# 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

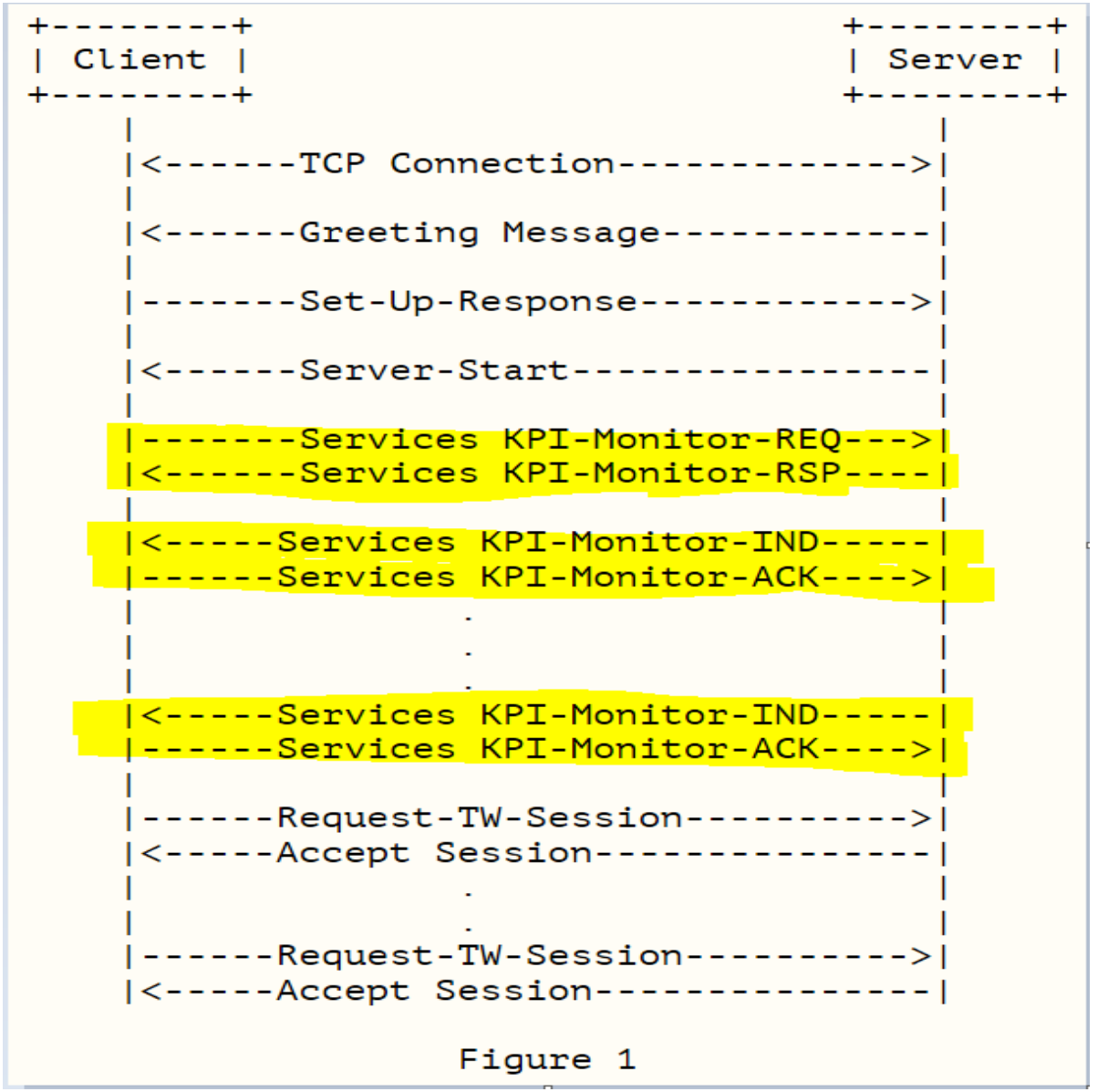


Figure 1

# 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.