

PacketPortal™ Metric Result Packet (MRP) Overview

MRPs extend the capability of the PacketPortal platform, providing summarized statistics from Network Visibility SFPProbes™. MRPs are another type of data feed, complementing filtered result packets (FRPs).

A variety of applications can leverage the information provided by MRPs, including but not limited to: network monitoring and performance management, troubleshooting, service assurance, security, and policy management.

MRPs Enhance Network Devices and Applications

MRPs can be generated with high frequency (seconds), providing more accurate reporting of key performance metrics that are typically unavailable natively from network devices. With less granular reporting mechanisms, intermittent or spurious issues such as latency spikes and packet loss may be statistically averaged out. Because SFPProbes can be cost-effectively embedded in any number of devices at the network edge (such as DSLAMs, Ethernet access devices, mobile base stations, and media converters), a rich set of granular statistics can now be uniformly collected from more places.

Network operators can use existing applications and tools to correlate and determine key performance indicators including: bandwidth utilization, protocol and packet size distribution, granular 1WAY latency, as well as any number of customized statistics previously unattainable from any type of network device. PacketPortal MRPs help network operators implement, monitor, and deliver new services while improving and optimizing operations costs.

MRPs are efficient, providing inline statistics reporting to centralized management applications without increasing network bandwidth or taxing network-device packet-processing capacity. Because MRPs use packet header information, they can be implemented in networks using encryption such as IPSec. MRPs do not tax the performance of network devices and do not significantly increase network bandwidth utilization.

Filtered Result Packets (FRPs)

- Line rate inspection of traffic in both directions
- Protocol aware filtering of L2-L7 traffic
- Four filter “banks”, each with 8-dimensional filters (masks)
- Sessions, filters, and feeds can be configured manually via GUI (today) or by applications

Metric Result Packets (MRPs)

- Counters kept in each SFPProbe
- Total packet/byte counts
- Packet/byte counts by protocol
- Packet size distributions
- Packet/byte counts for any user-defined filter (including DSCP treatments)
- SFP health info (temp, voltage, tx power, etc.)



PacketPortal™

MRP Data

A standard default set of statistics are provided in addition to custom MRPs, which are statistics based on matched, customizable filter criteria. Default MRPs include:

- Digital Diagnostic Information
 - Easily obtain key network health indicators from SFProbes without accessing the network element management system.
- Timing
 - Understand 1WAY latencies with nanosecond granularity, ensuring even the most stringent service level agreements are achieved.
- Total Byte and Packet Counts
 - Easily profile network utilization to proactively and predictively identify locations of congestion.
- Protocol-Specific Packet Counts
 - Understand network utilization by protocol and protocol distribution throughout the network and identify applications by protocol type.
- Packet-Length Distribution
 - Identify potential indications of network performance or security issues and proactively adjust network policies.
- Per-Filter Packet and Byte Counts
 - Develop customized statistics based on specific criteria, differentiate service level agreements, and optimize performance reporting.

Benefits to Customers

- Obtain customizable statistics from embedded PacketPortal SFProbes at the network edge. Change and adjust performance reporting to align to customer and service requirements.
- Gather more statistics such as network, protocol, and application utilization to in order to improve network management and troubleshooting effectiveness, adjust policies, and optimize network settings including quality-of-service.
- Obtain a uniform set of statistics across different multivendor network devices without impacting network- or device-packet processing performance.

Benefits to Application Partners

- Accelerate application integration: monitoring/assurance applications can leverage existing collection and analysis capabilities, while taking advantage of MRPs from PacketPortal SFProbes at the network edge.
- Differentiate solutions: use customizable stastics based on matched filter criteria to derive analytics based on network, protocol, application, and customer. Applications can use the near real-time nature of MRPs to make rapid decisions.
- Enable new capabilities: enable adaptive monitoring, use MRPs to identify performance trends, adjust filtering criteria to match changing trends, and leverage PacketPortal FRPs for detailed packet analysis as required.

Benefits to Network Equipment Suppliers

- Support rich, granular statistics from existing network devices without software re-engineering and impact to packet-processing performance.
- Adapt statistics collection to meet customer requirements, protecting footprints and preventing competitive displacement.
- Differentiate product capabilities, increasing competitiveness by offering advanced embedded statistics collection and embedded packet capture typically only found on advanced, costly network devices.
- MRPs provide an additional, powerful data feed from PacketPortal Network Visibility SFProbes. Together, MRPs and FRPs can provide visibility to users and applications to network and content performance, enabling advanced troubleshooting and service assurance with performance management solutions.



Contact Us **+1 844 GO VIAVI**
(+1 844 468 4284)

To reach the Viavi office nearest you,
visit viavisolutions.com/contacts.

© 2015 Viavi Solutions Inc.
Product specifications and descriptions in this
document are subject to change without notice.
packetportal-mrp-pb-nsd-tm-ae
30173401 900 0213