

New York State Psychiatric Institute Finds Security Cure with Juniper Networks

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Chandresh Shah,
New York State Psychiatric Institute
Director of Technology

Customer:

New York State Psychiatric Institute, a 108-year-old leading-edge research facility and hospital at Columbia University Medical Center

Industry:

Medical

Challenge:

Secure critical data across a highly distributed enterprise environment

Solution:

Juniper Networks NetScreen firewall solution

Benefits:

- Increased security
- Reduced administration time and costs
- Optimized network performance and productivity

The New York State Psychiatric Institute (NYSPI) is at the leading edge of research and medical care for those suffering from mental illness. Founded in 1895, the Institute is a research facility of the New York State Office of Mental Health (OMH) and is affiliated with the Columbia University Department of Psychiatry and the New York Presbyterian Hospital. With these affiliations and because it operates as both a hospital and a training center for psychiatric residents, the facility must meet ethical and legal requirements for computer security and data privacy.

“We serve patients and that means that we must comply with mandated regulations under the Health Insurance Portability and Accountability Act (HIPAA),” said Gerry Segal, chief information architect at NYSPI. “If a patient’s data isn’t adequately protected, we could face severe penalties.”

In addition to regulatory obligations, the Institute faces ever-increasing

Internet-generated threats to the highly sensitive data stored in and traversing its network.

“New York State Psychiatric Institute’s research has had a major impact on the entire field of mental health. It is mission critical to protect the data associated with that research,” Segal said. “NYSPI is a clear target for hackers. We were getting hit with every virus and denial-of-service attack that you can imagine. Trying to fix the attacks made things unbearable for the small IT staff.”

Considerations

The Institute’s network sits between Columbia University and the New York State Mental Health Department networks, sharing services, applications and data. In selecting a firewall, NYSPI’s primary requirements were to increase security without compromising network performance and productivity.

“Given our complex network, we were worried that deploying a firewall would slow down network

access,” said Chandresh Shah, director of technology at the Institute. “As a result, we looked at a number of vendors and narrowed our selection to Juniper Networks, Inc. and Cisco. The superior performance of Juniper Networks products exceeded our expectations and made our final vendor selection easy.”

The Solution

To secure the Institute’s interconnections between these two networks and isolate its critical data resources, the organization selected purpose-built, hardware-based Juniper Networks NetScreen-500 systems, which provide integrated firewall and virtual private network (VPN) capabilities.

Using Juniper Networks NetScreen GigaScreen application-specific integration circuit (ASIC), the NetScreen-500 systems are capable of up to 700 Mbps of firewall throughput and up to 250 Mbps of IPSec VPN throughput.

The Institute leverages the devices’ VPN capabilities to create secure encrypted transmission tunnels to help ensure that critical traffic, such as data shared with outside agencies, is fully compliant with HIPAA security and privacy regulations. To manage the Institute’s network, the Juniper Networks NetScreen-Global PRO platform enables security managers to easily create and modify VPNs through drag-and-drop management and offers an open interface for integration with third-party management tools. The platform offers pre-defined, robust reporting templates and also allows network managers to easily create customized reports.

The Benefits

With its Juniper Networks security solutions in place, the New York State Psychiatric Institute has realized multiple benefits, according to Shah. Not only is the Institute complying with HIPAA and other state and Federal regulations regarding the protection of patient records, but the organization has seen a drastic reduction in the number of attacks penetrating its network.

Juniper Networks security appliances render the Institute’s network invisible to many forms of malicious probes, port scans and denial-of-service (DoS) attacks, according to Shah. “As soon as we put in Juniper Networks products, we weren’t seen from the outside. The majority of attacks simply evaporated, thereby freeing valuable IT resources.”

Additionally, the Institute’s IT staff is delighted with the NetScreen Global PRO comprehensive graphical user interface (GUI), especially in contrast to the command-line interface they were forced to use to administer Cisco network routers.

“The GUI is absolutely the best one we’ve seen,” Segal said. “You can manage your policies right on the screen and can see exactly where you want to put the policy. It’s incredibly easy.”



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