

## Nayana Communications gains protection and performance for a high-traffic network.



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### Overview

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#### ■ **Challenge**

*Enhance network security for 50,000 customers without affecting performance and availability*

#### ■ **Solution**

*Adopted the IBM Proventia® Network Intrusion Prevention System (IPS) GX6116 solution, which adds a layer of preemptive security inside the network perimeter*

#### ■ **Key Benefits**

*Helps to fend off attacks through a preemptive approach to network security; supports required performance levels; allows each customer to follow its own security policy; and accommodates growth in network traffic*

#### **A booming business in the Far East**

When Korean businesses need Internet-based hosting services, many turn to Nayana Communications ([www.nayana.com](http://www.nayana.com)). The company provides high-performance Web hosting, server hosting and Domain Name System (DNS) hosting for companies of all sizes. And it's no small operation. Nayana maintains a customer base of more than 50,000 businesses, which generates an immense volume of network traffic. And each of these customers demands industry-leading levels of performance and security.

#### **Guarding against the world's wild Web**

The Internet is rife with risk, a breeding ground for ransomware, botnets, keyloggers, worms, distributed denial of service (DDoS) attacks and countless other threats. It is also Nayana's place of business. So network attacks are a common occurrence for the Web hosting provider. Recently, however, the threats had begun to outpace Nayana's ability to stop them. And the company's growing customer base meant that network traffic was increasing rapidly, making it more difficult to attend to problems.

*“It was critical for us to find a high-performance IPS product that could address our volume requirements and multiple client configurations, and deliver the level of security protection that our clients have come to expect.”*

*—Dae-Shic Kim, chief security manager,  
Nayana Communications*

Nayana’s principle line of defense rested on access control lists (ACLs) through its Cisco routers. Perimeter security was left mainly to customers, who managed their own firewalls. Since each customer followed unique security policies, security at the perimeter was inevitably inconsistent. But the risk was becoming too great to guard only the perimeter. Some attacks—including buffer overflows and password cracking—had gotten past the firewalls maintained by Nayana’s customers. Without a system to detect and prevent intrusions, many attacks could propagate throughout the network, affecting not just one customer, but potentially all 50,000 of them.

Unfortunately, the answer wasn’t as obvious as deploying a firewall or other traditional security appliances at the network’s core. A firewall could provide only limited protection, and it would likely reduce performance to unacceptable levels. Also, firewall technology lacks the granularity to accommodate widely varying customer configurations. And any disruptions—failures, restarts or otherwise—would disrupt network sessions for every user. As Dae-Shic Kim, chief security manager at Nayana, comments, “With our high volume of traffic, we required a solution that could meet our performance needs and provide protection to keep our clients secure even if they are not the direct target of an attack.”

#### **Preventing attacks from within the network’s borders**

To help prevent attacks and mitigate their effects, Nayana clearly needed something more advanced than a traditional security appliance. Says Kim: “It was critical for us to find a high-performance intrusion prevention system that could address our volume requirements, handle multiple client configurations and deliver the level of security protection that our clients have come to expect.”

The answer was the new IBM Proventia Network IPS GX6116, the latest IBM Internet Security Systems™ (ISS) security technology. Designed for performance, availability and reliability, the solution offered Nayana features that help enhance network security, increase uptime and optimize throughput. Capable of handling speeds of up to 15GB per second and inspecting network traffic at up to 6GB per second across eight protected segments, the Proventia Network IPS solution provides both the speed and the protection that are so important to Nayana’s success.

By handling multiple segments at high speeds, the Proventia Network IPS solution lets the Web hosting provider move intrusion prevention inside the network core, protecting against fast-spreading wildfire worms and preventing malware from wreaking havoc on both revenue and profitability. The IPS solution employs a combination of protection technologies to shield the network against a variety of threats. Rather than using signature-based algorithms that detect only known threats, the Proventia technology uses vulnerability-focused algorithms to protect the network from entire attack categories, including worms, spyware, denial of service (DoS) or DDoS attacks, and buffer overflow. Plus, it incorporates security

intelligence that is gathered and analyzed by the IBM Internet Security Systems X-Force® research and development team, so the algorithms keep current with all the latest security threats.

**Centrally managed security with wide-spread impact on availability**

When it comes to manageability, the Web hosting provider now has a much lighter load. Instead of applying patches and resolving security issues one by one, Nayana can manage security across the network from a central location. The console enables the company to run reports, analyze data and use automatic alerts to identify problems as they emerge. With hot-swappable, redundant hardware components, Nayana can keep the network up and running, even when there's a problem. In fact, the Proventia Network IPS solution is designed to maximize throughput and reduce latency—even while it vigilantly scans for and blocks intrusions. This is good news, especially for customers that use Voice over Internet Protocol (VoIP) technology, Next Generation Network (NGN) applications or other systems that require large amounts of bandwidth.

In addition, Nayana's customers can configure ports in different ways, use their own firewalls and follow their own security policies—and rely on the Proventia Network IPS solution to provide a strong layer of protection to the network's core. As a result, customers can feel confident that, even if an attack penetrates one customer's defenses, the network will help detect and quarantine the threat before it affects their own systems.

*“IBM Proventia Network IPS has the high-fidelity signature to filter a DDoS attack so that we can block it without losing our customers’ business connectivity.”*

—Dae-Shic Kim, chief security manager, Nayana Communications

**World-class levels of protection and performance**

An impossible choice between security and performance? Not anymore. Nayana can have it both ways—providing preemptive security as well as the

fast response times that customers need for critical business applications and Web site traffic. The Proventia Network IPS solution goes a long way in helping to fend off attacks and keep them from propagating throughout the network. “IBM Proventia IPS has the high-fidelity signature to filter a DDoS attack so that we can block it without losing our customers’ business connectivity,” says Kim. In fact, the number of successful DDoS attacks has decreased since Nayana adopted the IBM ISS product. And security patches are now applied quickly and consistently across the network.

The solution actually frees up bandwidth when it filters malicious traffic out of the main pipe, which means better performance all around. Network availability has also increased, since the company can work on one segment without disrupting the others. In addition, the solution allows Nayana's customers to follow their own security policies without jeopardizing the integrity of the entire network. As the company grows, it can use the IBM Proventia Network IPS solution to monitor additional network lines and accommodate expanding volume.



**For more information**

To learn more about IBM Internet Security Systems solutions, contact your IBM representative or IBM Business Partner, or visit:

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