Multicast Telemetry

Table 1: Feature History

Feature Name	Release Information	Description
Telemetry Support for Multicast Service Level Agreement (SLA) Statistics	Cisco IOS XE Cupertino 17.7.1	The multicast SLA supports statistics collection using Telemetry for the following procedures: • Multicast Forwarding Information Base (MFIB) • Bridge domain interface (BDI)

You can view the telemetry statistics collection for the following show commands:

- **show ip mfib**
- **show ip mfib vrf <vrf name> <group>**
- **show int bdi <bdi number>**

Note Ensure that you perform telemetry related configurations on router/ For more information, see Model-Driven Telemetry.

Limitations for Multicast SLA Telemetry Support

- IPv6 statistics is not supported.
- Queue drops per OIF or IIF on LSRs are not supported.
- IP multicast drop statistics per (S,G) OIF/IIF bit-rate is not supported.
- Aggregate BDI drop statistics is not supported.

- The restrictions that are applicable to statistics in the CLI mode are also applicable for the telemetry configuration.

Configuration Example: Telemetry for Multicast SLA Statistics

MFIB Statistics

The following example shows the configuration example of telemetry for Multicast Forwarding Information Base (MFIB) statistics:

```
telemetry ietf subscription 100
 encoding encode-kvgpb
 filter xpath /mroute-ios-xe-oper:mroute-oper-data/mroute-state
 source-address  7.28.27.90
 source-vrf Mgmt-intf
 stream yang-push
 update-policy periodic 150
 receiver ip address 7.0.1.112 57371 protocol grpc-tcp
```

The following example shows the sample output for above subscription in telemetry:

```
Egress stats:
mcast-egress-if-entry/mcast-egress-if-data/hw-packet-count: 1367942
mcast-egress-if-entry/mcast-egress-if-data/fs-packet-count: 0
mcast-egress-if-entry/mcast-egress-if-data/ps-packet-count: 2
mcast-egress-if-entry/mcast-egress-if-data/egress-rate-pps: 1000
Ingress Stats:
hw-packet-count: 1367943
hw-packets-per-second: 1000
hw-average-packet-size: 82
hw-kbits-per-second: 640
```

BDI Aggregate Statistics

The following example shows the configuration example of telemetry for BDI aggregation statistics:

```
telemetry ietf subscription 101
 encoding encode-kvgpb
 filter xpath /interfaces-ios-xe-oper:interfaces/interface[name=\"BDI10\"]/statistics
 source-address 7.28.1.87
 source-vrf Mgmt-intf
 stream yang-push
 update-policy periodic 150
 receiver ip address 7.0.1.112 57350 protocol grpc-tcp
```

The following example shows the sample output for above subscription in telemetry:

```
Node              : STOLAC1
Subscription      : 101
Path              : Cisco-IOS-XE-interfaces-oper:interfaces/interface/statistics
Key               : /name               : BDI10
discontinuity-time: 2021-09-23T17:26:33.792000+00:00
in-octets         : 88410002
in-unicast-pkts   : 850119
in-broadcast-pkts : 0
in-multicast-pkts : 850067
```

```
in-discards        : 0
in-errors          : 0
in-unknown-protos  : 0
out-octets         : 88406262
out-unicast-pkts   : 850067
out-broadcast-pkts : 0
out-multicast-pkts : 850049
out-discards       : 0
out-errors         : 0
rx-pps             : 3799
rx-kbps            : 3161
tx-pps             : 4847
tx-kbps            : 4033
num-flaps          : 0
in-crc-errors      : 0
in-discards-64     : 0
in-errors-64       : 0
in-unknown-protos-64: 0
\n/out-octets-64   : 88406262
```