



KEY METRICS FROM THE 1H 2021 NETSCOUT THREAT INTELLIGENCE REPORT

JAPAN

The massive shift to online life triggered by the COVID-19 pandemic prompted record-breaking levels of innovation by threat actors, and NETSCOUT's ATLAS Security Engineering and Response Team (ASERT) expects this long tail of attacker innovation to last well into 2021.

Bad actors launched approximately 5.4 million DDoS attacks in 1H 2021—yet another record-breaking number. In particular, attackers launched unprecedented numbers of DDoS attacks in the first quarter, boosting attack frequency by 20 percent over the same time period in 2020. Meanwhile, adversaries discovered or weaponized seven UDP reflection/amplification DDoS attack vectors and developed adaptive multivector attacks specifically tailored to exploit vulnerabilities of their targets. Vital components of the connectivity supply chain came under increased attack, while ransomware gangs added triple-extortion DDoS tactics to their repertoire and the Fancy Lazarus threat actor launched a new DDoS extortion campaign.

Max Multivector Attack

Max number of vectors seen in a single attack

24

ATTACK VECTORS USED

1. BitTorrent amplification
2. Chargen amplification
3. CLDAP amplification
4. DNS
5. DNS amplification
6. ICMP
7. L2TP amplification
8. MDNS amplification
9. Memcached amplification
10. MSSQLRS amplification
11. NetBIOS amplification
12. NTP amplification
13. RDP amplification
14. RIPv1 amplification
15. rpcbind amplification
16. Sentinel amplification
17. SNMP amplification
18. SSDP amplification
19. STUN amplification
20. TCP ACK
21. TCP NULL
22. TCP RST
23. TCP SYN
24. TCP SYN/ACK amplification

Top 5 Attack Vectors

Ta TCP ACK	Tk TCP SYN/ACK	Tr TCP RST	Ts TCP SYN	Dn DNS amp
NUMBER OF ATTACKS 62,187	NUMBER OF ATTACKS 9,808	NUMBER OF ATTACKS 7,000	NUMBER OF ATTACKS 6,616	NUMBER OF ATTACKS 5,363

DDoS Statistics

Attack Frequency	+64%
Max Throughput	+17%
Average Duration	-26%
Max Attack Size	+12%

Largest Attack

Size	194.98 Gbps
Speed	44.15 Mpps
Duration	405 Seconds

Max Peak Throughput

Date	03/01/2021
Max Throughput	88 Mpps

Max Peak Bandwidth

Date	03/01/2021
Max Bandwidth	291 Gbps



Top Ten Vertical Industries Under Attack

The following chart shows a sampling of the most targeted sectors in 1H 2021 by number of attacks.

RANK	VERTICAL	FREQUENCY	MAX ATTACK	MAX IMPACT	AVERAGE DURATION
1	 Data Processing, Hosting + Related Services	4,234	119.19 Gbps	20.82 Mpps	69.3 Minutes
2	 Wired Telecommunications Carriers	2,521	119.19 Gbps	19.05 Mpps	126.4 Minutes
3	 Electronic Computer Manufacturing	2,479	105.26 Gbps	17.69 Mpps	86.0 Minutes
4	 Electronic Shopping + Mail-Order Houses	2,310	119.19 Gbps	17.14 Mpps	95.7 Minutes
5	 Wireless Telecommunications Carriers (except Satellite)	1,060	119.19 Gbps	10.43 Mpps	192.7 Minutes
6	 All Other Telecommunications	760	69.20 Gbps	8.24 Mpps	115.9 Minutes
7	 Industrial Supplies Merchant Wholesalers	735	40.03 Gbps	8.03 Mpps	147.7 Minutes
8	 Internet Publishing, Broadcasting + Web Search Portals	615	105.26 Gbps	9.23 Mpps	140.4 Minutes
9	 Computer Facilities Management Services	286	88.97 Gbps	7.82 Mpps	101.8 Minutes
10	 Telecommunications Resellers	204	110.18 Gbps	9.63 Mpps	159.3 Minutes

The Big Picture

Explore the full 1H 2021 NETSCOUT Threat Intelligence Report to find the latest research into trends and activities across the global DDoS threat landscape.

[VIEW THE INTERACTIVE REPORT](#)

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