

DDoS and the Good News/Bad News

First, the bad — adversaries continued to innovate and alter strategies aimed at taking down DDoS protections with direct-path DDoS attacks and high-powered server-class botnets. Meanwhile, a little good news came in the way of a decrease in some reflection/amplification vectors, floating overall DDoS attack numbers down. Despite this decrease, the bad news tells us we must remain vigilant to combat ever-changing attacker methodologies and tactics. To learn more about the constantly changing DDoS threat landscape explore the interactive report.

<p style="font-size: 2em; text-align: center;">9.7M</p> <p style="text-align: center;">DDoS ATTACKS IN 2021</p> <p style="font-size: 0.8em;">A 3% decline from 2020, but a 14% increase over 2019</p>	<p style="font-size: 2em; text-align: center;">\$9-\$12M</p> <p style="text-align: center;">IN POTENTIAL REVENUE LOSS</p> <p style="font-size: 0.8em;">From DDoS extortion of VoIP providers</p>	<p style="font-size: 2em; text-align: center;">Free!</p> <p style="text-align: center;">The BARRIER TO ENTRY FOR DDoS ATTACKS IS NONEXISTENT</p> <p style="font-size: 0.8em;">The most prominent DDoS-for-hire services provide DDoS attacks ranging from no cost to greater than \$6,500 for terabit-class attacks</p>
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Adversaries Engage in Asymmetric Warfare

Triple extortion. Highly targeted attacks. High-powered botnet armies. DDoS for hire. Adversaries wasted no time in 2021 creating new attacks or building upon the effectiveness of long-time favorites: They engaged in DDoS attack operations via any means necessary to take down their opponents, with a notable increase in targeting specific organizations to disrupt operations.

	<p>A Triple Threat</p> <p>An unprecedented three DDoS extortion campaigns (LBA, Fancy Lazarus, and REvil copycat) operated simultaneously in 2021, showcasing a continued trend of monetizing DDoS—a trend quickly adopted by numerous ransomware gangs to run triple extortion schemes.</p>
	<p>A Flood of Attacks</p> <p>A rebalancing of the scales brought TCP-based flood and direct-path (non-spoofed) DDoS attacks in line with the three-year running champion—reflection/amplification DDoS attacks.</p>
	<p>DDoS as a Homing Missile</p> <p>By singling out specific organizations, individuals, and applications/services, adversaries launched the equivalent of bombs to take out a target—wreaking havoc on everything around the target and walking away with a payday.</p>
	<p>The Rise of Server-Class Botnet Armies</p> <p>In a blast from the past, botmasters exploited high-powered servers running vulnerable software and services, conscripting them into server-class botnet armies capable of launching high-powered direct-path DDoS attacks—a feat not easy or always possible with IoT botnets.</p>
	<p>DDoS-for-Hire Free-for-All</p> <p>With a wide range of cost to no-cost options, underground DDoS-for-hire services offered a vast range of configurable options, power, and attack types to anyone with an internet connection and a potential victim.</p>
	<p>The Intersection of Encryption, State, and DDoS Defense</p> <p>DDoS attacks are really attacks on capacity and state—a fact not unknown to adversaries, who ramped up the potency of attacks by disrupting layer-4 TLS-encrypted applications and services.</p>

From flooding victims with bogus traffic to high-powered botnets capable of launching millions of packets per second, adversaries aimed at taking down individuals and organizations alike with devastating effect. See how adversaries adapted in 2021.

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