



SUCCESS STORY

Keysight and ExtraHop Help Midwest Shipping Supply Leader Upgrade ACI Data Center Infrastructure

HIGHLIGHTS

Industry: Retail

Customer: Large nationwide provider of shipping supplies based in the midwestern US

Challenge: Refreshing Cisco ACI data center infrastructure

Solution: Vision X and Vision 400 packet brokers at multiple data centers running PacketStack

Results: Vision sends complete, actionable data to ExtraHop RevealX, Cisco Firepower firewalls, and other monitoring tools for analysis

Issues with oversubscription and resulting dropped packets resolved without overinvesting in additional NPB capacity

Moved from 10G to 100G while achieving better sampling across ACI leaves

Higher capacity and quality of information being provided to the tools

Prior to the refresh, the company's IT team encountered serious performance challenges with its previous visibility provider. The IT team engaged a trusted IT solutions provider to help them build a new data center solution and guide the selection of the ideal visibility partner.

The plan called for new packet brokers to aggregate and send analysis-ready traffic to network performance monitoring (NPM) and security solutions from ExtraHop and Cisco, two premier Keysight alliance partners.

With the monitoring infrastructure became more security-centric, the team deployed a state-of-the-art solution from ExtraHop. As the expansion went on, they started to realize how much data they were missing due to the old visibility solution dropping packets.

The previous packet brokers increasingly became oversubscribed, the solution could not keep up with the amount of traffic being sent its way or perform deduplication and other advanced functions reliably. Upgrading to the previous vendor's next-generation products would have meant making another steep investment, so the company began looking for a more powerful and cost-effective approach.

Its long-time trusted advisor worked closely with the company's IT directors, architects and network engineers to evaluate prospective solutions. The most important selection criteria included resolving issues around oversubscription and dropped packets and improving the quality of data being sent to network performance monitoring (NPM) and security tools for analysis.

Keysight's architecture and GUI excelled

The Keysight engineering team built a mockup of the manufacturer's environment and worked with the solution provider and ExtraHop to conduct a series of product demonstrations in a lab environment. Keysight's Vision packet brokers, PacketStack+ software, and industry-best user interface (UI) proved up to the task of removing duplicate packets at line rate—and at scale—to accommodate growing traffic volumes without dropping packets. Vision also provided superior advanced filtering capabilities including stripping off two unwanted ACI headers and filtering out certain traffic from certain VLANs and IP ranges—all without performance degrading.

With the project expanding in scope, the customer wanted its new packet brokers to enable multiple teams to have better visibility. Keysight delivered the real-time data, superior architecture, high-performance monitoring, and ease of use they need, and the GUI lets analysts create much more complex filtering.

Vision lights the path forward

After witnessing the product demonstrations, the IT team decided to migrate its existing visibility infrastructure to a Keysight visibility platform. The new solution includes versatile, high-end Vision X packet brokers deployed in two main data centers in Wisconsin and Illinois and Vision 400 appliances installed at smaller regional sites.

The Keysight visibility fabric eliminates the performance trade-offs the company incurred with its prior solution by allowing the team to increase capacity and improve quality simultaneously. Instead of continuing to waste high-value SPAN ports to capture east-west traffic within ACI leaves, the company began moving to 100G ports within the Keysight fabric, eliminating dropped packets, and achieving better sampling from the leaves in ACI. They were able to increase the capacity of information while improving the quality of information being provided to monitoring tools.

The customer team expects to achieve faster analysis based on more reliable data and a higher return on investments (ROI) in its ACI infrastructure. The bakeoff made it clear that the Keysight backplane and the way the Vision packet brokers process data can support the customer's needs for the coming years, without the packet brokers becoming exhausted. As they continue to grow, Vision NPBs can deliver the capacity, ease of use, and the high quality of vendor support the provider team needs.

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