Analyzing Virtual Healthcare Data at Full Network Performance

11 Months and $300,000 Saved

This large health insurance provider has a long history of providing great value in health insurance and improving the quality of life for all of its customers. The company provides healthcare coverage to more than one million people in the Southwestern United States. Increasingly, a key component of healthcare insurance is the Internet of Things (IoT). Medical IoT devices like wearable fitness watch or heart rate monitor allow insurers to gather data and use that data to improve risk assessment and proactively engage policy holders in loss prevention.

To do that, appropriate data analysis and security for both the data and networks that carry that data are crucial, as is visibility into the data analysis and network operation. The company uses server virtualization technology to achieve scale and efficiency. They are now 95% virtualized. They required network visibility to secure network traffic between virtual machines (VMs), but needed to filter out personal data to maintain compliance. To upgrade their compliance tools, the company needed to evaluate several analytical tool vendors, including tools from Riverbed, CA Technologies, ExtraHop, Dynatrace, and other manufacturers. Their evaluation plan was to serial test each vendor’s tool and make a decision in 12 months.

Company
Health Insurance Provider
Local health insurer with more than 1,300 employees. Headquartered in the Southwestern United States

Key Issues
- Tried virtual tapping and filtering in the past but it caused a 30% performance hit
- Monitoring unfiltered traffic caused compliance problems
- Timely evaluation of a new monitoring tool

Solutions:
- Ixia Phantom vTap
- Ixia xFilter Network Packet Broker (NPB)
- ExtraHop Proactive Monitoring and Remediation solution

Results
- Tapped and filtered virtual traffic without impacting performance
- Reduced evaluation time from 12 months to 1 month, saving $300K
- Maintained HIPAA compliance
Seeing Only What is Necessary

The company explored several options to gain visibility. They looked at installing a physical tap, but soon realized problems with that approach. “If we would have tapped the physical link, we would have seen too much and not enough,” stated a Senior Network Engineer. “Regulations and policies prohibit that.” The company needed a way to copy only specific virtualized network traffic with minimal affect to the performance of the hosts and VMs. “We had achieved scale and we didn’t want to re-evaluate our capacity assumptions of the entire data center just to copy virtual traffic,” a Senior Network Engineer said. They had tried other virtual tap solutions and had seen a 30% performance loss. Ixia Phantom virtual tap provided full visibility without impacts to network performance. The company upgraded the filtering capabilities of the Phantom vTap with the Ixia xFilter NPB to selectively monitor only the traffic they wanted to see. Virtually filtering traffic also helped network utilization when they exported the data for analysis. Ixia helped analyze and secure virtualized data without impacting protected health information (PHI) or HIPAA compliance.

Tapping Into Speed Saves Money

With a small upgrade to xFilter, the company saved 11 months and $300K in selecting the right tools. “Ixia recommended a change to our PoC plan that allowed us to simultaneously evaluate all of the tools we were considering. That saved us almost a year.” Ixia brought in the xFilter NPB which captured the filtered packets from the Phantom vTap and replicated it to each of the tools under evaluation. By using the Phantom vTap and xFilter combination, the company was able to test all of the tools in parallel and perform a head-to-head test. As a result, the company chose the best monitoring tool for their environment in only 30 days.

About Ixia

Ixia, a Keysight Business, provides testing, visibility, and security solutions, strengthening applications across physical and virtual networks for enterprises, governments, service providers, and network equipment manufacturers.

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