

Case Study: Leading Web-Hosting Provider Turns to TippingPoint Intrusion Prevention System to Safeguard 10,000 Customer Networks and One Million Web Sites



The Challenge

Large enterprises must protect their networks and server farms from wave after wave of potentially crippling attacks and malware. Moreover, they must do so without compromising network performance, which would undermine productivity, communications, and competitiveness. Imagine then the challenge confronting The Planet (www.theplanet.com), one of the country's fastest growing managed hosting providers. The Planet must protect 10,000 customer networks and one million customer Web sites hosted on its 23,000 servers from cyber threats and unwanted intrusions.

Since 1994, The Planet has provided a complete spectrum of clients—from home offices to multinational corporations—with an impressive array of Internet access and Web hosting services. Using high-speed networks at its three data centers in Dallas, Texas, the company delivers unparalleled connectivity to the Internet and clients' Web sites, which it hosts on its massive server farms. To reduce the risk of Internet-based threats to these systems, the company has deployed a variety of security solutions, like firewall protection, vulnerability assessments, and spam prevention.

The Planet wanted to go beyond traditional security solutions to preemptively prevent next generation viruses, worms, Denial of Service attacks, rogue applications, and attackers from penetrating its networks and, consequently, those of its clients. It realized that there were potential pitfalls in the system that could be exploited and also recognized the competitive advantages of proactively addressing them.

"Firewalls only enforce corporate policies about who enters a network, but they can't prevent sophisticated exploits and attackers from penetrating the infrastructure and wreaking havoc," explained John Bradberry, vice president of information security for The Planet. "Our customers depend on us to safeguard their vital assets and operations with the most robust security possible. Providing our customers with effective intrusion prevention was very important to us, but we were faced with the practical challenge of finding a solution that can scale with our massive networks. When you're looking for a system that can support traffic rates measured in millions of packets per second, the number of potential solutions is very, very small."

The Planet required an extremely advanced intrusion prevention system (IPS) to protect its vast networking infrastructure from present and future exploits. Its solution needed to be extraordinarily powerful, able to monitor traffic volumes as great as 16 Gigabits per second

(Gbps) perimeter connectivity, the amount of traffic that can enter one of its data center networks at any given moment. The Planet also manages a total of 32 Gbps of backbone connectivity, so the system also had to be manageable and provide robust reporting capabilities that would allow The Planet to update its customers on their security status. Most importantly, its IPS solution could in no way compromise the networking performance that has characterized the firm as a premier provider of hosting and access services.

Why TippingPoint, a division of 3Com

In light of the sophistication and scope of its networking operations, The Planet carefully evaluated intrusion prevention systems from a variety of leading vendors. The only solution that met its needs was the TippingPoint Intrusion Prevention System. The lone IPS to receive the Gold Award from the NSS Group, the world's foremost independent security testing facility, and Best Security Solution 2005 from SC Magazine, the TippingPoint IPS blocks malicious and unwanted traffic, while allowing legitimate traffic to pass.

"At our data centers, we currently manage a total of 32 Gbps of backbone connectivity, and the only technology capable of handling that bandwidth came from TippingPoint," said Bradberry. "Although we already host 23,000 servers, we're adding more every day to satisfy our expanding client base, and only TippingPoint can scale to handle the additional traffic."

Beginning in January 2005, the Planet installed eight TippingPoint 2400 IPS devices at one data center and four each at its other two sites. The systems reside between the core of each data center and the provider networks. As a result, all Internet traffic moving through The Planet passes through the IPS before it is routed to customers' networks.

"Deployment was straightforward and without incident," said Bradberry. "TippingPoint's engineers provided exceptional support and ensured we were operational very quickly."

The Benefits

With its TippingPoint Intrusion Prevention Systems, The Planet now provides its customers robust security. With each TippingPoint 2400 monitoring two Gbps, the system eliminates enormous amounts of unwanted traffic from entering clients' networks without any noticeable latency. The Planet has recorded analysis rates as high as 900,000 packets per second through a single TippingPoint IPS device.

"The capability of our TippingPoint IPS to handle traffic volumes as high as ours without any performance degradation is amazing," said Bradberry. "The IPS is blocking up to one million attacks per hour, attacks that would have entered our customers' networks without the system."

To ensure that protection is effective against new and emerging threats, TippingPoint solutions offer Digital Vaccine real-time inoculation. This service provides regularly updated filters to protect vulnerable operating systems and applications from threats. The Digital Vaccine service is delivered to customers weekly, or immediately when critical vulnerabilities emerge, and can be deployed automatically with no intervention required by IT personnel.

"With TippingPoint's Digital Vaccine, we're able to preemptively defend ourselves against worms and malware," explained Bradberry. "It is particularly effective because it addresses the vulnerabilities, rather than the exploits themselves, preventing attackers from capitalizing on common weaknesses in networks."

The automatic updates of the Digital Vaccine service exemplify the management requirements of the TippingPoint solutions. The Planet's security team uses the TippingPoint Security Management System to efficiently monitor and manage the system.

"Although its products are extremely powerful, TippingPoint has greatly simplified their administration," said Bradberry. "Thanks to its intuitive graphical user interface, the management application is remarkably simple to operate, and very scalable."

The TippingPoint solution also provides comprehensive reporting of all security-related events, like blocked attacks, for our entire system and individual servers. This allows The Planet to provide every customer with customized reports, documenting the powerful protection the intrusion prevention systems deliver.

"Our TippingPoint systems are essential to our competitive position," concluded Bradberry. "No matter how sophisticated exploits become, we can assure our customers of the very best, most current protection without any degradation in network performance. This solution is saving our customers money by protecting their networks and assets from attacks and threats. No other solution comes close to offering this level of security or scalability. TippingPoint is the gold standard for network-based intrusion prevention."