

# TOP 2019 DDOS ATTACKS

**16**  
**ATTACKS**  
every minute

**670.000**  
**ATTACKS**  
per month

**23.000**  
**ATTACKS**  
per day

**8.4**  
**MILLION**  
DDoS attacks

**\$2**  
**MILLION**  
cost of a ddos attack  
for enterprises

**\$120.000** **COST**  
of a DDoS attack for small  
and medium-sized  
businesses (SMBs)

## KEY IMPLICATIONS OF DDoS ATTACKS



### BUSINESS COMPETITION

DDoS attack used to take down a competitors website.



### EXTORTION

Extorting money to keeping a specific website online.



### HACKTIVISM

Typically protest through targeting media, political, and corporate websites.

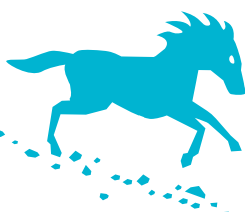


### VANDALISM

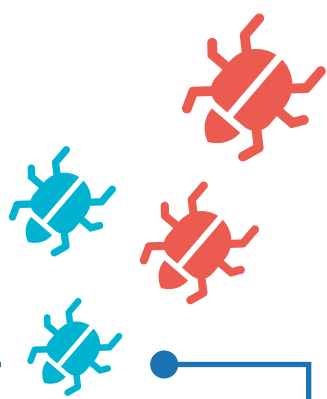
Typically resentful users or random offenders.

```
0 1 1 1 0
1 1 0 1 0 1 1 1 1
1 0 1 0 0 0 1 0 1 1 0 1 0
1 0 0 1 1 1 1 1 1 0 1 0 0 0
1 0 0 0 1 0 0 0 0 1 0 1 1 1 1
1 1 0 1 0 1 0 1 0 1 0 1 0 0
0 1 1 1 0 1 0 1 1 1 1 1 0 1 0
0 0 0 1 1 0 0 0 1 0 1 1 1 0 1 0 1
1 1 0 1 0 1 1 0 0 0 0 1 1 0 0 0
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1 0 1 0 1 0 1 0 0 0 1 0 1 1 0 0
1 0 1 1 1 0 1 0 1 0 1 0
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0 0 0 0 1
```

October 2019 / Service provider  
Echo Service Provider  
**Overwhelmed  
with junk traffic  
+ experienced downtime**



October 2019 / Financial  
Financial Institutions  
in South Africa,  
Singapore & Scandinavia  
**Threatening to disable their  
systems and demanding  
a ransom + caused downtime**



November 2019 / Gov.  
UK General Election  
**Attackers tried to disable  
the campaign site of the  
Labor Party**

December 2019 / Gaming  
The Minecraft Gaming  
Server of the Vatican  
**Bombarded with junk  
traffic server overwhelmed**

June 2019 / Gaming  
Ubisoft - Servers of Game-  
Rainbow Six Siege  
**Caused connection problems  
for many players**

May 2019 / Utilities  
Electrical Systems  
Serving LA & Salt Lake  
**Successfully interrupted  
electrical systems**

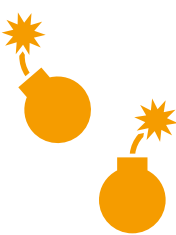


June 2019 / Media  
Telegram Media  
**System downtime over 200  
Million users affected**



September 2019 / Online Information  
Wikipedia  
**System down 9 hours**

Februar-March 2019  
University of Albany  
**Downtime and some  
services unavailable**



October 2019 / Gambling  
Eurobet  
**Site down for several days**



March 2019 / Social  
Facebook / Instagram  
**Users were unable to log  
into their accounts**