THE NEW THREAT: *THE* *IOT DDOS INVASION*

THE GAME HAS CHANGED.

Attackers are weaponizing connected devices to launch destructive DDoS attacks

THE EXPLOSION OF IOT DEVICES

30.73 BILLION

IoT devices expected by **2020**[1]

75.44 BILLION

IoT devices expected by **2025**

AN EASY *TARGET*

IoT devices are inherently vulnerable and relatively easy to hijack. Why?

- They're leaving security up to the owner
- They're not regularly patched
- They're not running security software
- They're not designed with security in mind

EVERYTHING IS CONNECTED!

IoT devices are in our homes and offices, and on our bodies

22 Million

Amazon Echos sold in 2017[2]

1 Per Second

how often Google says it has sold a Google Home device since October 2017[3]

$310.4 Million

wearable devices sales in 2017[4]

THE *WEAPONIZATION* OF THE IOT

15 Million

The number of webcams compromised to build a massive DDoS-launching botnet in 2016[5]

1 Tbps

The largest DDoS attack on record, launched against a French hosting provider using **150,000 hacked IoT devices**[6]

NEW THREATS BREED FEAR

THE BIG THREE

1 MIRAI
The IoT botnet responsible for some of the largest DDoS attacks on record[7]

2 WIREX
A botnet that launched DDoS attacks through hijacked Android devices[8]

3 REAPER
A newly-discovered IoT botnet believed to be a more powerful than Mirai[9]

DDOS STILL ON TOP

38%
of IT decision makers say their company has suffered a DDoS attack over the past 12 months

9%
of IT decision makers don't know whether they've been attacked[11]

IOT DDOS FEARS LOOM LARGE

32%
of organizations say IoT-based DDoS attacks are their biggest future cybersecurity concern

35%
of companies say IoT devices were the primary source of a data breach in the prior year

86%
of organizations say they expect IoT threats to increase in the coming year[10]

THE CURRENCY OF DDOS

DDOS ATTACKS ARE BIG BUSINESS

$25
PER HOUR
the average cost of an attack through a DDoS-for-hire service[12]

$5
FOR 300 SECONDS
$400 for 24 hours the range of cost to pay for a DDoS-for-hire attack

THE COST OF DOWNTIME

$300,000
the average hourly cost of downtime for 81% of enterprises

33% of enterprises say an hour of downtime exceeds
$1 Million an hour[13]

A DDOS A DAY

TICK TOCK

215 HOURS
the **longest DDoS attack** recorded in Q3 2017

95.6%
attacks lasted **<50 hours**[14]

≤4 HOURS
The length of time the majority of attacks (**76.09%**) lasted

HACKERS DON'T STOP
FOR THE WEEKEND

What day of the week do DDoS attacks happen most?

SUN	MON	TUE	WED
14.9%	10.4%	14.8%	13.5%

THU	FRI	SAT
17.5%	13.3%	15.6%

WHO'S BEING ATTACKED, AND WHERE?

THE **GLOBAL THREAT**

98 total countries targeted by DDoS attacks in Q3 2017 alone

Top targeted countries:

63.3%	12.9%	8.7%	1.58%	1.36%
CHINA	USA	SOUTH KOREA	RUSSIA	UK

DDOS IS NOT A GAME: ATTACKS BY INDUSTRY

86%
DDoS attacks target gaming companies[15]

Other most frequently attacked industries:

- **4%** INTERNET & TELECOM
- **3%** FINANCIAL SERVICES
- **2%** SOFTWARE & TECHNOLOGY
- **2%** EDUCATION
- **1%** MEDIA & ENTERTAINMENT

Average attack size per industry[16]

- **0.76 Gbps** IT SERVICES / CLOUD / SAAS
- **0.63 Gbps** FINANCIAL SERVICES
- **1.38 Gbps** MEDIA & ENTERTAINMENT / CONTENT

MULTI-VECTOR ATTACKS
ARE THE NORM

88% **<1 Gbps**

MOST COMMON
ATTACK TYPES MITIGATED

of attacks involved multiple vectors[17]

average attack size

2.5 Gbps/2.3 Mpps

Attack peak size in Q3 2017

56% UDP floods

27% TCP-based

17% IP fragment

DDOS DEFENSE

74%

of IT admins plan to increase security spending because of multi-vector attacks[18]

Protection from multi-vector attacks

80% prefer on-premise appliances

65% prefer hosting provider/CDN protection

64% hybrid (on-premise with cloud bursting)

59% outsource to an MSSP

21% use no DDoS defense solutions

Internal barriers to DDoS protection

73% Cost

64% Lack of flexibility

58% Undefined respon-sibility for dealing with attacks

57% False positives impacting user experience

52% Inadequate attack response process

52% Bandwidth

34% Insufficient staff expertise

MITIGATION UP TO

300 Gbps

or 2.4 Tbps

DDoS attacks damage your revenue, brand and user experience. Fight back, and defend your network and applications against DDoS.

A10 DDoS Protection Cloud gives our customers an on-demand cloud DDoS scrubbing solution that, when combined with the precise, surgical defense of our on-premise A10 Thunder TPS® solutions, delivers the world's highest performance full spectrum DDoS protection.

Defend your network against attacks of any size and any type, including IoT-fueled and multi-vector DDoS attacks. With A10 DDoS Protection Cloud and A10 Thunder TPS, you can eradicate megabit to terabit DDoS attacks before they wreak havoc.[18]

DEFEND AGAINST DDOS NOW.

VISIT A10NETWORKS.COM/DDOS

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2 https://www.forbes.com/sites/gilpress/2017/10/29/22-million-amazon-echo-smart-speakers-to-be-sold-in-2017-driving-us-smart-home-adoption/#442bb3e1481a

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