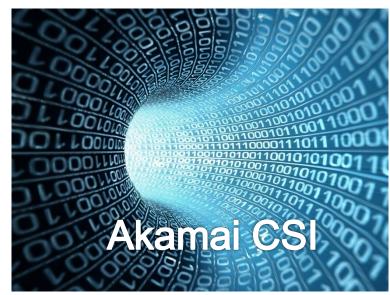


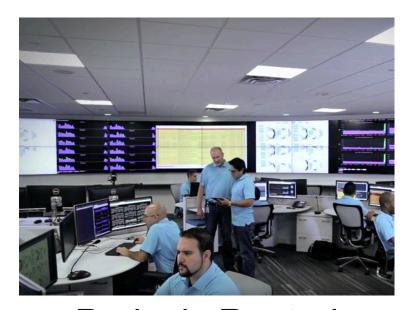


## Da dove arrivano i dati che vedremo?





Kona WAF
Web Application Attacks
Machine Generated



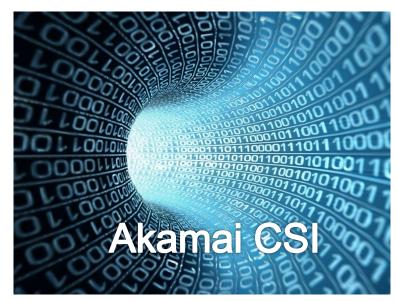
Prolexic Routed SOC Human





## Da dove arrivano i dati che vedremo?





Kona WAF
Web Application Attacks
Machine Generated



Prolexic Routed SOC Human



## 9 Common Web Attack Vectors



SQLi / SQL injection: User content is passed to an SQL statement without proper validation LFI / Local file inclusion: Gains unauthorized read access to local files on the web server RFI / Remote file inclusion: Abuse of the dynamic file include mechanism available in many programming languages to load remote malicious code into the victim web application PHPi / PHP injection: Injects PHP code that gets executed by the PHP interpreter **CMDi** / Command injection: Executes arbitrary shell commands on the target system JAVAi / Java injection: Abuses the Object Graph Navigation Language (OGNL), a Java expression language. Popular due to recent flaws in the Java-based Struts Framework, which uses OGNL extensively

MFU / Malicious file upload (or unrestricted file upload): Uploads unauthorized files to the target application that may be used later to gain full control over the system

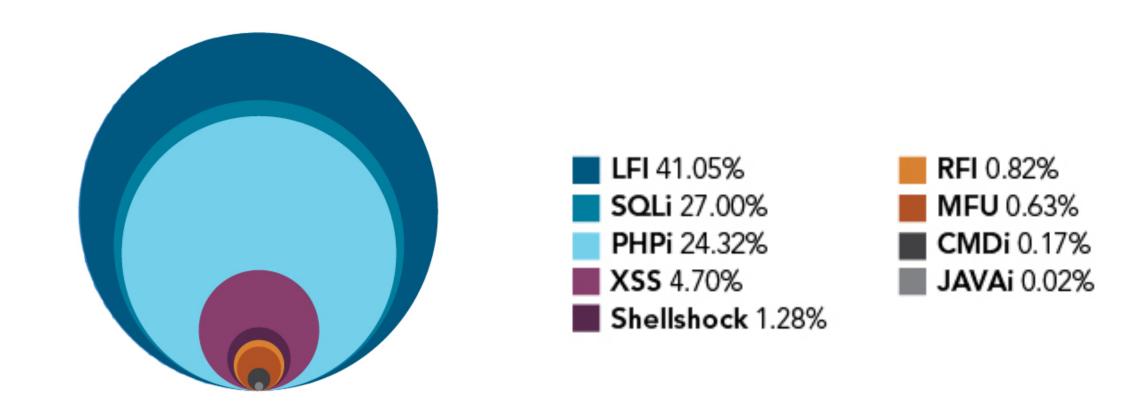
XSS / Cross-site scripting: Injects client-side code into web pages viewed by others whose browsers execute the code within the security context (or zone) of the hosting web site. Reads, modifies and/or transmits data accessible by the browser

Shellshock / Disclosed in September 2014: A vulnerability in the Bash shell (the default shell for Linux and mac OS X) that allows for arbitrary command execution by a remote attacker

## Attacchi applicativi rispetto al Q3 2015

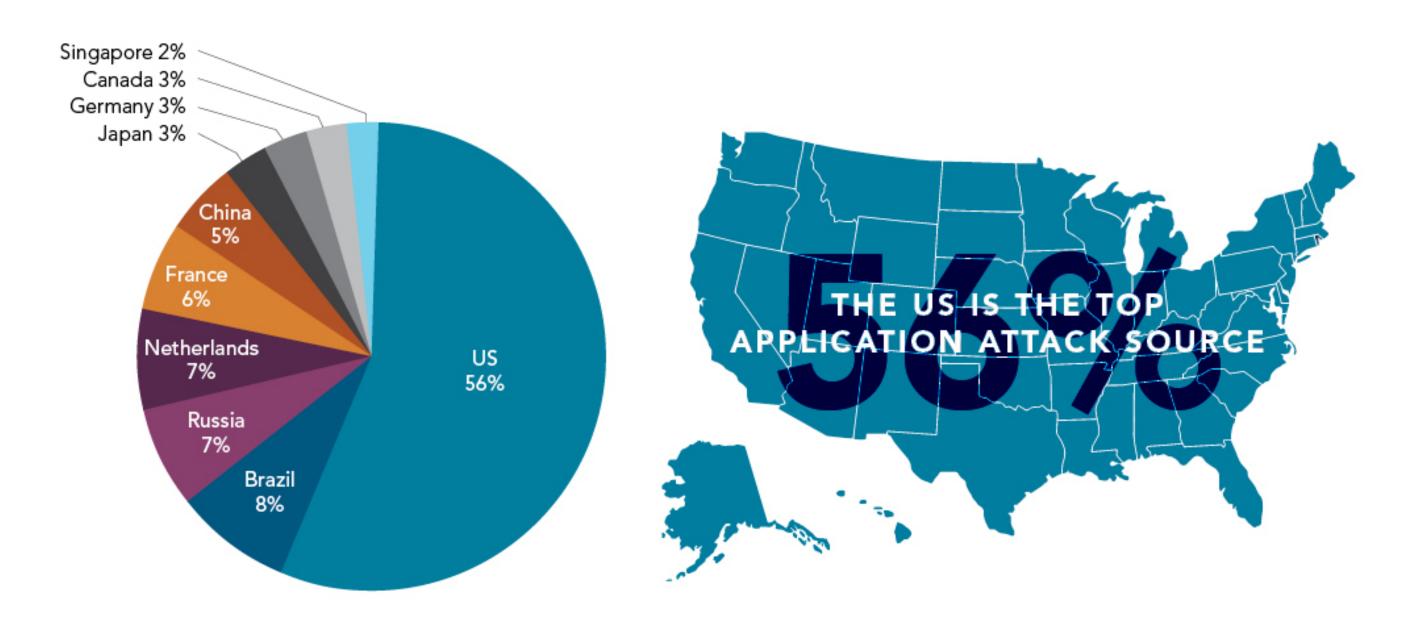


- 28 % ↑ Attacchi di tipo applicativo
- 28% ↑ Attacchi su protocollo HTTP
- 24% ↑ Attacchi su protocollo HTTPS



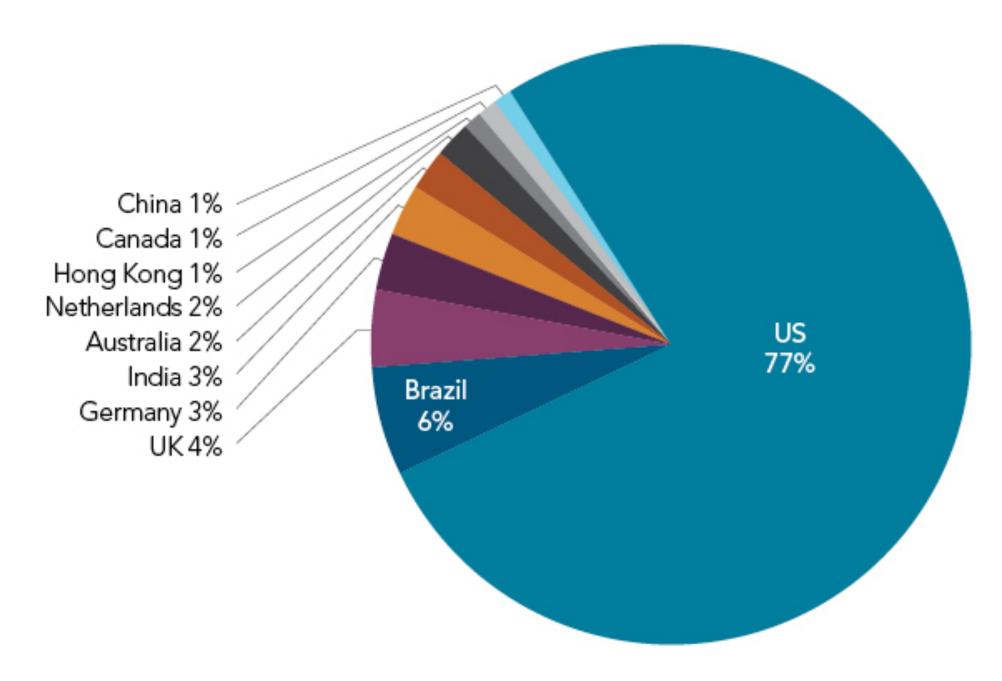
## Principali fonti di attacco applicativo, Q4 2015





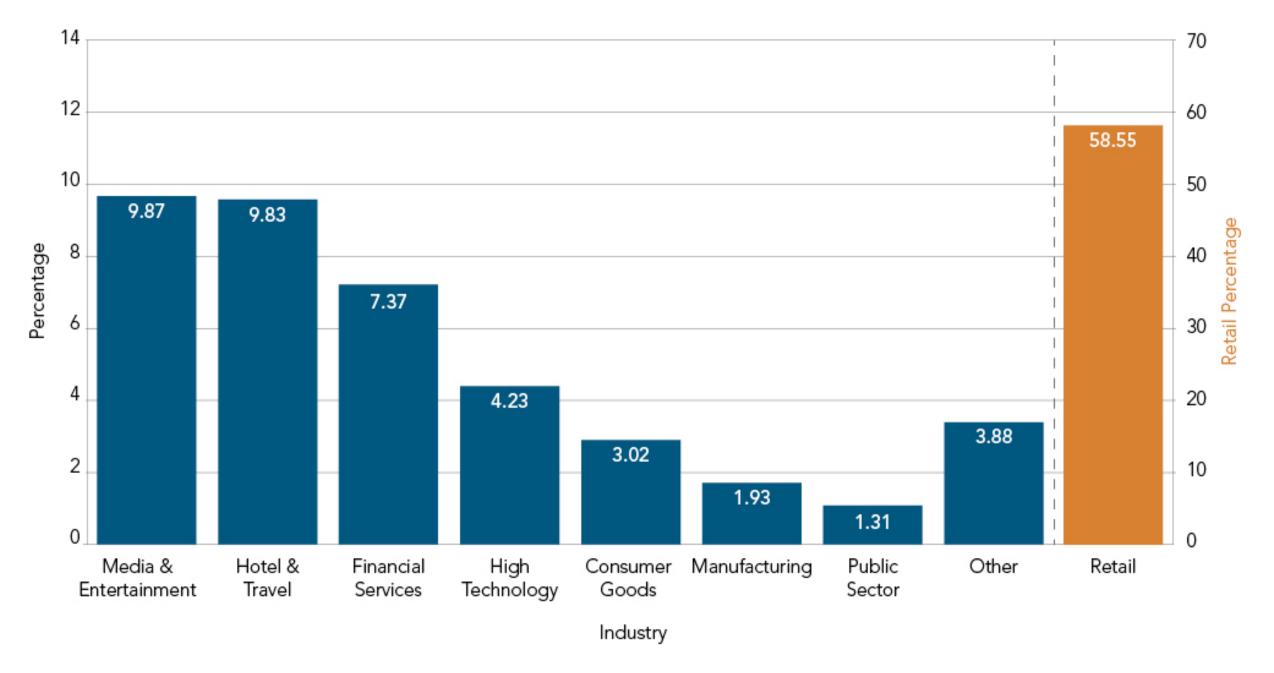
# Top 10 Paesi Target, Q4 2015





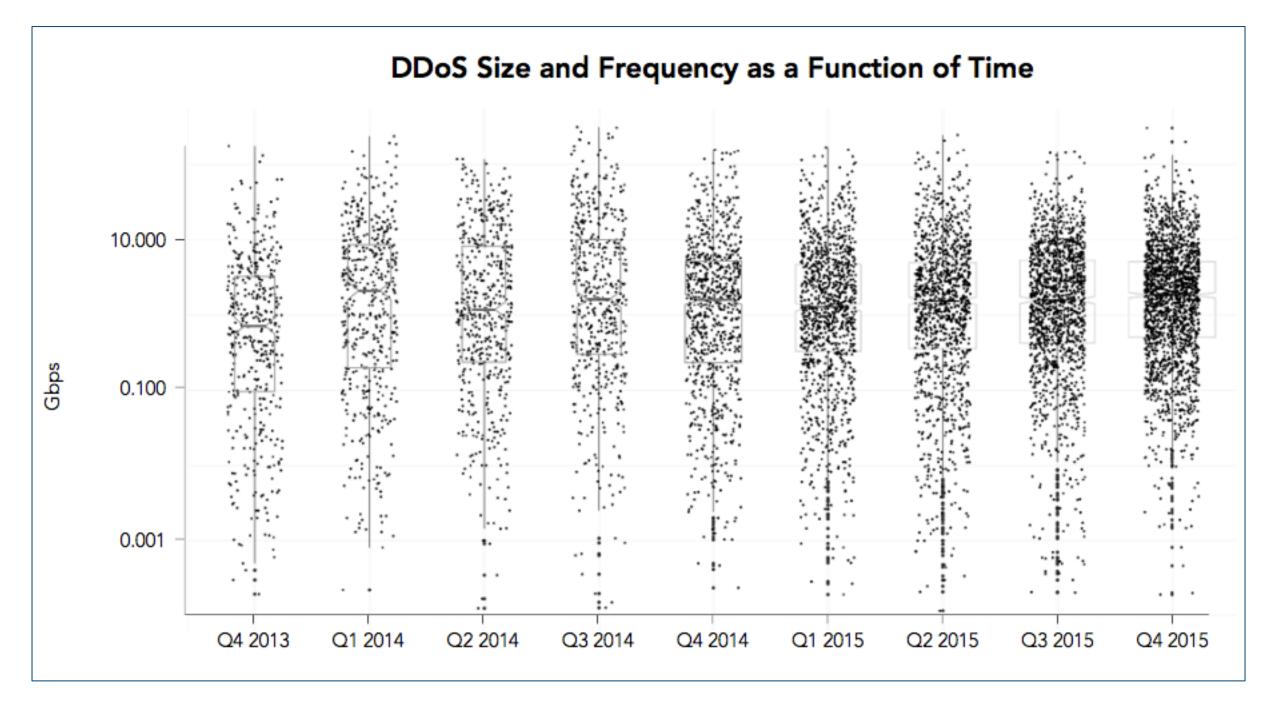
## Attacchi di tipo applicativo per Industry, Q4 2015





## DDoS: Attacchi come mai prima





## DDoS un fenomeno in evoluzione



### Single attacker



Botnet (PC and servers infected by malware)



#### Reflection attacks

Increase in attack volume



### **Booter / Stresser**

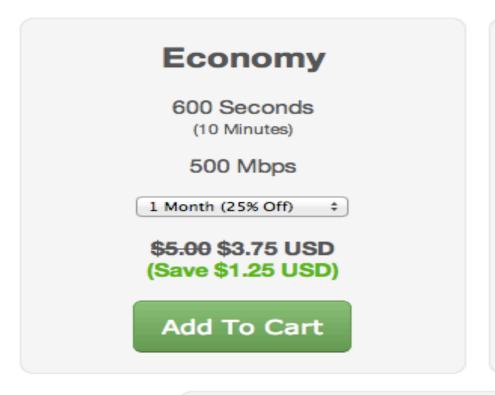
- Low cost and simple payment options
- "Stress test"



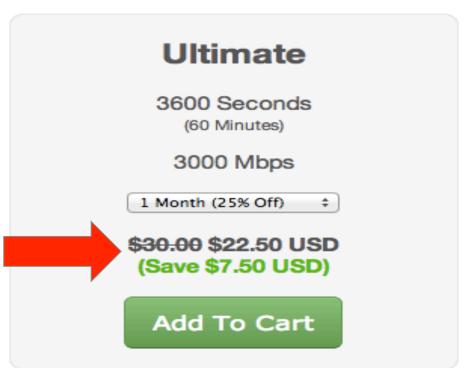
① Due to a large number recent purchases made with stolen PayPal accounts and Credit Cards, all new purchases will be reviewed. If we suspect that a purchase was made using stolen information, the purchase will be refunded.

#### **Purchase**

\*Prices Reflect One Time Referral Discount (25% Off)





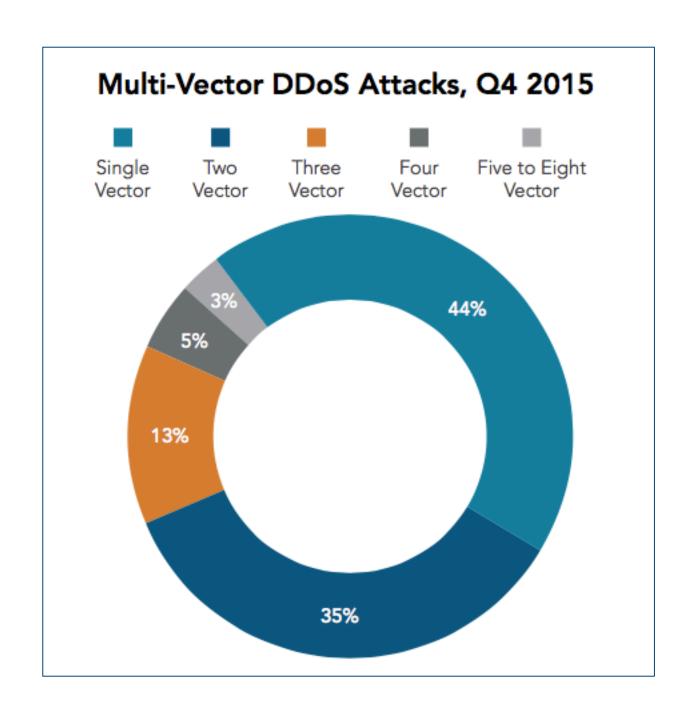


#### **Build Your Own Plan**

Maximum Duration: 600 Seconds (10 Minutes)

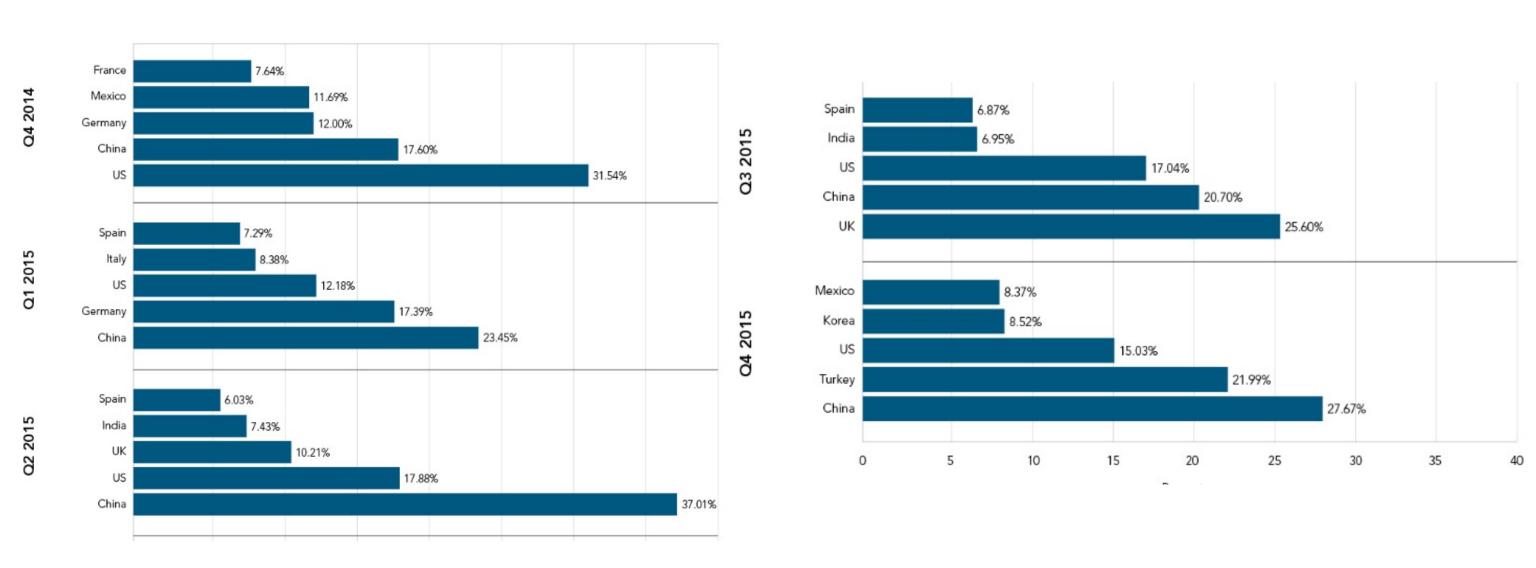
## Booter-Stresser come strumenti di attacco multivettoriale





# Top 5 Paesi fonte di attacchi DDoS, Q4 2014 - Q4 2015 (Akamai

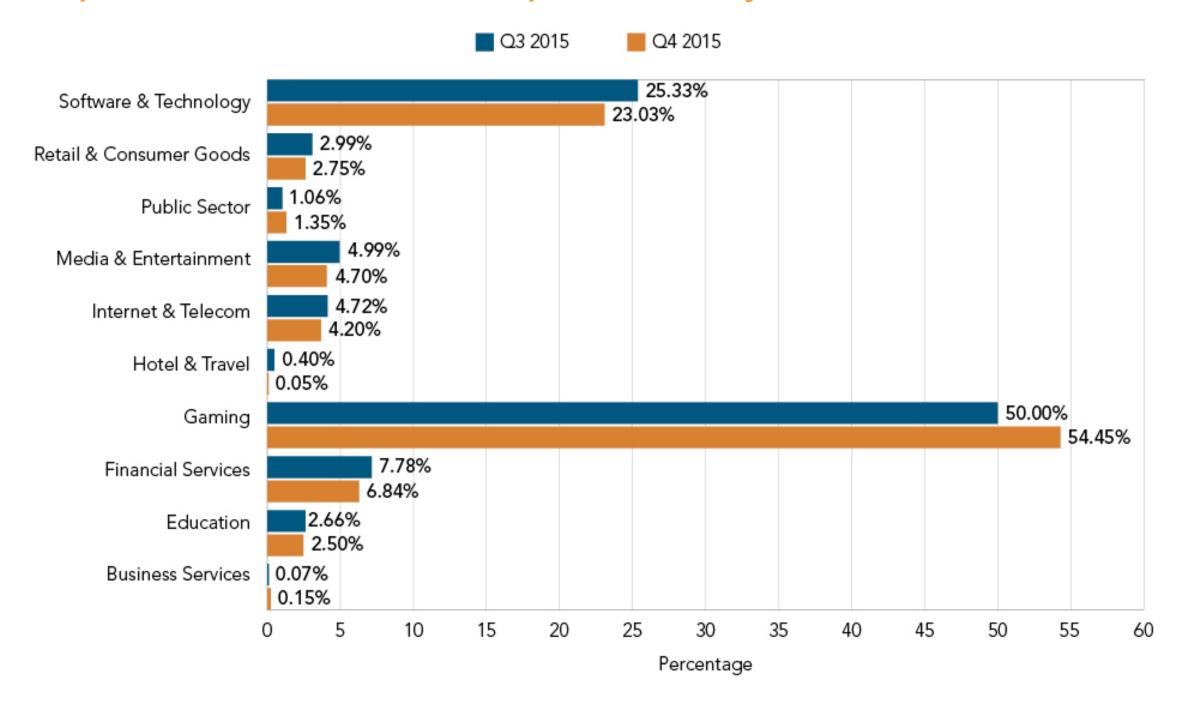




USA e China sono state le principali fonti di attacco per 5 trimestri ma...

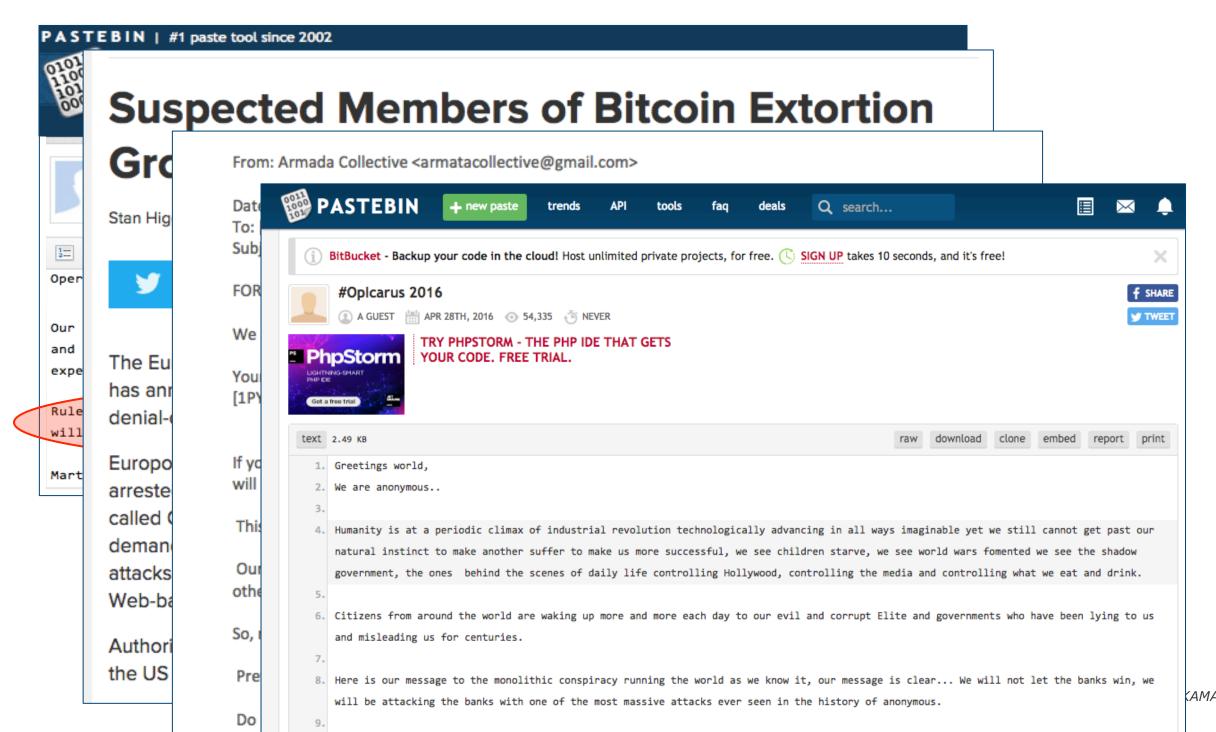
## Frequenza attacchi DDoS per Industry





### Istituzioni finaziarie costantemente sotto attacco





### Cosa ci riserva il futuro



- Un utilizzo sempre più intensivo di stresser e Booter
- Un numero maggiore di attacchi
- Attacchi multipli verso lo stesso target
- Attacchi multivettoriali
- Attacchi sempre più grandi
- Entro 3 anni e mezzo ci aspettiamo che un attacco DDoS di medie dimesioni possa generare 1,5 Tbps di traffico



## 10 Most Frequent Attack Vectors by Quarter



