
L'evoluzione degli attacchi DDoS

Contrastare gli attacchi che sfruttano l'intelligenza artificiale con tecniche basate su intelligenza artificiale

17 Ottobre 2025

Webinar

Marco Zamboni – Sales Engineer – Radware

Andrea Pezzoni – Security Presales Specialist – TD SYNnex

Cyber Security Awareness Month

October

Cyber Security Awareness Month



14.6M
RPS

UAE Bank Under Disruptive Web DDoS Attack Campaign

Attack Background

6-day-long attack campaign

100 hours, 4.5M RPS avg

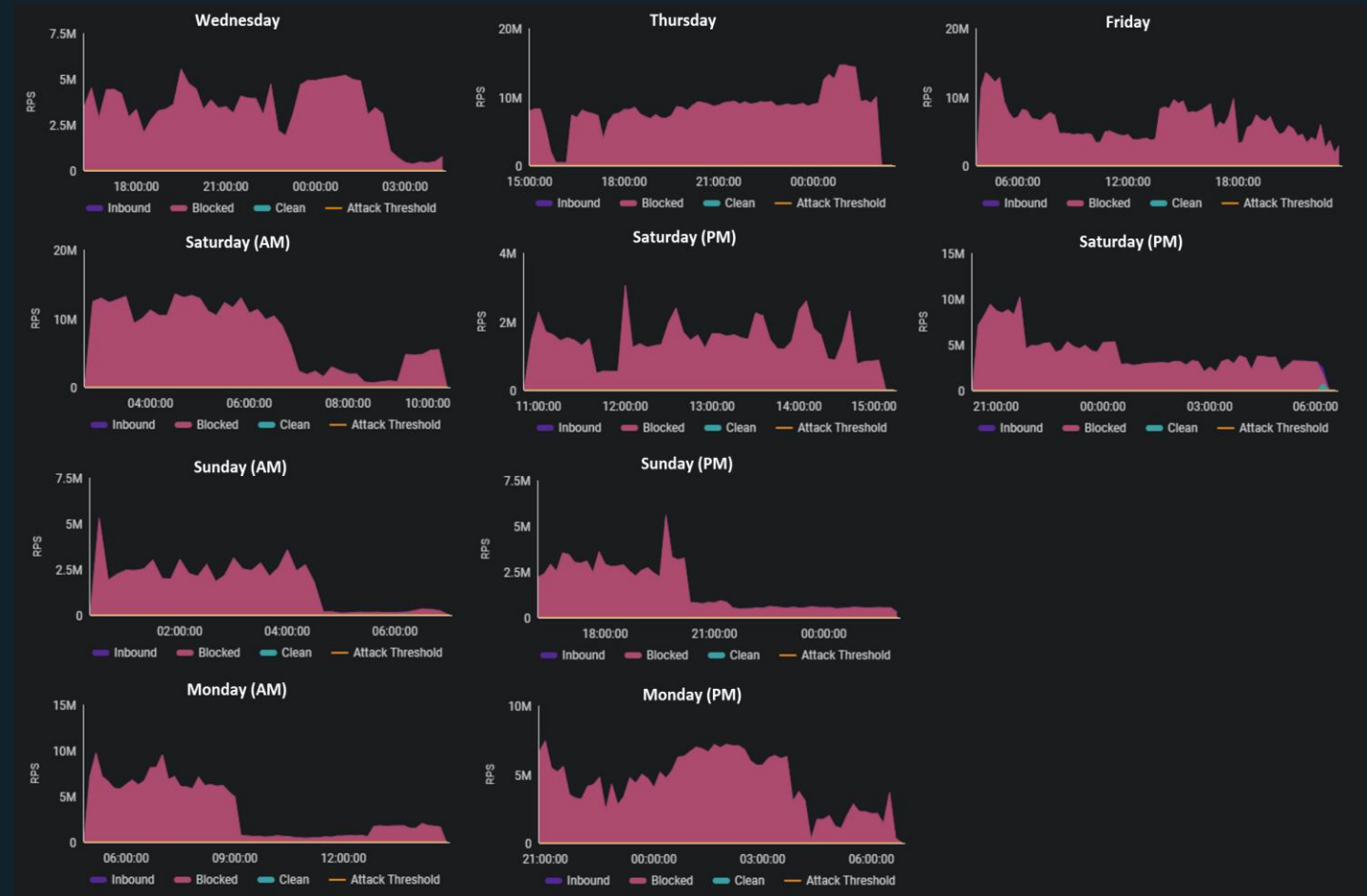
14.6M RPS peak

70% of time under attack

1.25T malicious requests

1.5B legit requests

0.12% only legit requests





Attack Threat Landscape



Shifting Threat Landscape



+393%

DDoS attack volume FSI WW;
+177% # attacks on **FSI EMEA**
(2024 vs. 2023)



+35%

Bad bot transactions
71% of bot traffic is **BAD** bots



+549%

Web DDoS Attacks
2024 vs. 2023



Attacks increase in frequency, size & complexity across all attack vectors

Shifting Attack Motivations of Hacktivist Groups



Politically Motivated



NoName057

Killnet cluster

Anonymous Russia

Passion Group, etc.

Religiously Motivated

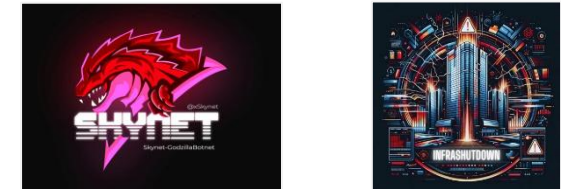


Anonymous Sudan

Mysterious Team Bangladesh

DragonForce Malaysia

Financially Motivated

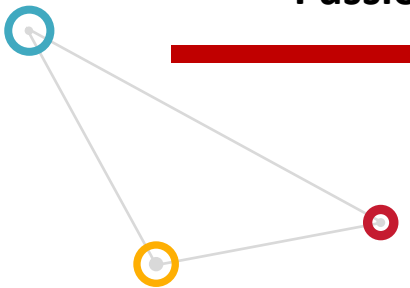


SKYNET/GODZILLA

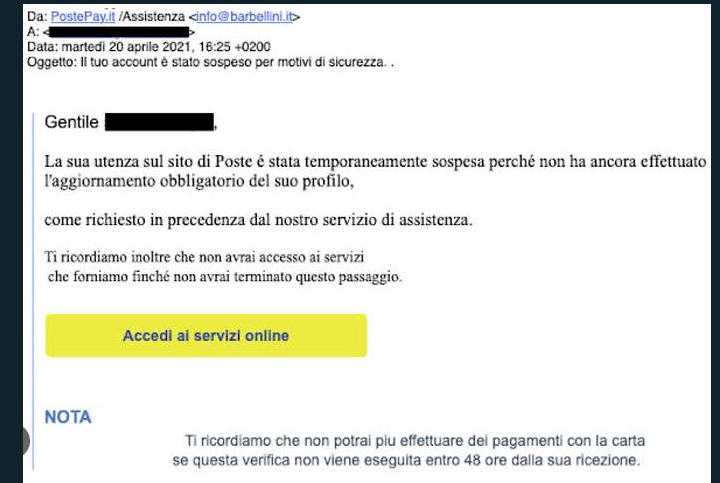
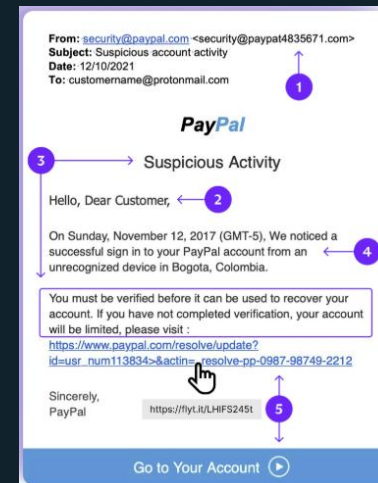
InfraShutdown

Stressers

ATO & Crypto-stealing services



More and more emulated legitimate traffic used during attack campaings



Web DDoS – Attack vector able to emulate legitimate traffic

- ➔ Higher in volume – Ultra high RPS
- ➔ Encrypted floods
- ➔ Appear to be legitimate requests
- ➔ Multiple, sophisticated evasion techniques (randomized headers, IP spoofing, etc)



API Business Logic – Attack vector able to emulate legitimate traffic

BLAs target **logical flaws in the way an API handles requests**. For example:

- Manipulating API calls to alter pricing in e-commerce applications
- Bypassing rate limits to scrape sensitive data
- Exploiting order workflows to initiate fraudulent transactions

BLAs often exploit **API flows, involving multiple endpoints or sequences of API calls**

Attacks driven by AI – Making BLAs more scalable, harder to detect, and more dangerous than ever before.





How Attackers Are Using AI



Attackers Use AI in Cyber Crime



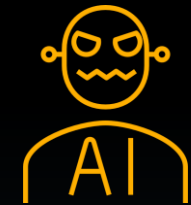
Advanced
Phishing &
Deepfakes



AI-Enhanced
Attacks



Lowering Entry
Barrier for New
Cybercriminals



Direct Attacks
on AI Systems

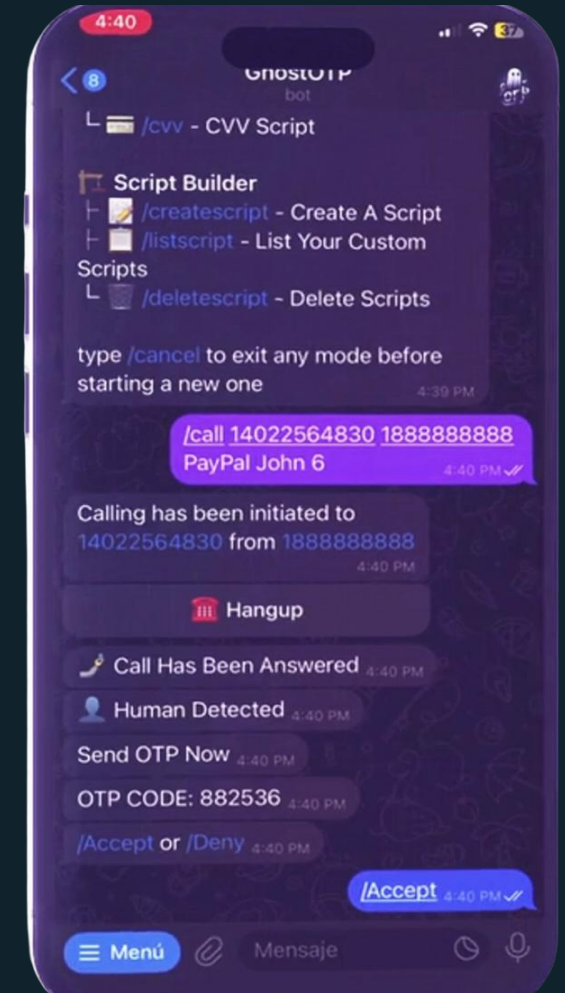
FraudGPT: AI Bot for Offensive Purposes

- Owner: Canadiankingpin23
- Since July'23. Advertised on underground marketplaces & Telegram
- Established presence on Telegram to avoid exit scams
- Cost: \$200/mth - \$1700/yr



OTP AI Bots Target Bank User's 2FA: 5 Simple Steps

- 1 Gain list of users that enabled 2FA
- 2 Automated call using OTP bot service to impersonate the bank
- 3 Simultaneous access to target account triggering the 2F code to be sent
- 4 Victim acts with a sense of urgency and shares the 2F code
- 5 Attacker gets access & locks victim out of the account



OTP Bot Operated via Telegram

All-in-One Modern Attack Tools on Github



Features And Methods

- Layer7
 - GET | GET Flood **DDoS attack vectors**
 - POST | POST Flood **DDoS attack vectors**
 - OVH | Bypass OVH
 - RHEX | Random HEX **Bot attack vectors**
 - STOMP | Bypass chk_captcha **Bot attack vectors**
 - STRESS | Send HTTP Packet With High Byte **Bot attack vectors**
 - DYN | A New Method With Random SubDomain
 - DOWNLOADER | A New Method of Reading data slowly
 - SLOW | Slowloris Old Method of DDoS
 - HEAD | <https://developer.mozilla.org/en-US/docs/Web/HTTP/Methods/HEAD>
 - NULL | Null UserAgent and ...
 - COOKIE | Random Cookie PHP 'if (isset(\$_COOKIE))' **Web application exploits**
 - PPS | Only 'GET / HTTP/1.1\r\n\r\n'
 - EVEN | GET Method with more header
 - GSB | Google Project Shield Bypass **Web application exploits**
 - DGB | DDOS Guard Bypass
 - AVB | Arvan Cloud Bypass
 - BOT | Like Google bot **Built-in bypass again common defenses**
 - APACHE | Apache Exploit **Built-in bypass again common defenses**
 - XMLRPC | WP XMLRPC exploit (add /xmlrpc.php) **Built-in bypass again common defenses**
 - CFB | CloudFlare Bypass **Built-in bypass again common defenses**
 - CFBUAM | CloudFlare Under Attack Mode Bypass **Built-in bypass again common defenses**
 - BYPASS | Bypass Normal AntiDDoS
 - BOMB | Bypass with codesenberg/bombardier
 - KILLER | Run many threads to kill a target
 - TOR | Bypass onion website

- Attackers don't distinguish between WAF, DDoS, Bot attack vectors
- Need an integrated platform to overcome all-in-one attack tools



***New world
problems will not
be solved with
old world
solutions***

What is Needed to Stay Ahead?

Intelligent Security

powered by AI-based algorithms

Integrated Platform

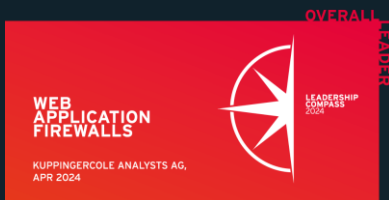
correlating across wide array of threats

Consistent Protections

across all environments and entry points

Expert Defense

with 24/7 security experts by your side



Only way to drive lower MTTR, save costs & protect your brand

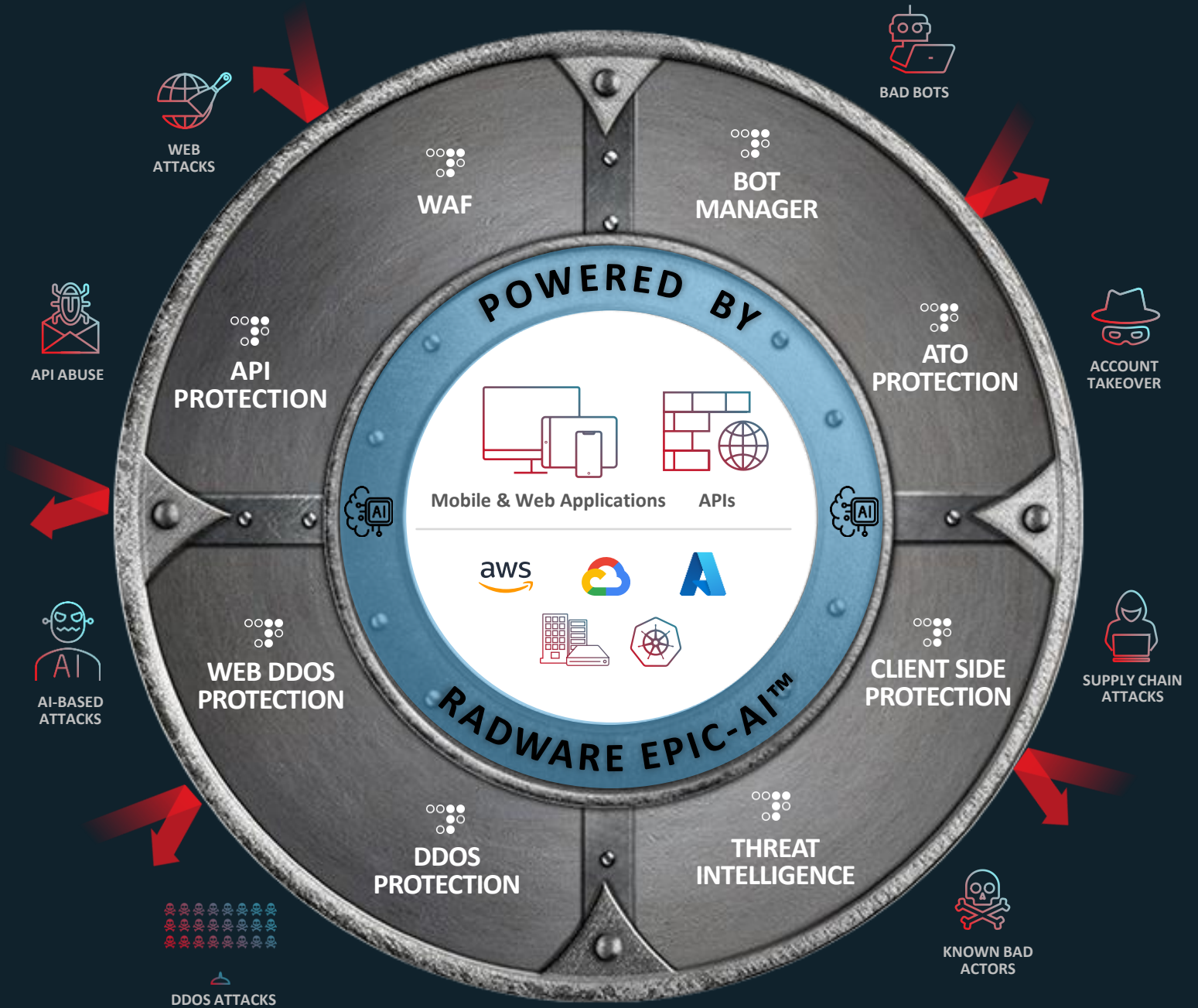
Complete Protection by Radware's Cloud Security Platform



Gartner
Peer Insights™

“Truly exceptional protection for web apps & APIs”

Radware Customer,
Telecommunications



Unmatched Compliance to the Strictest Standards

ACN QC2	Certificazione Agenzia della Cybersecurity Italiana
ISO 27001	Information Security Management Systems
ISO 27017	Information Security for Cloud Services
ISO 27018	Information Security Protection of Personally identifiable information (PII) in public clouds
ISO 27701	Privacy Information Management for PII controllers and processors
ISO 27032	Security Techniques -- Guidelines for Cybersecurity
ISO 28000	Specification for Security Management Systems for the Supply Chain
EU GDPR	EU General Data Protection Regulation
PCI-DSS	Payment Card Industry Data Security Standard
HIPAA	Health Insurance Portability and Accountability Act
US SSAE16	SOC-1 Type II, SOC-2 Type II





Attack Story: UAE Bank Under Attack



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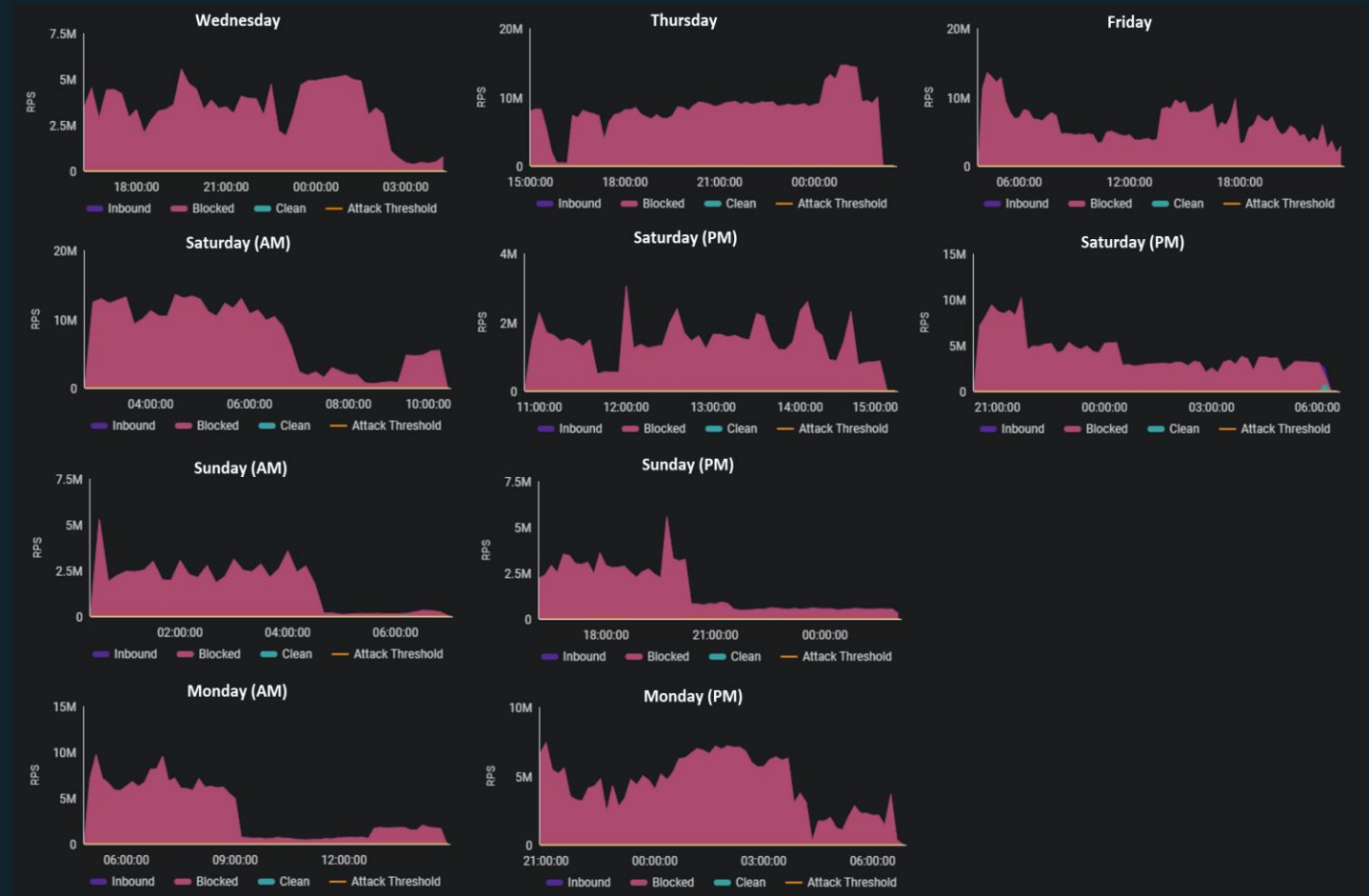
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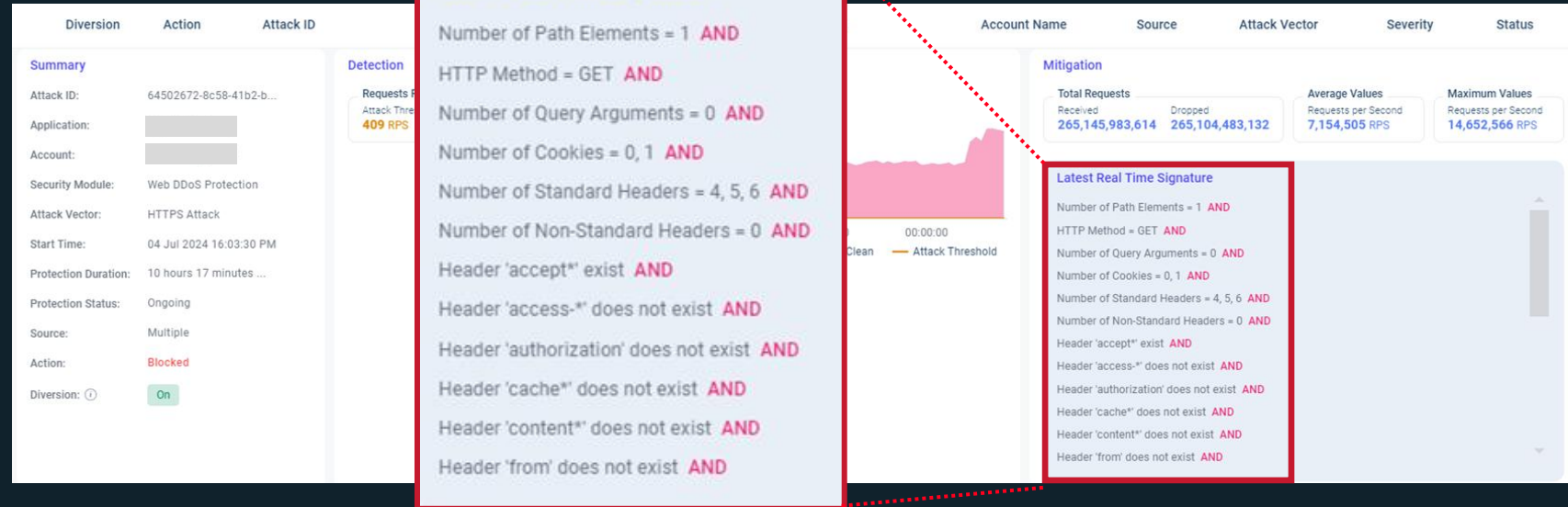
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How Did the Bank Stay Protected?



Attack Peaks

Up to

14.6M
RPS

Attack Length

Several days w/ multiple waves lasting

10-20
HOURS

Attack Signature

Signature created in real-time includes

27
PARAMETERS

“Layer 7 application DDoS protection is **where it shines**. Mean time to **remediation** is within **seconds**.”

Radware Customer,
Tech Services



Fight AI with AI: AI-based algorithms create signatures in real-time

Best Practices for Application Security

Need to fight AI with AI



EXPERT DEFENSE

AI-empowered SOC tools & managed services to lower MTTR



INTEGRATED PLATFORM

Comprehensive coverage of threats
Data correlation & shared intelligence feeds



INTELLIGENT SECURITY

AI-powered protections for Web DDoS,
DNS, API, Client-side & Bot attacks



CONSISTENT PROTECTIONS

Seamless, full visibility & control across
clouds & data centers

Cos'è una Botnet

Una **botnet** è un insieme di dispositivi controllati dai cybercriminali per attaccare un bersaglio. Il termine “*botnet*” deriva dalla fusione delle parole “robot” e “network” a rappresentare la natura di un *cyberattacco tramite processi automatizzati*.

Per ottenere il controllo di tanti dispositivi, i cybercriminali devono riuscire ad installare malware sui sistemi vittima che, spesso, presentano firmware obsoleti e non aggiornati.



Proteggersi

Al momento i dispositivi più vulnerabili sono quelli IoT.

E' necessario aggiornare firmware alle versioni più recenti e considerare questi prodotti nel ciclo di patching.

Segmentazione della rete. Tenere separati i dispositivi IoT dai dati sensibili, un dispositivo Zombie per una BotNet può essere la porta per altri tipi di attacchi



Tablet



Audio
assistant



Wireless
printer



Wireless
speakers

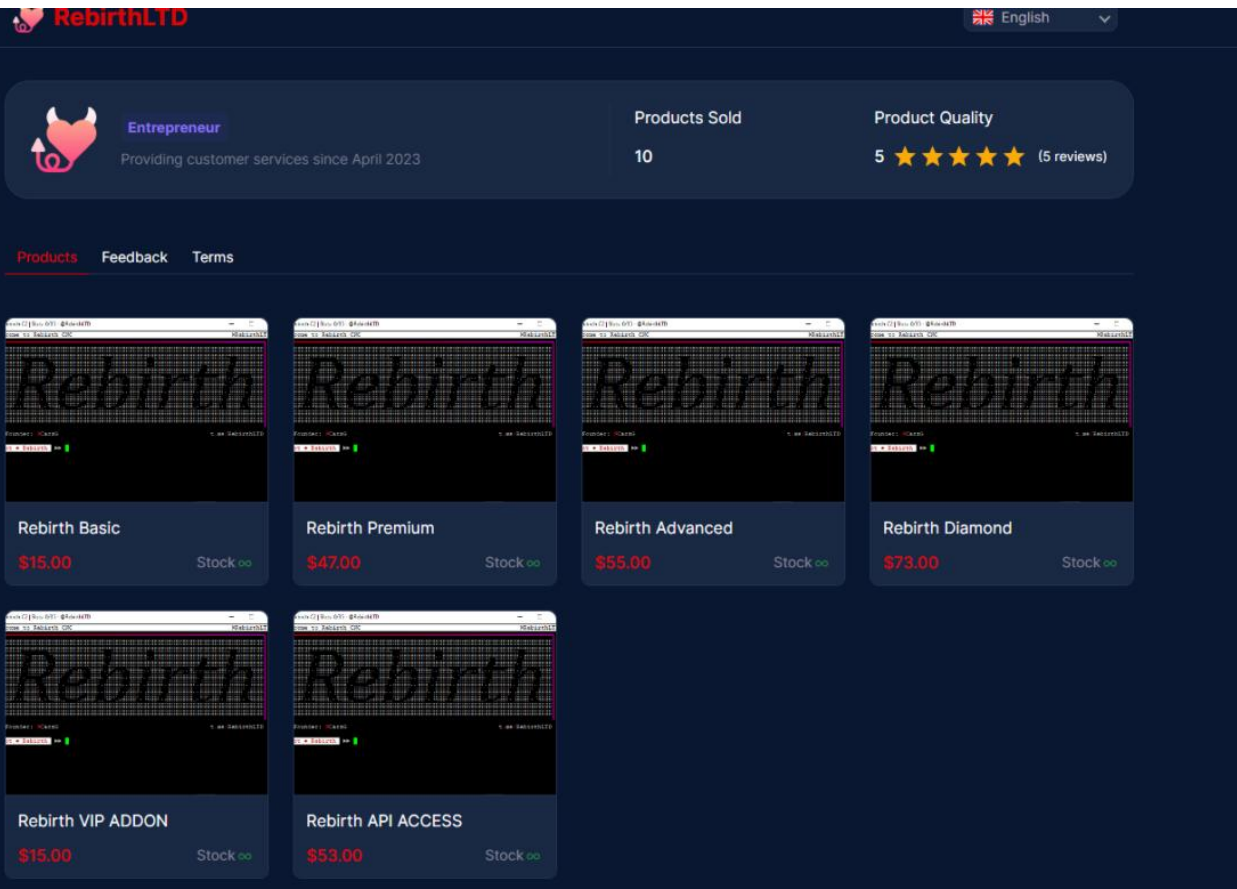


Smart TV



VOIP
phone

DDOS As A Service



The screenshot displays the RebirthLTD website interface. At the top left, the logo 'RebirthLTD' is visible. A navigation bar includes 'Entrepreneur', 'Products Sold' (10), and 'Product Quality' (5 stars, 5 reviews). Below this, there are tabs for 'Products', 'Feedback', and 'Terms'. The main content area features six product listings, each with a terminal window image showing the word 'Rebirth' and a price tag:

Product Name	Price	Stock
Rebirth Basic	\$15.00	Stock ∞
Rebirth Premium	\$47.00	Stock ∞
Rebirth Advanced	\$55.00	Stock ∞
Rebirth Diamond	\$73.00	Stock ∞
Rebirth VIP ADDON	\$15.00	Stock ∞
Rebirth API ACCESS	\$53.00	Stock ∞

BotNet as a Service consente di acquistare i servizi di una BotNet a prezzi che partono dalle poche decine di Euro.

Con un listino prezzi in base ai servizi acquistati, l'esempio di Rebirth è uno dei tanti servizi che offrono questo tipo di funzionalità e, come un vero e proprio abbonamento, a prezzo diverso corrispondono funzionalità diverse, come API o tool di settaggio dell'attacco.

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TOOTH BE TOLD Over 3 million toothbrushes could be ‘hacked’ and ‘turned into secret army for criminals,’ experts claim

Read on for important tips on how to stay safe

[Jona Jaupi](#), Technology and Science Reporter

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Android TV BotNet



Circa 1,6 Milioni di TV Android attualmente infette con una nuova variante del Malware Vo1d, già noto in passato per aver infettato numerosi dispositivi IoT.

I dispositivi vengono utilizzati in attacchi di tipo Flood.

Sono gestiti tramite dei server Command and Control con aggiornamento P2P.

Al momento i paesi più infetti sono Argentina, Brasile, Cina, Indonesia, Sud Africa e Thailandia

“A clever person solves a problem.
A wise person avoids it”

Albert Einstein

Q&A

PROSSIMI APPUNTAMENTI

24 OTTOBRE: Radware – Bilanciamento di nuova generazione per le app

31 OTTOBRE: Migrazione da MPLS a SASE con Palo Alto Networks

<https://events.tdsynnex.it/cyber-unit-missione-protezione/>

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