Monitoring Service KPIs using TWAMP - Methodology

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Overview

Goal
To extend TWAMP [RFC 5357] to do services KPI monitoring

Why use TWAMP?

Purpose
1. Extension of the modes of operation
2. Addition of new command types
3. Use of existing padding octets to carry KPI data
Communication diagram
TWAMP Control extensions

1. Connection setup
2. Request (REQ) command
3. Response (RESP) command
4. Indicator (IND) command
5. Acknowledge (ACK) command

- Command numbers for each of need to be allocated by IANA (see Sec. 6 in draft)
IANA Consideration

1. TWAMP modes registry [RFC 6038]
   - Value (proposed 256)
   - Description – Service KPI Monitoring Capability (SKMC)
   - Semantics (proposed 8)

2. TWAMP-Control Command Number Registry [RFC 5938]
   - Value (proposed 11)
   - Description SKMC
IANA Consideration (contd)

3. TWAMP Services KPIs sub-type Registry 0
   - 0 Reserved
   - 1 REQ (Sec 4.1.2)
   - 2 RESP (Sec 4.1.3)
   - 3 IND (Sec 4.1.4)
   - 4 ACK (Sec 4.1.5)

4. TWAMP Services KPIs Registry
   - 1 Keepalive
   - 2 Service Latency
   - 4 Serviced Packets Count
TWAMP Test extension

Important Fields
- Service ID
- Sequence Number
- Timestamp
- Error Estimate
- Sender TTL
- Monitor Services KPIs bitmask
Next Steps

• Seek Reviewers from ippm community
• Comments are welcome
• Call for WG adoption
Q&A

Thanks to IPPM WG for their time & comments.