ROI Experiences with Network Monitoring Switches – National Retail Chain

Executive Summary

One certainty in today's IT world is that network traffic will grow. This is making expanded network-based security, performance and compliance monitoring increasingly critical. But that doesn't mean the cost of network operations, and in particular the cost of monitoring, has to grow needlessly. Network monitoring switches offer compelling options for consolidating monitoring tools and architectures and can deliver significant capital and operational savings over the status quo of deploying more and more security and network monitoring tools. This case study reviews an implementation of network monitoring switches – Anue Net Tool Optimizers (NTOs) – at a national pharmacy retail chain, detailing experiences and expectations regarding returns on those investments.

Challenges:

With more than 8000 retail outlets and a newly deployed second data center, this retail pharmacy operator has a significant IT infrastructure to monitor and protect, including more than 30,000 network devices. Critical applications and services delivered from the data center out to the sites include credit card transaction processing, vendor supply applications as well as the retailer's e-commerce systems.

The senior network analyst is responsible for acquiring and deploying management tools and technology both to use directly and to be used by the rest of the operations team. Over the years, the operations team has accumulated a considerable range of packet-based analysis tools, including OPNET AceLive (now known as AppResponse Xpert) units as well as NetScout InfiniStreams. The team is also using Quest FogLight for APM analysis, as well as intrusion detection systems. All of these require access to packet streams in order to provide their value.

> The pharmacy has over 8000 outlets and over 30,000 network devices supporting retail transactions, supply chain, and ecommerce applications

> "We have a number of different tools in place that get used on a day-to-day basis," said the network analyst. "There are some overlaps, but each one has its strengths and some of the staff have deep knowledge and experience in one or the other and are most comfortable using their favorite tool."

With so much instrumentation, it was clear that some sort of network monitoring switching was needed. "We originally tried to set this up using Cisco switches to supply monitoring packet streams. But we ran into troubles with the limits of two SPANs per device, and we couldn't split or filter the traffic easily enough. And to make matters worse, we were having problems with packet drops."

EMA

Solution:

The network analyst and his team procured and deployed eight Anue NTO appliances to cover the original data center, and two 64x10Gb port NTO 5288 appliances to cover the new data center. This approach now allows the ops team to select whichever analysis tool each individual analyst is comfortable with. "The new solution made life much easier. It was a night and day difference versus our old approach of using the Cisco switches."

The new approach has resulted in a number of positive returns on investment. First of all, every network analyst has been trained on the intuitive NTO console, so appropriate personnel can adjust monitoring configurations as needed without requiring change tickets and change board approval, which may otherwise have required waiting for a maintenance window. The Anue NTO's ability to do packet slicing is also an added bonus, since monitoring tools are not allowed to view/retain credit card numbers under PCI DSS regulations.

> The biggest payoff has been faster response time for fixing issues … where minutes can translate into big dollars lost (or saved).

But the biggest payoff has been in terms of faster response time for fixing issues. Before deploying the solution, the team often had trouble isolating traffic it needed to analyze. Without predictable and regular connectivity for monitoring, the team was missing critical outages and often did not have the data they needed for troubleshooting due to packet drops. When applied to a business-critical application, such as the e-commerce portal, minutes can translate into big dollars lost (or saved.)

Deploying the Net Tool Optimizer solution has also saved the organization the cost of purchasing more monitoring tools, both by allowing the aggregation of multiple low-speed links as well as making sure that all available ports are in use across the monitoring tools, achieving maximum return on investment. The NTO console also helped to troubleshoot the monitoring tools themselves, allowing the team to recognize and prove to one monitoring solution vendor that their product was dropping packets.

ROI Summary

ROI Area	After Anue	Benefits
Faster MTTR	No missed outages, no need to be gated by change management before starting incident analysis	Reduced time to diagnose issues via flexibility to apply the right tools to the right task with virtual no delay.
Reduced cost of instrumentation	Better port utilization by aggregating and live switching of packet streams	Allows best use of available capacity and extends life of monitoring products