GigaVUE Operating System

The proven and extensible operating system for Gigamon Visibility Nodes

The innovative GigaVUE-OS™ operating system powers all Gigamon visibility nodes. With it, IT operations teams can effectively and consistently manage, secure and control the data traversing their expanding infrastructure. Proven in the most demanding Global 5000, government agency and large service-provider environments, GigaVUE-OS provides the reliability required to help ensure pervasive visibility into infrastructure blind spots in mission-critical deployments.

Built on a hardened Linux kernel, GigaVUE-OS contains key capabilities that allow NetOps and SecOps to rapidly select traffic flows of interest and apply advanced traffic intelligence using GigaSMART® applications. Examples include Flow Mapping®, clustering, session-based load-balancing and tunnel encapsulation and de-encapsulation as detailed below.

KEY FEATURES

- Modular and portable Linux-based OS

- Patented Flow Mapping technology for aggregation, filtering and replication

- Scalable visibility node clustering

- Load balancing across tools

- Tunnel termination and initiation (L2GRE and VXLAN)

- Protocol header stripping (MPLS, VXLAN)

KEY BENEFITS

- Rich network visibility, management and data delivery services

- Select traffic of interest through user-defined map rules

- Combines multiple devices to be managed as one logical node

- Load balances across multiple tool instances of the same type

- Enables network traffic visibility into cloud and remote sites for cloud based or on-premises tools

- Makes various monitoring tools more effective

The Solution

The foundational GigaVUE-OS service has the ability to select traffic flows of interest using our patented Flow Mapping mechanism.

MPLS and VxLAN protocol header stripping allows monitoring and security tools that don't understand these network encapsulation protocols to see into the encapsulated packets or remove the need for them to have to remove these protocols themselves, thereby making the tools more effective and efficient. This feature is supported on all GigaVUE-HC Series*, GigaVUE TA Series* and Dell "whitebox" nodes.

Flow Mapping takes line-rate traffic at 1Gb, 10Gb, 25Gb, 40Gb or 100Gb from various sources — such as visibility nodes, network TAPs, virtual TAPs and mirror/SPAN ports across physical, virtual and cloud networks — and sends it through a set of user-defined map rules to network-based tools that secure, monitor and analyze your IT infrastructure. You can optimize tools by sending only traffic of interest and dropping all irrelevant traffic.

Load balancing distributes network traffic to multiple monitoring tools, allowing you to group multiple tool ports into a logical bundle and throttle down traffic before transmission, thereby overcoming port oversubscription challenges. This further optimizes tool performance and security with dynamic, session-aware load balancing that can ensure complete traffic flows by maintaining the integrity of sessions.
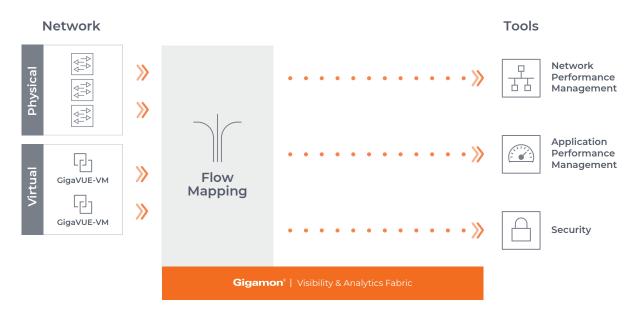
L2GRE and VXLAN tunnel initiation, encapsulation, termination and de-encapsulation provides network traffic visibility into cloud and remote sites for cloud based or on-premises tools. This feature is supported on all GigaVUE-HC Series*, GigaVUE TA Series* and Dell "whitebox" nodes.

Clustering lets you manage multiple heterogeneous nodes with different underlying hardware capabilities running GigaVUE-OS as a single logical unit. This unique service allows advanced capabilities in GigaSMART modules to be accessed anywhere within the logical unit even if, for example, traffic arrives on a unit in the cluster that does not have hardware resources natively within it.

In addition to Gigamon hardware, GigaVUE-OS is also available on select "whitebox" hardware. This lets you extend the rich visibility services GigaVUE-OS offers into whitebox deployments. The operating system also provides the necessary APIs to integrate with GigaVUE-FM, the centralized management and orchestration console for the entire visibility network.

GigaVUE-OS supports multiple management methods, including GigaVUE-FM, web-based interface (H-VUE), SNMP and command line interface (CLI). The GigaVUE-FM offers a REST XML API.

* Not supported on GigaVUE-HC2 with CCv1, GigaVUE-TA1, GigaVUE-TA10, or QuantaMesh BMS T3048-LY2R

Flow Mapping takes line-rate traffic at 1Gb, 10Gb, 25Gb, 40Gb or 100Gb from a network TAP or a SPAN/mirror port and sends it through a set of user-defined map rules to the tools and applications that secure, monitor, and analyze IT infrastructure

Key Considerations

Network Operations and Security Operations

- Replicate and/or distribute traffic across multiple network, security and monitoring tools based on a programmable rules engine

- Combine core capabilities in GigaVUE-OS with GigaSMART® traffic intelligence to maximize tools performance and ROI

- Create a Gigamon Visibility and Analytics Fabric that greatly expedites deployment of inline, out-of-band and flow-based tools across the network

- Improve overall network performance and uptime during upgrades

Conclusion

GigaVUE-OS powers the core and edge visibility nodes in the Gigamon Visibility and Analytics Fabric. Implemented in the most demanding Global 5000, government agency and large service-provider environments, GigaVUE-OS provides the reliability required to help ensure accurate visibility into physical, virtual and cloud infrastructure.

For more information on GigaVUE-OS, please visit www.gigamon.com/products/ optimize-traffic/traffic-intelligence/gigavue-os.html

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