

Application Delivery and Troubleshooting

with LiveAction LiveNX and Gigamon Hawk Deep Observability Pipeline

Introduction

Complex network environments require simple monitoring solutions, and enterprises lean on LiveAction LiveNX to provide a single source of truth for effectively monitoring and managing network performance and security. By leveraging the Gigamon Hawk Deep Observability Pipeline to capture and intelligently route high-fidelity packets or streams of network traffic, LiveNX provides an intuitive and powerful method to monitor, manage, and troubleshoot application and network performance for today's enterprise IT environments, providing benefits in the following areas:

- Hybrid WAN/SD-WAN Monitoring and Service Assurance
- Cloud Monitoring
- Application Performance and Troubleshooting
- Voice and Video Optimization
- QoS Configuration and Validation
- Root Cause Analysis
- Comprehensive Packet Analytics for Multi-Domain
- Capacity Planning and WAN Bandwidth Management

The Challenge

Business-critical applications always need to be protected to ensure they are not impacted by less critical traffic while ensuring security. When there is an application performance problem, 90% of the time is spent identifying the root-cause as opposed to fixing the problem, and this gets harder with multi-cloud deployments.

The Solution

When combined with the Gigamon Hawk Deep Observability Pipeline, the LiveAction LiveNX network visualization and analytics platform provides advanced visibility and actionable intelligence to optimize your network for business application delivery.

Joint Solution Benefits

- ▶ Delivering packets and metadata from Gigamon to LiveNX provides a deep understanding of application flows across the network, including virtual environments.
- ▶ Delivers real time visibility and expert analysis for application and network performance across the data center and the cloud.
- ▶ Generating NetFlow/IPFIX from any traffic flow avoids unnecessary processing on network devices and extends visibility to any location or flow within the network.
- ▶ Masking sensitive data according to industry regulations can help meet compliance.
- ▶ De-duplicating, aggregating, filtering, and offloading packet processing provides LiveAction with an optimized packet data source to accurately represent network flows.

Gigamon and LiveAction Joint Solution

The LiveNX network visualization and analytics platform combined with Gigamon Hawk offers effective visibility and smart analysis to optimize application delivery. The joint solution gives full packet analytics and provides visibility into areas of the network where flow data isn't available or is only available as sampled.

The combined solution provides two visibility options:

Flow Based:

Troubleshooting complex problems require granular flow analysis. LiveNX provides flow visibility across multiple domains in a multi-vendor environment. Gigamon Hawk generates NetFlow records without sampling and provides LiveNX NetFlow records for real time and historical analysis. The solution provides scalability, improves data center, cloud, and WAN visibility, and accelerates troubleshooting and resolution of performance issues.

Flow & Packet Based:

LiveAction allows for simple workflows from flow data to deep packet analysis. LiveAction LiveWire physical and virtual appliances extend visibility with advanced visual analysis of network, application, and VoIP issues at data centers, cloud, WAN links, and remote sites and branches. The Gigamon Hawk leverages intelligent pattern match filtering to direct traffic to one or more LiveWire analyzers, providing visibility and analytics to troubleshoot any sized network environment.

How the Joint Solution Works

LiveNX unifies network telemetry from many different sources into a single view of the enterprise network. Gigamon Hawk provides network telemetry in two ways. It aggregates network traffic as packets from TAPs, SPANs, and other sources and generates NetFlow/IPFIX records for LiveNX. Gigamon Hawk can also pass packets directly to LiveWire for storage and deep analysis that also feeds into LiveNX.

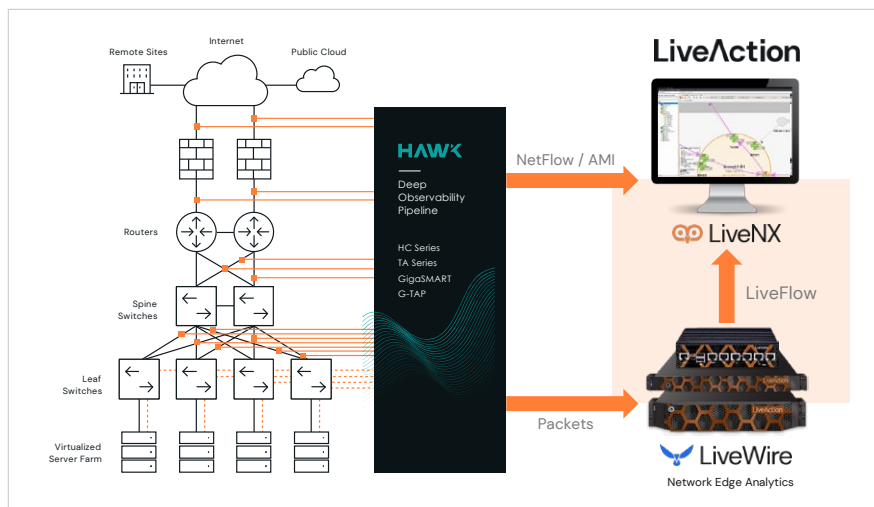


Figure 1: Gigamon and LiveAction Joint Solution (On-Premises)

LiveNX effectively monitors application network performance by leveraging LiveWire's packet capture analysis with deep packet inspection (DPI) visibility for SD-WAN, data center and cloud environments. LiveNX uses SNMP to monitor device health, QoS, and other KPIs, along with APIs from SD-WAN and other fabrics, to verify

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performance and network intent. IPFIX and NetFlow are used for advanced application performance monitoring, conversational data, and now Gigamon Hawk and Application Metadata Intelligence (AMI). LiveNX can also be paired with ITSM solutions like ServiceNow for full operational excellence.

Employing a variety of data sources, LiveNX visualizes traffic flows across your network topology so you can understand what is happening in your network and the impact on application performance.

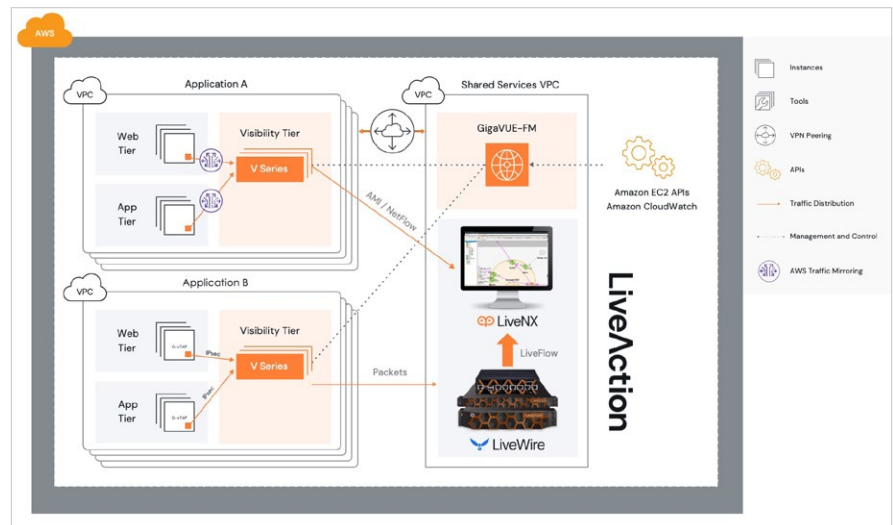


Figure 2: Gigamon and LiveAction Joint Solution (AWS)

Key features of the joint LiveAction and Gigamon solution include:

- **Easy Analysis of Traffic from Physical Networks:** LiveAction provides end-to-end visibility across the network. Gigamon Hawk enables traffic from across the network to be managed and delivered to LiveNX efficiently via packets and flow.
- **Easy Analysis of Traffic from Virtual Networks:** East-West data center traffic for virtual environments like VMware, OpenStack, AWS, and Azure is growing rapidly. Gigamon Hawk captures this traffic and delivers it to LiveNX via LiveWire, ensuring all network traffic can be monitored and analyzed together. This helps organizations avoid blind spots, increasing the likelihood of spotting suspicious behaviors and removing the need to learn a new set of tools for virtual environments.
- **Efficiently Analyze Relevant Traffic with Intelligent Filtering:** Users can focus on specific traffic of interest with LiveAction's integration with Gigamon Hawk. Gigamon can be configured to only send relevant traffic, or relevant sessions as needed, for a specific use case.
- **Analysis of Flow Metadata for Application Visibility:** LiveNX can consume unsampled NetFlow/IPFIX metadata for any traffic flow from Gigamon at scale. Gigamon generates extended metadata records for metrics like HTTP response codes and DNS queries, providing a far more detailed contextual analysis when looking at network and security events.

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LiveAction provides end-to-end visibility of network and application performance from a single platform. This gives enterprises confidence that the network is meeting business objectives, offers IT administrators full visibility for better decision making, and reduces the overall cost of operations. By unifying and simplifying the collection, correlation, and presentation of the application and network data, LiveAction empowers network professionals to proactively and quickly identify, troubleshoot, and resolve issues across increasingly large and complex networks.

To learn more and see how LiveAction delivers unmatched network visibility for AWS, visit www.liveaction.com

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