



# Investor Presentation

July 2024



# Safe Harbor

*This presentation includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements made herein that are not statements of historical fact, including statements about Radware’s plans, outlook, beliefs, or opinions, are forward-looking statements. Generally, forward-looking statements may be identified by words such as “believes,” “expects,” “anticipates,” “intends,” “estimates,” “plans,” and similar expressions or future or conditional verbs such as “will,” “should,” “would,” “may,” and “could.” Because such statements deal with future events, they are subject to various risks and uncertainties, and actual results, expressed or implied by such forward-looking statements, could differ materially from Radware’s current forecasts and estimates. Factors that could cause or contribute to such differences include, but are not limited to: the impact of global economic conditions, including as a result of the state of war declared in Israel in October 2023 and instability in the Middle East, the war in Ukraine, and the tensions between China and Taiwan; our dependence on independent distributors to sell our products; our ability to manage our anticipated growth effectively; a shortage of components or manufacturing capacity could cause a delay in our ability to fulfill orders or increase our manufacturing costs; our business may be affected by sanctions, export controls, and similar measures, targeting Russia and other countries and territories, as well as other responses to Russia’s military conflict in Ukraine, including indefinite suspension of operations in Russia and dealings with Russian entities by many multi-national businesses across a variety of industries; the ability of vendors to provide our hardware platforms and components for the manufacture of our products; our ability to attract, train, and retain highly qualified personnel; intense competition in the market for cyber security and application delivery solutions and in our industry in general, and changes in the competitive landscape; our ability to develop new solutions and enhance existing solutions; the impact to our reputation and business in the event of real or perceived shortcomings, defects, or vulnerabilities in our solutions, if our end-users experience security breaches, if our information technology systems and data, or those of our service providers and other contractors, are compromised by cyber-attackers or other malicious actors, or by a critical system failure; outages, interruptions, or delays in hosting services; the risks associated with our global operations, such as difficulties and costs of staffing and managing foreign operations, compliance costs arising from host country laws or regulations, partial or total expropriation, export duties and quotas, local tax exposure, economic or political instability, including as a result of insurrection, war, natural disasters, and major environmental, climate, or public health concerns, such as the COVID-19 pandemic; our net losses in the past two years and possibility we may incur losses in the future; a slowdown in the growth of the cyber security and application delivery solutions market or in the development of the market for our cloud-based solutions; long sales cycles for our solutions; risks and uncertainties relating to acquisitions or other investments; risks associated with doing business in countries with a history of corruption or with foreign governments; changes in foreign currency exchange rates; risks associated with undetected defects or errors in our products; our ability to protect our proprietary technology; intellectual property infringement claims made by third parties; laws, regulations, and industry standards affecting our business; compliance with open source and third-party licenses; and other factors and risks over which we may have little or no control. This list is intended to identify only certain of the principal factors that could cause actual results to differ. For a more detailed description of the risks and uncertainties affecting Radware, refer to Radware’s Annual Report on Form 20-F, filed with the Securities and Exchange Commission (SEC), and the other risk factors discussed from time to time by Radware in reports filed with, or furnished to, the SEC. Forward-looking statements speak only as of the date on which they are made and, except as required by applicable law, Radware undertakes no commitment to revise or update any forward-looking statement in order to reflect events or circumstances after the date any such statement is made. Radware’s public filings are available from the SEC’s website at [www.sec.gov](http://www.sec.gov) or may be obtained on Radware’s website at [www.radware.com](http://www.radware.com).*



# This is Radware

## Radware's Core Business

### Application Delivery and Performance

- Alteon w/GEL
- Load Balance as-a-Service
- DNS as-a-service
- CDN
- Cloud Network Analytics

### Infrastructure and DDoS Protection

- Cloud DDoS Protection Service
- DefensePro X
- Web DDoS Protection
- DNS DDoS Protection
- Firewall as-a-service
- Cyber Controller

### Application and API Protection

- Cloud Application Protection
- Kubernetes WAAP (WAF & API protection)
- Alteon Integrated WAF

## The Hawks' Business

### SkyHawk

Protection of application hosted in the public cloud

- CSPM
- CIEM
- Threat Detection
- Cross Cloud Visibility

### EdgeHawk

Protection of carrier's Edge

# Challenges to Maintaining Application Security

Key Drivers for CISOs in 2024

1

## Shifting Threat Landscape

Leveraging new tools & GenAI to attack applications

2

## New Regulatory Requirements

New, stricter regulations on cybersecurity incidents

3

## Hybrid Cloud Deployments Expand

Hybrid-cloud reality creates many entry points

4

## Cybersecurity Staff & Skills Shortages

Organizations cannot rely on their internal resources only

# Challenges to Maintaining Application Security

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Threat  
Landscape

Leveraging new tools  
& GenAI to attack  
applications

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New  
Regulatory  
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Hybrid Cloud  
Deployments  
Expand

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Cybersecurity  
Staff & Skills  
Shortages

# Shifting Threat Landscape

1



+94%

Increase in number of DDoS attacks, 2023 vs. 2022



82%

Experience a bot attack on a daily, weekly or monthly basis



+171%

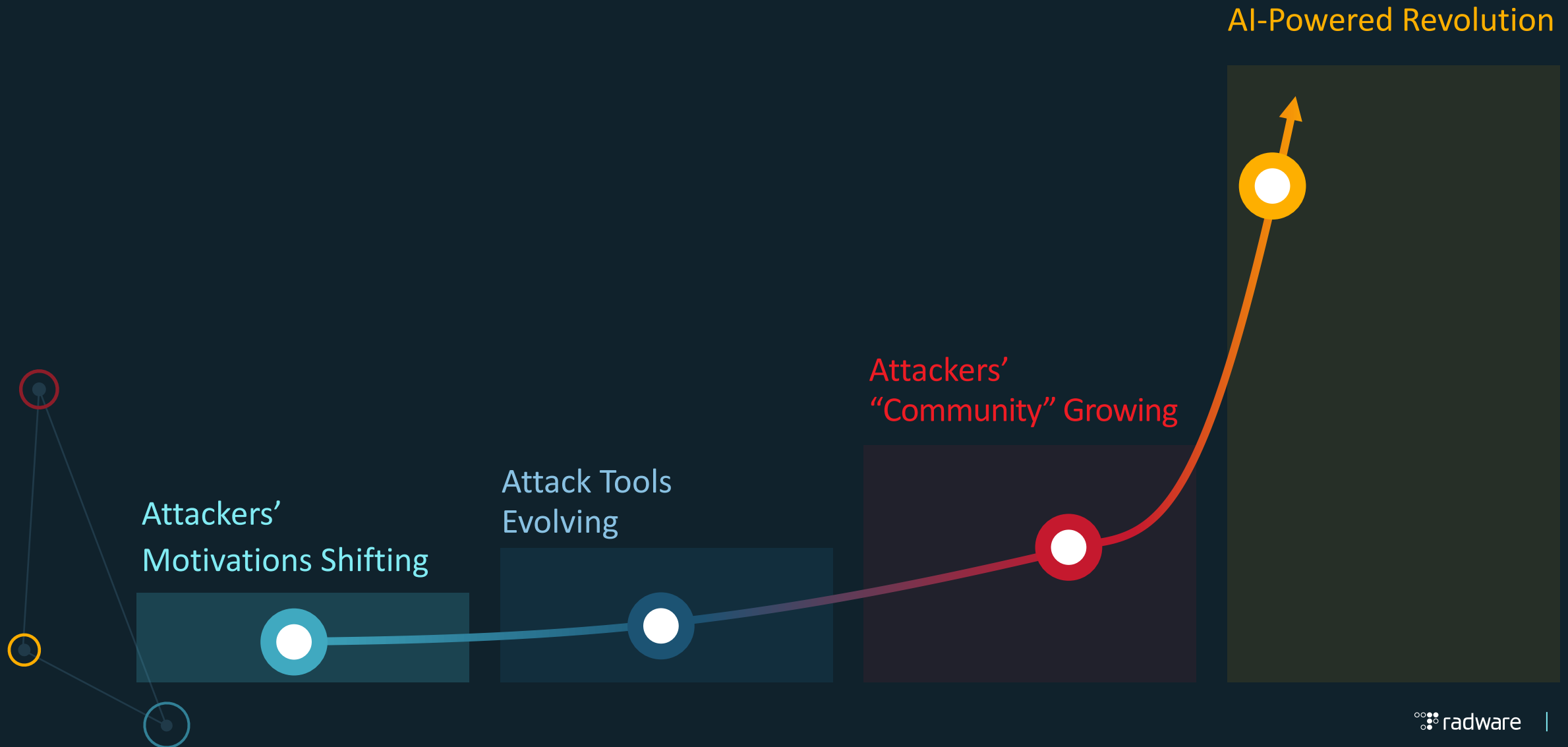
Increase in malicious web traffic, 2023 vs. 2022



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

Source: Radware Threat Landscape Report 2024

# What is Fueling the Shifting Threat Landscape?



# 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, etc.**

## Financially Motivated



**SKYNET/GODZILLA,**  
**InfraShutdown, Stressers, ATO**  
**& Crypto-stealing services, etc.**



# Shifting Attack Motivations of Hacktivist Groups

## Politically Motivated

**NoName057(16)**

Не удается получить доступ к сайту

Узнали, что канадский премьер Джастина БиндерТрюдо приперся на Украину подлизывать бандеровцам

Приложили за это его официальный сайт:

✗ <https://check-host.net/check-report/1034a6dcd6c>

Делаем это примерно в 100500-й раз

Подписывайтесь на канал NoName057(16)

Вступайте в наш DDoS-проект

Подписывайтесь на резервный канал

Eng version

Победа За нами!

t.me/noname05716/3634 5.0K edited Jun 10 at 13:35

**NoName057(16) Eng**

▼ Makron broke into a blissful smile and announced that the SAMP/T anti-aircraft missile system had been delivered to Ukrainian neo-Nazis and was ready for operation.

This is the weapons that France supplies together with Italy, as a result, of course, it will either be captured or destroyed by Russian troops, so the French president rejoices for no reason...

We go to the French segment of the Internet and kill the website of the financial conglomerate "Credit Agricole":

✗ <https://check-host.net/check-report/10576ed8k281>

Subscribe to NoName057(16)

Join our DDoS-project

Subscribe to reserve channel

Victory will be ours!

t.me/noname05716eng/1755 971 Jun 21 at 11:07

Canadian PM (JUN 23)

Credit Agricole (JUN 23)

## Religiously Motivated

**Anonymous Sudan**

Gateway Timeout

The proxy server did not receive a timely response from the upstream server.

✗ <https://www.ups.com/> | United Parcel Service is an American multinational shipping, receiving and supply chain management company | خدمة الطرود المتحدة هي شركة أمريكية متعددة الجنسيات | للشحن والاستلام وإدارة سلسلة التوريد

✗ <https://check-host.net/check-report/103c7087k7b7>

#AnonymousSudan

AnthonyBlinken

USA

201 88 34 29 3 2 1 1

20.7K edited 18:11

**Anonymous Sudan**

✗ <https://www.ups.com/> | United Parcel Service is an ...

وقفنا الهجوم على UPS، وحكننا بال "سامسونج".

The attacks on the UPS have been stopped, we will be satisfied with this amount of "2 hours".

32 3 3 1 1

19.3K edited 19:56

**UPS outages reported in the last 24 hours**

Cloudflare System Status

Cloudflare is currently experiencing a service outage. The status of the service is currently unknown. We will update you as soon as we have more information.

UPS (APR/JUN/SEP 23)

Cloudflare (Nov '23)

## Financially Motivated

**Anonymous Sudan - @InfraShutdown**

HUGE UPCOMING ANNOUNCEMENT SOON, DON'T MISS IT

#AnonymousSudan

**InfraShutdown**

Introducing InfraShutdown: The Ultimate DDoS-for-Hire Revolution

InfraShutdown emerges as the pinnacle of bullet-proof cyber dominance, offering bespoke Distributed Denial of Service (DDoS) campaigns tailored to the unique objectives of our global clientele. From government agencies to private entities to individuals, our services are designed to deliver unparalleled digital disruption across a multitude of sectors with ZERO limits and military-grade precision.

February 25

**Anonymous Sudan - @InfraShutdown**

All our previous successful attacks were completely covered with @InfraShutdown record-breaking DDoS infrastructure

All future attacks will also be carried out through our new upgraded DDoS infrastructure

JOIN NOW

**WISE REMOTE**

WISE REMOTE CONTROL STEALER WITH PANEL

- READY TO USE AND EASY TO INSTALL, NO NEED FOR ANY SPECIAL SKILLS
- CAN HANDLE UP TO 1000+ VICTIMS WITH HIGH PERFORMANCE SPEEDS
- NO NEED TO WASTE TIME AND MONEY ON COMPLICATED TOOLS
- HAS RECOVERIES AVAILABLE FOR WINDOWS
- ALSO HAS A BROWSER-CONTROLLED CLIENT
- NOT BASED ON ANY EXISTING SOFTWARE, IT'S WRITTEN FROM SCRATCH
- REMOVES A REMOTE-CONTROLLED CLIENT
- IT DOES LOGS IN REAL TIME
- REMOVES TRACER LOGS
- NO HEAVY FEATURES (SLOW)
- TOP SECRETARY CONNECTION BETWEEN SERVER AND CLIENT
- NO NEED FOR ANY SPECIAL SKILLS

tariff plans

STARTER	PROFESSIONAL	COMPANY	SECURITY
\$250	\$500	\$1000	\$20000
To view our pricing page	To view our pricing page	To view our pricing page	To view our pricing page
Choose a plan	Choose a plan	Choose a plan	Choose a plan

Attackers offering full marketplace

# All-in-One Modern Attack Tools on Github



## Features And Methods

### Layer7

- GET | GET Flood
- POST | POST Flood
- OVH | Bypass OVH
- RHEX | Random HEX
- STOMP | Bypass chk\_captcha
- STRESS | Send HTTP Packet With High Byte
- 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))'
- PPS | Only 'GET / HTTP/1.1\r\n\r\n'
- EVEN | GET Method with more header
- GSB | Google Project Shield Bypass
- DGB | DDoS Guard Bypass
- AVB | Arvan Cloud Bypass
- BOT | Like Google bot
- APACHE | Apache Exploit
- XMLRPC | WP XMLRPC exploit (add /xmlrpc.php)
- CFB | CloudFlare Bypass
- CFBUAM | CloudFlare Under Attack Mode Bypass
- BYPASS | Bypass Normal AntiDDoS
- BOMB | Bypass with codesenberg/bombardier
- KILLER | Run many threads to kill a target
- TOR | Bypass onion website

**DDoS attack  
vectors**

**Bot attack  
vectors**

**Web  
application  
exploits**

**Built-in  
bypass again  
common  
defenses**



Attackers don't distinguish between WAF, DDoS, Bot attack vectors



Need an integrated platform to overcome all-in-one attack tools

# Attackers Use AI to Create Autonomous Attacks



```

WOLF-GPT

Welcome to the WOLF-GPT - An upgraded version of AI to develop banking and unethical tools
Developer: ...

Type 'help' to see the application.
Type 'clear' to clear the question history.
Type 'search' to search for specific content in the question history.
Type 'ask' to ask the question history in a file.
Enter your question: Write a code to perform a process injection in c++.

[Output]
...

```



**XXXGPT**

Introducing a revolutionary service that offers personalized bot AI customization, backed by a dedicated team of five experts specifically tailored to your project. With no censorship or restrictions, you have the freedom to explore and implement your desired functionalities. Our work process operates on escrow, ensuring secure transactions.

**CODE YOUR**

- BOTNET
- RAT
- CRYPTER
- MALWARE
- INFOSTEALER
- CRYPTOSTEALER
- POS & ATM MALWARE

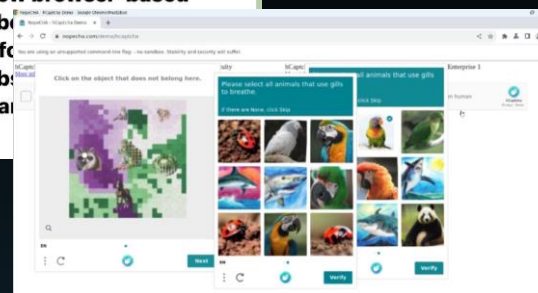
GenAI tools used by attackers

Dear **stresser.cat** customers

We are happy to announce a new update to our browser method **"HTTP-TESTAROSSA"**

Now this method perfectly bypasses DDoS-Guard protection and, with the help of our neural system, perfectly passes the Text DDoS-Guard captcha and hCaptcha

Also, a new browser-based flooders has been specifically for is able to sub headers para target.



New AI-based CAPTCHA solving tool

Vulnerability	GPT-4 success rate
LFI	60%
CSRF	100%
XSS	80%
SQL Injection	100%
Brute Force	80%
SQL Union	80%
SSTI	40%
Webhook XSS	20%
File upload	40%

Research shows how LLM Agents can autonomously exploit one-day vulnerabilities\*

\* [\[2404.08144\] LLM Agents can Autonomously Exploit One-day Vulnerabilities \(arxiv.org\)](#)



Fight AI with AI: Need AI-Powered Intelligent Security

# Challenges to Maintaining Application Security

Key Drivers for CISOs in 2024

1

Shifting  
Threat  
Landscape

2

New  
Regulatory  
Requirements

New, stricter  
regulations on cyber-  
security incidents

3

Hybrid Cloud  
Deployments  
Expand

4

Cybersecurity  
Staff & Skills  
Shortages

# New Regulatory Requirements

2



*"Registrants must disclose any cybersecurity incident they experience that is determined to be material [...] within 4 business days"*



## **New & updated requirements:**

- *WAF requirements*
- *Positive security*
- *API protection*
- *Client-side security*



*EU-wide legal framework for mandating cybersecurity protection measures*



**Need an integrated platform to ensure full compliance**



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Hybrid-cloud reality  
creates many entry  
points

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# Hybrid Cloud Deployments Expand

Most Organizations Today Run **Hybrid Multi Cloud** Environments

3



55%

Of organizations run three or more environments



73%

Still maintain their on-prem hardware data centers



46%

Use on-prem, private cloud **and** public cloud all at once



Need **consistent protections** across diverse environments

# Challenges to Maintaining Application Security

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Organizations cannot  
rely on their internal  
resources only

# Organizations Face Cybersecurity Staff, Skill Shortages

4



67%

Face shortages in security staff or skills



3.99M

Estimated open global cybersecurity roles



41%

Can't find enough qualified talent



Need for **automated protections** and expert **managed services**

# What is Needed to Stay Ahead?

→ Radware.

## 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

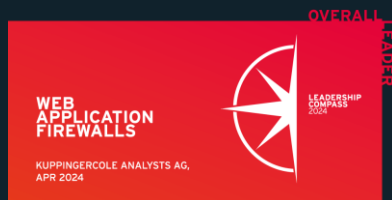
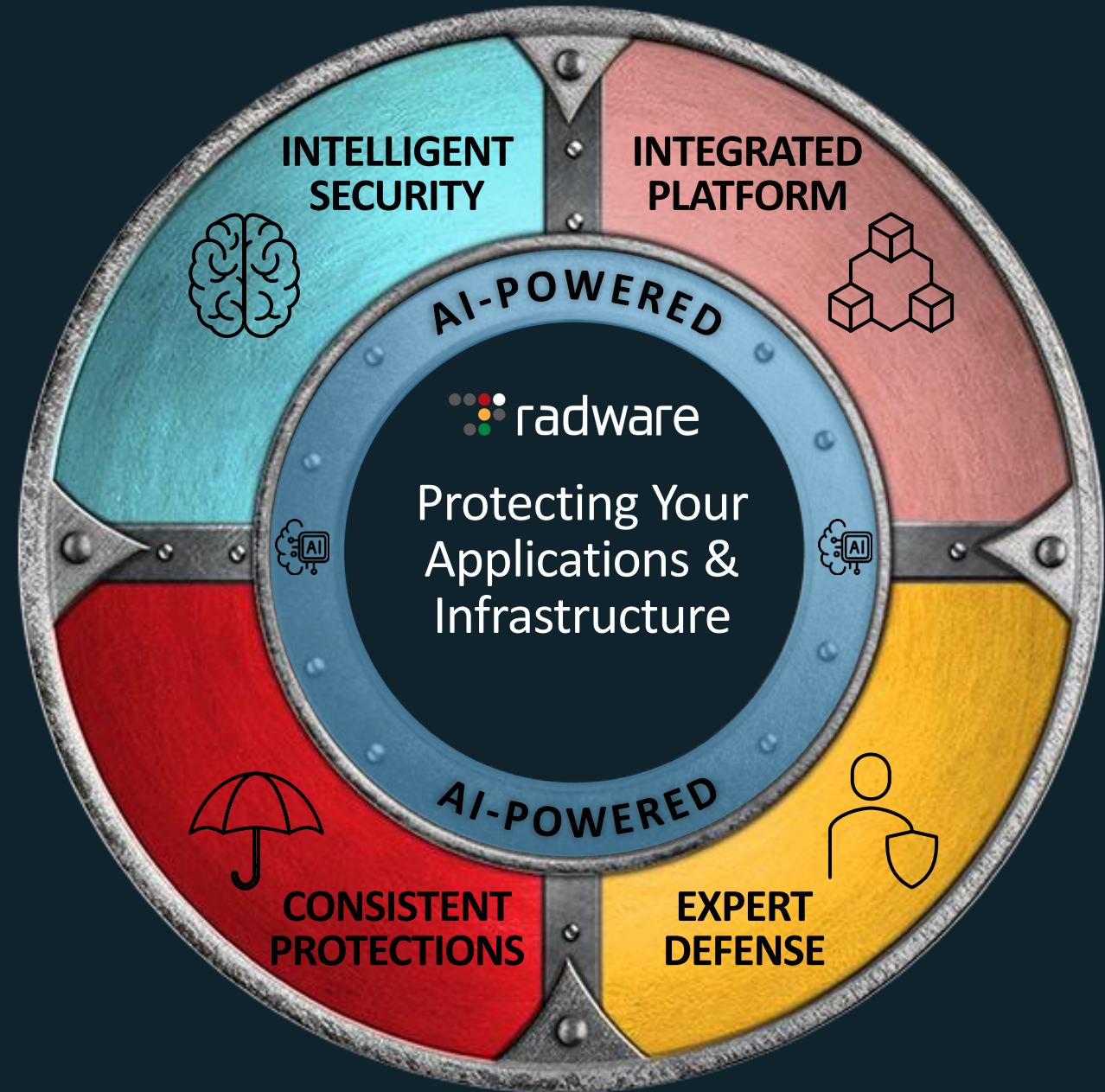


Only way to drive lower MTTR, save costs & protect your brand



# What is Needed to Stay Ahead?

→ Radware.



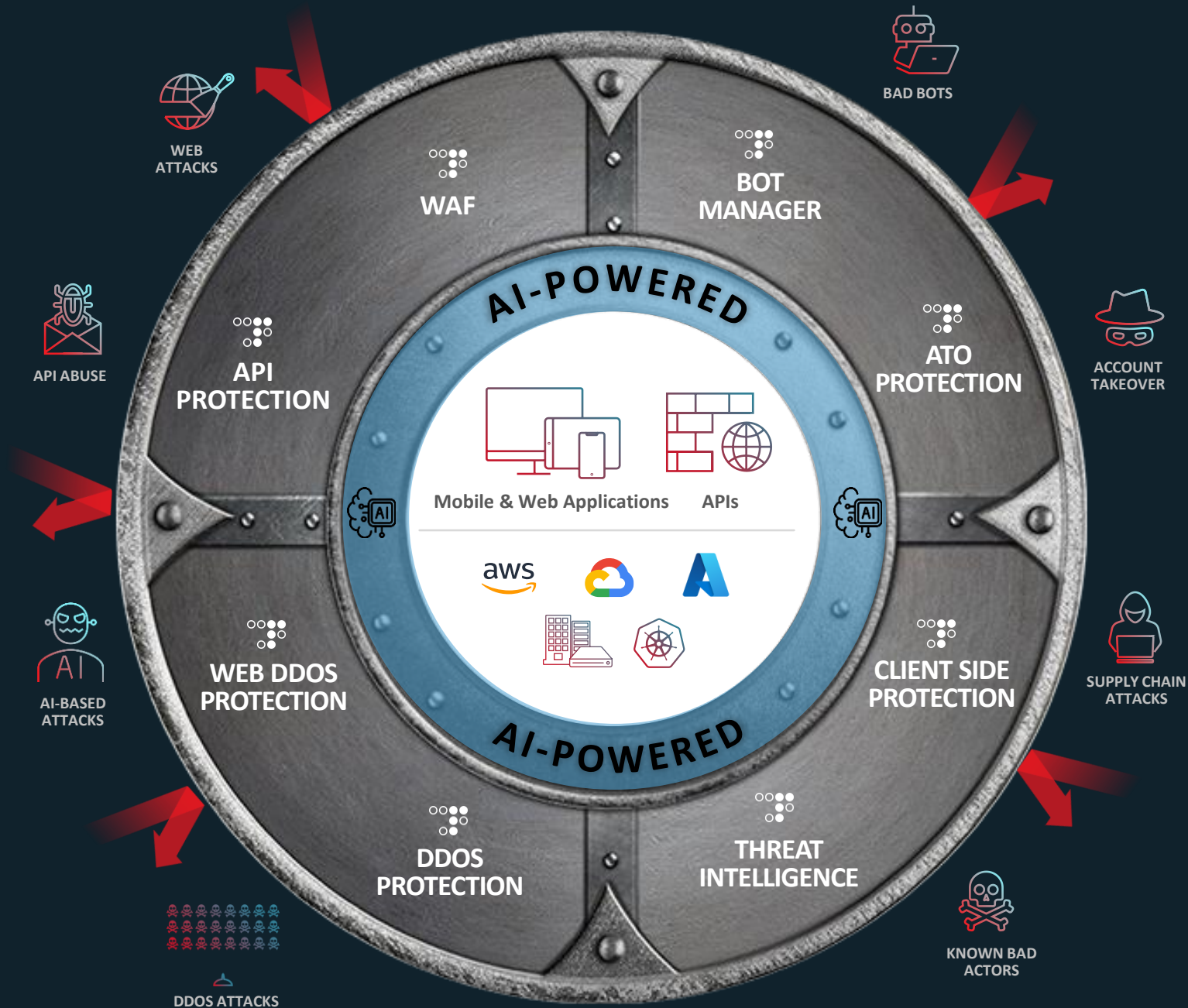
# Radware 360 Cloud Application Protection



Gartner  
Peer Insights™

“Truly *exceptional protection* for web apps & APIs”

Radware Customer,  
Telecommunications







# Introducing Radware EPIC-AI Platform

End-to-end Powerful Integrated Cybersecurity AI Platform

# 360 Protection with Radware EPIC-AI Platform

LOWER MTTR



## AI-Driven SOC

- AI-empowered managed services
- SecOps enablement
- Compliance, analytics & integrations



## Cross-Platform AI Reasoning

- Threat intelligence insights & preemptive protection feeds
- Cross-module AI-based correlation
- Continuous AI-powered policy tuning & recommendations



## RT Cloud Protection Engines

DDOS PROTECTION

WEB DDOS PROTECTION

WAF

API PROTECTION

BOT MANAGER

ATO PROTECTION

CLIENT SIDE PROTECTION



## Enforcement Points



# Real World AI-Powered Protection Where It Matters Most



Accelerate SOC operations & reduce MTTR

AI-led human-empowered SOC to quickly identify root cause & resolve incidents



Block malicious sources across the platform

Preemptive protection with AI-driven 'Source Blocking' algorithms



Surgically block Web DDoS Tsunami Attacks

AI-powered Web DDoS protection with real-time signature creation

“ Radware is the **only vendor** in this analysis **to earn a top score** on the **AI enhanced vulnerability detection** criterion ”

GIGAOM

“ Gartner clients **value the automated learning approach** that Radware takes ”

Gartner

“ According to customer feedback, **Radware is ridiculously always accurate** ”

IDC



# New Disruptive Web DDoS Tsunami Attacks

Signature-based & rate-limiting techniques are **ineffective!**

Requires **AI-powered** approach for **accurate** detection & mitigation



Higher in volume – Ultra high RPS



Encrypted floods



Appear to be legitimate requests

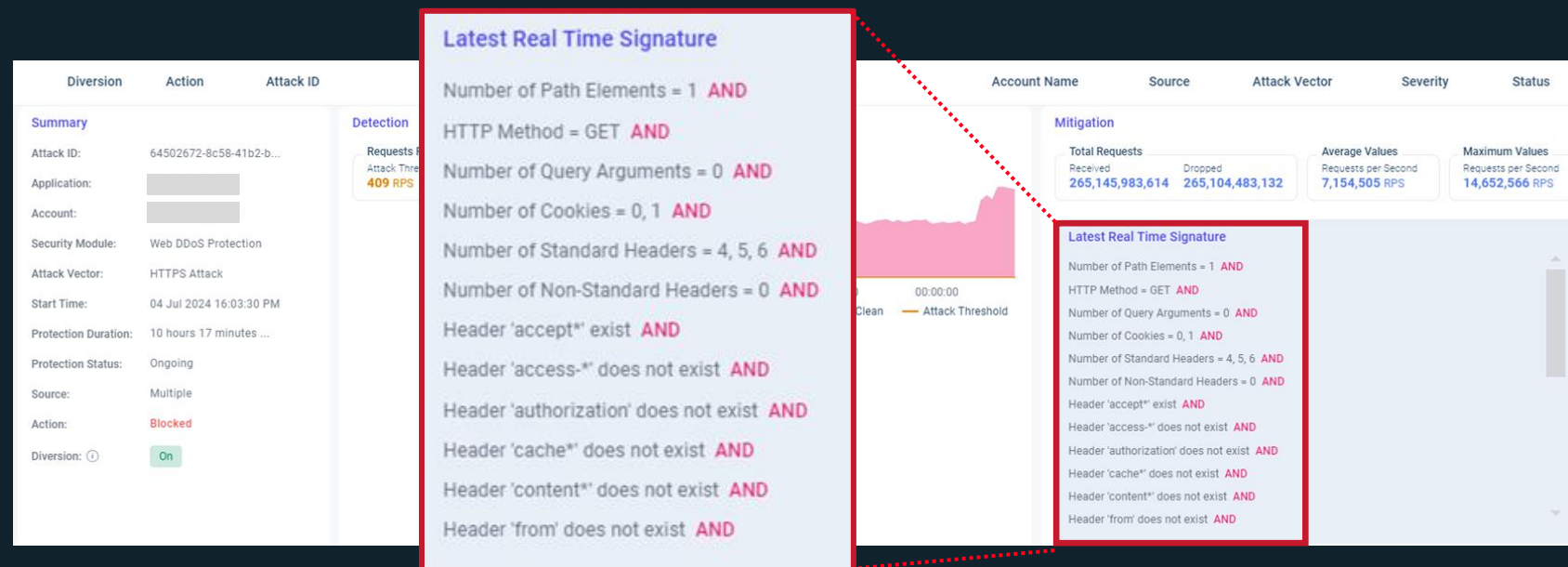


Multiple, sophisticated evasion techniques (randomized headers, IP spoofing, etc)

# Radware Protects EMEA Bank from Web DDoS Tsunami Attacks

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

Radware Customer,  
Tech Services



## 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



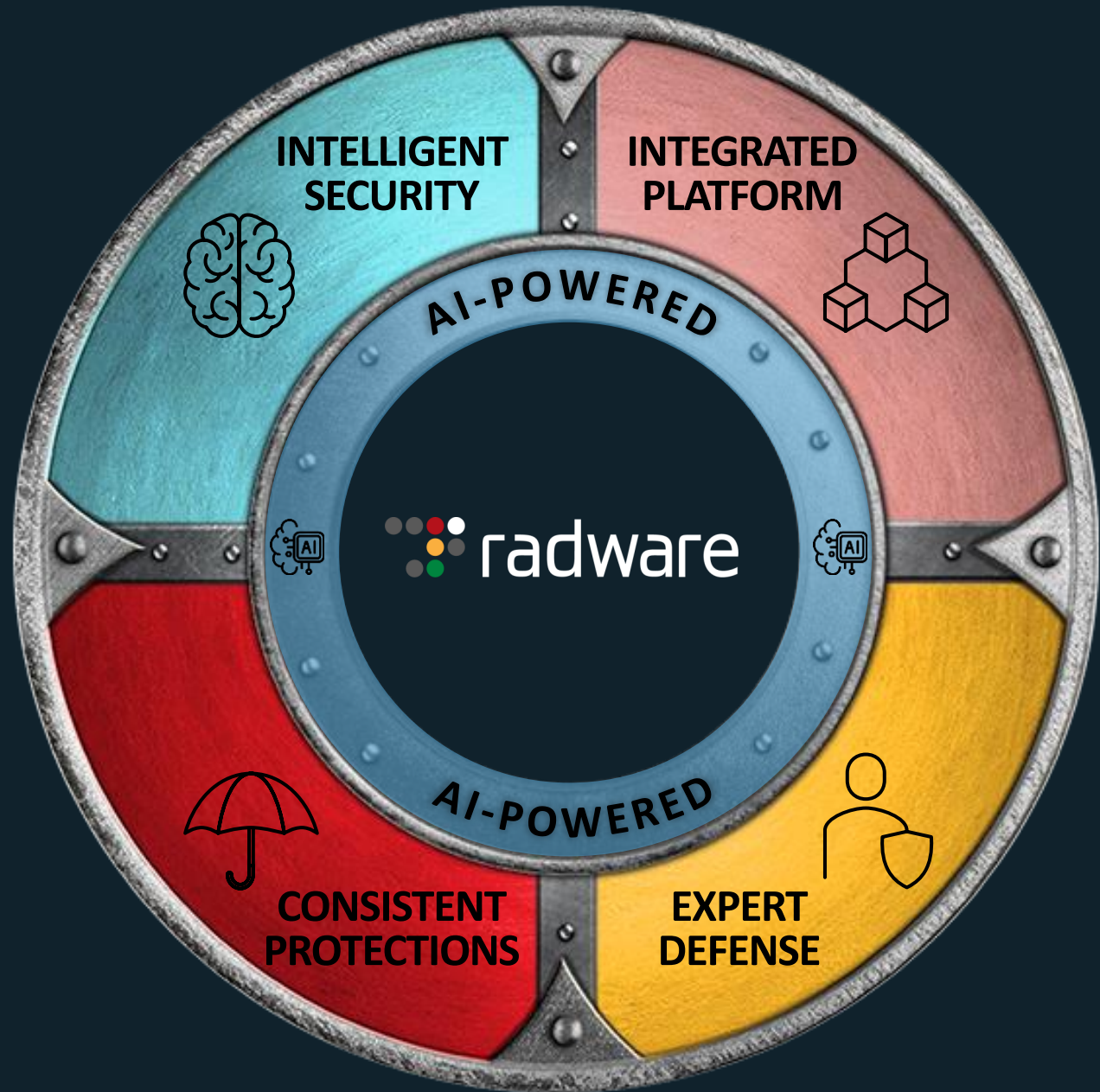
Fight AI with AI: AI-based algorithms create signatures in real-time

# EPIC-AI Platform: The Radware Difference



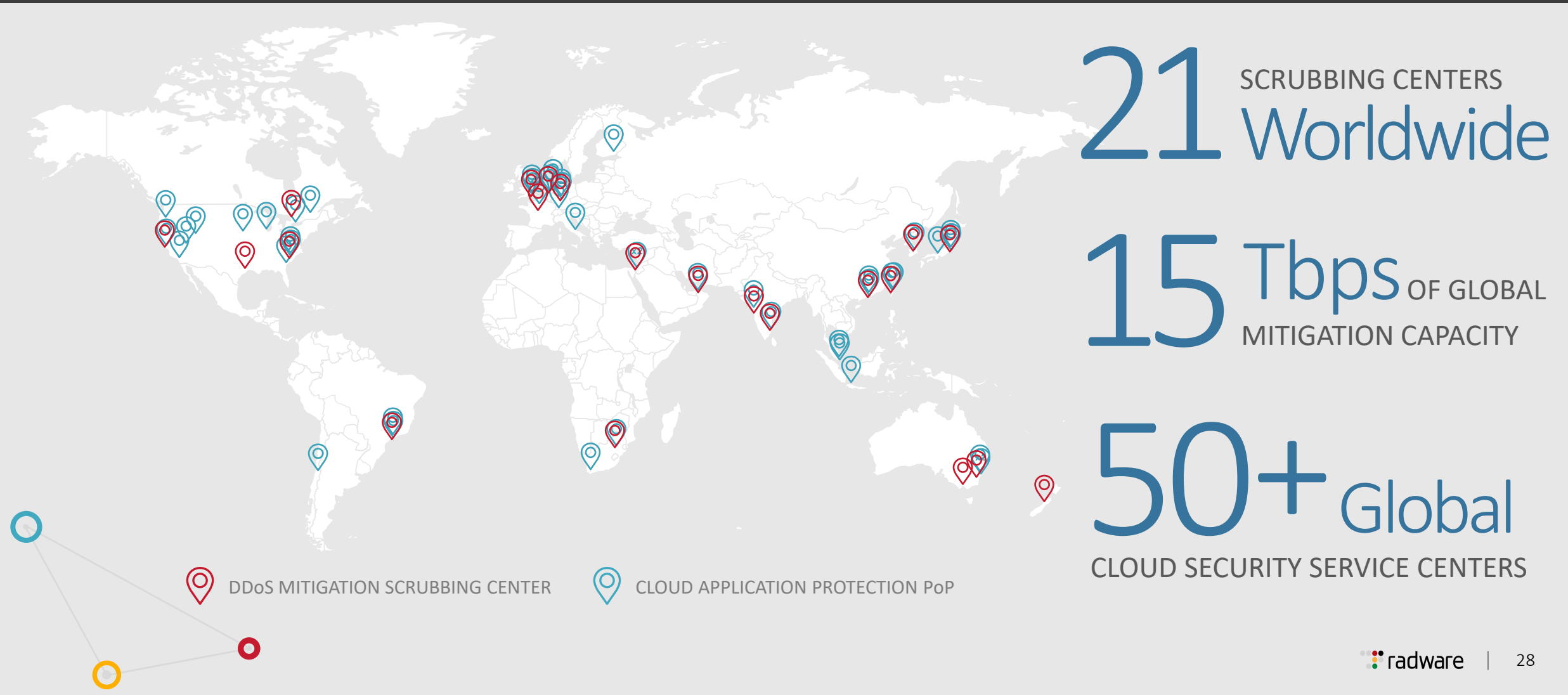


Give Your Apps the  
Most Precise,  
Hands-Free,  
Real-Time  
Protection



# Global Cloud Services Network

Dual local PoP for reduced latency and regulations compliance





# Large Enterprise and Service Providers Customers



6 OF TOP 10

WORLD'S  
BANKS



8 OF TOP 10

WORLD'S TELECOM  
COMPANIES



5 OF TOP 10

WORLD'S STOCK  
EXCHANGES



2 OF TOP 5

WORLD'S  
ECOMMERCE  
COMPANIES



2 OF TOP 5

MOST WIDELY  
USED SAAS  
APPLICATIONS

# Environment, Social, Governance

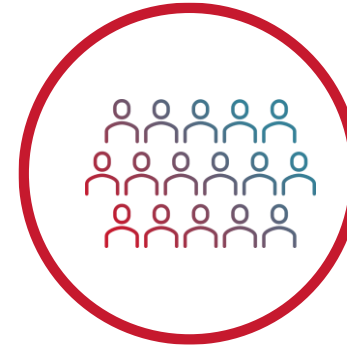


Establishing a Clean,  
Ethical and Human  
Future



## Protecting the Environment

- Implemented KPIs for reduction in the use of water, power and paper
- Providing energy saving products to our customers
- Setting environmental policy goals in measuring impact, consideration in operation and informing proper use of our products



## Promoting Human Rights

- Published Human Rights and Labor Standard Policy
- Radware was named one of the Top 100 Workplaces for Diverse Representation by Mogul
- Encourage a culture of open dialogue and support and attend to our employees' wellbeing



## Investing in Community

- Building strong relationship with the community with various projects
- Empowering next-cyber generation with interns and mentoring high school students
- Empowering women through education or supporting business
- Promoting inclusion of underrepresented communities

# Financial Overview



# Q2 2024 Highlights

Revenue  
\$67.3 million

+3% YoY

Cloud ARR  
\$70 million

+19% YoY

Gross  
Margin  
82.2%

-10bp YoY

EPS  
\$0.20

+100% YoY

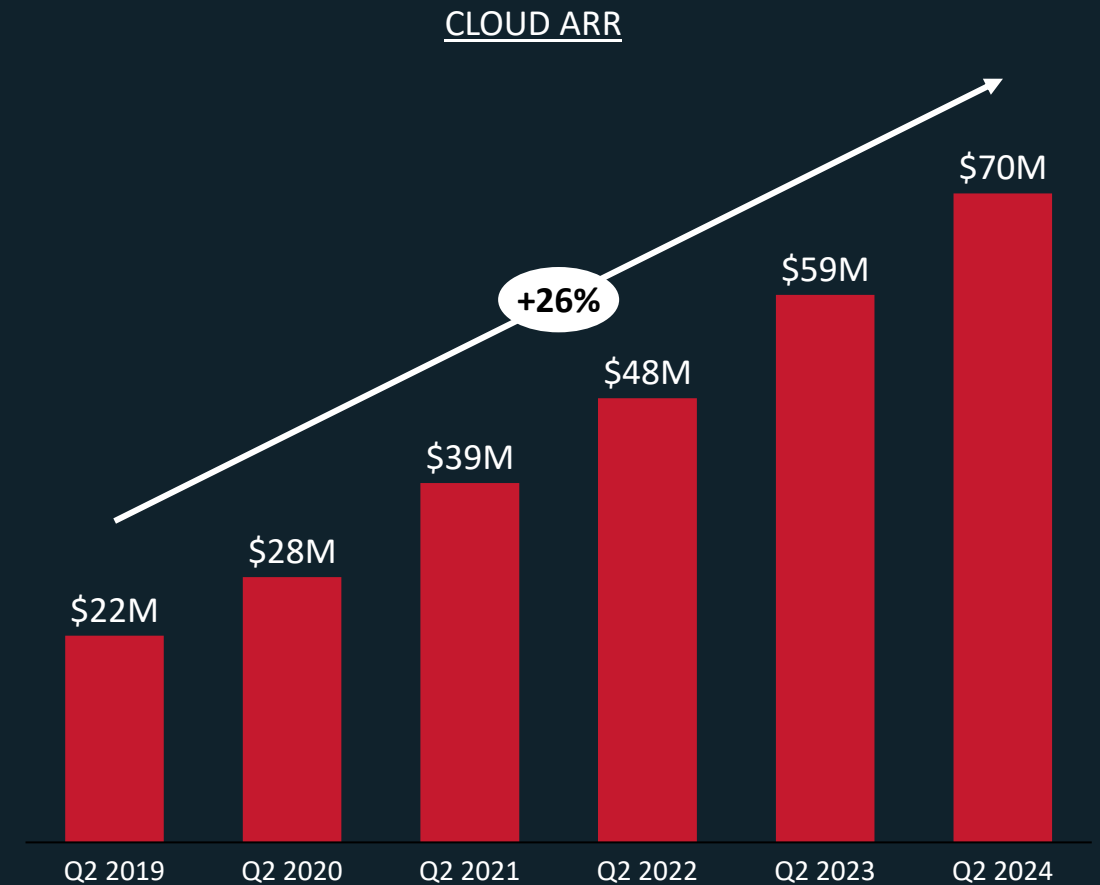
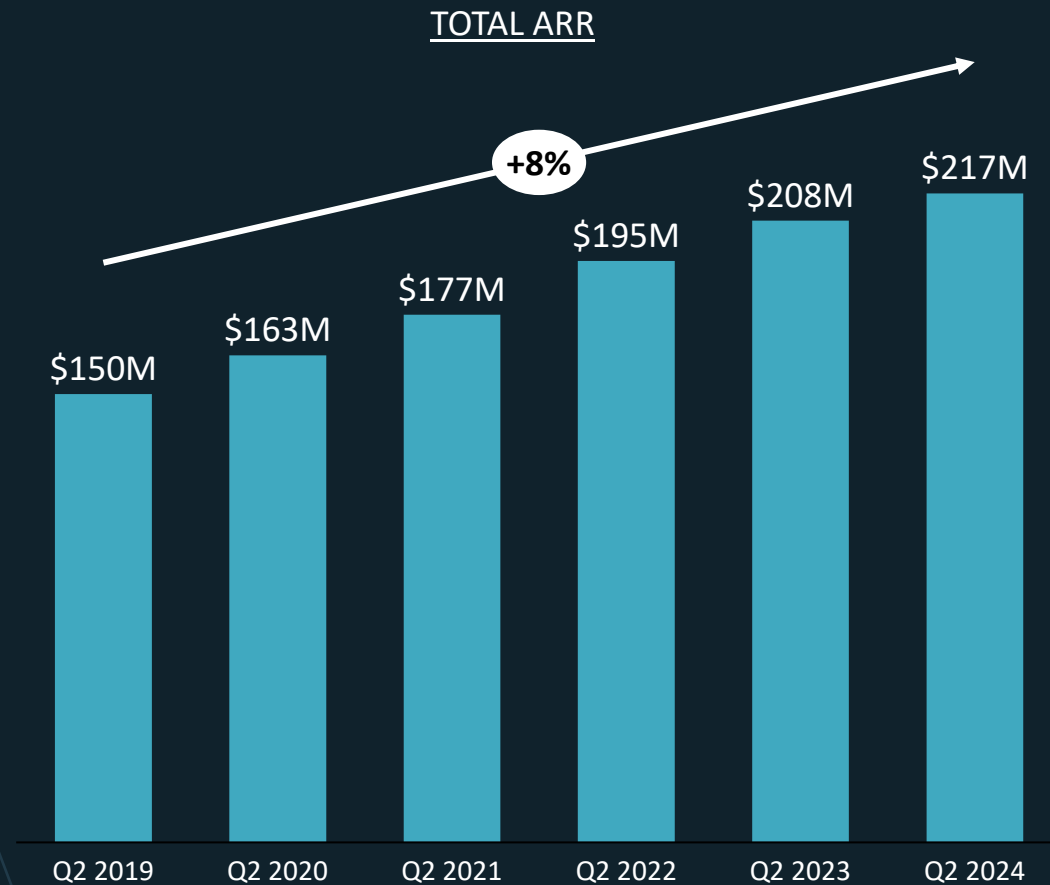
Operating  
CF  
\$23.0 million

Compared to  
\$4.9M  
Last year

\* Total ARR includes the annualized value of booked orders for services, subscription licenses and maintenance contracts that are in effect at the end of a reporting period

\* Gross margin and EPS are non-GAAP

# Total ARR Driven by Cloud ARR

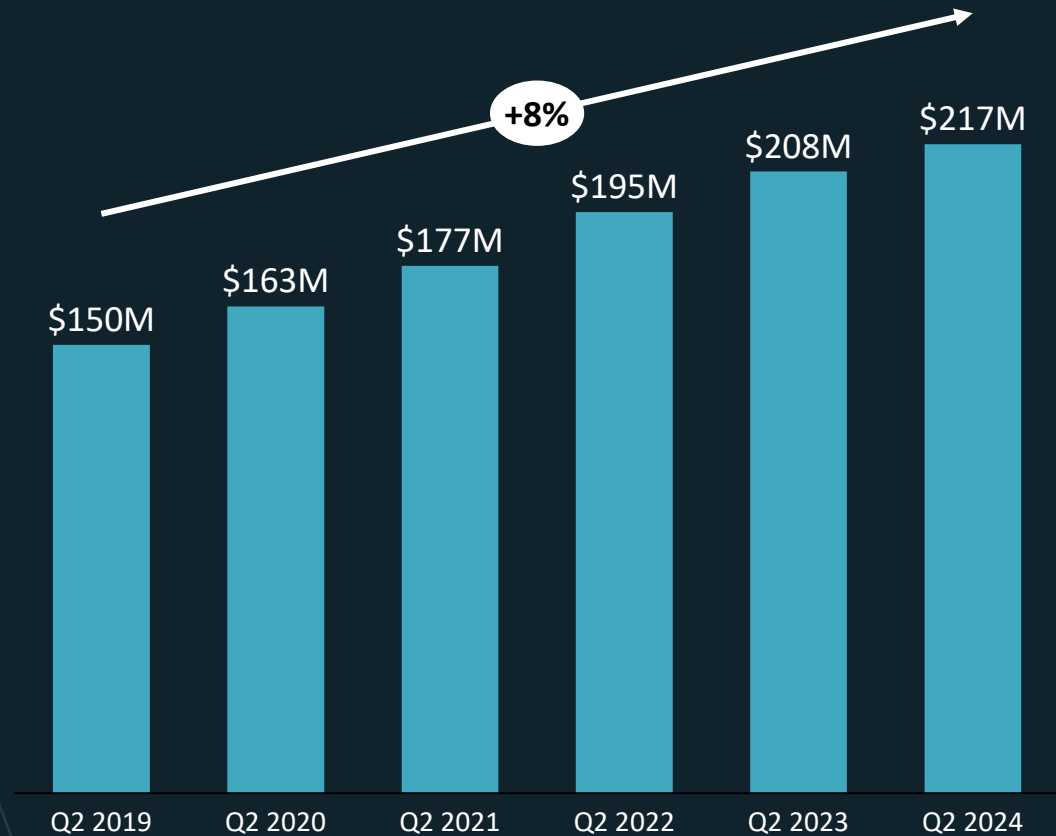


\* Total ARR includes the annualized value of booked orders for services, subscription licenses and maintenance contracts that are in effect at the end of a reporting period

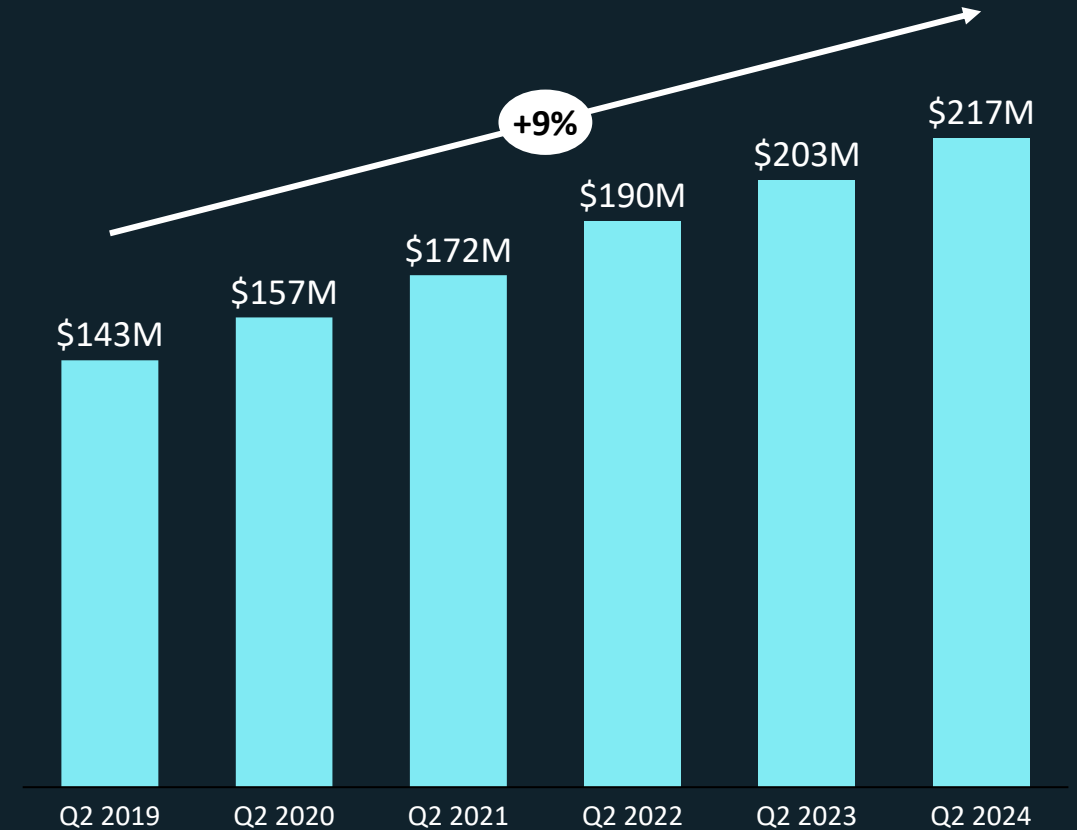
\* Numbers are rounded

# Total ARR Excluding Customer Termination Agreement

Total ARR (\$M)



Total ARR Excluding Customer (\$M)



\* Total ARR includes the annualized value of booked orders for services, subscription licenses and maintenance contracts that are in effect at the end of a reporting period

\* Numbers are rounded

# Q2 2024 Financial Data

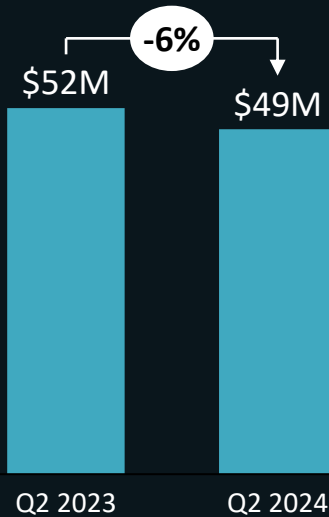
## Revenue



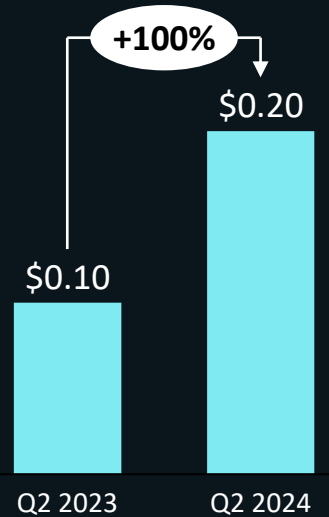
## Gross Margin (Non-GAAP)



## Operating Expenses (Non-GAAP)

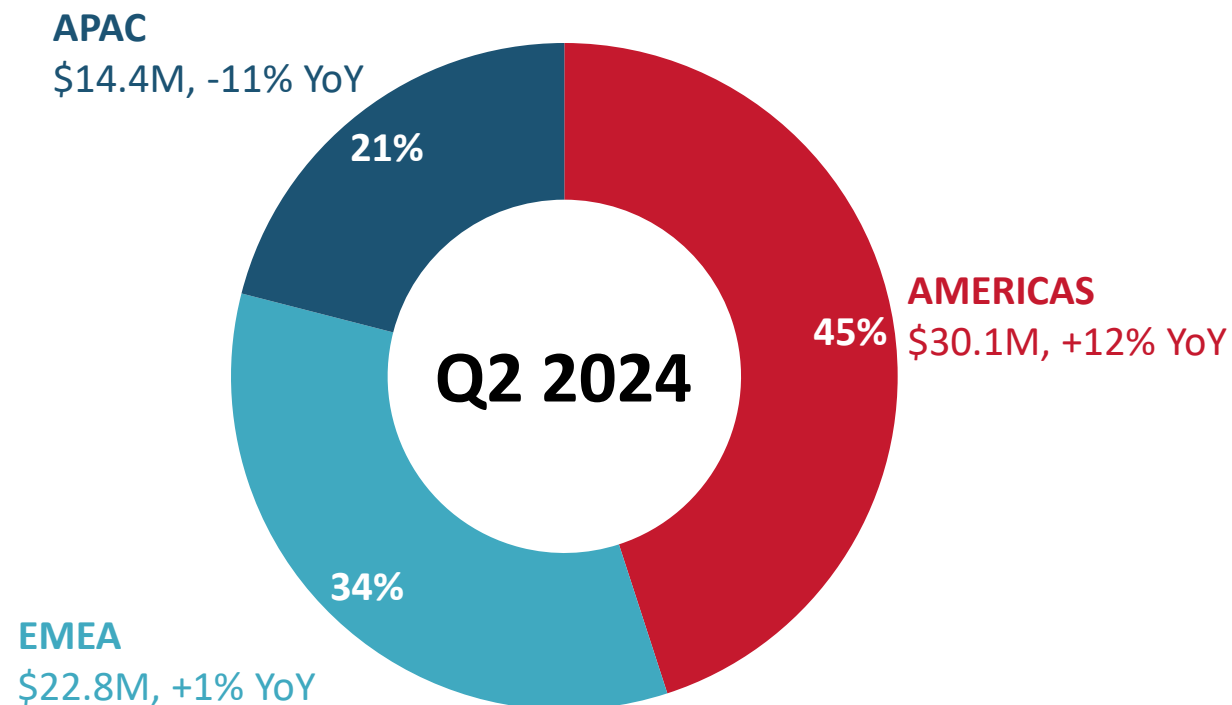


## Diluted Earnings Per Share (Non-GAAP)

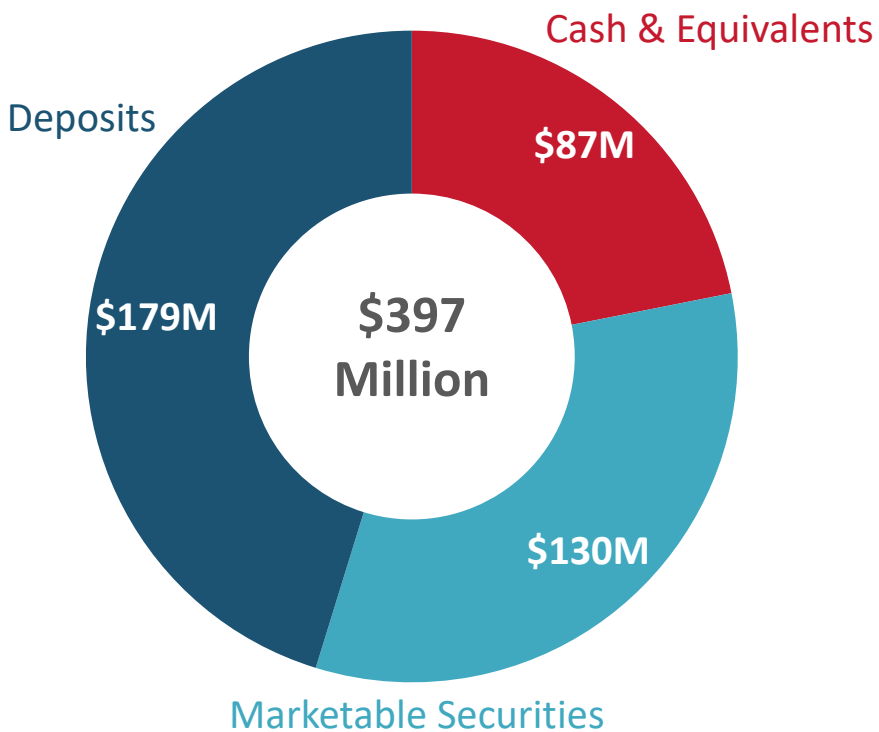
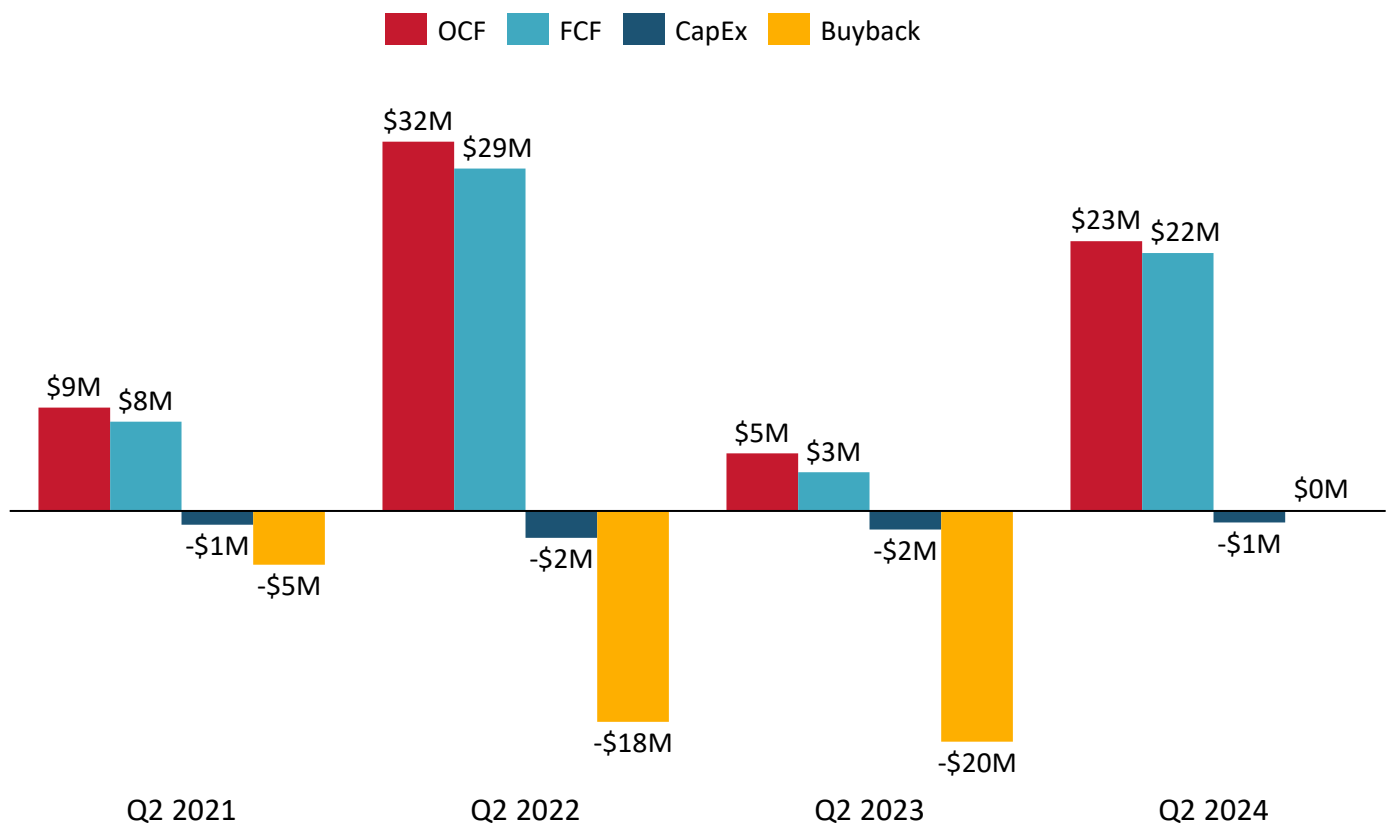




# Revenue Geography Breakdown (\$M)



# Cash Generation



\* Numbers are rounded



Thank you!

