Joint Solution Brief

Visibility and Streaming Analytics for Distributed and Virtualized IT Environments

The Challenge
Traffic data is a uniquely rich and detailed source of real-time information about what’s happening in your IT infrastructure. Analyzed appropriately, traffic data can provide valuable insight into behavior and performance for applications, services, users and devices—as well as for the underlying network itself. But in highly distributed and virtualized IT environments, accessing traffic data presents significant challenges. Getting a full picture not only requires visibility into traffic on multiple physical network links and switches, but also between virtual machines deployed on the same or on different physical hosts, thereby removing any blind spots. Analyzing this traffic to understand application behavior and user experience requires working with large volumes of data that come in many different wire formats and protocols.

Joint Solution Benefits
• End-to-end visibility—Collect and analyze traffic data across the physical and virtual environments for pervasive monitoring
• Zero impact on application performance—No need to trade-off between the level of visibility you can achieve and the level of performance impact you are willing to incur
• Continuous and seamless visibility for monitoring—Uninterrupted monitoring and tracking of traffic even after VM migration/vMotion events
• Comprehensive and enhanced analytics—Analyze and correlate activity and performance across multiple applications and components whether physical or virtual
• Improved accuracy with time stamping—Reconstruct event sequencing and timing in Corvil’s analytics by time stamping data

Introduction
Gigamon and Corvil together present a real-time traffic analysis solution that directly addresses the challenges businesses are facing today. Corvil’s Streaming Analytics platform discovers and analyzes data from multiple protocols and applications, compares actual versus expected behavior and performance, and turns complex and often-chaotic traffic data into valuable and easy-to-consume operational intelligence. Gigamon’s Visibility Platform aggregates and filters data from multiple instrumentation points both virtual and physical, ensuring scalable visibility across all application and service components.

Gigamon’s Visibility Platform and Corvil’s Streaming Analytics platform work together to provide detailed real-time insights into activity and performance, based on traffic data collected across large-scale, distributed infrastructures—including heavily virtualized VMware-based environments. Gigamon’s GigaVUE H Series physical nodes and GigaVUE-VM virtual nodes aggregate and intelligently filter/forward data from the physical network and VMware ESXi hosted virtual machines. GigaVUE-FM is used to manage all of Gigamon’s physical and virtual assets including integration with VMware and vendor APIs. GigaSMART® technology can enhance the data with critical information such as time stamping or source labeling before forwarding to Corvil.

Corvil’s Streaming Analytics platform is designed to unlock the information contained in traffic data and turn it into a powerful source of IT operational and cyber security intelligence. Corvil’s capabilities include data discovery, decoding and analysis, large-scale storage and indexed search, performance monitoring, network forensics and real-time publication and alerts. Corvil uses traffic data to deliver detailed insights into network, application and business-layer events as they happen, helping users to troubleshoot problems, optimize and safeguard their systems faster.

The Gigamon and Corvil Joint Solution
Gigamon’s Visibility Platform aggregates and intelligently filters traffic and then enhances it with features such as time stamping and source labeling before forwarding to Corvil’s Streaming Analytics platform. Gigamon GigaVUE-FM nodes track vMotion events via integration with vSphere APIs to ensure that monitoring policies seamlessly follow migrating virtual machines and that traffic sources are consistently identified to Corvil. Corvil interprets and correlates the traffic to analyze the source and—optionally—the timing of all data inputs. Corvil leverages precise traffic data time stamps assigned by Gigamon’s GigaSMART technology in order to accurately reconstruct event timing and sequencing.
Corvil reassembles the conversations that it sees in traffic data and automatically discovers and decodes the application-layer protocols and wire formats in use. Corvil uses a broad range of application-specific, analytic plug-ins to identify and track behavior and performance for web traffic, storage and database traffic, streaming media traffic, transactional traffic, and many infrastructure and support-layer traffic flows. The system generates alerts for anomalous behavior and publishes decoded data and analytics in normalized, easy-to-consume streams. All results are generated in real-time—available in seconds—and are also stored for historical analysis with per-packet or per-message granularity.

Learn More
For more information on Corvil and Gigamon solutions, contact: