Monitoring Optimization:
A Logistics Firm Saves Money and Speeds Up Mean Time to Repair 80%

As the company has grown, the customer's requirements for monitoring their applications and networks have grown in tandem. These requirements have been made more complex by the fact that applications are housed in two separately located data centers. Specifically, the customer had two important needs to address.

First, the customer was focused on getting visibility into what the users were actually seeing from a user interface (UI) perspective. Many internal and external users had been reporting that applications were "slow," but the existing tools and logs that focused on their infrastructure did not surface problems or provide insight to allow them to diagnose the causes of those problems.

Second, the infrastructure architecture and network operations teams agreed that it was important to find a way to simplify the enterprise monitoring architecture overall, including end user experience, troubleshooting, and security monitoring. The customer needed to ensure that their monitoring tools had the network access they required while limiting the number of monitoring tools that they needed to purchase. "Keysight Vision ONE helped us deploy our new tools more efficiently and increased our overall monitoring coverage without requiring additional hardware tools. This saved an estimated $140,000 immediately," said an infrastructure architect.

Increasing Visibility for User Experience Monitoring

The customer selected a UI monitoring tool to provide accurate timestamps for distributed network traffic. This real user information is unobtrusively gathered from access points such as network TAP (test access point) and switched port analyzer (SPAN) ports. This monitoring tool was selected to help alert the IT support teams when an application crosses a preset threshold that indicates a slow response time.

The Company:

- A leading provider of transportation and logistics, the company serves more than 80% of the Fortune 500® companies. It offers the broadest portfolio of truckload carrier and related services

Key Issues:

- Slow applications housed in separate data centers
- Limited ability to monitor
- Complex architecture

Solutions:

- Keysight Vision One

Results:

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When the implementation team began investigating deployment options internally for their chosen user experience solution, they found that there was a shortage of available network access points for attaching the tool. SPAN ports in their two data centers were already being used for security/intrusion detection devices, data recorders, and network analyzers. In fact, the IT Team was already forced to share SPAN access ports by physically making and breaking connections to add or remove tools as needed, rather than keeping all tools continuously attached as they preferred.

In order to address this situation, the customer adopted Keysight Vision ONE so that information from each SPAN port or TAP can be shared with multiple tools simultaneously. Two Keysight Vision ONE devices were acquired with one unit deployed in each data center, and the two were interconnected via a 10G link. With this connection in place, the company is now able to monitor any access point in either data center with tools at their primary data center (Data Center 1 in the diagram below). In this way, all of the monitoring tools have complete access to needed traffic.
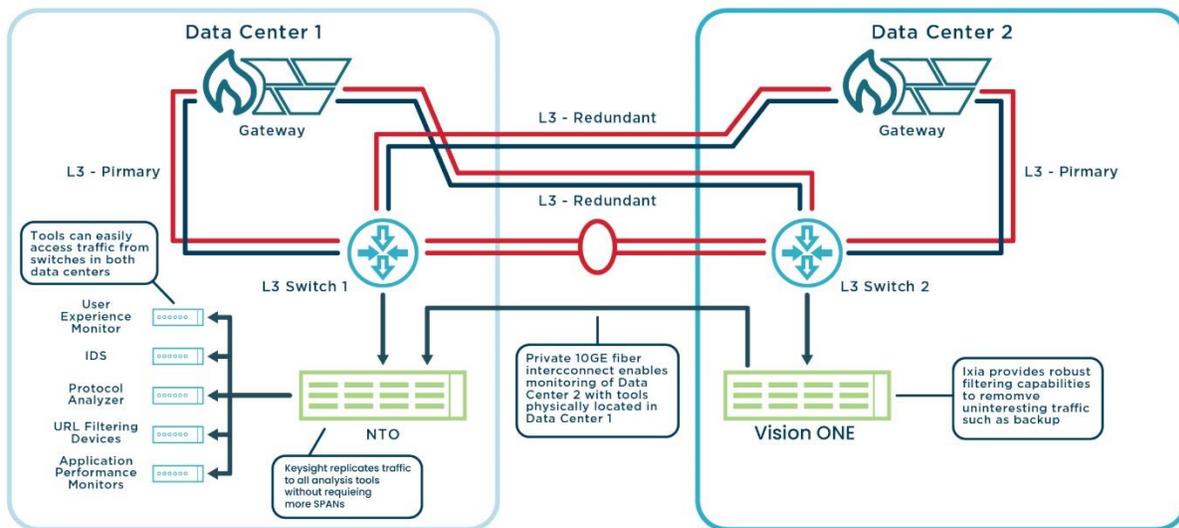
Saving Money on Tools

In addition to solving the SPAN port shortage issue, Keysight Vision ONE also provided other benefits. The customer was able to establish better overall coverage of the network, and the implementation requirements for deploying new tools were simplified.

First, Keysight Vision ONE provided convenient access to a variety of SPAN access points in both of the company's data centers by aggregating SPAN port inputs from each data center and directing the aggregated traffic to the user experience tool. As a result, the tool has complete access to the data required to provide full 360° coverage of every end user experience without impacting the visibility of other network monitoring tools.

Keysight Vision ONE was also beneficial in eliminating the need to deploy separate data collectors for the user experience tool at each SPAN port location. This saved an estimated $140,000 in data collector hardware costs.

Finally, Keysight Vision ONE provides advanced graphical filtering capabilities that are used to optimize out-of-band monitoring traffic before it is sent to the user experience solution, enhancing the throughput of the overall system while eliminating false positives and unnecessary processing overhead.

Immediate payback on initial investment

Once the solution was deployed in an optimized monitoring environment, it was able to provide value almost immediately. The customer had recently deployed a new order capture system on the same infrastructure. Two days after deployment, the company began seeing rogue orders in the new system. On first glance, it was unclear where they were originating.

The IT Operations team analyzed the traffic that had entered the system over the previous 48 hours to determine if the problem was one caused by user error, a problem with the new system, or with some other unexpected source. They were able to quickly identify the cause of the malfunction—a button in the GUI for the order entry system was not operating as intended and was generating the rogue orders. Prior to deploying this solution, this problem would have required at least a week in troubleshooting time. With the joint Keysight Vision ONE and user experience deployment tool, the problem was solved within one business day, cutting the troubleshooting time by 80%. "We put the collective solution into production on a Saturday, and it had paid for itself by the following Monday," said a lead network administrator.

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Consolidation Through Optimization

The customer was able to deploy the new and important application, provide the level of user experience they desired, and achieve the consolidation of monitoring tools they needed to make it all work together seamlessly. By using Keysight Vision ONE, the networking team was able to optimize monitoring across all tools, helping them to see more traffic from both data centers with fewer tools.

In addition to cost savings, the ease of use and advanced data manipulation capabilities offered in Keysight Vision ONE have provided efficiencies that will deliver extensive value to the company moving forward. New staff members can be trained in less than an hour, and access to all monitoring tools and access points is securely managed with the product's advanced access control feature set. Even more importantly, all tools can now be left attached to the existing access points via the Keysight product, and management of data monitoring is all done with a simple drag and drop interface.

Learn more at: www.keysight.com

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