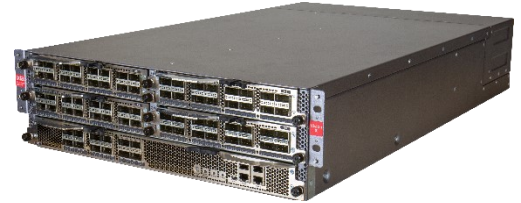


Leading University

Maintains Application Performance and Defends Against Hackers



Wanted: Application Filtering, 100G Links Monitoring, High Throughput NetFlow

The university, one of the world's leading teaching and research institutions, with over 15,000 students and over 2,000 faculty members, was targeted by international hackers and so they wanted to improve their security stance and eliminate blind spots.

This leading university was also seeing performance degradation with some applications running in the campus network over cutting-edge 100G fiber interconnects, so they needed to investigate and monitor Layer 7 performance with the help of visibility fabric.

Delivered: Vision X with Keysight Visibility Security Fabric

Vision X is Keysight's high-performance, high-density network packet broker with a compact, three rack unit form factor. Its modular chassis is upgradable to meet network visibility requirements now and in the future. Keysight Vision Series network packet brokers (NPBs) optimize traffic, providing enhanced visibility and security coverage. NPBs resolve application performance bottlenecks, troubleshoot problems, and improve data center automation. NPBs aggregate and filter the data sent to monitoring tools with intelligent grooming and security enhancements such as deduplication, TLS decryption, data masking, and application and threat intelligence.

Positioned between traffic input and output ports to connect directly to monitoring and security tools, the Vision Series NPBs act as an intelligent packet distribution layer.

PacketStack

PacketStack deduplicates traffic before delivery to security and monitoring tools to ensure a clean feed of data, greater efficiency and a reduction in tool and bandwidth utilization. Only the first instance of a packet is forwarded, even if the header of the packet has changed. PacketStack's deduplication, header de-encapsulation, and packet stripping capabilities helped drive an increase in error detection rates, data processing volume, and a reduction in false positives. PacketStack uses high-performance FPGAs to deliver scalable and consistent performance, with multiple features and up to two terabits per second.



Organization:

- One of the world's leading universities

Challenges:

- Target for international hackers
- Several applications showing drop in performance
- 100G links

Solutions:

- (1) Vision X Network Packet Broker
- (2) Application Modules with AppStack
- (2) PacketStack modules
- (4) Vision Edge 40
- (21) Vision Edge 100
- (1) Vision Edge 10S
- Ixia Fabric Controller

Results:

- Accurate network and application performance data via high throughput NetFlow (>200G)
- Full visibility and security across campus

AppStack

AppStack provides Layer 7 intelligence including high accuracy application identification, even with encrypted traffic, geolocation, Regular Expressions lookup such as specific words in e-mail subjects and body, social security number, or credit card numbers. AppStack also exports high performance NetFlow and IPFIX as well as proprietary IxFlow with over 150 custom L5-7 fields, to help metadata collectors and SIEM paint the most accurate picture of network traffic, application performance and threats.

Vision Edge Network Packet Broker

Keysight's Vision Edge packet brokers are deployed as a rack-level device to aggregate and stream traffic to a central Keysight Vision X, providing connectivity to monitoring and security solutions on the network.

In addition to the aggregation function, Vision Edge 10S also provides hardware generated NetFlow and deduplication.

Flex Tap

Keysight Flex Tap passive fiber optical taps ensure seamless, reliable capture of traffic. Flex Tap provides an exact copy of network traffic without impacting equipment on the network. Flex Tap's high-density form factor supports a high number of taps within a compact space, helping you get the most from valuable data center space.

Keysight Visibility and Security Solution wins the day

At the end of the day, the Keysight solution was the absolute winner thanks to the ability to filter application traffic with zero loss, high accuracy, and high performance. This customer wanted to filter and remove student social media from reaching security tools, and Keysight Vision X with AppStack demonstrated this capability, on 100G monitoring links, way ahead of the competition.



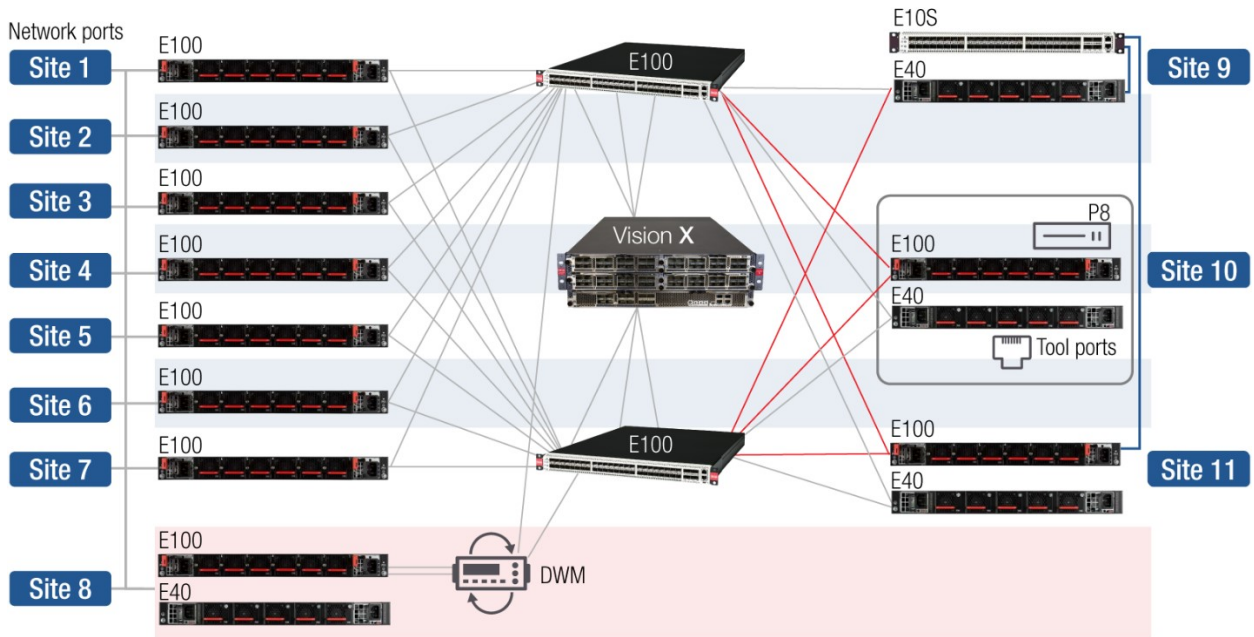
Network | SPANs



Distribution | Fabric



Network & client tools



University campus deployment of visibility fabric

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