Metrics and Methods for IP Capacity

draft-morton-ippm-capcity-metric-method-00

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Define the Metric

• Maximum IP-Layer Capacity (incl header + payload)
• One of many metrics that could be defined
• Word Def. and an Equation (with variables explained)

\[
\text{max} \ ( n_0[dtn-1,dtn] ) \\
[T,T+I]
\]

\[
\text{Maximum}_C(T,I,PM) = \frac{\text{-------------------------}}{dt}
\]

where:

\[
T < \quad \text{Measurement Interval} \quad \quad \quad \rightarrow \quad T+I
\]

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\[
dtn=0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad m=10
\]

sub-intervals
Define the Method

- “PM” is short-hand for the performance constraints on the Load Rate Adjustment Alg.

START: New Status Report

INITIALIZE: Sending Rate = Starting Rate

Seq Errors = 0 and DelayVar <= LowThresh

YES

NO

Seq Errors > 0 or DelayVar > UpperThresh

YES

Increase SlowAdjCount by 1

NO

Sending rate < HSpeedThresh and SlowAdjCount > SlowAdjThresh

YES

Decrease Sending Rate by HighSpeedDelta times 3

NO

(Congestion Previously confirmed)

Increase Sending Rate 1 Step

START: New Status Report

WAIT for New Status Report
Recent Test Results

F-PON Middletown - Downlink, Gbps

Udpst and Ookla Web Sockets Clients

Udpst and Ookla Web Sockets Servers

1Gbps Access Service and IXP
Next Steps

Everyone: read the draft and the background:

• Hackfest 105 Slides: New Test Results
• Liaisons from ITU-T SG 12 and ETSI TC STQ – see email for links, or
• https://datatracker.ietf.org/liaison/1645/
• https://datatracker.ietf.org/liaison/1643/
• https://datatracker.ietf.org/liaison/1634/
• https://datatracker.ietf.org/liaison/1632/
• More Test results in the Liaison attachments
• Review Volunteers, Please...