



Monitoring Optimization Case Study Food Manufacturer Eliminates SPAN Shortages

"The Anue Net Tool Optimizer allows us to share traffic from our limited number of SPANs with eight tools, without dropping packets or overloading the tools with data."

– Lead Network Administrator

Fortune 2000 food product manufacturer rapidly increases network visibility, extends useful life for existing tools, and accelerates MTTR for troubleshooting problems

"We selected the Anue Net Tool Optimizer to eliminate our SPAN shortage problem. Since it has been deployed, we have also seen a significant improvement in network visibility, cost savings on tools, and faster MTTR for diagnostic troubleshooting."

– Lead Network Administrator

Company Profile

The Customer is a \$4B food product manufacturer in North America (FY 2010). With products that distribute across the continent, in the United States, Canada, and Mexico, the Customer is one of the leaders in packaged coffee, health/natural foods, and a variety of other packaged edibles.

Problem

The Customer runs a complex network with approximately 7,500 networking devices deployed at their headquarters, as well as 33 remotely located sites, 75% of which are primarily manufacturing facilities. They use a variety of tool types, including Application Performance Management (APM), Intrusion Detection Systems (IDS), URL Filtering, Packet Capture, and Data Loss Prevention (DLP).

With such a variety of tools, the Customer's networking team found that the data center lacked available access points, specifically SPAN ports (the company does not currently employ Taps). On most switches, the company desires to connect four or more tools, however, their Cisco switches only provide up to two SPANs.

Because of this lack of SPANs, the company had to manually "make and break" SPAN ports (i.e. add and remove tool connections by hand to address monitoring connectivity needs). This problem is

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important, because making and breaking required 1-2 hours of work by a network engineer each time connectivity changes were needed. With a desire to accelerate troubleshooting resolution, the Customer needed to improve efficiency and productivity for these network engineers.

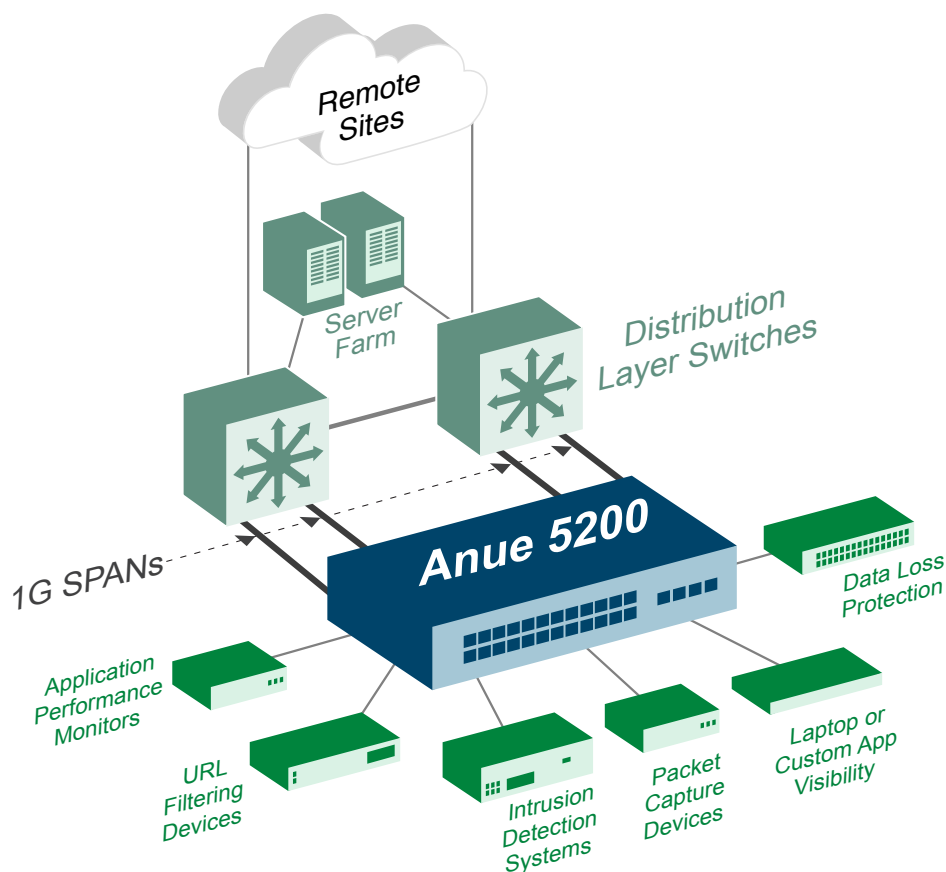
Furthermore, without the ability to monitor continuously across the Customer's assortment of tools, they suffered from a lack of needed visibility into the network. The lack of visibility impacted monitoring tools negatively, leading to missed opportunities to proactively detect and correct issues before they occurred.

Solution

In order to address all of these problems, the Customer adopted Monitoring Optimization by purchasing the Anue 5200 Series Net Tool Optimizer. The system that they purchased was an Anue 5204 Net Tool Optimizer with all 1G ports licensed. It was deployed in the primary data center located at the company's headquarters.

Their primary data center relies heavily on two Cisco 6509 switches that are set up in a highly redundant fashion. All four of the active SPAN ports on the two switches were connected to 1G RJ45 ports on the Anue 5204, as well as eight tools of the various types mentioned previously.

With this configuration, the Customer is able to share data from only two SPAN ports in each switch to all of their deployed tools, serving to immediately eliminate the SPAN port shortage. All network traffic is filtered using the Net Tool Optimizer's Dynamic Filters, which manage all aggregation, replication, and accuracy checks to ensure that every tool receives only the traffic that is required to complete its assigned monitoring task. In this way, utilization of the entire suite of tools has been optimized to significantly reduce risk of dropped packets while enabling each individual device to monitor more of the network. As a result, the data center enjoys a level of visibility that was not physically possible without the Anue Net Tool Optimizer.



Monitoring Optimization greatly extends visibility of six types of monitoring tools

Results

Increased Visibility

By deploying the Anue 5204 Net Tool Optimizer, all tools are now capable of monitoring any segment of the network that is available through the Cisco 6509 switches. The Data Loss Prevention (DLP) tool benefits most from the deployment, as its location in the tool hierarchy had previously prevented it from achieving the level of coverage it requires. Now, each port on the DLP is being sent traffic off the primary VLAN(s) on each switch. In this way, the team can minimize or eliminate oversights with detecting sensitive data, and then issue warnings or block transfer.

"After installing the Anue Net Tool Optimizer, we were able to filter the traffic to our web filtering server, decreasing the utilization of the gigabit link from approximately 90% to 10%."

Optimized Tool Utilization

Specifically, the URL filtering device had been tasked with "keeping up" with a high volume of data to be filtered. Using Dynamic Filters, the Customer was able to remove intranet subnets from the traffic flows, so the tool could focus on only internet-bound traffic. With these subnets removed, the URL filtering device can focus all of its resources on the right data.

The company also sees significant utilization improvement in their Application Performance Management (APM) tool. By filtering data so that only a specific virtual IP address is sent to the APM tool, it is able to focus on only the relevant traffic and save processing cycles in a similar way to the DLP solution.

Significantly Reduced Mean-Time-to-Repair

The Network Administration team uses a portable sniffer to troubleshoot various issues at multiple sites. Previously, they were forced to physically travel to these locations when problems arose.

Using the Anue 5204, the team enjoys two important benefits:

1. The filtering capabilities prove very useful in reducing traffic flows when data must be aggregated from multiple network segments to the sniffer. This helps reduce the cycles of processing required to complete a diagnosis, by allowing the sniffer to concentrate only on the needed data.
2. When problems arise in remote locations or during off-hours, the network engineers can login remotely, route and filter the appropriate network traffic to the sniffer, and address the problem rapidly. This process eliminates headaches and delays associated with change control activities, making and breaking SPANs, and physically traveling to the site for troubleshooting.

Unmatched Ease of Use and Setup

"The Net Tool Optimizer was running within 30 minutes, and it took longer to rack mount than it did to configure."

The Customer was able to configure and deploy the Anue Net Tool Optimizer easily and quickly. "When the Anue device initially arrived, I feared it would take a long time to learn and configure," explained the Lead Network Administrator. "The device was running within 30 minutes, and it took longer to rack mount than it did to configure."

The Networking team also benefits greatly from the intuitive, fully-integrated graphical user interface of the Anue solution. Using drag and drop and remote access, they are able to minimize the time required for managing connections, configuration, troubleshooting, and filters.

With simple, GUI-driven filtering, more members of the team are now empowered to help manage the monitoring tool assortment. The product also adds an unexpected benefit of being able to connect a network port to a Dynamic Filter with no tool attached. This enables the team to gather traffic statistics on the network port itself.