Packet loss Measurement Model
draft-bhaprasud-ippm-pm-03

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Overview

• Objective:
  • Define fine granularity performance measurement between end points based on SLA
    • COS based Loss Measurement
    • Color Based Loss Measurement
    • COS and Color based Loss Measurement
    • …
  • Focus on measurement model instead of protocol design
    • Model is agnostic to overlay and underlay.
  • This model can be used for Active and Passive measurements.

• Motivation:
  • measuring the network performance and assessing network quality to meet user expectation is very challenging.
  • PM related telemetry become important for better troubleshooting and fault localization.
    • Especially information related network element and interface in the path involved with the session
  • ITU-T SG12 Q16 has initiated a new work on “Framework for Intelligent Network Analytics and Diagnostics”
    • Performance data is one of data source for network analytics
  • iOAM work discussed recently focuses on carrying OAM and telemetry data but the measurement PM related telemetry data is not covered.
Document Status Update

• The latest version v-03 is submitted with the following changes:
  • 1 Address the relationship with MEF work
  • 2 Expand the scope to cover delay measurement and delay variation measurement.
  • 3 Add more details to section 4.
  • 4 Update definitions in the section 2.
  • 5 Change the title to performance measurement model.
Measurement Models

- Complete Data measurement in one direction.
- Color based Data measurement.
- COS based Data measurement.
- COS and Color Based Measurement.
- Active and Passive Measurement.
- Provision for Real Time analytics.
- Small milestone towards Self Driving networks
Use Case for Packet loss Measurement Model

Both P2P and MP2MP are covered. For instance in a P2P scenario:

<table>
<thead>
<tr>
<th>Service</th>
<th>Bandwidth (SLA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice Service</td>
<td>40% strict</td>
</tr>
<tr>
<td>Service A</td>
<td>30%</td>
</tr>
<tr>
<td>Service B</td>
<td>20%</td>
</tr>
<tr>
<td>Service C</td>
<td>10%</td>
</tr>
</tbody>
</table>
Next Steps

• Draft Must be reviewed.
• Comments anticipated.
Thank you