



## Features & Benefits

### GigaSMART<sup>®</sup> Packet Functions

Perform per packet modification, which can include the addition of valuable information.

#### Packet Slicing



- Reduce packet size to increase processing and monitoring throughput
- Optimize the deployment of forensic recorder tools

#### Masking



- Conceal private traffic including financial and medical information
- Empower network monitoring tools to perform their task such as maintaining PCI and HIPAA compliance
- Enable more traffic storage in an analysis application

#### Source Port Labeling



- Add labels to the packets indicating the ingress port
- Easily identify where a packet is coming from
- Enhance the efficiency of your network monitoring tools by eliminating the potential of duplicate traffic streams

#### Tunneling



- Encapsulate and forward packets to monitoring tools between networks on separately routed paths
- Enable routing of data from lights-out data centers to central monitoring facilities

#### Advanced IP Tunneling including ERSPAN Termination



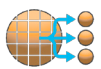
- Provides tunnel termination of ERSPAN sessions enabling consolidation, filtering and forwarding of relevant traffic
- Enable analysis tools to receive filtered traffic from remote networks

#### Header Stripping



- Eliminate the need for monitoring tools to decipher protocols
- Allow easy filtering, aggregation, and load balancing of packets with headers removed
- Support for ISL header/trailer removal, Cisco FabricPath leaders VXLAN, VN-Tag, VLAN, MPLS, and GTP-u tunnel stripping

#### Adaptive Packet Filtering



- Enhanced visibility into encapsulated application flows
- Intelligent protocol-aware filtering across advanced encapsulation headers including VXLAN, VN-Tag, GTP, MPLS, etc., and inner (encapsulated) Layer 3/Layer 4 packet contents
- Advanced visibility into the application layer using pattern matching regular expressions-based filters

#### Layer 7 Load Balancing



- Traffic distribution among multiple ports based on fixed or variable matching fields
- Filtering and traffic distribution capabilities applied to any field in the packet beyond Layer 2 – Layer 4 and into the application layer

#### Time Stamping



- Add packet time stamps at line rate for subsequent analysis
- Enables troubleshooting of application response times, jitter, and latency

#### GigaSMART Applications

Stateful correlation of packets at line rate to provide session awareness and intelligence.

#### GTP Correlation



- Optimize tool infrastructure with stateful correlation, filtering, and forwarding of GTP traffic based on mobile subscriber-IDs
- Pervasive subscriber-level visibility to gauge end-user quality of experience
- Real-time fragmentation-aware stateful visibility enables reliable accounting, billing, and subscription management

#### FlowVUE<sup>™</sup>



- Flow-aware sampling of active subscriber devices to selectively reduce traffic
- Preserve or increase CEM based on real-time reduced data analytic throughput
- Leveraging Big Data to tailor marketing campaigns, pricing strategies, etc., based on subscriber usage patterns

#### De-duplication



- Relieve tool processing when packets are gathered from multiple collection points along a path by only forwarding a packet once
- Remove packet duplication caused by inter-VLAN communication or incorrect switch configuration across IPv4/IPv6 networks

#### NetFlow Generation



- Out-of-Band solution eliminates the risk of dropping production traffic as a result of generating NetFlow
- Unsampling 1:1 NetFlow record generation to facilitate true response and root cause capability analysis
- Integrated traffic visibility solution with NetFlow Generation support
- Enhanced visibility into traffic types, relationships between network nodes and usage patterns leveraging summarized NetFlow statistics across remote locations and Big Data environments

## Product Description

Gigamon's patented GigaSMART® technology can enhance your monitoring infrastructure with a range of packet functions and intelligent applications to enable the modification, manipulation, transformation, and transport of traffic from your network to the tools you rely upon for management, monitoring, and security.

GigaSMART technology extends the intelligence and value of the Gigamon Visibility Fabric™ architecture with the capabilities to modify packets at line rate and add valuable information through packet functions including packet slicing, masking, source port labeling, tunneling, header stripping, time stamping, and Layer 7 load balancing. GigaSMART applications provide stateful packet correlation capabilities that enable de-duplication and provide session awareness for enhanced visibility and insights into the control and data traffic flows.

Network monitoring tools can now perform more efficiently by eliminating unwanted content with de-duplication and packet slicing. Masking allows network security teams to hide confidential information like passwords, financial accounts, or medical data enabling companies to meet SOX, HIPAA, and PCI compliance regulations. Organizations can improve accuracy by adding source or timing information at the point of collection with the source port labeling and time stamping capabilities.

Enhanced packet distribution features available with Adaptive Packet Filtering or Layer 7 load balancing, enable visibility into packet contents. When combined with header stripping, tools can operate more effectively by removing unwanted protocol headers.

The advanced processing capabilities of the GigaSMART card can also be leveraged to summarize and generate NetFlow statistics from incoming traffic streams. Offloading NetFlow Generation to the out-of-band Gigamon Visibility Fabric eliminates the risk of expending expensive production network resources in generating these analytics. Enhanced flow-level visibility across remote locations and Big Data environments can be used to derive usage patterns, top talkers, top applications, etc. for effective capacity planning and enforcing security policies.

With the GigaSMART GTP Correlation application, service providers can reliably filter and forward specified subscriber sessions (both GTP-c and GTP-u) to monitoring and analytic tools. Gigamon's FlowVUE™ application is a subscriber IP-based sampling paradigm that allows for sampling of active subscriber's device IPs (UE IP's) across GTP-u tunnels. The integrity of the sampled subscriber flows is preserved by forwarding all the packets associated with the user-endpoint to the probes. The ability to filter and sample on subscriber devices and transmit all the associated sessions of interest to the monitoring tools intelligently reduces the amount of data, while enabling Big Data throughput processing, with existing cost structures.

