

TWAMP Light YANG data model

draft-mirsky-ippm-twamp-light-yang-03

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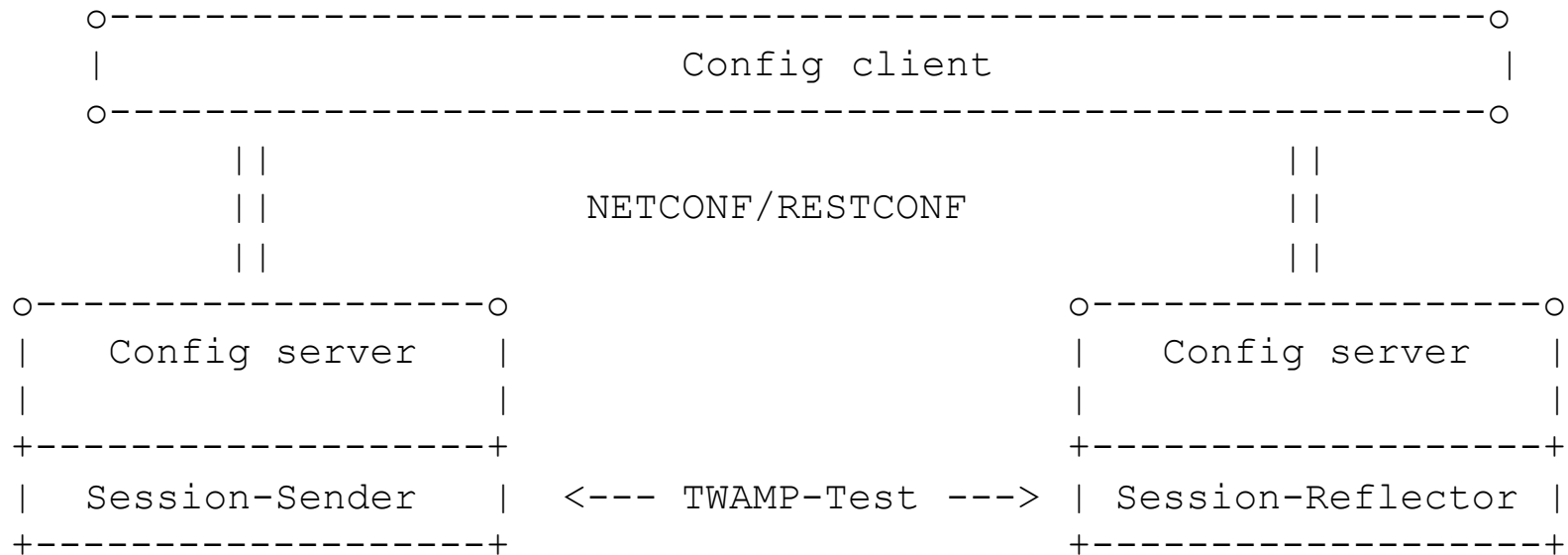
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What is new in -03

- updated twamp-light-session-sender and twamp-light-session-reflector;
- added twamp-light-state with twamp-light-session-sender-state and twamp-light-session-reflector-state to report state and performance metrics of the particular Session-Sender and Session-Reflector;
- added RPCs:
 - twamp-sender-start;
 - twamp-sender-stop.

SDN-based TWAMP-Light



TWAMP Light Reference Model

Operational State and Performance Metrics

```
+--ro current-stats
| +--ro start-time      yang:date-and-time
| +--ro number-of-packets?  uint32
| +--ro packet-padding-size?  uint32
| +--ro interval?      uint32
| +--ro duplicate-packets?  uint32
| +--ro reordered-packets?  uint32
| +--ro loss-packets?    uint32
| +--ro sender-ip      inet:ip-address
| +--ro sender-udp-port  inet:port-number
| +--ro reflector-ip    inet:ip-address
| +--ro reflector-udp-port  inet:port-number
| +--ro dscp?          inet:dscp
| +--ro sent-packets?   uint32
| +--ro rcv-packets?   uint32
| +--ro sent-packets-error?  uint32
| +--ro rcv-packets-error?  uint32
| +--ro last-sent-seq?   uint32
| +--ro last-rcv-seq?   uint32
| +--ro two-way-delay
| | +--ro delay
| | +--ro delay-variation
| +--ro one-way-delay-far-end
| | +--ro delay
| | +--ro delay-variation
| +--ro one-way-delay-near-end
| +--ro delay
| +--ro delay-variation
```

Delay and Delay Variation

```
grouping delay-statistics {
  description "delay statistics grouping";
  container delay {
    description "Packets transmitted delay";
    leaf min {
      type yang:gauge32;
      units microseconds;
      description "Min of Packets transmitted delay";
    }
    leaf max {
      type yang:gauge32;
      units microseconds;
      description "Max of Packets transmitted delay";
    }
    leaf avg {
      type yang:gauge32;
      units microseconds;
      description "Avg of Packets transmitted delay";
    }
  }
}
```

```
container delay-variation {
  description "Packets transmitted delay variation";
  leaf min {
    type uint32;
    units microseconds;
    description "Min of Packets
transmitted delay variation";
  }
  leaf max {
    type uint32;
    units microseconds;
    description "Max of Packets
transmitted delay variation";
  }
  leaf avg {
    type uint32;
    units microseconds;
    description "Avg of Packets
transmitted delay variation";
  }
}
```

Next steps

- Work on open issues
 - Measurement Data Model
 - DSCP and ECN Monitoring
 - Registered UDP port number for Light Reflector
- Comments are always welcome
- Contributions and collaboration