

savvius | Financial Services

Savvius enables major financial services company to efficiently process credit card transactions by providing immediate insight into network performance issues

“Our network is very complex and handles thousands of transactions every minute. We needed a product that had both network and application visibility, and a system that would allow multiple people access to packet data simultaneously. Our goal was to find a one-stop solution that allowed us to escalate issues to the appropriate team in real time.”

TECHNICAL OPERATIONS MANAGER



This financial services company is one of the world's largest credit card acquirers, handling the approval process for card-not-present and point-of-sale transactions, and providing a variety of other offerings such as data encryption and fraud services.

The Challenge

Billions of credit card transactions take place every day. In most cases they happen so fast that consumers rarely stop to consider the intricacies of the authorization process going on behind the scenes between merchants and the card-issuing banks.

Acquirers, such as this company, accept (or acquire) transactions for each merchant on behalf of well-known card networks that include MasterCard, Visa, American Express and Discover. The card network connects acquirers to card-issuing banks so that a transaction can be verified. Whenever someone uses a card, the acquirer will approve or deny the transaction based on information about the cardholder's account given to it by the card network and issuing bank.

savvius Omnipeek

Savvius Omnipeek, best-in-class network diagnostics software, delivers intuitive visualization and effective forensics for faster resolution of network and application performance issues. Savvius packet intelligence enables Omnipeek to provide rapid analysis and troubleshooting of wired and wireless networks, local and remote.

savvius Omnipliance

Savvius Omnipliance, a family of industry-leading packet capture and analysis appliances, enables real-time and post-event analytics at up to 25Gbps. Using Savvius packet intelligence, Omnipliance gives IT engineers the power to resolve network and application performance issues on 1/10/40 Gigabit Ethernet, 802.11ac WLAN, VoIP, and video-over-IP networks.

In addition to managing card transactions, the acquirer assumes full responsibility for the transactions it processes, so network stability and reliability are paramount. In the past, the company had relied on a Network General Sniffer for troubleshooting, but several limitations prompted the Technical Operations team to look elsewhere to update its technology.

The Solution

With a shortlist of products in hand, the company decided to deploy Savvius Omnipliance® hardware and its companion Savvius Omnipeek® software. Deployed behind a Gigamon solution, Omnipliance allows the company to rapidly identify and troubleshoot network and application issues, which can be resolved within TechOps or escalated to another team. The Savvius solution has enabled the acquirer to share transaction data with merchants via a Splunk server, and allows the TechOps team to develop custom plug-ins that help future-proof operations while improving the troubleshooting workflow.

One such plug-in was developed when the card acquirer migrated from FTP to SFTP. Customer connections would occasionally drop, creating a lot of finger-pointing about the cause, which could be a genuine network issue or a problem with an application, server or firewall.

“The Savvius team built a plug-in that monitored connections,” continued the TechOps Manager. “So if a server initiated a reset after a TCP request, an alert would be generated that allowed us to see if we’d exceeded a threshold somewhere. It was a simple fix that instantly improved troubleshooting.”

Many retailers process more than 20 million card transactions per day, so troubleshooting latency or response times can be extremely difficult when logs are typically written at one-second intervals. Savvius was again instrumental in developing an elegant solution.

“We had all the packets but it was an asynchronous stream,” said the TechOps manager. “We needed to track the authorization requests and responses, so the Savvius team wrote a decode for Omnipliance that validates order numbers, amounts and card numbers, and marries each authorization response with its authorization request in a SysLog, while masking out personally identifiable information. When a merchant calls with a problem, we can drill down to individual transactions to see exactly what happened. Case closed.”



Gigamon provides active visibility into physical and virtual network traffic, enabling stronger security and superior performance. Savvius and Gigamon have partnered to bring full visibility, performance, scalability, and decryption to our enterprise customers with high-speed networks. The joint solution provides accurate time-stamping, SSL decryption, de-duplication, filtering, and load-balancing across multiple Savvius appliances.

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Splunk offers the leading platform for Operational Intelligence. It helps the curious look closely at what others ignore — machine data — and find what others never see. Savvius and Splunk have partnered to develop Savvius Insight, the only network monitoring appliance with a built-in Splunkforwarder that can send vital network security and performance information to a Splunk server, providing long-term monitoring of and reporting on critical network statistics.

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Benefits

Since implementing Omnipliance and Omnipeek, this card acquirer has dramatically reduced the challenges associated with network and application troubleshooting, increasing operational efficiency and ensuring that lingering issues are dealt with by the right internal teams as quickly as possible. These improvements have saved the company both time and money by processing thousands of credit card transactions seamlessly and efficiently.

“With Omnipliance and Omnipeek we can troubleshoot down to the TCP layer whenever we have a problem,” concluded the TechOps manager.

“The system is rock solid. Even though we are a Level 1 team, we can pinpoint problems right here without escalating to an implementation team. This allows us to hand off issues to the appropriate engineers and resolve problems — usually on the same day.”

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