

The Evolution of AI in Security

Michael Melore, CISSP
IBM Senior Cybersecurity Advisor
Chair SecRT (Security <Leaders> Round Table)
FBI InfraGard Committeemen
NASCIO Privacy and Cyber Security Committees
CISA / ATARC JCDC (Joint Cyber Defense Collaborative) Committee



@MichaelMelore

LOGISTICS REPORT

Chip Shortage Curtails Heavy-Duty Truck Production

By Jennifer Smith September 3, 2021 05:30 am ET

LOGISTICS REPORT

Best Buy Bolsters Inventories Ahead of the Holidays

By Lydia O'Neal August 24, 2021 03:14 pm ET

CHINA

Covid-19 Closure at China's Ningbo Port Is Latest Snarl in Global Supply Chains

By Costas Paris in New York and Stella Yifan Xie in Hong Kong August 20, 2021

BUSINESS

Unfinished Tractors, Pickup Trucks Pile Up as Components Run Short

By Bob Tita August 30, 2021 07:00 am ET

BUSINESS

Air Cargo Boom Has Car Tires Flying First Class

By Doug Cameron August 29, 2021 09:00 am ET

HEARD ON THE STREET

Vietnam's Factory Shutdowns Tug at Apparel Industry's Seams

By Jinjoo Lee September 3, 2021 05:30 am ET

Covid-19 in Malaysia Threatens to Prolong Chip Shortage

By Feliz Solomon August 29, 2021 07:00 am ET

Demand uncertainty and supply chain disruptions are making unprecedented headlines

REVIEW & OUTLOOK

Why Your Beer Costs More

By The Editorial Board September 1, 2021 06:31 pm ET

TECH

Chip Shortage Has Spurred Demand for Little-Known Component

By Asa Fitch September 4, 2021 12:00 pm ET

LOGISTICS REPORT

U.S. Ports See Shipping Logjams Likely Extending Far Into 2022

By Paul Berger September 5, 2021 08:00 am ET

BUSINESS

Why Is the Supply Chain Still So Snarled? We Explain, With a Hot Tub

By Austen Hufford, Kyle Kim and Andrew Levinson

August 26, 2021 10:18 am ET

ASIA ECONOMY

Surging Covid-19 Cases Hammer Asian Factories

By Stella Yifan Xie and Jon Emont September 1, 2021 07:43 am ET

BUSINESS

Americans Are Stocking Up on Toilet Paper Again

By Jaewon Kang and Sharon Terlep August 31, 2021 04:16 pm ET

TECH

HP, Dell See Swelling Backlogs Amid Hot Demand for Computers

By Maria Armental August 26, 2021 05:05 pm ET

HEARD ON THE STREET

Chewy's Pandemic Run Comes to an End

By Jinjoo Lee September 2, 2021 06:33 am ET

COMMODITIES

Aluminum Hits Decade High After Guinea Coup

By Will Horner September 6, 2021 12:19 pm ET

Supply chain leaders are looking for actionable visibility and control based on real-time analytics for digital transformation

85%

of companies felt that **supply chain complexity** is a significant and growing challenge for their operations

97%

of companies recognize the importance of and are prioritizing efforts to improve **end-to-end supply chain visibility**

50%

of manufacturers will use supply chain orchestration tools for **innovation delivery** and **disruption avoidance** by 2024

70%

of Consumers look at very specific attributes and willing to pay 37% premium for **full transparency**

33%

of products from farmers goes uneaten, accounting for \$161B USD in **food waste**

60%

of consumers willing to change shopping habits to reduce **environmental impact**



Nutrition Facts

Serving Size
Servings Per Container

Amount Per Serving

Calories Calories from

Total Fat g

Saturated Fat g

Cholesterol g

Sodium g

Total Carbohydrate g

Dietary Fiber g

Sugar g

Protein g

Vitamin A % • Vitamin

Calcium % • Iron

*Percent Daily Values are based on a 2,000 calorie diet.
Your daily values may be higher or lower depending on your calorie needs.

Rising concerns over trust in AI

BlackRock shelves unexplainable AI liquidity models

Risk USA: Neural nets beat other models in tests, but results could not be explained

YouTube sued for using AI to racially profile content creators

They claim YouTube's algorithms discriminate against black users

Data science during COVID-19: Some reassembly required

Most likely, the assumptions behind your data science model or the patterns in your data did not survive the coronavirus pandemic. Here's how to address the challenges of model drift

Can AI models respond to black swan events like COVID-19?

Over-Segmenting In Financial Services Is So Over - Bye, Bye

Sections

The Washington Post

Democracy Dies in Darkness

Get 1 year for \$29

Apple Card algorithm sparks gender bias allegations against Goldman Sachs

RETAIL OCTOBER

Amazon scraps secret AI recruiting tool that showed bias against women

EFF to HUD: Algorithms Are No Excuse for Discrimination

BY JAMIE WILLIAMS, SAIRA HUSSAIN, AND JEREMY GILLULA | SEPTEMBER 26, 2019

The AI opportunity

AI is the largest economic opportunity of our lifetime, estimated to contribute **\$16 trillion** to global DP by 2030.

- **AI and automation will fuel the future of work.**

➤ Enterprises spend over **120** billion hours a year on low-value work.



- **3 in 4 business are exploring or deploying AI.**

➤ CIOs cite AI as the #1 game-changing technology.



- **Winners will scale the value of data with AI.**

➤ **90%** of data is either inaccessible, untrusted, or unanalyzed.



Trustworthy AI:

Governed Data and AI

1. Transparent: open to inspection
2. **Explainable**: easy to understand outcomes/decisions
3. **Fair**: impartial and bias mitigated
4. **Robust**: handles exceptional conditions effectively and minimizes security risk
5. **Private**: fueled by high integrity data and is business compliant



Cost of a Data Breach Report

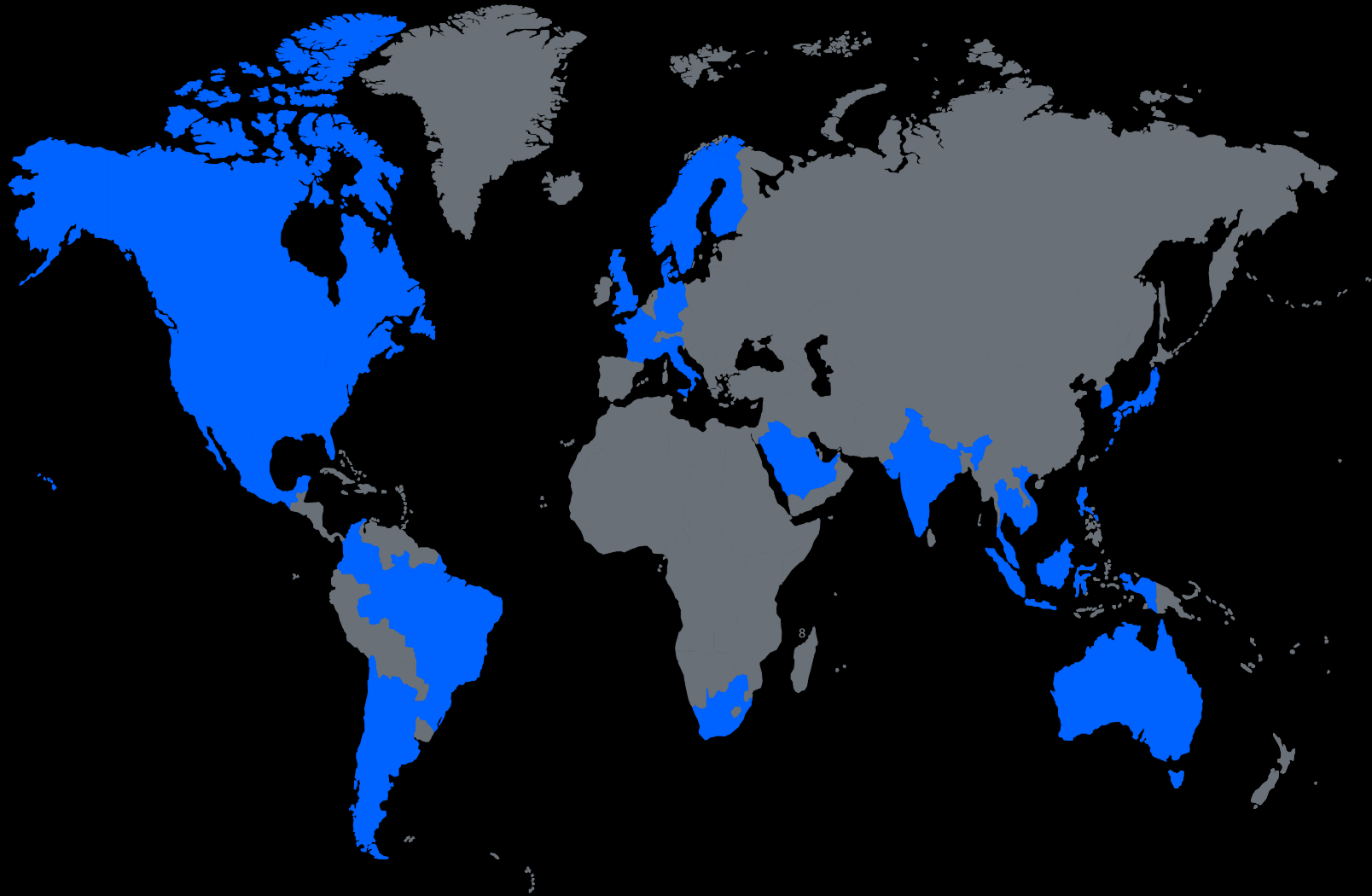
550 breaches studied

3,600 interviews

17 countries/regions

17 industries

17th year



Key findings

- Data breach costs reached a record high, \$4.35M Globally, \$9.44M US.
- The United States (\$9.44M) was the costliest country. Healthcare (\$10.10M) was the costliest industry.
- The biggest cost savings was due to deploying incident response, XDR and AI/automation. Breach costs at orgs with fully deployed security AI/automation had an average cost \$3.05M less than orgs with no security AI/automation deployed.
- 41% increase in ransomware breaches from 2021 – 2022. Average cost \$4.5M excluding ransom
- A zero-trust approach was effective at mitigating costs. Breaches at orgs with mature zero trust deployment were \$1M less than orgs without zero trust.
- Cloud breaches were least costly in hybrid cloud environments. Breaches in hybrid clouds were \$1M less than breaches in public clouds.
- Remote working due to COVID-19 increased cost. Breaches where remote work was a factor averaged \$1 million more than breaches where remote work was not a factor.

Global highlights

\$4.35M

Global average cost of a data breach

45%
Breaches Cloud-based

\$1M
Cost increase where remote work was a factor in the breach

\$387 million

Average total cost of a breach of >50M records

\$3.05 million

Cost savings due to security AI and automation

\$180

Cost per record for compromised customer PII

19%

Share of breaches caused by compromised credentials

- Top 3 cost amplifying factors

1.

Compliance failures

2.

System complexity

3.

Cloud migration
- Top 3 cost mitigating factors

1.

AI platforms

2.

Encryption

3.

Analytics

Time to identify and contain

Global average: 277 days (\$1.1M savings under 200 Days)

74 Days Less with Security AI and Automation

29 Days Less with Extended Detection and Response (XDR)

\$2.66 million↓

Average cost savings with incident response teams and IR testing vs. no IR teams or testing

Workflow



Advanced Analytics



DETECT



Cognitive



ENRICH

Threat Hunting



INVESTIGATE



ORCHESTRATE



Incident Response



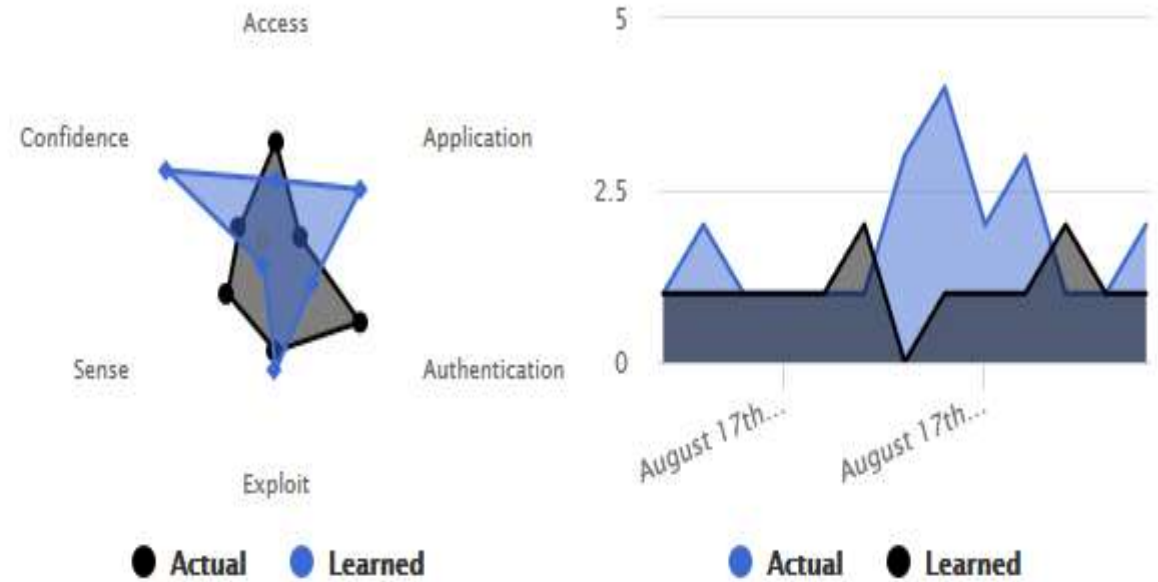
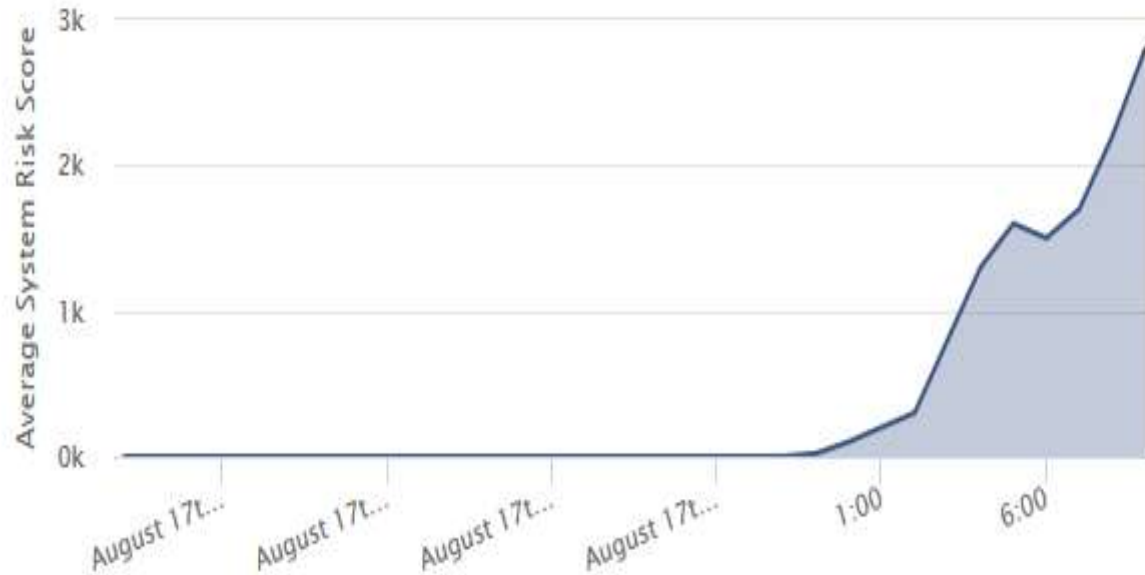
Artificial Intelligence



A Jeopardy! game board for the "Artificial Intelligence" category. Two contestants stand behind their respective podiums. The background features the word "THINK" in large letters, with various translations in different scripts (PIENSE, ΣΚΕΨΟΥ, DENKE, PENSER, सोचिए, SINACMIŠ) and a central graphic of a brain with neural connections. The game board consists of three columns, each with a total score at the top and a single question below.

Contestant (Left)	Contestant (Right)
\$24,000 Who is Stoker? (I FOR ONE WELCOME OUR NEW COMPUTER OVERLORDS) \$1,000	\$77,147 Who is Bram Stoker? \$17,973
\$21,600 WHO IS BRAM STOKER? \$5600	

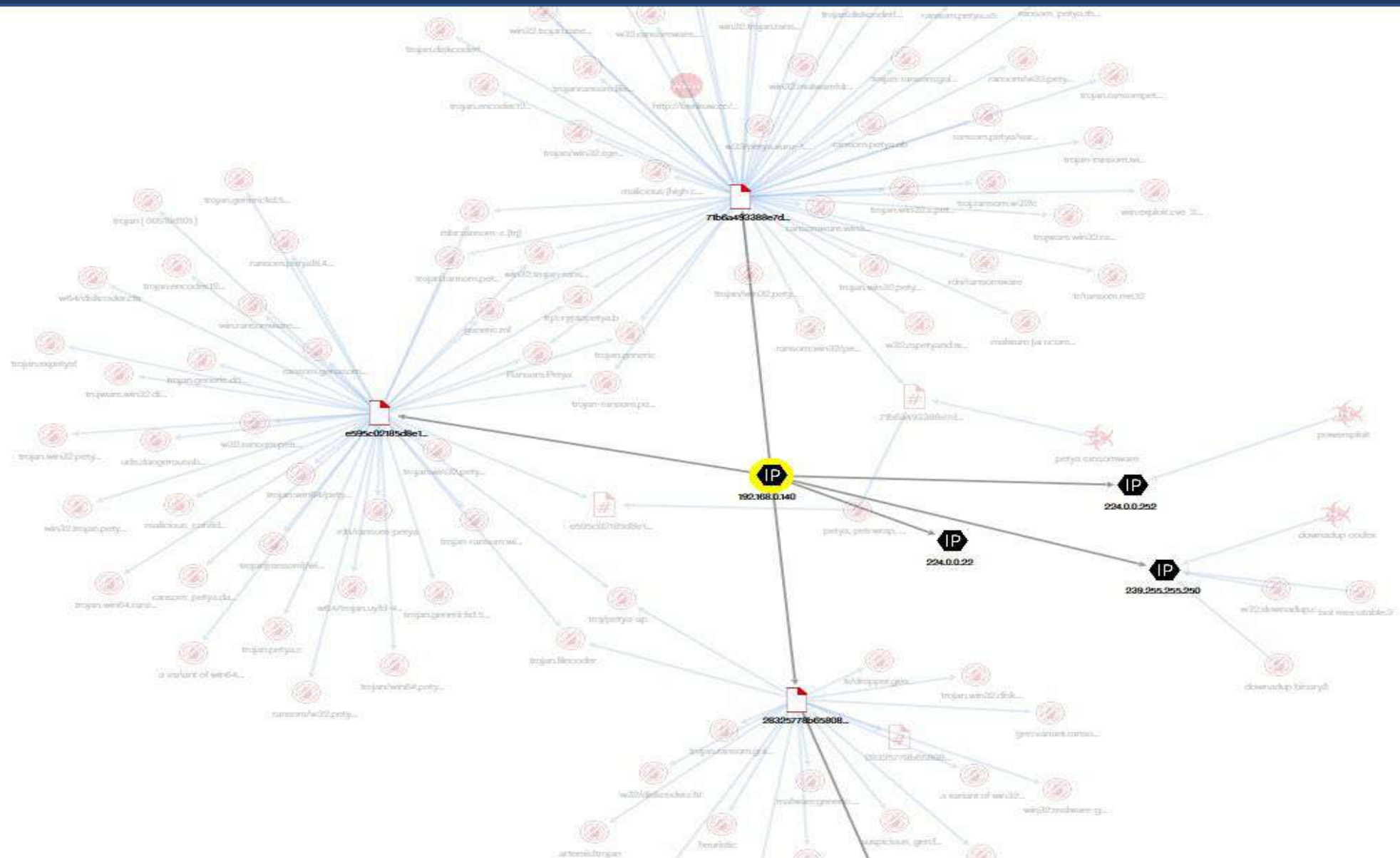
System and User Risk Scoring with Triggers



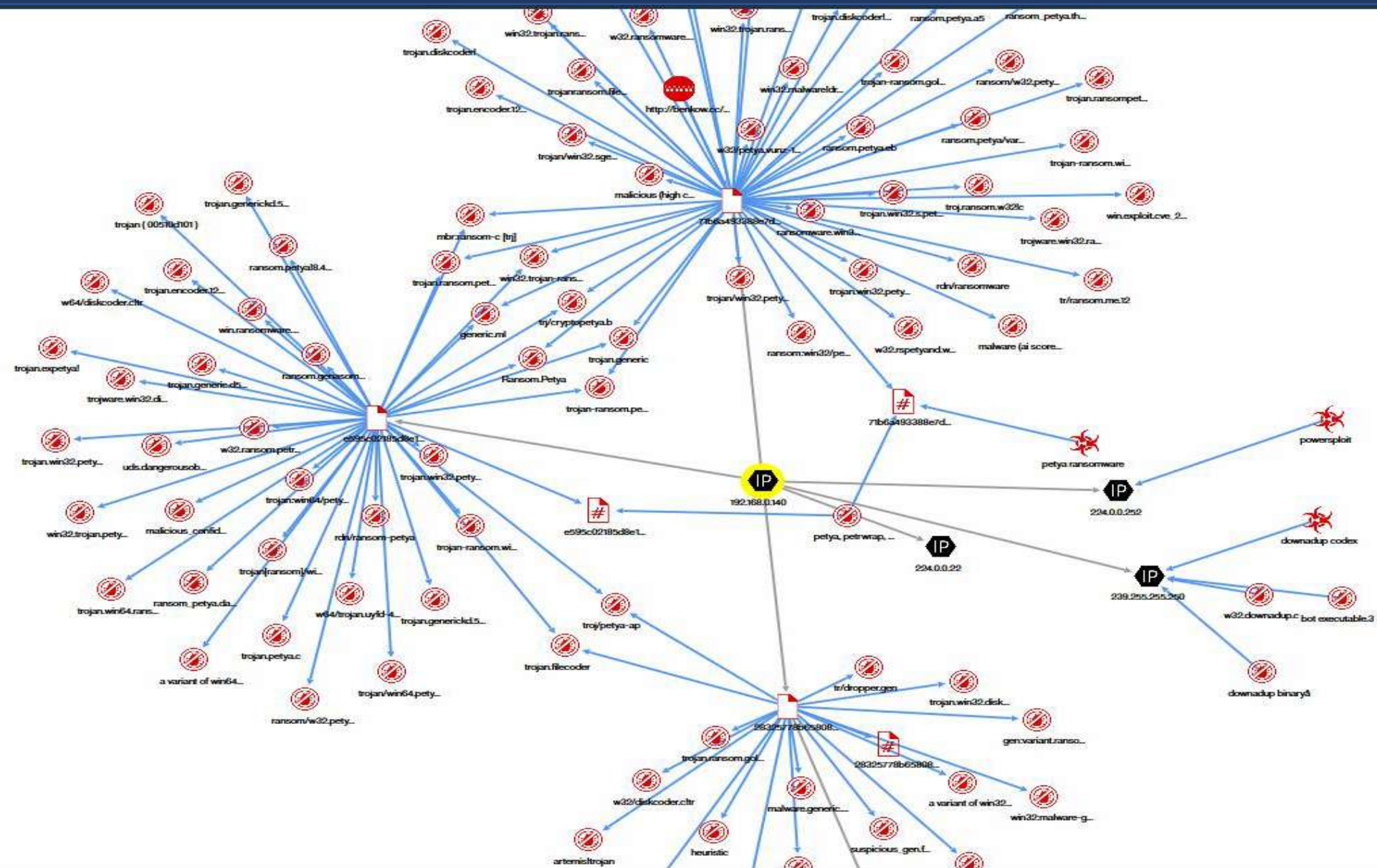
Step Up Authentication

Auto Disablement/Containment

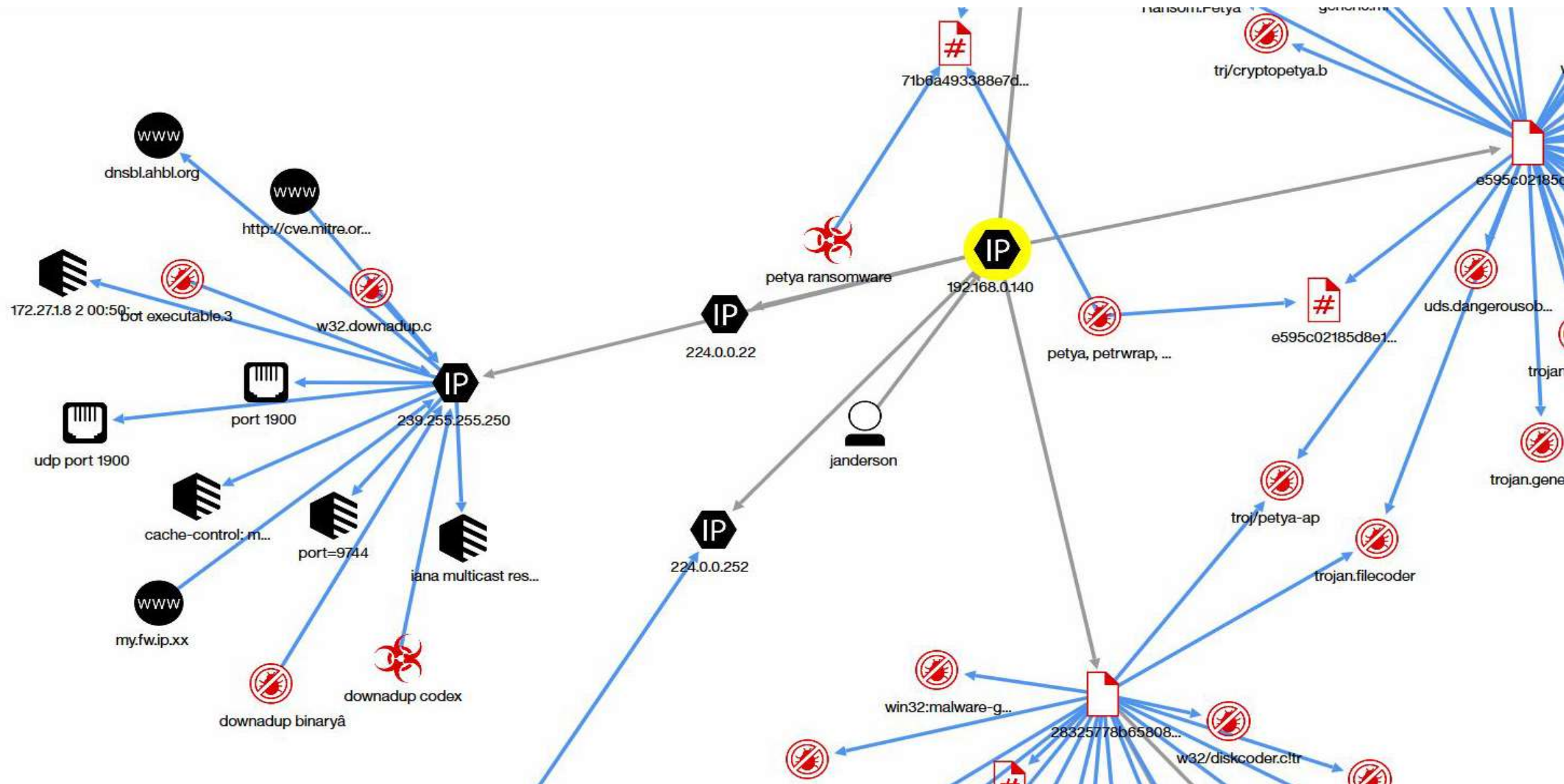
Local Analysis



AI Enriched Analysis



AI Deep Insight



XDR - Extended Detection and Response



Top relevant threats

Prioritize threats for your organization

The X-Force Threat Score helps you to prioritize threats based on severity and risk.

Update your organization profile and connect a data source to surface relevant threats, refine threat scores, and scan for threat indicators.



- Threat severity
- Indicator risk
- My organization profile
- My environment

Early warning

Netflix Squatting Campaign - X-Force Early Warning

X-Force Threat Score

21%

• Scan now

Early warning

Google Squatting Campaign - X-Force Early Warning

X-Force Threat Score

21%

• Scan now

Early warning

Facebook Squatting Campaign - X-Force Early Warning

Early warning

WellsFargo Squatting Campaign - X-Force Early Warning

abuse@namecheap.com

Filters

Find filters

73 results for "abuse@namecheap.com"

Filters

73

✓ Premium report

- ☐ Threat activity (21)
- ☐ Industry analysis (4)
- ☐ Malware analysis (2)
- ☐ Threat group profile (3)

✓ Indicator report

- ☐ Vulnerability (24)
- ☐ Signature (18)
- ☐ URL (1)

Threat activity

Utility Relief Abuse from Threat Actors

Last updated: Apr 28, 2020, 12:20 AM

Threat activity

OneTone Vulnerability Leads to JavaScript Cookie Hijacking

Last updated: Apr 20, 2020, 11:42 PM

Threat activity

GitHub Users Targeted In A Sawfish Phishing Campaign

Last updated: Apr 20, 2020, 10:45 PM

Threat activity

Malwarebytes Brand Abused In Malvertising Campaign

Last updated: Apr 10, 2020, 3:59 PM

Threat activity

Phishing Kit Hosted on Coronavirus-Themed Domain

Last updated: Apr 6, 2020, 9:32 PM

Adaptive Authentication/Access





Nationwide Credit Reporting Agencies





Lockdown Your Credit Reporting

- <https://www.equifax.com/>
- <https://www.experian.com/>
- <https://www.transunion.com/>
- <https://Innovis.com/>

The Evolution of AI in Security

Michael Melore, CISSP
IBM Senior Cybersecurity Advisor
Chair SecRT (Security <Leaders> Round Table)
FBI InfraGard Committeemen
NASCIO Privacy and Cyber Security Committees
CISA / ATARC JCDC (Joint Cyber Defense Collaborative) Committee



@MichaelMelore