Establishing an Innovative Security Approach

SINET, a leading Internet and telecom service provider, was dealing with cyberthreats that resulted in network downtime and blacked-out user access. Finding the best solution to combat these threats was essential to ensure a highly reliable, quality service and stem the tide of customer churn.

SINET, founded in 2009, owns and operates over 200 active network POPs across Cambodia, from all main cities and provincial towns to remote districts and villages. As one of the biggest ISPs in Cambodia, SINET serves innovative customers, particularly startups in the gaming and microfinance industries. This made it all the more critical that the provider find a proven, reliable way to ward off distributed denial-of-service (DDoS) attacks and malicious software that were causing network blackouts and disrupting the user experience.

Better Protection Against Threats

While SINET’s finance customers are particularly concerned with malware and ransomware, gaming customers are susceptible to DDoS attacks that can disrupt their services. In either case, attacks directed at SINET’s infrastructure sometimes prevented its customers from accessing the Internet. Most websites rely on domain name system (DNS) to function, and new threats have been developed that specifically target critical DNS infrastructure.

SINET used to rely on BIND, a widely used DNS software. A few times, SINET’s BIND software became the target of brute force attacks, which affected the provider’s entire network. Some of SINET’s customers changed their DNS to Google DNS, which solved the issue temporarily. The remaining customers waited for SINET’s engineers to figure out the attack source and disable it. However, the engineers spent an inordinate amount of time doing so, and this was not always effective since the source can be spoofed. In most cases, they were forced to rebuild BIND.
After several attacks disabled SINET’s network for hours on end and the provider lost some customers as a result, it was time for a new approach. According to Vireak Ouk, COO for SINET, “Our CEO was aware of the issue and agreed we needed a better way to protect our network and our customers from threats.”

### Selecting Security Solutions Designed for Telecom Providers

Understanding that DNS was the main entry for DDoS attacks, SINET turned to Akamai rather than simply using access lists, firewalls, or BIND. As Ouk says, “Akamai educated us on the limitations of BIND software and how the Akamai DNSi CacheServe and SPS ThreatAvert solutions uniquely address malicious threats to enhance a service provider’s security profile.”

DNSi CacheServe enables self-defending DNS infrastructure that is designed to shield networks and subscribers from cyberthreats. Akamai SPS ThreatAvert evaluates DNS lookups in real time to detect and disrupt malicious activity. The solution targets threats that cause network outages or slowdowns, including DNS-based DDoS attacks and bot malware.

“Because all Internet traffic needs to go through DNS, it’s critical that we secure this infrastructure. We felt the Akamai solutions were a much better option than the enterprise version of BIND and another DNS solution. Akamai’s solutions are purpose-built for telecom providers to block and mitigate various cyber threats, and improve network security,” explains Ouk.

### Improving Its Marketplace Reputation

Since implementing DNSi CacheServe and SPS ThreatAvert, SINET has not experienced any DNS-related downtime. “Before switching, we experienced three to four DNS interruptions – both minor and major – every 12 months. Our DNS has not gone down since going live with Akamai. In fact, we have significantly reduced customer churn related to DNS attacks,” says Ouk.

The Akamai solutions have dramatically changed SINET’s approach to handling major security threats. In the past, the provider was unable to explain to its affected customers the reasons for network issues. “We simply told them they needed to clean up their network and hoped they took care of it on their end,” continues Ouk.

With Akamai in place, SINET’s engineers can focus on value-added initiatives instead of spending time trying to pinpoint the source of attacks and their impact. They no longer need to restore BIND since the Akamai solutions have prevented the network from going down. Should the provider experience any security issues related to DNS, Ouk says they now have the confidence to proactively approach customers and clearly guide them on next steps.

“Akamai’s industry leadership and expertise will help us achieve our long-term strategic objectives. By adding the Akamai solutions to our security layer, we are ahead when it comes to cybersecurity in Cambodia,” Ouk concludes.
Service Provider SINET Eliminates Blackouts and Reduces Customer Churn With Akamai Security Solutions

About SINET
SINET is a specialist Dedicated Internet and Telecom Service Provider with strong focuses on engineering excellence and reliable support since 2009. SINET is one of the leaders in Internet and information and communication technology (ICT) services for businesses and enterprises and is the key pioneer in ICT advancement, latest network technologies, and security best practices in Cambodia.

We are driven by our enduring love of communication technologies and using them to facilitate business and human connections.

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Top brands globally rely on Akamai to help them realize competitive advantage through agile solutions that extend the power of their multi-cloud architectures. Akamai keeps decisions, apps, and experiences closer to users than anyone — and attacks and threats far away. Akamai’s portfolio of edge security, web and mobile performance, enterprise access, and video delivery solutions is supported by unmatched customer service, analytics, and 24/7/365 monitoring. To learn why the world’s top brands trust Akamai, visit www.akamai.com, blogs.akamai.com, or @Akamai on Twitter. You can find our global contact information at www.akamai.com/locations. Published 04/19.