



CASE STUDY

High Traffic and Need for Security and Visibility Spur 100GE Redesign

The University of Texas (UT) at Austin is a noted institution, with the fifth-largest single-campus enrollment in the United States. Over 50,000 undergraduate and graduate students, along with more than 24,000 faculty and staff create a dynamic educational environment that generates massive volumes of raw application traffic to monitor. This traffic poses major security and cost-efficiency challenges for the university.

Digital Security, Serving Higher Education, and Controlling Costs

UT's Chief Information Security Officer (CISO) is tasked with providing solid security amidst increasing threats, as well as preparing his Incident Response team to react quickly, appropriately, and effectively. The University also conducts a number of Cyber Range initiatives that the redesign will fortify. Cyber Ranges are vast test beds that allow war games and simulations to strengthen cyber security defenses and skills. The CISO also plans to use UT's new capabilities to help instruct Ethical Hacking classes taught in the Department of Computer Science.



Company:

University of Texas at Austin
Industry: Higher Education

Key Issues:

- Traffic monitoring and management
- Guarding against increasing threats

Solutions:

- Vision 7300s with AppStack
- NTO 6212s with AppStack
- Keysight Flex Taps
- BreakingPoint® Virtual Editions (VE)

Results:

- Anticipated savings of 20–30% on IDS capacity
- End-to-end network visibility and security



A Robust yet Space-Saving Solution with an Easy-to-use GUI

The Keysight team proposed a solution using Keysight's Vision 7300™ with the AppStack. The Vision 7300 chassis is designed for large organizations like UT that require monitoring and network security tools for end-to-end network visibility and security across physical and virtual networks. The AppStack delivers real-time application data to monitoring tools and solves the network administrator's need for total network visibility beyond Layer 4. The AppStack also features an advanced GUI that provides users with unrivaled control, accuracy, and ease-of-use.



By updating the AppStack application database as new apps are developed, Keysight enables UT to seamlessly scale and evolve their solution to new application traffic.

Substantial Savings on IDS Investment

UT plans to use Keysight's AppStack technology to define a group of Internet-streaming video services, including Netflix, YouTube, Hulu, and so forth. The IT Information Security Office will subtract this streaming video traffic (a significant portion of their traffic volume) from the total amount. Remaining traffic will be sent on to UT's IDS sensor stack for logging, alerting, incident remediation, and other functions. Using AppStack to remove this huge amount of streaming video traffic allows UT to employ 20–30 percent less IDS capacity, saving significant capital cost, and optimizing current IDS investment. By updating the AppStack application database as new apps are developed, Keysight enables UT to seamlessly scale and evolve their solution to new application traffic.

Keysight's veteran team worked alongside UT's expert security team to build a solution that met UT's changing network topology needs. The solution incorporates Keysight's tech partners, including Cisco Sourcefire, and provides UT the key ability to classify traffic by applications.

The NTO 7300 Offers Commanding Visibility and Security Technology

The Vision 7300 and Keysight's Visibility Architecture provide the most scalable network visibility framework in the industry. The Vision 7300 solves UT's need for improved security and performance, and for visibility into its growing 100GE footprint with 10GE and 40GE tools. The Packet Capture Module (PCM) gives UT built-in, single UI packet capture and Wireshark decode monitoring capability, for quick troubleshooting of performance, security and availability issues, and fast mean time to resolution (MTTR). Additionally, the 7300's PacketStack optimizes monitored network traffic, so that it includes only the most relevant information needed for analysis, improving security and performance, enabling rapid scalability, and maximizing control.

Keysight's Vision NPB that delivers 100GE port density, a high level of application intelligence features within AppStack, the industry leading GUI for device programming, extensive filtering capabilities for monitoring data, and Keysight's fast responsiveness to the customer made Keysight the clear choice for UT. Keysight's 100GE aggregation ports and comprehensive tap capability were key to the solution and outperformed competitors. One competing solution offered only limited features and a very elementary GUI that did not compare with AppStack industry-leading capabilities. A third vendor required a larger footprint, again a less advanced GUI, and only very basic application filtering.

The application intelligence feature can be enabled from within the Vision 7300 control panel GUI by a simple drag and drop motion. This drag-and-drop interface enables quicker troubleshooting to remediate incidents and solve trouble reports. A web-based RESTful interface is also supported.

Keysight Flex Taps Bring Cost-Efficiency and Total Visibility

Integral to the University's architecture, the flexible and highly scalable Keysight Flex Taps™ not only support total traffic visibility to monitoring tools, but conserve costly rack space and improve optical signal reliability with their the high-density design. Incorporating the most advanced fiber-optic technology on the market, the Flex Taps underscore Keysight's ability to deliver a security and visibility architecture engineered with the best of the best; one that will perform exceptionally now, and in years to come.

Learn more at: www.keysight.com

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

