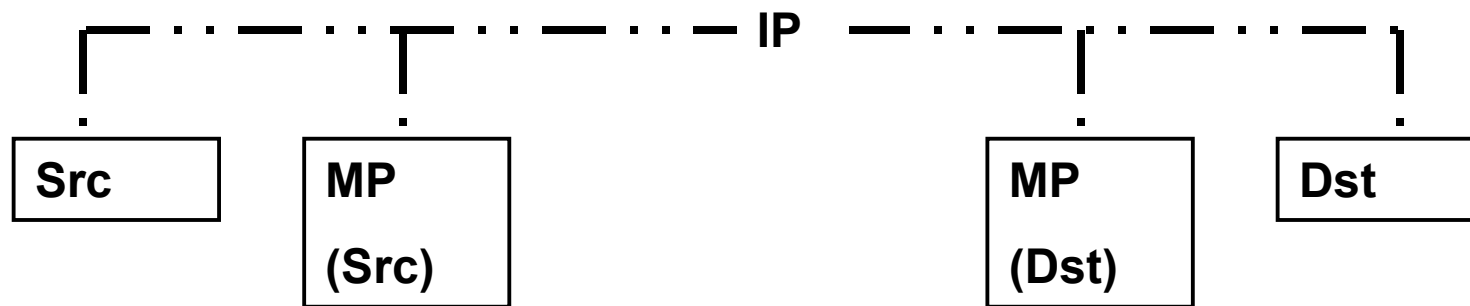
npmps: The Reason

- **One Way Delay (RFC 2679) recommends Poisson distribution of sending times.**
- **Many applications (voice, video, multimedia) have very regular sending times (dubbed “periodic streams”).**
- **Other characteristics besides delay (packet loss, out of sequence, duplicate, corruption) may affect certain applications.**

IPPM Domain Mapping for npmps



npmps: The Set-up



MP: Measurement point. A non-host MP may be useful for independence of testing or where conducting measurements ON THE HOST would change the performance of Src and/or Dst

npmps: The More Complex Metric

- **A key difference from RFC 2679 (more text to be added to npmps) is that a “singleton”* may only provide some parameters of interest; a “sample”* would provide more (out of sequence, duplicate, spurious,etc.)**

npmps: The Future

- **Iterate on this document**
 - Discussion of “singleton”; more on “sample”
 - Discussion of “sample of samples”; use of Poisson interval between samples.
 - Determine applicability of “jitter” in the context of this metric
- **Prepare for standards track by IETF #48.**

npmps: The Argument

- **Backup slides on the metric parameters are included.**
- **Questions/comments/”flames”?**

IPPM Mailing List Comments to I-D (1)

- **Improve mapping of npmps to IPPM Framework**
 - progression from Singleton to Sample is not clear
- **Utilize Poisson inter-arrival intervals between packet streams, since multiple packet streams may be necessary to obtain meaningful performance metrics (“sample of samples”)**
- **Improve definition of incT, i.e., is it first bit of packet 1 to first bit of packet 2, or from the last bit of packet 1 to first bit of packet 2**
- **Should the Threshold for Delay Equivalent to Loss (dTloss) remain an optional parameter, or be included in metrics for applications in which the parameter is important? Would this parameter ever NOT be important (i.e. unbounded)?**

IPPM Mailing List Comments to I-D (2)

- **Would considering the measurements taken for each packet stream as a singleton metric, and defining the sample metric as data from multiple packet streams, increase the value of the metric? Or would keeping the definition of the packets streams as a “sample of samples” be more appropriate?**
- **Suggestion to specify alternative Statistics to be reported which might correspond to typical application receivers, depending upon which parameters are considered critical (e.g. delay variation, out of order packets, etc.)**