

GigaVUE Cloud Suite for Nutanix

Network and Application Visibility for Hyperconverged Private Clouds

GigaVUE Cloud Suite for Nutanix provides an industry leading solution for network visibility and security analytics.

This visibility fabric enables traffic flows of interest from virtual machines within hyperconverged infrastructures with Nutanix Prism/Flow to be acquired, aggregated, processed and delivered to the appropriate security, network and application performance monitoring tools.

The GigaVUE Cloud Suite for Nutanix is proven interoperable with Nutanix Prism/Flow.

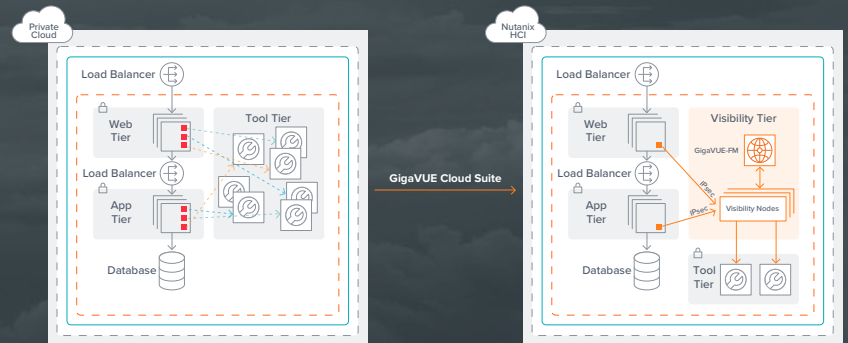


Figure 1. Nutanix and Gigamon help deliver end-to-end solutions for private clouds which simplify infrastructure topologies, reduce tooling needs and ensure automation

KEY FEATURES

- Identify and filter 3200 apps and generate 5000 L3-7 metadata attributes for contextual insights
- Gigamon G-vTAP VMs are automatically deployed and send traffic to the Visibility Fabric
- Tight integration with Prism/Flow for orchestration and supports servers with Nutanix AHV
- GigaSMART intelligence – includes packet slicing, masking, decapsulation and deduplication

KEY BENEFITS

- Optimize traffic processing and distribution while reducing load on tools
- Complete visibility into Nutanix VM traffic and scales to support any number of virtualized servers
- Discovery of new workloads and adjustment of the Visibility Fabric with no manual intervention
- Improve tool effectiveness, obtain superior performance and accelerate troubleshooting

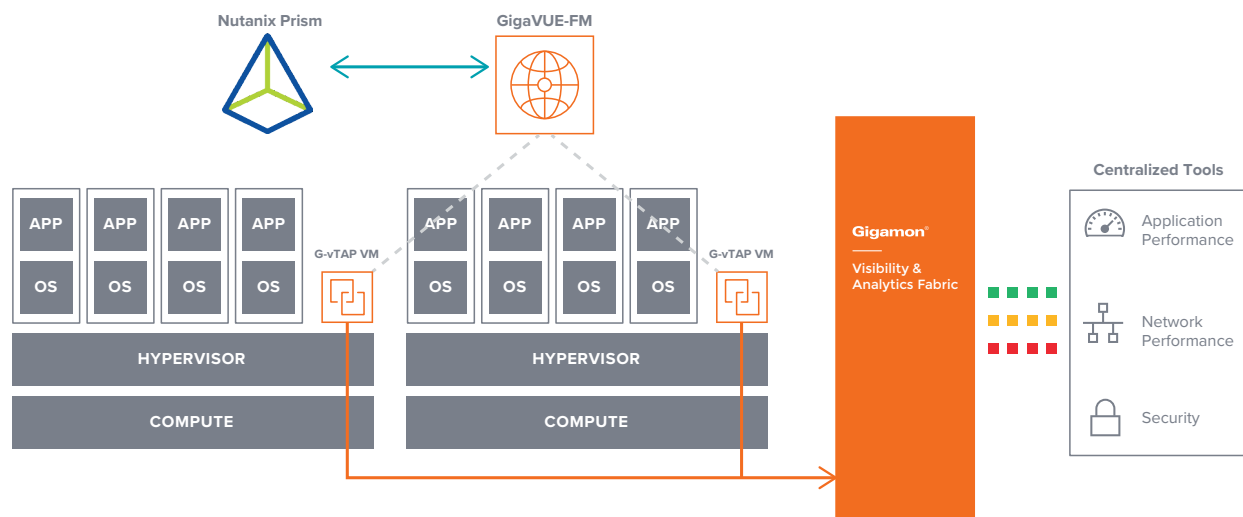


Figure 2. Gigamon's Visibility Fabric is integrated with Nutanix-based private clouds to mirror traffic from all sources, optimally process and distribute to the appropriate tools

Overcome Networking and Security Challenges

Hybrid clouds leveraging hyperconverged infrastructure require complete visibility at packet and application layers. Organizations need insights into all VMs to fully understand traffic flows and avoid blind spots. Legacy schemes involving SPAN ports impact routers, only sample flows and often lack NetFlow. If raw data is distributed this results in duplicated and complex packets with excessive bandwidth use. Tools are overloaded, and their effectiveness and accuracy reduced.

With the migration of applications to virtual servers and today's modular and distributed application architectures, more and more application traffic is never hitting the physical network. Gigamon's Network Visibility Fabric ensures network performance, security and IT agility with complete visibility across all layers of traffic, in the cloud or on-premises.

GigaVUE Cloud Suite for Nutanix provides an industry-leading solution for network visibility and security analytics. VM traffic application flows within a private cloud managed by Prism can be acquired, forwarded and delivered via tunneling such as L2GRE to the Gigamon Visibility Fabric for aggregation and advanced processing. In turn the resultant optimized traffic can be selected, on an app by app basis, and distributed to the appropriate security, network and application performance monitoring tools. The Suite supports VMs deployed on multiple hypervisors including Nutanix AHV. This joint solution:

- Automates the provisioning and configuration of Gigamon components via tight integration with Nutanix Prism/Flow
- Leverages GigaVUE Fabric Manager (FM) to provide overall orchestration, help instantiate G-vTAP VMs, instructs and directs traffic policy configurations and monitors operations
- Enables granular traffic selection and filtering based on VM/Port
- Empowers the identification and filtering of traffic based on applications and the generation of 'app aware' metadata to provide contextual insights

THE SOLUTION

Gigamon CloudVUE Cloud Suite for Nutanix delivers intelligent network traffic visibility for workloads running in VMs and deployed in private cloud environments managed by Nutanix Prism/Flow. The solution enables increased security, operational efficiency and scales across an unlimited number of VMs.

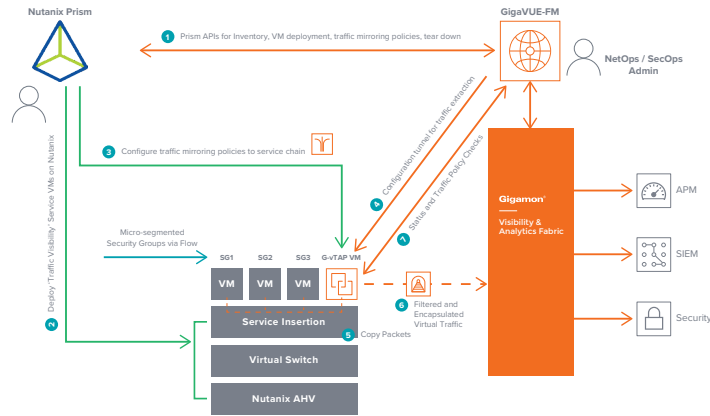


Figure 3. Centralized management, automation and straightforward 7-step process with Nutanix Prism/Flow and Gigamon Fabric Manager

G-vTAP VM

For traffic acquisition, agentless, virtualized G-vTAP VMs are deployed as a Nutanix guest VMs on each hypervisor and receives copied packets from each of the other VMs on the same server through a virtual switch. They subsequently send mirrored traffic to the HC visibility nodes. Key benefits include:

- Single, lightweight VM per hypervisor minimizes impact on compute nodes and delivers several gigabits/sec. of traffic per instance
- No need to run special software or changes to kernel modules
- Reduction in application downtime —no need to redesign apps when adding new tools
- Auto-pinned to a host so movement of VMs across different physical servers does not impact continuous traffic visibility

GigaVUE Physical Nodes

Traffic aggregation, intelligence and distribution is provided by the GigaVUE HC series nodes which are deployed within the visibility tier. Various GigaSMART modules including Application Intelligence can be added to provide advanced data processing and optimization. Traffic is subsequently distributed to the tools. Key benefits include:

- Automatic Target Selection (ATS): automatically extract traffic of interest from any virtualized workload
- Header Transformation: Modify content in the header (L2-L4) to ensure security and segregation of sensitive information
- GigaSMART intelligence: Slice, sample and mask packets to optimize traffic sent to tools, reducing tool overload
- Leverage Application Intelligence to identify and extract thousands of apps and utilize over 7000 metadata L4-7 attributes for granular insights
- High performance SSL/TLS cryptography
- Load balance network and security tools

GigaVUE-Fabric Manager (FM)

Centralized orchestration and management are handled by FM. Using RESTful APIs FM directs Prism to instantiate G-vTAP VMs and configure their policies where visibility is needed and adjusts on-the-fly with new or relocated VMs. FM also configures policies for HC appliances and provides overall monitoring. Key benefits include:

- Detect changes in VM and automatically provisions G-vTAP VMs and adjusts the visibility tier
- Integration with third-party tools to dynamically process traffic or to orchestrate new policies
- Auto-discover and visualize end-to-end network topology, including workloads by using a drag-and-drop user interface
- Eliminate manual processes and errors and automatically identify each new workload and their associated traffic via ATS and configure G-vTAP VMs to direct traffic to the HC nodes

Conclusion

Organizations are extending their on-premise infrastructures into the cloud. Private clouds, such as those managed by Nutanix, offer greater security, complete control and ultimately lower cost than public clouds. Gigamon and Nutanix developed a certified joint solution to ensure complete end-to-end visibility, at the packet and application levels to increase tool effectiveness and accuracy with lower bandwidth usage, simplified deployment and complete automation.



For more information on GigaVUE Cloud Suite for Nutanix, please read the data sheet. Learn more at www.gigamon.com.