CUSTOMER STORY

US Signal Mitigates DDoS Attack on Financial Institution

Fast response saves client reputation, prevents loss of sensitive customer data and protects online services

Challenges

+ DDoS attack within days of signed contract — emergency cutover required as no time for regular transition planning and testing
+ 500 malicious attacks per second from over 10,000 IP addresses
+ Multi-vector attacks originating from Russia, Ukraine, Iran, Vietnam and from within the U.S. itself

Solution

+ US Signal's Managed Website and Application Security Service — PCI DSS 3.2, GDPR, & HIPAA compliant

EXECUTIVE OVERVIEW

US Signal was selected by a financial sector organization to provide a Managed Website and Application Security Service that includes DDoS protection. The client knew there had been a global rise in financial sector DDoS attacks and wanted to take proactive measures to protect its customers and online services. Only a few days into the new contract, the client suffered a major DDoS attack that, at its height, was generating 500 malicious attacks per second from over 10,000 global IP addresses.

US Signal's normal implementation timeframe for DDoS mitigation from order receipt to cutover is two weeks, but cutover to Cloudflare's Anycast network was completed in less than three hours. The DDoS attack was mitigated within 15 minutes of the migration, allowing normal customer services to resume. The client avoided potential reputational damage that could have arisen if it had lost online availability for an extended period of time and the consequences that could have followed had sensitive customer data been accessed by cybercriminals.

US SIGNAL RESULTS

+ Emergency cutover to Cloudflare's Anycast network performed in under three hours
+ DDoS attack mitigation took effect within 15 minutes of cutover, allowing normal customer services to resume
+ 99 percent of malicious access attempts were challenged and blocked with browser checks or Google captchas — preventing malicious traffic from reaching customers
+ US Signal demonstrated leadership in fulfilling the security needs of current and future customers

"This is a superb example of what can be achieved when there is close collaboration between financial organizations and technology providers. Although we wouldn't have wished for such a situation to occur, it nevertheless demonstrates the importance of developing and adhering to a security strategy that can cope with increasingly sophisticated cybercriminals — and of working with a data center services provider such as US Signal that can respond quickly and efficiently when there is a clear and present threat to your organization's data security."

- *Senior Manager at our Michigan client's Head Office*

US Signal had recently signed a contract to provide a Managed Website and Application Security Service that includes application layer DDoS protection, to a Michigan-based financial institution.

A dramatic rise in the number of DDoS attacks on banking and financial institutions had made the client aware of the dangers posed by such attacks and, taking a proactive stance, prompted its team to contact US Signal to discuss how best to mitigate the risk.

It wasn't just the fear of reputational damage that drove the client to sign up for US Signal's Managed Website and Application Security Service — a DDoS attack can also lead to non-compliance with many U.S. and international data protection regulations and has the potential to result in legal action and prosecution. DDoS attacks can also be the catalyst for a second wave of phishing and email scams perpetrated against customers with compromised personal data.

Only a few days into the new contract, US Signal's client suffered a major DDoS attack. At the height of the incident, the client was receiving 500 malicious attacks per second from over 10,000 global IP addresses originating in Russia, Ukraine, Iran, Vietnam and from within the U.S. itself.

In the normal course of events, US Signal's implementation timeframe for DDoS mitigation from order receipt to cutover is two weeks. This allows for transition planning, DNS configuration changes and pre-cutover configuration with the customer — and Cloudflare, US Signal's DDoS protection technology partner. But in this instance US Signal became aware of the incident at 10:30 a.m. on the morning of the DDoS, began the cutover to Cloudflare and was in a position to fully protect the customer by 1 p.m. on the same day.

As a result, the DDoS attack mitigation took effect within 15 minutes of completing the migration to Cloudflare's Anycast network, allowing normal customer services to resume. Clean-up work continued through the day to ensure vendors and third-party services could still access the client's systems.

Deployed as part of US Signal's Managed Website and Application Security Service, Cloudflare's Anycast network has in excess of 30Tbps throughout and over 180 data centers in more than 75 countries. This allowed it to absorb and then quickly dissipate the in-progress DDoS attack — protecting sensitive financial data belonging to customers, keeping the company's website available and maintaining online services. It is the fastest managed DNS in the world and is PCI DSS 3.2, GDPR, and HIPAA compliant, making it suitable for use in the financial sector.

US Signal's financial sector client was delighted with the result. 99 percent of attempts were challenged and blocked with browser checks or Google captchas — preventing malicious traffic from reaching customers. The client avoided potential reputational damage that could have arisen if it had lost its online availability for an extended period of time and the consequences that could have followed had sensitive customer data been accessed cybercriminals. The incident also allowed US Signal to demonstrate its leadership in fulfilling the security needs of current and future customers.

About US Signal

US Signal is a leading data center services provider, offering secure, reliable network, cloud hosting, colocation, data protection, and disaster recovery services — all powered by its expansive, robust fiber network. US Signal also helps customers optimize their IT resources through the provision of managed services and professional services. **ussignal.com**