

WHITEPAPER

DDoS Attacks

A Guide to Understanding, Preventing & Mitigating DDoS Attacks

A DDoS attack can bring your organization to its knees. Without a way to detect or mitigate the attack you could be forced to pay to make it stop, or suffer severe consequences with no end in sight. Thankfully, there are ways to fight back against this growing threat, and the first step is knowledge.

Understanding DDoS Attacks



DDoS Attacks are Common

According to FlowTraq, half of all companies today have been victims of DDoS attacks. This means that if you haven't yet been, your time may be coming due. Just like ransomware, criminals don't just focus

on the largest organizations either. In fact, the more vulnerable the organization, the better chance they'll have of causing harm and potentially extorting money.



Cybercriminals Range in Age, Location, & Expertise

Cybercriminals are equal-opportunity hackers, located next door or across the globe, young or old, educated and uneducated. DDoS attacks are easy to carry out and don't require specialized training. Attack toolkits are available on the dark web.

This may be good news to aspiring criminals, but it is bad news for the rest of us. The ease of launching an attack means we can expect more in the years ahead. The time to prepare is now.



DDoS Attacks Aren't Just Concerning for Large Companies

As mentioned previously, companies large and small are vulnerable. In fact, smaller companies may be perceived as having less rigorous defenses and

expertise, fewer resources, and less experience guarding against hackers, so they may actually be a more attractive target.



Just Because You've Been Hit Once Doesn't Mean You Won't be Hit Again

Like homes that are broken into multiple times, vulnerable organizations are not immune from multiple DDoS attacks. More than 42% of the organizations monitored by one DDoS protection company were hit more than once, and 2.5% were attacked repeatedly

more than 10 times. Similar to other cyberattacks, the more effective the attack the more likely the criminal is to keep trying. For companies not ready, they can easily find themselves on their heels for what could be a series of unrelenting DDoS attacks.



I Have a Firewall. Isn't That Enough?

Unfortunately, no. Intrusion prevention systems like firewalls and routers can't prevent DDoS attacks. Because DDoS attacks can involve forging hundreds of thousands of IP sender addresses, the location of

attacking machines cannot be easily identified. To ward off attacks, you need a solution that can react within seconds, not minutes. That's why a DDoS solution from a provider like FirstLight is a critical defense.



DDoS Attacks Seriously Impact the Bottom Line

DDoS attacks can cripple your bottom line. Attacks result in lost worker output, potential penalties for non-compliance, revenue loss and damage to your

company's reputation. Sometimes attackers demand a ransom payment from site owners, which only adds to financial losses.



Attacks Often Serve as "Smoke Screens"

Most DDoS attacks do not attempt to breach a company's network, but rather overwhelm with traffic so it comes to a halt. Increasingly though, these attacks are being used as "smokescreens" to distract

from the real intent — data breaches. By distracting the organization with a significant DDoS attack, a hacker may stand a better chance of breaking into your systems and gaining sensitive data undetected.



Attacks Damage Your Customer Trust

DDoS attacks don't just harm organization's financially — they damage your reputation and undermine customer trust. A DDoS attack is more than just a public

embarrassment — it can permanently damage your reputation and your customer relationships.



Attacks are Always Evolving

As organized attacks become more sophisticated and effective, and networks and server capabilities grow, companies need to become more savvy about strategies to help defend themselves and their assets. Heating and cooling systems, printers, thermostats,

video conferencing, even vending machines are digital gateways. Companies need to stay one step ahead of these cybercriminals as they continue to get smarter and more strategic.



You Don't Have to be Defenseless

Organizations need to determine the risk of a potential attack and identify what needs protecting. Ideally you need a solution that detects anomalies in network patterns in real time and alerts you to unusually high levels of incoming connections from one or

more sources. With FirstLight's DDoS Protection and Mitigation Solution, you can rest easy knowing FirstLight is on alert looking to defend your network and mitigate potential attacks without crippling your critical network traffic.

The Right DDoS Prevention & Mitigation Solution

Your Internet provider should be a partner to help fight back against DDoS attacks as they are in the best position to monitor your traffic and can leverage their network resources to help you mitigate the attack. The right DDoS solution should have the following fundamental components:



24x7 Traffic Monitoring

Suspicious activity filters should be on watch 24x7, updating new threats constantly using algorithms to pinpoint unusual or malicious traffic



Traffic Triage

Mitigation significantly reduces the severity of an attack and allows legitimate traffic to reach the destination network



Traffic Mapping

Normal traffic patterns are identified, and parameters are set for accurate detection



Dashboard

Analytics are provided via a user-friendly portal, along with automated notifications, filters, and alerts



Uniform Pricing

Predictable monthly expense regardless of number of attacks, mitigation, or scale of attack

Why You Should Consider Using FirstLight as Your Internet Provider and for DDoS Prevention & Mitigation

FirstLight's high-speed, low-latency fiber network offers superior performance with an emphasis on redundancy and security. FirstLight has been providing Internet services since 1999 with the philosophy that the greatest quality of service is provided not just by the highest possible connection speed, but also combined with superior peering arrangements and dedicated

bandwidth delivered over a stable, fiber-based network.

FirstLight offers a DDoS prevention and mitigation solution coupled with our Internet service. FirstLight can help protect your organization from this growing threat while also keeping your applications and students performing at their best.

**Interested to learn more about FirstLight's DDoS solution?
Schedule a demo today or reach out to one of our experts by visiting
www.FirstLight.net/DDoS**

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