On-path Telemetry YANG Data Model

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On-path Telemetry YANG Data Model

This document proposes a YANG data model for monitoring on-path telemetry information.

- AltMark and IOAM are the on-path hybrid measurement methods considered.

```
module: on-path-telemetry
  +--ro on-path-telemetry-data
    +--ro timestamp?       yang:date-and-time
    +--ro acquisition-method? identityref
    +--ro emission-type?   identityref
    +--ro interface*       [if-name]
    +--ro if-name           if:interface-ref
    +--ro profile-name     string
    +--ro filter
      | +--ro filter-type?  telemetry-filter-type
      | +--ro ace-name?     -/acl:acls/acl/aces/ace/name
      +--ro protocol-type? telemetry-protocol-type
    +--ro node-action      telemetry-node-action
    +--ro period?          uint64
    +--ro period-number?   uint64
    +--ro flow-mon-id?     uint32
    +--ro method-type?     altmark-method-type
    +--ro altmark-loss-measurement?
      | +--ro in-traffic-pkts?  yang:counter64
      | +--ro out-traffic-pkts? yang:counter64
      | +--ro in-traffic-bytes? uint64
      | +--ro out-traffic-bytes? uint64
      +--ro altmark-delay-measurement?
        | +--ro pkts-timestamps?       yang:date-and-time
        | +--ro pkt-timestamp?         yang:date-and-time
        +--ro path-delay?
          | +--ro path-delay-mean       uint32
          | +--ro path-delay-min        uint32
          | +--ro path-delay-max        uint32
          | +--ro path-delay-sum        uint64
        +--ro ioam-incremental-tracing  ioam-trace-data
        +--ro ioam-preallocated-tracing ioam-trace-data
        +--ro ioam-direct-export      ioam-trace-data
        +--ro ioam-proof-of-transit   ioam-pot-data
        +--ro ioam-edge-to-edge       ioam-e2e-data
```

The "on-path-telemetry-data" contains the detailed information for AltMark and IOAM telemetry data.

Use case: Some applications may use the subscription model specified in RFC8641 to subscribe to the on-path telemetry network performance data.
- For example, network telemetry updates may be obtained through on-change or periodic notifications to get real-time performance data.
Thank You

Comments are welcome!