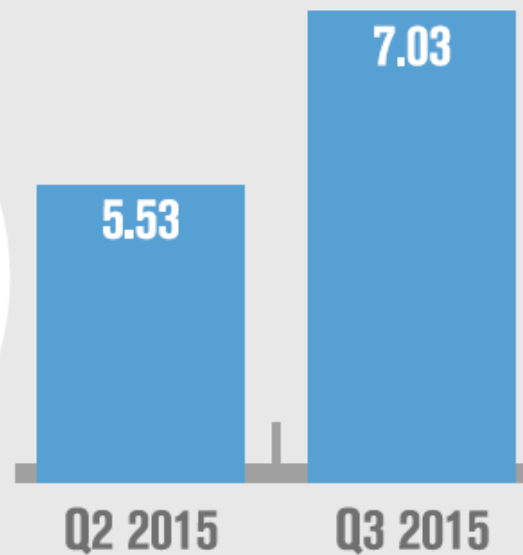
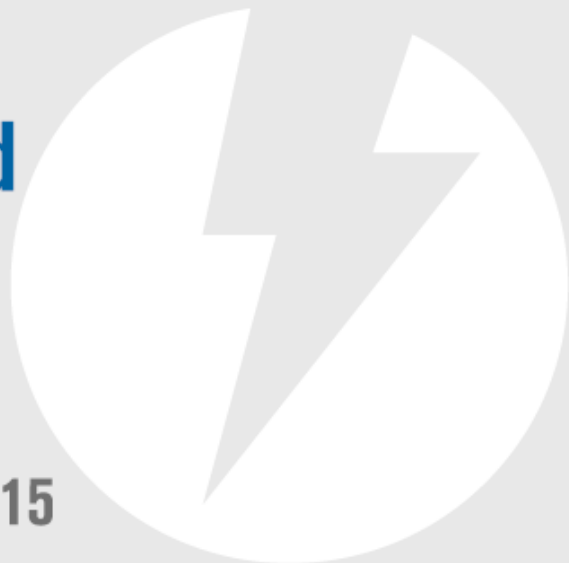


# EXECUTIVE SUMMARY

- DDoS activity increased in Q3 to the highest it has been in any quarter over the last two years.
- A peak volumetric DDoS attack of 60 gigabits per second (Gbps) and 12 million packets per second (Mpps) for User Datagram Protocol (UDP) floods and 34 Gbps/30 Mpps for Transmission Control Protocol (TCP) floods was observed in Q3 2015.
- The average attack size increased to 7.03 Gbps, 27 % higher than Q2 2015.
- 59% of attacks peaked at more than 1 Gbps; 20% of attacks were greater than 10 Gbps.
- For the fourth consecutive quarter, the industry most frequently targeted by DDoS attacks was IT Services/Cloud/SaaS, representing 29% of mitigation activity in Q3. Media and Entertainment represented 26% of mitigations.
- The most common attacks mitigated were Network Time Protocol (NTP), Domain Name System (DNS) and Simple Service Discovery Protocol (SSDP) UDP floods, which collectively accounted for approximately 65% of attacks in the quarter.
- Operating systems once thought to be more secure against malware and vulnerabilities, like Linux, Mac OS X and iOS, are increasingly becoming the target of bot herders and malware authors for cyber crime and hacktivist activities.

# ATTACK SIZE INCREASING

The average attack size increased  
**27%**  
from Q2 2015



# MITIGATION BY ATTACK SIZE

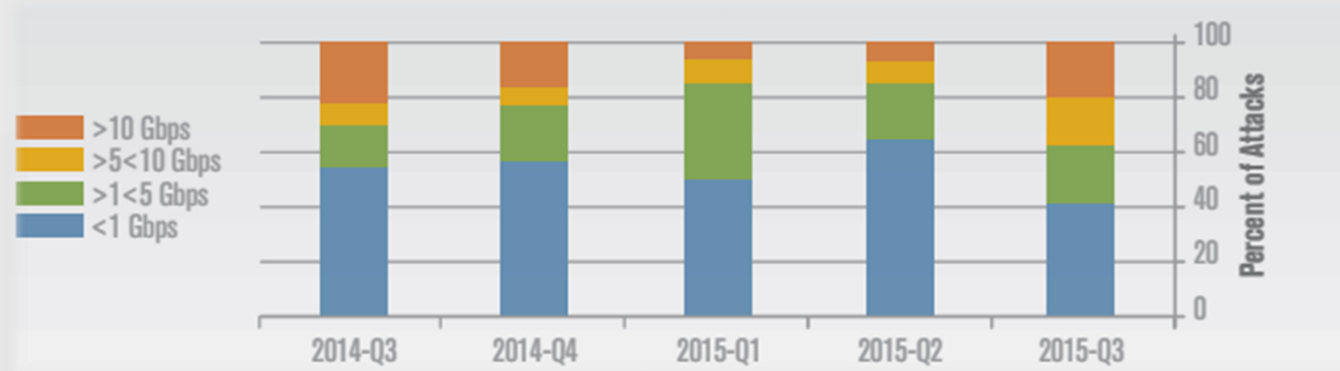


1 in 5 DDoS attacks peaked over **10 Gbps**



Average attack size: **7.03 Gbps**  
the largest average size this year

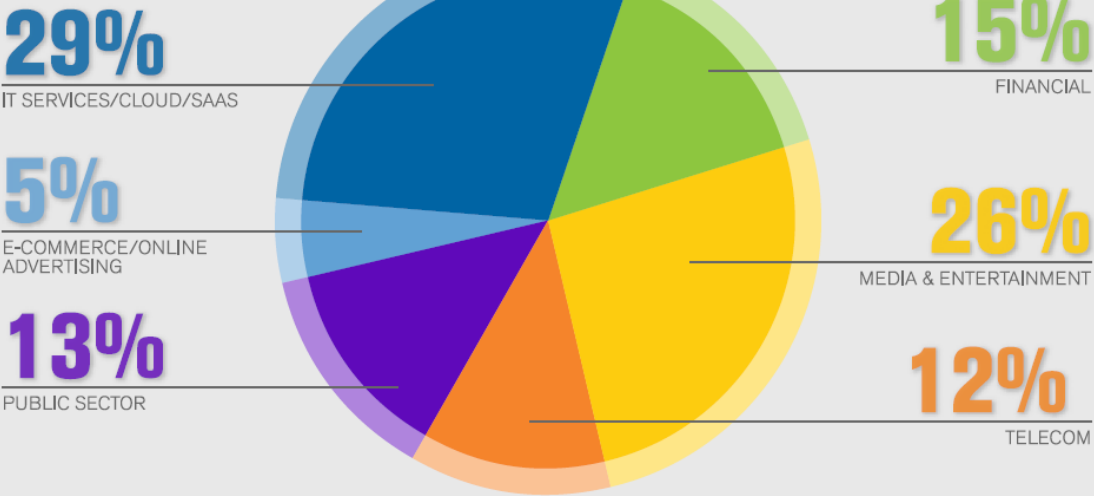
There was a significant increase in the frequency of DDoS attacks in Q3, representing a 53% increase over the previous quarter. In fact, DDoS activity in Q3 increased to the highest it has been in any quarter over the last two years. Several customers were hit with long, repeated attacks, some as many as eight times over the course of the quarter. In terms of size, more than one-third of attacks peaked over 5 Gbps while one in five attacks peaked over 10 Gbps. The number of attacks that peaked in the 5 to 10 Gbps range and over 10 Gbps range more than doubled from the previous quarter.



# EVERY INDUSTRY IS A TARGET

For the fourth quarter in a row, IT Services/Cloud/SaaS customers experienced the largest volume of attacks, representing 29 % of all attacks in Q3. This industry was also the target of the largest volumetric attack mitigated this quarter. Media and Entertainment was the second most frequently attacked industry, with 26% of all mitigations consisting of attacks averaging 4.4 Gbps. The Financial and Public sectors were also heavily targeted, representing 15 and 13 percent of all mitigations respectively, and averaging 2 Gbps and 8 Gbps in size respectively. While the Telecommunications and E-Commerce sectors were not as frequently targeted this quarter, those attacks were relatively large, averaging over 14 Gbps and 11 Gbps respectively.

## Mitigations By Vertical



THANK YOU!